*The way of referential deficiency: Impersonal on and its kin*
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**Abstract**:

This work is a study of the French impersonal *on* and a theory of the unique "referential deficiency" of impersonals: a range of uses that spans those covered by indefinites and definites; neutrality about content like number; systematic participation in syntactic and semantic dependencies but with unparalleled restrictions like binding of only local, number-neutral anaphora. Current understanding of the syntax and semantics of DPs and properties of French let us study this behavior in depth and extend previous findings, often in unexpected ways. The study reveals a DP with content unique in French but drawing only on options available in UG. It leads to a theory of impersonal *on* as an indefinite DP whose content interacts with certain theories of phi-features, indefinites and definites, and anaphoric dependencies to give an explanatory account of the nature of impersonals. In turn, impersonal *on* contributes to the theories that enter into its analysis: the relationship between syntactic underspecification and semantic neutrality, the nature of indefinites and their relationship to definites (Heim 1991, 2011; Heim 1982, Elbourne 2013), and minimal pronoun anaphora (Kratzer 2009). The study is extended to the grammaticalisation of a distinct 1PL *on*, whose complex properties reflect the colexicalisation of impersonal *on* and a 1PL element. We end the book on the place of impersonals in the landscape of argument coding and explore the expected parameter space through *on*-like impersonals cross-linguistically. The work builds on the analysis of *on* and its kin in Cinque (1988), Chierchia (1995b), Egerland (2003b), Kayne (2010), and explores them in the Principles-and-Parameters approach to syntax and the "situated descriptions" (Elbourne 2013) extension of the syntax-semantics mapping of Heim and Kratzer (1998).

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# 1 Introduction

This chapter introduces the problematique of impersonals, sketches our approach to it, and provides a conspectus of the following chapters.

## 1.1 The puzzle of impersonals

This work proposes a new view of impersonals and develops its consequences for theories of argument coding, phi-features, definites and indefinites, and anaphoric relationships. The focus of our study is the French impersonal *on*, one of a class of impersonals identified in Cinque (1988) and Egerland (2003b).[1] From the perspective of better-understood ways of coding arguments, impersonal *on* presents puzzle upon puzzle. It participates in syntactic and interpretive dependencies that reveal a DP, but the DP is unlike any other DP in French, and on certain theories unlike any possible DP. Its range of uses covers that of both novel indefinites and anaphoric definites. It is unspecified about content like number in syntax and neutral about it in interpretation. It has an unparalleled profile of anaphoric dependencies, such as antecedence of bound but not donkey pronouns. Similar puzzles are characteristic of impersonals, and sometimes go by the term *referential deficiency*; we will adopt this term. Referential deficiency has given rise to theories where impersonals are a distinctive way of coding arguments in UG. Impersonal *on* leads us to explore a different approach: a reduction of impersonals to DPs, where referential deficiency arises from the interaction of general principles with content available in UG to DPs, but isolated within a given system.

   Our study of *on* shows it to have key properties that identify DPs among possible ways to code arguments. These findings suggest that there are conditions under which UG principles allow for a DP to have the behavior characteristic of impersonals. This proves to be so if we make certain choices in the current theoretical landscape:

*Phi-features and lexical content*: interpretive neutrality reflects syntactic absence, and UG allows for DPs without content obligatory on other DPs in systems like French, such as number (e.g. Paul 2012).

*Indefinites and definites*: anaphoric potential is symmetric for (in)definiteness (e.g. Heim 1982, Elbourne 2013) and novelty reflects blocking of indefinites by definites (Heim 1991); thus when novelty is factored out, nonnovel, anaphoric indefinites emerge.

*Anaphoricity*: definites are anaphoric by presuppositions about their NP content (Heim 2011) and local anaphora are born with trivial NP content (Kratzer 2009); thus there can be DP antecedents whose content does not satisfy any but local anaphora.

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[1] Throughout this chapter, we keep the term impersonals for the class identified by Egerland (2003b) with both generic and arbitrary uses, and identify so-called generic and arbitrary impersonals specifically.

These theories give rise to *on*'s behavior if an indefinite DP has a certain NP content, and that is precisely the content that can be identified in *on*. In this way, the distinctive characteristic of impersonals, referential deficiency, receives an explanatory account.[2]

The theories that enter into the account of referential deficiency find in impersonal *on* a DP with properties they predict, but that have no other witness: either in French (numberlessness), or at all (limitation to local anaphora), or among current analyses though they allow new analyses of difficult systems (indefinite-definite duality). Through *on*, the theories may then be probed in a way otherwise unavailable, to contribute to outstanding issues, such as the locality of minimal pronouns.

In this introductory chapter, we first introduce referential deficiency and its theoretical consequences in section 2, and then in section 3 we sketch our approach.

## 1.2   Referential deficiency

Referential deficiency can be described in four parts: indefinite-definite duality, underspecified NP content, anaphoric dependencies, and displaced uses.

The examples in (1) introduces impersonal *on* and its indefinite-definite duality.[3]

["generic" *on*]

(1a)   D'habitude, quand on$_i$ mange une pizza entière sans m'en proposer, on$_{i/k}$ ne me demande pas de payer.
Usually, when ON$_{\approx people}$ eats a whole pizza without offering me any, ON$_{\approx people/\approx they}$ doesn't ask me to pay.

["arbitrary" *on*]

(1b)   On$_i$ a mangé une pizza entière sans m'en proposer, et on$_{i/k}$ ne m'a pas demandé de payer.
ON$_{\approx one\ or\ more\ people}$ ate a whole pizza without offering me any, and ON$_{\approx one\ or\ more\ people/\approx they}$ did not ask me to pay.

(1c)   Dans le jeu, on était quatre à me suivre.
In the game, ON was four to follow me.
In the game, four people followed me. (≠ the players followed me)

In (1a), *on* is in the scope of an A-quantifier. The first *on* is novel and covaries with the A-quantifier, like an indefinite. The second *on* can also be novel, but it can also be anaphoric to the first, like a definite to an indefinite. (1b) is a plain episodic sentence with no A-quantification, and *on* has the same duality. (1c) mixes indefinite and definite

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[2] We use the term NP to mean the maximal extension of a root to the constituent taken as argument by determiners, including functional heads for number and gender (chapter 2.5).

[3] (1) illustrates our simplified glossing: when feasible, a translation is given, for instance of the French complex negation, passé composé, clitic in *ne m'a pas demandé* 'NEG$_1$ me has NEG$_2$ asked' as the equivalent *did not ask me*, with glosses kept to relevant elements: *on* and elements related to it such as concording adjectives. Elements that have no correspondent in English, notably *on* and *s*-pronouns, are in capitals, and closest relevant translations are in subscript after ≈. Finite verb agreement with *on* is always translated by 3SG, to indicate this property of French. In source citations, G indicates an example findable by Google, with further specification if necessary as G/L for a literary source like a book, G/J for a journal or magazine, G/B for a blog, G/F for a forum.

behavior to yield an *on* untranslatable by any other DP: *on* is novel, but it is the argument of a cardinality predicate, which is otherwise mostly restricted to definites. To convey the meaning of (1c) without *on*, the predicate needs to be rephrased.

No regular DP in French or English has this duality; none can be used as *on* is in (1). Even the generic impersonals *one* and *you* behave quite differently: they must covary with a quantifier, ruling them out in (1b) and requiring anaphoricity in (1a). These facts have guided theories of indefinites as novel and nonmaximal and definites as familiar and unique (and generic impersonals as variables bound by generic quantifiers).

Yet in this theoretical landscape, impersonal *on* is expected on certain common theories of (in)definiteness: theories with sufficient symmetry between indefinites and definites so that indefinites can be anaphoric (Heim 1982; Elbourne 2013), and theories that allow novelty to be factored out from other aspects of indefinites (Heim 1991; Chierchia 1995b). The duality of impersonal *on* then instantiates an expected indefinite DP, provided there are principled grounds to make *on* alone immune to novelty. Within French the duality is unique to *on*, but it has analogues in systems with bare nouns and no definites like that of Czech, and *on* gives a hint for their analysis.

The second aspect of referential deficiency is absence of most NP content present in other DPs systems like that of French. (1) illustrates it for number. (1a) is well translated by *people*, because in this environment a bare plural is compatible with one or more eaters per each whole pizza. However, even bare plurals commit to several eaters per pizza in (1b). Impersonal *on* is neutral about number in interpretation, and this neutrality corresponds to absence of number for syntactic agreement. It is again a behavior isolated in French, but it is found in DPs in systems with so-called "general number". Within French, *on* can be contrasted with plurals that have been posited to be neutral about number, and suggests that they are not: interpretive neutrality correlates with absence of syntactic number. The sole content that *on* has is a restriction to humans, which proves to be shared with 1$^{st}$/2$^{nd}$ person pronouns and certain other expressions.

Although the NP content of *on* is unique in French, NP content is a basic element of linguistic variation and lends itself a simple theoretical tool, (non)specification. If it is possible to reduce more mysterious aspects of referential deficiency to it, they receive an explanatory account. This is the guiding idea that we follow for all aspects of referential deficiency. It includes the aforementioned immunity of *on* to novelty alone among the indefinites of French, which needs and supports a theory of novelty where NP content matters. In our proposal, it is the proposal of Heim (1991) that indefinites are novel when blocked by equivalent definites under the principle of Maximise Presuppositions.

Near-absence of content in *on* at first sight suggests another approach to *on*. *On* is a way of coding an argument. One well-understood way of coding arguments is by DPs. Another is instantiated by the implicit agent of the passive. A common way of analysing it is as the unrestricted existential closure of an argument, in lexicon or in syntax (Chierchia 2004; Bruening 2013). It derives two key properties of the implicit agent: absence of NP content, such as a number restriction, and inertness for certain syntactic and semantic dependencies, such as λ-binding through DP-movement.

These very same dependencies establish impersonal *on* as a DP and bring us to the third aspect of referential deficiency. There is a systematic contrast between impersonal

*on* and the implicit agent on matters like the binding of the definite article of inalienable possession in (2a) or floating quantifiers (2b).[4]

(2a)    On$_i$ a pris mon pied dans une/la$_i$ main.
        ON$_{\approx someone}$ took my foot into a/LA$_{\approx his}$ hand.

(2a')   Mon pied a été pris$_{Ag=i}$ dans une/*la$_i$ main.
        My foot was taken$_{Ag=i}$ into a/*LA$_i$/SON$_{\approx i}$/*their hand.

(2b)    [Un croupier:] Au blackjack, une fois quand on m'a chacun/??tous déclaré son pari, on me regarde tirer les cartes comme si j'étais Dieu.
        [A croupier:] At blackjack, once ON$_{\approx the\ players}$ have each/??all.PL declared their bets to me, ON$_{\approx they}$ watch me draw the cards as if I were God.
        [Context: the players covary with the game]

(2b')   Au Blackjack, une fois que le/son$_{*i}$ pari m'a (*chacun) été déclaré$_{Ag=i}$…
        In Blackjack, once the/SON$_{*i}$ bet has (*each) been declared to me…

The dependencies in which *on* participates diagnose various elements of DPhood. However, there is one way in which *on* is unique, and it is the third aspect of referential deficiency: resistance to anaphoric relationships with regular DPs. In (1a), *on* is anaphoric to *on*, but the antecedent *on* cannot replaced by any indefinite nor the anaphoric *on* by any definite. This anaphoric resistance is not that of the implicit agent; in (2c) for instance, only impersonal *on* must be distinct from *quelqu'un* 'someone'.

(2c)    D'habitude, quand quelqu'un$_i$ construit un mur, il$_i$/*on$_i$ le construit pour durer.
        Usually, when someone builds a wall, he/*ON builds it to last.

(2c')   D'habitude, quand quelqu'un$_i$ construit un mur, il est construit$_{Ag=i}$ pour durer.
        Usually, when someone builds a wall, it is built to last.

In fact, impersonal *on* can antecede personal pronouns under certain circumstances. In (2d) it binds *sa*, which is elsewhere only the 3SG pronoun 'his, her, its' that needs a familiar discourse referent or a DP antecedent. Yet again, *on* is unique among DPs: it only binds *sa* under local c-command, (2d), and not, for instance, as a donkey anaphor (2d'). The restriction has far-reaching theoretical consequences. No regular DP is limited to local anaphora, and theories of anaphoric relationships reflect this asymmetry by analysing local anaphora as dependent on antecedent and not vice versa.[5]

(2d)    Quand on m'invite, on$_i$ me propose sa$_i$/une chambre.
        When ON$_{\approx people}$ invites me, ON$_{\approx they}$ offer me in SON$_{\approx their}$/a room.

(2d')   Quand on$_i$ m'invite, une/*sa$_{i/k}$ chambre m'est proposée$_{Ag=k}$.

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[4] (2b) also shows contrast on the antecedence of a pronoun, *son* 'his, her, its', to which we return directly.
[5] By local anaphor, we mean an anaphor local in the standard sense of the Binding Theory rather than a coargument; an indefinite number of predicates may intervene between *on* and *sa*.

When ON$_{\approx\text{people}}$ invites me, a/*SON$_{\approx\text{their}}$ room is offered to me.

This pattern of anaphoric relationships of impersonal *on* is baffling. Our aim is to explain it without properties or principles unique to impersonals. We make key use of two theories: anaphora as definites restricted by a uniqueness presupposition (Heim 2011, Elbourne 2005), and local anaphora as minimal pronouns with a trivial NP (Kratzer 2009). In interaction with the NP content of *on*, they give rise to an indefinite restricted to local anaphora. In turn, *on* is a unique tool to explore otherwise inaccessible aspects of these theories. We use it to understand the need of minimal pronouns for phi-features from a local binder and so the role of phi-features in DPs.

The fourth and final aspect of referential deficiency is the extension of *on* onto terrain where it is unexpected from expressions close to *on*. *On* is not ordinarily usable like a personal pronoun, say for the speaker, but there is one exception: it is used as *we*, (3b), and mostly replaces the older pronoun *nous* 'we'. This has been called the specific use. It has emerged over the last couple of centuries within a system that already had *on* with the behavior in (1, 2). Distinct is a use that has been called pseudospecific, (3c): *on* is used for an individual that merits a personal pronoun, but with an indirectness that does not quite correspond to anything else. Pseudospecific uses differ from other uses of *on* in remarkable variation across communities and speakers, for example, variation under which conditions one would say *On arrive* for *J'arrive* 'I am coming'.

(3)     On arrive.
        ON is coming
(3a)    Ordinary use: One or more people are coming.
(3b)    Specific use: We are coming.
(3c)    Pseudospecific use: I/you/he/she/they am/is/are coming. [indirect]

With specific and pseudospecific uses, *on* has a remarkable latitude. It brings to the fore the question of a unitary analysis: is *on* in (3) a single linguistic expression, and if it is, what sort of an expression is such that it covers ground from *someone* to *we*? Empirically, it seems isolated, and unexpected for theories designed for *someone* and *we*.

The challenge of such latitude is not unique to *on*, and *on* presents an opportunity to study this difficult phenomenon. The challenge can be illustrated with English *we* in (4).

(4a)    We were the fastest runners/#runner (#but I was not).
(4b)    We each thought that we were the fastest runner.
(4c)    Just swallow it, shall we, Mr. Taber – Just for me? (Denison 1998)

Analyses of ordinary use of *we* in (4a) have developed a semantics of 1PL phi-features that constrain *we* to denoting speaker-inclusive pluralities, and principles of use that cannot circumvent this constraint. The 'nurse' use of *we* to the atomic addressee in (4c) flouts expectations. The nature of such uses is poorly understood, but a superficially similar problem has been studied for (4c). In (4c), the first or free *we* is used for a speaker-inclusive plurality, but the second or dependent does not seem to be. Analyses cover a considerable theoretical gamut, and have each profound theoretical consequences for principles of use, semantics of phi-features, syntax-semantics mapping, and syntactic

structures (Rullmann 2010; Sudo 2012; Heim 2008, Kratzer 2009; Collins and Postal 2010). Integrating (4b) is a harder challenge (Rullmann 2010, Collins and Postal 2010).

In the case of French *on*, the study of ordinary uses of *on* gives clear answers. Tools that we use to probe ordinary *on*, like anaphoric dependencies, also reveal that the same *on* has specific and pseudospecific *on*; and theories used for ordinary *on*, like Maximise Presuppositions, also derive its specific and pseudospecific uses. However, the same tools also show that there exists a distinct *on*, combining impersonal *on* and a 1PL element. Such complex combinations are found elsewhere (Wechsler and Zlatić 2003, Collins and Postal 2010). 1PL *on* contributes to understanding these combinations because it is possible to identify its components, the way they combine, and how the mixed properties of the combination arise. 1PL *on* also permits us to contrast classical generative variation through the syntactic properties of lexical items, which underlies 1PL *on*, and the very different variation on pseudospecific uses, which indicate a different source of variation in the encyclopaedic content of lexical items (in particular, in conventional implicatures).

These then are the puzzles of referential deficiency of impersonals and its theoretical contributions, the chief aim of our work. There is a subordinate but important goal: a contribution to the descriptive study of impersonals. To one familiar with work on impersonals, much of (1-3) is novel or unexpected: in (1b) anaphoricity outside A-quantification, in (1c) combinability with a cardinality predicate that otherwise needs definites, in (2b) the antecedence of a floating quantifiers, in (2d) the unavailability of a donkey anaphor. We use these phenomena to develop a theory of impersonals, but also aim to contribute with a detailed study of the one impersonal on which it is chiefly based.

## 1.3   The theory of referential deficiency

Theories of the referential deficiency of impersonals like *on* attribute referential deficiency to a UG property unique to impersonals, such as an arbitrary index or inability to introduce discourse referents. Our study of *on* leads us to derive referential deficiency from structures, properties, and principles posited for DPs independently. They give rise to a DP whose behavior is unique in French, but theoretically expected and with parallels in other systems. Yet our proposals draw on and converge with others in both intent and details, above all Cinque (1988), Chierchia (1995b), Egerland (2003b), Kayne (2010). We return to them at the end of the section.

Referential deficiency has been set out under the four headings in (5) (reordered):

(5)     Referential deficiency:
        R1. NP content: absence of usual NP properties like number in syntax and interpretation, but presence of a special restriction to humans.
        R2. Indefinite-definite duality.
        R3. No anaphoric relationships with regular DPs, save local *s*-pronouns.
        R4. Specific use as *we* (only); pseudospecific uses.

Our aim is to reduce referential deficiency to a unique selection in universally available NP content. Impersonal *on* in all its uses lacks a $1^{st}/2^{nd}/3^{rd}$ person and singular/plural phi-feature, and a lexical root, both in syntax and in interpretation.[6] This

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[6] For the purposes of exposition, we set aside referential and lexical gender; both are part of our study.

poverty of content is unique in French, but each element of it is found independently; number, for instance, is absent on all DPs or a certain subset of them in "general number" systems (e.g. Paul 2012). Yet *on* is not contentless. It is restricted to humans, in a way unlike any DP with a lexical root but shared with certain context-sensitive expressions including 1st/2nd person pronouns. We analyse the restriction as the person phi-feature [human].

(6)     C'est beau quand {on, tu, #une personne, #quelqu'un} aime juste l'herbe fraîche.
        It's beautiful when {ON, you$_{GEN}$, #a person, #someone} just likes fresh grass.

        [Context: watching sheep graze; *on* requires a conceptualisation of sheep similar to that of *tu* but without the addressee empathy component.]

The result is a DP whose sole NP content is the person phi-feature [human]. This finding partly converges with earlier work, though often on new grounds. It recalls Egerland's (2003b) characterisation of *on*-like impersonals as elements whose only content is [human], but these elements are inserted into structures with syntactic, interpreted content like number. Our findings about *on*'s NP content and the use we make of it is closer to the proposals for Italian impersonal *si* of Cinque (1988), who gives *si* a "generic" person, and Cinque (1995b), who gives *si* a context-sensitive arbitrary index.[7]

The distinctiveness of *on*'s NP content allows analysing *on* as a regular indefinite and yet explaining referential deficiency, under a particular view of definites and indefinites. We will first sketch the sort of explanation we are aiming for with one aspect of referential deficiency, prominent in theories of impersonals: resistance to anaphoric pronouns in (R3). Then we summarise the system as a whole.

Indefinites like *a person* antecede full and pronominal definites (*the person, he*) as bound, donkey, and discourse anaphora, while impersonal *on* is severely limited in this respect. The unique NP content of *on* allows reduction of its limitations to constraints on definites, namely their *familiarity* condition. A common way of understanding familiarity is as the presupposition that there is exactly one individual satisfying the definite's NP in the relevant context (Heim 2011). When a definite is anaphoric to an indefinite, there is a relationship between their NP contents that guarantees the uniqueness presupposition. The unique NP content of *on* makes this relationship impossible. To suggest the details with an example, *a person left* entails that there is an atomic individual that is a *person*, and this individual satisfies the uniqueness presupposition of *the person*, while *on est parti* 'ON left' does not entail that whoever left has is an atomic individual or describable by a lexical noun like *person*.

This approach makes the right cut among *on*'s anaphoric dependencies. Definites are generally ruled out, including personal pronouns on their D-type analysis (Elbourne 2005). Anaphora not restricted in the manner of definites are fine. An example is the definite article of inalienable possession (2a), which differs from possessive pronouns in lacking NP content like number that its antecedent must satisfy.

(2a)     On$_i$ a pris mon pied dans la$_i$ main.

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[7] Cinque also gives *si* syntactic and Chierchia semantic plurality, a point on which *si* differs from *on* and that fits into the expected range of parametric variation among *on*-like impersonals studied in chapter 8.

ON$_{\approx\text{someone}}$ took my foot into LA$_{\approx\text{his}}$ hand.

Even definite anaphora should be good if their NP gives rise only to a trivial presupposition. This is so in one case: the minimal pronouns that Kratzer (2009) proposes as the analysis of local anaphora. Consequently, impersonal *on* reflects a type of DP predicted by theories of anaphoricity, but instantiated only by it in French: a DP that antecedes personal pronouns only under local binding (2d), and not as donkey anaphora (2d'), or as discourse anaphora (Prince 2006).

(2d)   Quand on m'invite, on$_i$ me propose sa$_i$ chambre.
       When ON$_{\approx\text{people}}$ invites me, ON$_{\approx\text{they}}$ offer me SON$_{\approx\text{their}}$ room.

(2d')  Quand on$_i$ m'invite, une/*sa$_i$ chambre m'est proposée.
       When ON$_{\approx\text{people}}$ invites me, a/*SON$_{\approx\text{their}}$ room is offered to me.

This mode of explanation takes up proposals that go back to Burzio (1986) and Cinque (1988), where anaphoric restrictions on impersonal *si* are attributed to phi-content, though without positing a phi-feature unique to impersonals. It also lends itself well to parametric variation through phi-specifications of impersonals and definites.
    In this manner, the strange pattern of anaphora to impersonal *on* (R3) comes down to its NP content, established on independent grounds, and theories of DP behavior, which have nothing specific to impersonals. In turn, impersonal *on* contribute to these theories. The minimal pronoun analysis of local anaphora finds in *on* support for predictions that are otherwise untestable, such as number neutrality of *sa* in (2). Perhaps most importantly, *on* leads us to a new view of the reasons why minimal pronouns need a local binder, clarifying the role that phi-features in DPs play at the interfaces.
    Turning from (R3) to referential deficiency in general, three common theories of definites and indefinites enter into our account:

*Definites*: Definites are familiar through the uniqueness presupposition (Heim 2011).

*Symmetry of anaphoricity*: Indefinites and definites are sufficiently alike that both can be anaphoric if novelty is suspended: anaphoricity is *symmetric* with respect to (in)definiteness. The classical theory with this property is File Change Semantics of Heim (1982): both definites and indefinites contribute restricted variables, and their novelty or familiarity is governed by an independent Novelty-Familiarity Condition. We use the static, truth-conditional framework of Heim and Kratzer (1998), extended to the full range of anaphoric dependencies by relativising DPs to situations in Elbourne (2013). In this framework as well, indefinites have the same anaphoric potential as definites through their "resource situation" (motivated independently).

*Novelty*: Indefinites are not inherently novel. Rather, novelty arises through the blocking of indefinites by equivalent definites if felicitous, through a principle to Maximise Presuppositions (Heim 1991, 2011).

These theories interact with the NP content of *on* to derive referential deficiency:

(R2), indefinite-definite duality: Impersonal *on* does not satisfy the uniqueness presupposition of nonlocal definite anaphora as sketched above, so *on* is not blocked as anaphor to itself. It emerges as the sole indefinite that has the anaphoric and salient-situation readings characteristic of definites.[8]

(R3), anaphoric dependencies: Ordinary definites cannot be anaphoric to impersonal *on* because their uniqueness presupposition is not satisfied. Inversely, *on* is beaten by a definite as anaphor to a regular DP under Maximise Presuppositions.

(R4), specific and pseudospecific uses: Impersonal *on* is barred by felicitous and equivalent definites under Maximise Presuppositions, but current French has lost or restricted the old 1PL subject clitic. The specific use is the expected emergence of impersonal *on* in this gap. Otherwise, the only way to use *on* for an individual that merits a definite is to adjust the context so that this is not so. This is pseudospecific uses. Their indirectness inferences, and variation on them according to extralinguistic factors like politeness, arise from pragmatic reasoning about motives for context change, similarly to indirect uses of personal pronouns like *Oh, is he$_{addressee}$ angry?* (Zwicky 1977).

The theories that enter into this story find in impersonal *on* a DP that confirms their predictions and through which they can be studied in ways otherwise unavailable. Sometimes, *on* supports and clarifies aspects of theories that enter into it and challenges alternatives, as is the case with number-neutrality. Sometimes, *on* gives evidence that cannot be obtained otherwise, as with the locality conditions on minimal pronouns. In the case of indefinite-definite duality, *on* points the way to a new way of analysis certain bare noun systems where the duality is general, as a consequence of the symmetry of anaphoricity and the absence of definites.

Thus referential deficiency arises from the general principles and particular parameter settings. Ideally, only two things need to be said about an impersonal like *on*, both reflecting variation through syntactic properties of the lexicon. One is properties of the system that hosts it, such as number on DPs in French. The other is presence in such a system of an indefinite with an NP built from NP materials generally available in UG but distinctive in its system. Such lexicalisation is a fact of linguistic variation, instantiated in English by the availability of singular but not plural indefinite pronoun *something*, and of the bare singular kind noun *Man*.[9] No UG properties or principles are unique to impersonals. Impersonal behavior is the consequence of interactions between parametric properties of a DP and its system, and can be finely nuanced. We explore this perspective in two ways: diachronically, to trace the way an impersonal like *on* develops from a bare noun, and synchronically, to see how *on*-like impersonals crosslinguistically populate the expected parameter space and come with different degrees of referential deficiency.

Finally, *on* brings us to a different way in which plasticity of use and variation can arise. The diagnostics that reveal the properties and unicity of impersonal *on* across all its uses also show that there is a separate *on* with 1PL properties, shown in (7).

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[8] Other aspects of (R1) like absence of nonmaximality follow in the same way.

[9] As in *If something odd happens, call* (≠ *some thing(s) odd*) and *Man is a talking animal* (cf. OED s.v.).

(7)          Nous on est amicaux avec notre/son postier.
(7a) notre: We are friendly.PL with our postman.
(7b) son:    People like us are friendly.PL with SON$_{\approx their}$ postman.


    1PL *on* in (7a) includes a 1PL element unlike impersonal *on* (Kayne 1972, 2010), but it also proves to include impersonal *on* detectable in (7b). The result is one of a class of DPs with mixed properties (cf. Wechsler and Zlatić 2000, Collins and Postal 2010). In the case of 1PL *on*, it is possible to show that the mixed properties arise because the DP is a lexicalised combination of independently available syntactic expressions each contributing to morphosyntax and interpretation under independent principles. Thereby 1PL *on* offers a minimal contrast to the unicity of impersonal *on*, and shows how an expression may give rise to variation by parametric enrichment. This locus of variation is supported by the independence impersonals from such enriched expressions diachronically and crosslinguistically, including that of impersonal *on* from 1PL *on*.

    Our approach to impersonals and their referential deficiency is new, and motivated by new findings about *on*; but we build on other work and in many points converge with it.[10] The approach is in the spirit of the pioneering work of Cinque (1988), who suggests that the Italian impersonal *si* is an Heimian variable, and restricts it only by a special phi-set. It owes a great deal especially to Chierchia (1995b), where *si* is an existential closure of the VP with a special context-sensitive index, and to Egerland (2003b), who establishes *on*-like impersonals against generic impersonals and views their morphemes as contentless save for [human]. We are thus also close to explorations that built on Cinque, e.g. Mendikoetxea (2008) for Spanishe *se*, and on Chierchia as well as Egerland, e.g. Rivero and Sheppard (2003) on Slavic impersonals. Our story for anaphoric limitations through *on*'s poor phi-content echoes proposals advanced already in Burzio (1986) and Cinque (1988), and followed in much other work (Kratzer 1997, Albizu 1998, McCloskey 2007). The analysis of 1PL *on* builds on the identification of a 1PL element in it by Kayne (1972, 2010).

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[10] Here we indicate only the most general affinities; details are given throughout, and chapters 2 and 3 in particular give our chief reasons for departing from other theories.

1.4    Conspectus

Chapter 2 sets out the syntax-semantics mapping: the extension of Heim and Kratzer (1998) in Elbourne (2013), Schwarz (2009) to the full range of anaphoric dependencies; the analysis of indefinites, definites, and quantificational variability; the D-type analysis of personal pronouns of Elbourne (2005). It introduces the theory of impersonal *on* as a nonnovel indefinite with indefinite-definite duality.

Chapter 3 introduces *on* across all its uses and its key properties under the theory in chapter 2: quantificational variability and invariance, salient-situation uses, and scopal interactions. Then it reviews the syntactic and interpretive dependencies of *on*, and its displaced uses, both major topics of subsequent chapters.

Chapter 4 is a study of the content of *on* in syntax and interpretation: person, number, gender, logophoricity, human restriction, and lexical N content, through both syntactic and interpretive correlates and their relationship, with comparison of generic impersonals, indefinites and definites.

Chapter 5 derives the consequences of the poor content of *on* established in chapter 4 under principles that prefer "stronger" meanings: Maximise Presuppositions in semantics and the Cooperative Principle in pragmatics. The chapter falls into three case studies: the range and limitations on *on*'s anaphoric dependencies; the pseudospecific use of *on* as context modification and the nature of its extrasyntactic variation; and the interaction between *on* and indefinites.

Chapter 6 studies *s*-anaphora to *on* as minimal pronouns, and the limitation of *on* to local anaphora realised as *s*-pronouns through *on*'s poor content. It develops the consequences for the theory of minimal pronouns, notably the locality restriction on minimal pronouns.

Chapter 7 is a study of 1PL *on*. 1PL *on* combines both a 1PL element and impersonal *on* in an "unagreement" or quantifier-clitic doubling structure, giving rise to an expression whose morphosyntax and interpretation partakes of both elements. Focus is on emergence of complex behavior on independent principles and the lexicalisation of the combination.

Chapter 8 sets out the landscape of argument expressions, the place of impersonals in it, and points of parametric variation due to syntactic content. The variation is studied by examining impersonals at one of their sources, bare 'person' nouns as incipient impersonals like Czech *člověk,* and at their most grammaticalised, Czech *se*-impersonals, with in between impersonals in Germanic, Romance, Basque, Irish, Finnish.

## 2 The syntax-semantics mapping and impersonal *on*

2.1 <u>Introduction</u>

In this chapter, we introduce the syntax-semantic mapping in which we explore *on*. We also introduce one central aspect of the referential deficiency of *on*, its indefinite-definite duality, and show how it emerges naturally from an analysis of *on* as an indefinite that is for pricipled reasons immune to novelty.

The syntax-semantics mapping we use is that of Heim and Kratzer (1998), with worlds as an extensional type, von Fintel and Heim (2010), and refined to situations, Kratzer (2007). Situations are used in DPs to model anaphoric relationships that have otherwise been difficult for a static, truth-conditional semantics. We follow the way of working this out in Elbourne (2013), Schwarz (2009), Büring (2004) (see also Berman 1987, Heim 1990, von Fintel 1995, 2004, Dekker 2004a, Elbourne 2005, Hinterwimmer 2008). The ensemble does not have an established name; we refer to it as *SD* or "situated descriptions" framework. Before launching into the details in the next section, we will first say a little about what SD is like and why we are using it.

A chief motivation for SD, and a chief concern of ours, are anaphoric relationships. The main ideas of SD can be sketched with reference to the anaphoric dependencies in (1), which cannot be treated by standard antecedent-anaphor binding.

(1)     Nonbound anaphora:
(1a)    *Adverbial donkey:*
        Whenever Gwen bought a donkey$_i$, she always gave it$_i$/the donkey$_i$ a name. #It$_i$ seems happy.
(1b)    *Determiner donkey:*
        Every farmer who bought a donkey$_i$ gave it$_i$/the donkey$_i$ a name. *It$_i$/*The donkey$_i$ seemed happy.
(1c)    *Discourse:*
        Today Gwen bought a donkey$_i$. She gave it$_i$/the donkey$_i$ a name. It$_i$/The donkey$_i$ seemed happy.

In (1a, 1b) *a donkey* varies over various donkeys, *it* in the second sentence cannot relate to it at all, but *it* in the first sentence covaries with *a donkey* despite not being in its scope. In (1c), *it* is understood to refer to a particular donkey, even if Gwen bought several donkeys today. Full definite *the donkey* works like the pronoun *it* in (1), but (2) reveals a difference: *the children* is fine in (2ab) because there is a unique plurality of children inferable, but *them* needs more than that, it needs an antecedent DP.

(2)     *Pronoun licensing*:
(2a)    Gwen has given birth to two children, but now she does not even remember their/the children's names anymore.
(2b)    Gwen has given birth twice, but now she does not even remember ??their/the children's names anymore.

SD's solution has the following elements: quantifiers range over situations; DPs have a resource situation variable where their NP is evaluated; and pronouns are definites with a silent NP that must usually be licensed by an overt antecedent. In (1a), *always* quantifies over situations with just one donkey, and *the donkey* is relativised to those situations, in each of which it denotes the unique donkey. *It* works just like *the donkey*, save that its silent NP must be licensed by an antecedent NP, which is supplied by *a donkey*. (1b) works similarly, because *every* too quantifies over situation. In both of (1a,b), the resource situation of the anaphor is supplied by the semantics of the quantifier. In (1c), this is impossible, because semantics is sentence-bounded. Rather, in (1c), *a donkey* makes pragmatically salient a situation with just one donkey, and it serves as the resource situation of *the donkey* or *it*.

There are different sorts of reasons to use SD. One is the classical architecture of semantics and the semantic-pragmatic divide (Heim 1990: 137-8) and its empirical consequences (Breheny 2004).[11] From this perspective, SD is convenient for us: we need to be able to talk about *on* in all anaphoric configurations, the framework of Heim and Kratzer (1998) is well known, and its extension to SD is simple. Another reason to use SD lies in insights reached in SD but extensible to other frameworks, notably the use of resource situations for the intensional independence of DPs (Schwarz 2012) and the relationship between pronouns and definites (Elbourne 2005). This is a chief reason for our use of SD. Its conception of indefinites is sufficiently close to definites that anaphoric indefinites are expected, and that is what we need for *on*. Finally, SD is or extends the frameworks where the tools we use have been best explored, such as competition for presuppositional strength, personal pronouns as definites with an extra licensing condition, contextually salient situations.

In this chapter, we set out those aspects of SD we need in sections 2 and 3, focusing on the working of indefinites, definites, and anaphoric dependencies. Once this background is in place, *on* is introduced in section 4 with its dual indefinite-definite behavior, and our proposal for it. Section 5 completes the exposition of our framework with the D-type analysis of personal pronouns and DP architecture.

## 2.2    The basic system

### *2.2.1    The ontology*

Our exposition of SD follows chiefly Elbourne (2013) and Schwarz (2009). These versions of SD build Heim and Kratzer (1998), and the extension of it to intensional phenomena with worlds as a second basic type, beside individuals (von Fintel and Heim 2010; cf. Gallin 1975: 58-63, Gamut 1991: II.5.8). Lexical predicates of individuals, like *batchelor* or *married*, thus take a world argument, and so combine with a world variable. SD further replaces worlds with situations, which are parts of worlds.

A model of interpretation for SD has two primitive domains, individuals $D_e$ (type $<e>$) and situations $D_s$ (type $<s>$), with constants and variables drawn from each, plus the truth-values $D_t$ {0,1} (type $<t>$). It is convenient to use *x, y, z* for arbitrary members of $D_e$ and *s* of $D_s$. Derived domains are defined as all functions such that if $\tau$ is a type and $\sigma$ is a

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[11] Introductions to the static-dynamic divide include Gamut (1991: 7.4.2), Chierchia (1995a), Groenendijk and Stokhof (2000), Dekker (2000, 2008, and with reference to situations, 2004a); Breheny (2004).

type, $\tau\sigma$ is a type. Two have special names. $D_{st}$ (type $\langle s,t\rangle$) is the set of functions from $D_s$ to $D_t$ or *propositions*. $D_{est}$ (type $\langle e,st\rangle$) is the set of functions from $D_e$ to $D_s$ to $D_t$, for which we reserve the term *properties*.[12] The lexicon $L$ maps lexical items into one of the domains, e.g. L(*Gwen*) to an individual in $D_e$, L(*tall*) to a function in $D_{est}$.

On the union of $D_e$ and $D_s$, there is defined a partial order $\leq_s$, the *part of* relation. Possible worlds are the greatest elements for $\leq_s$: a world is only part of itself and every situation $s$ is part of some world, which may be written $w_s$. Individuals are the least elements for $\leq_s$: an individual is not a situation and does not have situations as parts. Individuals, not being situations, are not constrained to being parts of a single world only, and we assume them to be shared across worlds (Elbourne 2013; for SD with world-bound individuals, see Kratzer 1989, von Fintel 1995, Schwarz 2009). In prose, we use such locutions as *x is part of s*, *x is in s*, *s contains x*, *s has x in it*.

In the domain of individuals, there is a distinct partial order $\leq_e$, also called *part of*. The least elements for $\leq_e$ are *atoms*, while individuals that are not atoms but have atoms and only atoms as proper parts are *pluralities* (Link 1983).

Situations are sufficiently fine-grained to be *individuated* by both individuals and their properties. This is key to the notion of a minimal situation (Elbourne 2013, Kratzer 1989, 2007; cf. Dekker 2004a):[13]

> For every individual like Gwen, there is a situation of which that individual and no other is part (by $\leq_s$).
> For every property $P$ that holds of $x$ in some situation $s$, there is a situation $s' \leq_s s$ such that $P$ holds of $x$ in $s'$, and no other property $P'$ holds of $x$ in $s'$, unless $P'$ is entailed by $P$.[14]

Suppose ⌜tall⌝ and ⌜woman⌝ hold of Gwen in some world; then there must be a situation in that world where ⌜tall⌝ holds of Gwen but ⌜woman⌝ does not, and vice versa.[15] However, since being ⌜tall woman⌝ entails being ⌜woman⌝, any situation where ⌜tall woman⌝ holds of Gwen is also one where ⌜woman⌝ does. Some entailments like this are given by the compositional interpretation of syntactic structures, others like ⌜woman⌝ to ⌜person⌝.

### 2.2.2 Rules and terminals

The interpretation function is written $\|\cdot\|^{c,g}$.[16] It is relativised to the assignment parameter $g$ and the context parameter $c$. The assignment interprets variables. It is function from pairs of natural numbers and types, say from $g(\langle 7,e\rangle)$ = Gwen, written simply $g(7)$ = Gwen when the type is clear. The context parameter $c$ gives the Kaplanian circumstances of evaluation of an utterance; it can be thought of as a situation (Zimmermann 2011,

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[12] When *property* is used more generally, e.g. a proposition as a property of situations, this is noted.

[13] That situations are fine-grained to this extent is key part of Elbourne's (2005, 2013) analysis of cases like *bishop* sentences discussed below. There has been much work on further "lumping", either in the ontology of situations or the definition of minimality; see Dekker (2004a), Kratzer (2007), Schwarz (2009).

[14] We use *entail* as needed in the sense of generalised entailment, here: for all $x,s$, $P(x)(s) \rightarrow P'(x)(s)$.

[15] We use ⌜⌝ to cite metalanguage in the text, save for individuals like *Gwen* and situations like $s*$.

[16] This is for typographic reasons; it should be ⟦·⟧.

Schlenker 2011b). *c* is used to interpret indexicals, like the identity of the speaker, extracted from *c* by the metalanguage predicate ⌜speaker of c⌝.

The interpretation of syntactic structures uses the following rules. They are those of Heim and Kratzer (1998), plus situations and situation abstractors in Elbourne (2013):[17]

(5)  Rules and terminals

*Functional Application (FA)*: If α is a branching node and {β, γ} the set of its daughers, then for any context *c* and any assignment *g*, α is in the domain of $\|\cdot\|^{c,g}$ if both β and γ are and $\|\beta\|^{c,g}$ is a function whose domain contains $\|\gamma\|^{c,g}$. In that case, $\|\alpha\|^{c,g} = \|\beta\|^{c,g}(\|\gamma\|^{c,g})$.

*Predicate Modification (PM)*: If α is a branching node and {β, γ} the set of its daughters, then for any context *c* and any assignment *g*, α is in the domain of $\|\cdot\|^{c,g}$ if both β and γ are and $\|\beta\|^{c,g}$ and $\|\gamma\|^{c,g}$ are of type <e,<s,t>>. In that case, $\|\alpha\|^{c,g} = \lambda x.\lambda s$ : $x \in D_e$ and $s \in D_s$ and <x, s> is in the domain of $\|\beta\|^{c,g}$ and $\|\gamma\|^{c,g}$ . $\|\beta\|^{c,g}(x)(s) = \|\gamma\|^{c,g}(x)(s) = 1$.

*Variables*: If <i,τ> is a lexical terminal, $\|<i,\tau>\|^g = g(<i,\tau>)$

*Lexicon*: If α is a lexical item, $\|\alpha\| = L(\alpha)$.

*Predicate Abstraction for individuals (PA)*: For all indices <i,e> and assignments g, $\|\lambda_i \alpha\|^g = \lambda x : x \in D_e$ and α is in the domain of $\|\cdot\|^{g[<i,e>\to x]}$ . $\|\alpha\|^{g[<i,e>\to x]}$.

*Predicate Abstraction for situations (PA)*: For all indices <i,s> and assignments g,
$\|\varsigma_i \alpha\|^g = \lambda s : s \in D_s$ and α is in the domain of $\|\cdot\|^{g[<i,s>\to s]}$ and s is in the domain of $\|\alpha\|^{g[<i,s>\to s]}$ . $\|\alpha\|^{g[<i,s>\to s]}(s)$;
$\|\varsigma^A_i \alpha\|^g = \lambda s.\lambda s'$ : s, s' $\in D_s$ and α is in the domain of $\|\cdot\|^{g[<i,s>\to s']}$ and <s, s'> is in the domain of $\|\alpha\|^{g[<i,s>\to s']}$ . $\|\alpha\|^{g[<i,s>\to s']}(s)(s')$;
$\|\varsigma^D_i \alpha\|^g = \lambda x.\lambda s.\lambda s'$ : x $\in D_e$ and s, s' $\in D_s$ and α is in the domain of $\|\cdot\|^{g[<i,s>\to s']}$ and <x, s, s'> is in the domain of $\|\alpha\|^{g[<i,s>\to s']}$ . $\|\alpha\|^{g[<i,s>\to s']}(x)(s)(s')$.

The abstractors $\lambda_i$, $\varsigma^{(A/D)}_i$ are created in the syntax by base-generation, movement, and/or Agree, and are interpreted by PA.[18] Variables are base-generated as pairs of numerical index and type, and interpreted through Variables. Other syntactic terminals are interpreted through Lexicon. Below are sample denotations for lexical predicates. The material between ":" and "." is the *domain condition* or *semantic presupposition* that

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[17] The rule of PA for individuals uses the "pedantic" version in Heim and Kratzer (1998), Heim (2008). It gives presupposition projection, by adding to the domain condition of a function the condition that $\|\cdot\|^{c,g}$ be defined for the abstracted-over expression α. We extend it to PA for situations. When $\|\beta\|^{c,g} \in D_{est}$, we use the shorthand ⌜<x, s> is in the domain of $\|\beta\|^{c,g}$⌝ ⇔ ⌜x is in the domain of $\|\beta\|^{c,g}$ and s is in the domain of $\|\beta\|^{c,g}(x)$⌝, and analogously for *n*-tuples.

[18] The individual abstractor has base-generated by certain complementizers (Heim and Kratzer 1998) and created by chain-formation (movement, Heim and Kratzer 1998, Agree, Kratzer 2004b, 2009, Adger and Ramchand 2005, Rezac 2004, 2011). The distribution of situation abstractors is currently essentially stipulated (for some discussion, see Percus 2000, Schwarz 2014).

states when a function is defined. It is abbreviated in the manner shown for *actress*, using the convention that *x, y, z* are used for individuals and *s* for situations. The contribution of syntactic items irrelevant for us are snuck into the metalanguage, like tense in *wins, won*.

(6)     Sample lexical entries

$\|$actress$\|$     $= \lambda x.\lambda s : x \in D_e$ and $s \in D_s$ . x is an actress in s.
              $= \lambda x.\lambda s$ . x is an actress in s.
$\|$actresses$\|$     $= \lambda x.\lambda s$ . x are actresses in s.
$\|$wins$\|$     $= \lambda x.\lambda s$ . x wins in s.
$\|$won$\|$     $= \lambda x.\lambda s$ . x won in s.
$\|$advances$\|$     $= \lambda x.\lambda s$ . x advances in s.

Phi-features will be a central part of the study of *on* in chapter 4. In SD, it is natural to analyse phi-features as NP meanings of the sort in (7), because pronouns are definites and so phi-features get their presuppositional behavior through the uniqueness presupposition of definites (Schlenker 2004). Chapter 4 discusses phi-features in detail; until then, they too are often snuck into the metalanguage, for instance as ⌜actress⌝ versus ⌜actresses⌝.

(7)     Sample phi-features

a     $\|$[feminine]$\|$     $= \lambda x.\lambda s$ . x is female in s          (combines with NP by PM)
          *where* ⌜female⌝ *is cumulative and distributive*[19]

b     $\|$[singular]$\|$ $= \lambda x.\lambda s$ . x is an atom
       $\|$[plural]$\|$ $= \lambda x.\lambda s$ . x is not an atom
          *where* ⌜x *is an atom*⌝ $=$ ⌜*for all y, if* $y \leq x$, *then* x=y⌝

We can now turn to the major players needed for our analysis of *on*: definites, indefinites and A-quantifiers.

*2.2.3   Definites, presuppositions, and common ground*

Definites in SD are referential expressions, (10).

(10)     $\|$the$\|$
          $=$     $\lambda p_{est}.\lambda s° : p \in D_{est}$ and $s° \in D_s$ and there is exactly one x such that $[p(x)(s°)$ and for all y, if $p(y)(s°)$, then $y \leq x]$ . $\iota x[p(x)(s°)$ and for all y, if $p(y)(s°)$, then $y \leq x]$.
          $=$     $\lambda p_{est}.\lambda s° :$ there is exactly one x such that $[p(x)(s°)$ and for all y, if $p(y)(s°)$, then $y \leq x]$ . $\iota x[p(x)(s°)$ and for all y, if $p(y)(s°)$, then $y \leq x]$. (*by abbreviation*)

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[19] Extended to SD properties of individuals in situations: ⌜female⌝ *is cumulative* $\Leftrightarrow$ ⌜x+$_e$y is female in s+$_s$s⌝ *if* ⌜x is female in s⌝ *and* ⌜y is female in s⌝; ⌜female⌝ *is distributive* $\Leftrightarrow$ *if* ⌜x is female in s⌝, *then* ⌜for all y $\leq_s$ x, there is s' $\leq_s$ s such that y is female in s'⌝ (where +$_e$ maps two individuals to the individuals that is their sum and +$_s$ is its analogue for situations);.

$= \lambda p_{est}.\lambda s° :$ there is exactly one x such that $p(x)(s°)$ . $\iota x[p(x)(s°)]$. (*by abbreviation if dealing only with atoms*)

The definite article requires by its meaning the syntax *[s° [the NP]]*. The situation argument $s°$ is called the *resource situation*. A part of the domain condition of *the* is the *(existence and) uniqueness presupposition* of definites: that there is exactly maximal individual (atom or plurality) that satisfies the property denoted by the NP the resource situation. If it is satisfied, the definite denotes that individual.[20]

Pronouns are definites, save that they use a morphosyntactic variant *the_pron* of the definite article. It requires a silent NP, and spells out the NP's phi-features on itself as a pronoun. The details are set out in section 5. We write $s_7$ *she ~~actress~~* for $s_7$ *the_pron actress*.

The resource situation of a definite may be free or bound. Thus the string (12) can reflect the LFs (12a) and (12b), with a free or bound resource situation for the subject (by *sentence*, we mean a sentential LF). *She won* has the same analyses.[21]

(12)　*The actress won.*

(12a)　$\|[_{CP} [_{DP} s_7 [the [_{NP} actress]]] [_{VP} won]]\|^g$
$= \lambda s :$ there is exactly one x such that x is an actress in $s**$ . $\iota x[x$ is an actress in $s**]$ won in s.

(12b)　$\|[_{CP} \varsigma_7 [_{DP} s_7 [the [_{NP} actress]]] [_{VP} won]]\|^g$
$= \lambda s :$ there is exactly one x such that x is an actress in s . $\iota x[x$ is a actress in s] won in s.

The domain condition of *the* is a condition on its resource situation. It projects through the definedness conditions on the rules of FA and PA, to become part of the domain condition on the sentences (12a,b) (see section 6). In (12a), $s_7$ is free, so it is valued to the situation $s**$ that the context supplies for *g(7)*. If there is no actress in $s**$ or if there are several, the definite is undefined, and so is the sentence. In (12b), $s_7$ is bound by the situation binder $\varsigma_7$. The domain condition of *the* becomes part of the domain condition of the situation argument of the sentence, which comes from *won*. When the sentence is asserted of a situation $s*$, the *topic situation*, $s*$ must have exactly one actress.

The two analyses of (12) are felicitous in different circumstances. (12b) with the resource situation bound needs there to be exactly one actress in $s*$ described by the sentence, while (12a) allows for there to be several, so long as there is just one in some salient $s**$. The latter analysis is needed in examples like (13a), where *the toll-taker* must be the unique toll-taker whose booth Gwen reaches, while the sentence describes a situation with other toll-takers as well. (13b) is worse because it is harder to infer a salient

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[20] For convenience we are using $\iota$ like the supremum operator $\sigma$ (as in e.g. Chierchia 1998b). By hypothesis, properties denoted by plural and numberless NPs are cumulative, so there is always a maximal plurality of what they hold of if they hold of anything.
[21] We eschew movement in this exposition, because it has no consequences for our examples. Under trace theory, movement yields *[_{CP} (\varsigma_7) [_{DP} s_7 [the [_{NP} actress]]] [\lambda_i [_{VP} x_i won]]]*, under copy theory, *[_{CP} (\varsigma_7) [_{DP} s_7 [the [_{NP} actress]]] [\lambda_i [_{VP} [[the [actress i]] won]]]*, where we discuss then individual index *i* below (Fox 2002, Elbourne 2005, Schwarz 2009).

situation with just one tall-taker toll-taker (see Schwarz 2009: 3.2 for an overview, and Elbourne 2013 for this construal of the referential-attributive distinction).

(13a)  Gwen finally reached the toll-booths, but the toll-taker was busy shouting at the other toll-takers.

(13b)  (#)Gwen finally saw the toll-booths, but the toll-taker was busy shouting at the other toll-takers.

In order to get from the domain condition in (12a,b) to conditions on felicitous use, something needs to be said about how meaning relates to use. The assertion of a sentence (that is, an LF) updates the *common ground* of the context. The common ground is the set of propositions that the speech-act participants of the context believe, believe all other speech-act participants to believe, believe them to believe all other speech-act participants to believe, and so on (Stalnaker 2014, Schlenker 2012). The common ground defines the *context set*, the set of worlds where all the propositions of the common ground are true. The worlds of the context set are candidates for the actual world. If I do not know whether any actresses took part in a contest, there will be worlds in the context set where no actresses did so, or one, or several. The assertion of *Exactly one actress took part in the contest* updates common ground by leaving only worlds where just one did. The domain condition of the proposition *The actress won*, that there is exactly one actress, says what the context set must be like in order to be felicitously updated by the proposition. This is the pragmatic presupposition of an assertion.

In the framework of Heim and Kratzer (1998), the link between the semantic domain condition of a proposition and the pragmatic condition on its assertion can be stated as the Bridging Principle (14). *The actress won* expresses a proposition with the domain condition that there is exactly one actress in the actual world *w*, and by the Bridging Principle every world of the context set must have exactly one actress before the context set is updated by the proposition. In this manner, the Bridging Principle maps the semantic definedness condition of definites to the pragmatic condition that definites are familiar (or "hearer-old").

(14)  Bridging Principle: A sentence *S* can be felicitously uttered with respect to a context set *C* and an assignment *g* only if for every $w \in C$, *S* is in the domain of $\|\cdot\|^{w,g}$.

<div align="center">(Sudo 2012: 3.1, cf. Beaver and Krahmer 2001, von Fintel 2008).</div>

In SD, assertions are not about worlds, but about situations. A sentence (i.e., an LF) like (12a) or (12b) is asserted about a certain spatiotemporal part of the world *s\**, the topic situation (Elbourne 2013: 30; Schwarz 2009: chapter 4). Updating the context set by the assertion of a sentence involves eliminating each world where the proposition expressed by the sentence is not true in a certain *counterpart* of the topic situation that world. That gives us part of the Bridging Principle for SD:

(15)  Bridging Principle (SD): A sentence *S* is felicitous asserted of a topic situation *s* relative to a context *c* with the context set *C* and an assignment *g* available in *c*,

only if for every $w \in C$, $\|S\|^{c,g}_w(s_w)$ is defined, where $s_w$ is the counterpart of $s$ in $w$, and $g_w$ maps every $<i,\tau>$ free in $S$ to the counterpart of $g(<\iota,\tau>)$ in $w$.[22]

The Bridging Principle needs to take into account assignments, since they supply the values of sentence-free variables, including situations like $s_7$ in (12a). We adopt the view that the values of sentence-free variables are determined by the context (Cooper 1979; Heim 1982: 109, Heim and Kratzer 1998: 240, Schlenker 2003: 51):

(16)    Condition on Free Variables: An assignment $g$ is available in a context $c$ for the assertion of a sentence $S$ only if for each $<i,\tau>$ free in $S$, $c$ provides a unique object $a_{i,\tau} \in D_\tau$ such that $g(<i,\tau>) = a_{i,\tau}$ ($a_{i,\tau}$ is said to be *salient* in $c$).

Thus by the Bridging Principle, an assertion of (12b) must contain exactly one actress in the counterpart of the topic situation in every world of the context set, or to say it more briefly: it must be common ground that the topic situation contains exactly one actress. Likewise, for an assertion of (12a), it must be common ground that there is exactly one actress in the salient situation $s*$ that the context provides for $g(1)$. Through the Bridging Principle, we know when a sentence is *felicitously asserted*, and it is moreover *truly asserted* if it is true (if there is a counterpart $s_w$ of $s$ in a world $w$ of the context set of $c$ such that $\|S\|^{c,gw}(s_w) = 1$, for some assignment $g$ available in $c$).

The SD Bridging Principle depends crucially on the notion *the counterpart*. Counterpart situations are indispensable to SD, but we make no attempt to actually define a counterpart (see esp. Schwarz 2009 for SD, and e.g. Hacquard 2006 for discussion and references). The statement of the Bridging Principle makes two assumptions. One is that the counterparts of world-invariant objects like individuals are themselves. The other, made for simplicity, is that counterparthood is a function; a situation has at most exactly one counterpart in a world (cf. Sauerland 2014 generally). The function is clarified a bit when we make use of it, in the discussion of discourse anaphora.

### 2.2.4    *Quantification over situations*

In SD, adverbial or A-quantifiers in SD are generalised quantifiers over situations, and determiner or D-quantifiers over situations and individuals. Sample entries are below, from Elbourne (2013). Other D-quantifiers are like *every*, other A-quantifiers like *always*, with suitable change in metalanguage, for instance *usually* $\ulcorner$…for most $s'$…$\urcorner$.

(20)

$\|a\|$ $\quad$ = $\lambda f.\lambda s^{\circ}.\lambda g.\lambda s : s^{\circ}$, $s \in D_s$ and $f \in D_{<e,st>}$ and $g \in D_{<e,<s,st>>}$ . there is an $x$ such that $x \in D_e$ and there is an $s'$ such that $s' \in D_s$ and $s'$ is a minimal situation such that $s' \leq s^{\circ}$ and $s' \leq s$ and $f(x)(s') = 1$, such that $g(x)(s)(s') = 1$.

*abbreviated to*:

= $\lambda f_{est}.\lambda s^{\circ}.\lambda g_{esst}.\lambda s$ . there is an $x$ and there is an $s'$ such that $s'$ is a minimal situation such that $s' \leq s^{\circ}$, $s$ and $f(x)(s')$, such that $g(x)(s)(s')$.

---

[22] $\|\alpha\|^g(x)$ is defined iff $\alpha \in$ domain of $\|\cdot\|^g$ and if $\alpha \in$ domain of $\|\cdot\|^g$, then $x \in$ domain of $\|\alpha\|^g$.

| | |
|---|---|
| ‖every‖ | $= \lambda f_{est}.\lambda s°.\lambda g_{esst}.\lambda s$ . for every $x$, for every $s'$ such that $s'$ is a minimal situation such that $s' \leq s°,s$ and $f(x)(s')$, $g(x)(s)(s')$. |
| ‖sometimes‖ | $= \lambda p_{st}.\lambda q_{sst}.\lambda s$ . there is an $s'$ such that $s'$ is a minimal situation such that $s' \leq s$ and $p(s')$, such that $q(s)(s')$. |
| ‖always‖ | $= \lambda p_{st}.\lambda q_{sst}.\lambda s$ . for every $s'$ such that $s'$ is a minimal situation such that $s' \leq s$ and $p(s')$, $q(s)(s')$. |

The first functional argument of quantifiers is the *restrictor*, the second the *nucleus*, short for *nuclear scope*. The first situation argument of D-quantifiers is the *resource situation*.[23] We have already used this term for the analogous argument of definites: it is the situation with respect to which the NP is interpreted. The last situation argument of all quantifiers is the *propositional situation*, because it is the argument of the proposition denoted by quantifier + restrictor + nucleus.[24] Minimal situations that satisfy the restrictor and nucleus are *restrictor* or *nucleus* situations. For our purposes, a minimal situation may be defined as (21) (Heim 1990, Elbourne 2013; for refinements, see Dekker 2004a, Kratzer 2007, Schwarz 2009: 3.3).

(21)    Minimal situation $s$ such that $p(s) = 1 \leftrightarrow p(s)=1$ and there is no $s'$ such that $s' < s$ and $p(s') = 1$ (i.e.: $s$ is a situation which contains the smallest number of individuals, properties and relations that will make $p$ true).

The restrictor argument of quantifiers is a property for D-quantifiers and a proposition for A-quantifiers. The nucleus is classically of the same type, but in version of SD which we follow here, it is extended by an additional situation (Büring 2004, Elbourne 2013). It is created by attaching the operators $Q^D$, $Q^A$ to the VP. The operators make the nucleus situation an existential extension of the restrictor situation (cf. Heim 1982) and give the nucleus access to the restrictor situation (Büring 2004). The condition in brackets, that the nucleus situation be a minimal rather than any extension of the restrictor situation, is a matter on which work in SD differs (von Fintel 2004, Elbourne 2005 versus Büring 2004, Schwarz 2009: 94). It comes up in this chapter, and *on* adds one reason for leaving it out.

(22)

| | |
|---|---|
| ‖$Q^D$‖ | $= \lambda f_{est}.\lambda x.\lambda s.\lambda s'$ . there is an $s''$ (such that $s''$ is a minimal situation) such that $s' \leq s'' \leq s$ and $f(x)(s'')$. |
| ‖$Q^A$‖ | $= \lambda p_{st}.\lambda s.\lambda s'$ . there is an $s''$ (such that $s''$ is a minimal situation) such that $s' \leq s'' \leq s$ and $p(s'')$. |

---

[23] Work in SD differs on where to place the resource situation, which we uniformly make the post-NP argument of the determiner. For definites, the resource situation needs to be taken as argument after the NP for presupposition projection (Elbourne's λ Conversion II as well as our use of the "pendantic" formulations of rules) and this has the nice consequence that definites without the resource situations denote individual concepts (Elbourne 2013). For quantifiers, empirical considerations have only motivated putting resource situation variables outside the NP (Schwarz 2012). Schwarz (2009) makes it the innermost argument of all determiners, Elbourne (2013) the innermost situation of quantifiers but the outermost one of *the*. Outermost placement with quantifiers might be motivated by the "familiarity" presupposition of quantifiers like *every*, which works like that of *the* (see below).

[24] In not giving A-quantifiers a resource situation, we follow Elbourne (2013) and Schwarz (2009) for convenience; see von Fintel (1995), Hinterwimmer (2008) for approaches where D- and A-quantifiers are treated symmetrically in this respect (to serve as contextual restriction; see below).

Given our meaning for *a*, (24) has the LFs and meanings in (24a,b), with the resource situation free or bound to the propositional situation.[25]

(24)     *An actress won.*

(24a)   $\|[_{CP} [_{DP} s_7$ an $[_{NP}$ actress$]]] [Q^D [_{VP}$ won$]]]\|^g$
         = λs . there is an x and there is an s' such that s' is a minimal situation such that s' ≤ g(7), s and x is an actress in s', such that there is an s" (such that s" is a minimal situation) such that s' ≤ s" < s and x won in s".

(24b)   $\|[_{CP} \varsigma_7 [_{DP} s_7$ an $[_{NP}$ actress$]]] [Q^D [_{VP}$ won$]]]\|^g$
         = λs . there is an x and there is an s' such that s' is a minimal situation such that s' ≤ s and x is an actress in s', such that there is an s" (such that s" is a minimal situation) such that s' ≤ s" < s and x won in s".

The independence of the resource situation from the propositional situation plays the same role with indefinites as with definites. It is needed for quantifiers in cases like (25a), where *everyone* must exclude the research assistant (Kratzer 2007, Schwarz 2009: 3.2). It is also needed in intensional independence like (25b), where *batchelor* must be evaluated with respect to the actual world rather than the bachelorless counterfactual worlds (Schwarz 2012).[26]

(25a)   Everyone is asleep, and is being monitored by a research assistant.
(25b)   If every batchelor were married, there would be no batchelors.

Indefinites are characterised by the novelty condition, which prevents (24a,b) from being asserted if it is common ground that the indefinite's resource situation has exactly one actress. We adopt the view that the novelty condition is arises from competition of indefinites with definites, under the principle of Maximise Presuppositions (Heim 2011, Singh 2011). The principle is the business of chapter 5. For now, we will say that a sentence with an indefinite cannot be asserted if replacing the indefinite with a definite gives a felicitous and contextually equivalent sentence:

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[25] Again, we abstract from traces/copies: the real structure is *[_{CP} [_{DP} s_7 an [_{NP} actress]]] [Q^D λ_3 [_{VP} t_3 won]]]*, but for subject indefinites we can ignore movement.

[26] The study of intensional independence has led to the conclusions that world variables are available one per DP and CP. The DPs include any indefinites that allow intensional independence, which includes in English *a*- and bare plural indefinites in subject position, and in French corresponding *un, des* indefinites as well as *on* (chapter 4.2). Keshet (2009) and Schwarz (2012) argue that weak quantifiers lack intensional independence when *there*-associates, but this does not transfer to weak indefinites in subject position, as seen in (i) (for English bare plurals and French *des*-plurals strong, i.e. non-intersective, existential readings are unavailable or highly marked, cf. Dobrovie-Sorin and Beyssade 2012 for *des*-indefinites). (i) also suggests a quantificational treatment of subject bare plurals.

(i-a)    If (an/any) unavailable firefighter(s) were available, the fire could be put out quickly.
(i-b)    #If there were (an/any) unavailable firefighter(s) available, the fire could be put out quickly.

(26)    Novelty Condition: Sentence $S$ cannot be asserted of a topic situation $s^*$ with respect to a context set $C$ and assignment $g$ if a sentence $S'$ asserted of $s^*$ with respect to $C$, $g$ is felicitous and contextually equivalent, where $S'$ differs from $S$ in replacing an occurrence of the determiner $a$ with *the*.[27]

On the view we have adopted, indefinites are generalised quantifiers but definites are referential terms (Heim 2011, Elbourne 2013). However, *the* can be reformulated as *a* (cf. Büring 2004 in SD). It is a useful alternative to have to hand for a couple of reasons, chiefly as the formulation of Maximise Presuppositions in chapter 5 (and also for bound anaphora in section 3).

(27)  $\|\text{the}\| =$    $\lambda f_{est}.\lambda s°.\lambda g_{esst}.\lambda s$ : there is exactly one $x$ such that $f(x)(s°)$ . there is an $x$ and there is an $s'$ such that $s'$ is a minimal situation such that $s' \leq s°$, $s$ and $f(x)(s')$, such that $g(x)(s)(s')$.

We now have enough to see how SD handles the various interpretations of indefinites and definite anaphora to them.

## 2.3    Anaphoricity and quantificational variability

### 2.3.1   *Donkeys: Covariation and anaphoricity*

In this section, we go through anaphoric relationships in SD: donkey, discourse, and bound anaphora. Along the way, we introduce the workings of *quantificational variability*, which is an important motivation for indefinite-like analyses of certain impersonals.

An A-quantifier like *always* needs a restrictor and nucleus. An *if/when* clause, as in (30), may be viewed as the overt realisation of the restrictor (we qualify this below). In this example, the resource situations of the DPs are bound to the propositional situations (ignore the bracket around ⌜(min)⌝ for now).[28]

(30)    Always, if an actress wins, she ~~actress~~ advances/#loses.

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[27] *S, S'* felicitously asserted of *s* with respect to *C*, *g* are contextually equivalent iff for every world $w \in C$, $\|S\|^{c,g}{}_w(s_w)$, where $s_w$, $g_w$ are as in the Bridging Principle.
[28] For donkey examples with this structure, see Schwarz (2009: 3.3; ς corresponds to his Σ). The situation pronoun of *an actress* can be left free by omitting $ς_7$, and valued to a salient situation. This makes little difference under the meaning for *a* in Elbourne (2013: 35, 6.3-4), because a minimal situation that satisfies restrictor of *a* must be part of both *a*'s resource situation and the propositional situation supplied to *a* by the restrictor situation of the A-quantifier. If the latter requirement is omitted, there arises the transparent reading, where the restrictor situations of the A-quantifier are minimal situations with an individual who wins in them, but who need be an actress only in the resource situation: see Schwarz (2009: 4.5.2). We are mostly not concerned with transparent readings, so we adopt Elbourne's formulation; this simplifies the exposition, because we need not discuss cases when an NP holds in the resource but not propositional situation. Finally, the resource situation of *an actress* may be bound to the propositional situation of the sentence by placing $ς_7$ above *always* rather than in the *if*-clause. It gives the same reading as if the resource situation is free but valued to the topic situation as a salient situation (cf. Elbourne 2013: 59).

‖[always [$_{CP}$ if $\varsigma_7$ [$s_7$ an actress] [$Q^D$ [wins]]]] [$_{CP}$ $Q^A$ [$\varsigma_3$ [$s_3$ she actress] [advances]]]]‖$^g$

= $\lambda$s . for every $s_1$ s.t.min. $s_1 \leq s$ and

there is $x$ and $s_3$ s.t.min. $s_3 \leq s_1$ and $x$ is an actress in $s_3$, such that

there is $s_4$ s.t.(min.) $s_3 \leq s_4 \leq s_1$ and $x$ wins in $s_4$,

there is $s_2$ s.t.(min.) $s_1 \leq s_2 \leq s$ and $\iota x[x$ is a actress in $s_2]$ advances in $s_2$.

*Convention*: "$s$ s.t.min. $p$" = "$s$ such that $s$ is a minimal situation such that $p$"

The minimality of situations is key to getting the right meaning for the indefinite. By minimality, the restrictor situation of *always* in (30) has just one individual and just the properties of being an actress and winning (plus any properties these entail, like being a person). As *always* ranges over all such situations, it ranges over all individuals with these properties, so that (30) entails *Every actress that wins advances*. This *covariation* of a DP with a higher quantifier is *quantificational variability*.

The nucleus situation of *always* is an extension of the restrictor situation through $Q^A$. Work in SD differs on whether the extension is minimal or not. If it is minimal, the extension would keep just one actress, and thereby satisfy the uniqueness presupposition of *the actress* (Elbourne 2005). However, something else is needed for more complicated examples like (32), with two distinct actresses in the nucleus and so no unique actress (a *sage plant* example, after Heim 1990).

(32)     Always, if an actress wins, an actress loses to her.

‖[always [$_{CP}$ ~~if~~ $\varsigma_7$ [$s_7$ an actress] [$Q^D$ [wins]]]] [$_{CP}$ $\varsigma^A_3$ $Q^A$ $\varsigma_4$ [$s_4$ an actress] [$Q^D$ [loses to [$s_3$ she actress]]]]]‖

= $\lambda$s . for every $s_1$ s.t.min. $s_1 \leq s$ and

there is $x$ and $s_3$ s.t.min. $s_3 \leq s_1$ and $x$ is an actress in $s_3$, such that

there is $s_4$ s.t.(min.) $s_3 \leq s_4 \leq s_1$ and $x$ wins in $s_4$,

there is $s_2$ s.t.(min.) $s_1 \leq s_2 \leq s$ and

there is $y$ and $s_5$ s.t.min $s_5 \leq s_2$ and $y$ is an actress in $s_5$, such that

there is $s_6$ s.t.(min.) $s_5 \leq s_6 \leq s_2$ and $y$ loses to $\iota x[x$ is an actress in $s_1]$ in $s_6$.

*Convention*: "$s$ s.t.min. $p$" = "$s$ such that $s$ is a minimal situation such that $p$"

The solution is the situation binders $\varsigma^{A/D}$ (Büring 2004, Elbourne 2013). In (32), $\varsigma^A_3$ maps $g(3)$ to the restrictor situation, so the definite is evaluated with respect to it rather than the nucleus situation, and its uniqueness presupposition is met. $\varsigma^A_3$ can be put into (30) as well. It makes nucleus definites anaphoric to restrictor indefinites regardless of what individuals are introduced to satisfy the nucleus.

No role is now played by the minimality of nucleus extensions, and the bracketed material in $Q$ and the meanings of (30, 32) may be omitted (Büring 2004, Schwarz 2009: 94).[29] Then (32) without $\ulcorner$(min)$\urcorner$ needs there to be *some* nucleus extension of the restrictor situation where an actress lost, whether it be the restrictor actress or not: the meaning is vague about this. The novelty condition formulated above is only satisfied for extensions of the restrictor situation that have an actress additional to the restrictor one.[30]

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[29] See Schwarz (2009: 3.2, 4.3, chapter 5) for other constraints on restrictor-nucleus relationships.

[30] Under Maximise Presuppositions, (30) with nucleus $\varsigma^A_3$ $Q_A$ [$s_3$ the actress]… blocks (30) with $\varsigma^A_3$ $Q_A$ [$s_3$

Definites outside an A-quantification cannot have their presupposition met by indefinites under A-quantification. In the last sentence of (33), *she* (that is, $s_n$ *the_{pron} ~~actress~~*) needs it to be common ground that there is exactly one actress in the topic or another salient situation. The A-quantification does not entail that there is one. Within the A-quantification, it is entailed that each nucleus situation has just one actress under the foregoing analysis, licensing *she* in the nucleus.

(33)    Two actresses won. Always, if an actress wins, she advances. They/#she advanced.

Quantificational variability differs according to as it arises in the restrictor or in the nucleus. In (30, 32), the restrictor indefinite ranges over all actresses who won because the restrictor situations range over all situations with exactly one actress who won. This results in the characteristic entailment from the A-quantifier *always [_{restrictor} a NP VP] nucleus* to the D-quantifier *every [_{restrictor} NP who VP] nucleus*. We will call this *strong quantificational variability*. A nucleus definite anaphoric to the restrictor indefinite covaries with it and so also shows strong quantificational variability. Other A-quantifiers behave similarly. If *always* is replaced by *rarely*, there is an entailment to *few*; if by *usually*, there is typically an entailment to *most*.[31]

An indefinite in the nucleus gives rise to *weak quantificational variability* because of the existential force of the $Q^{D/A}$ operators. In (32), the nucleus requires that for every an actress who wins, there be an actress who loses, possibly the same one for several or all winning actresses. The entailment characteristic of weak quantificational variability is existential, *For every actress who wins, there is an actress who loses*.

Quantificational variability occurs if the resource situation of a DP is bound (by $\varsigma$) to the propositional situation of the restrictor or nucleus. If left free, the resource situation must be valued to a salient situation. In (30), if $s_3$ is bound by $\varsigma_3$, it must vary over all actresses, but if $\varsigma_3$ is left out, $s_3$ is the situation $g(3)$, which might be a salient situation with the one actress of which one thinks that she always advances if she wins.[32] This is sometimes called the *temporal reading*: a particular indefinite is fixed to one individual and only situations vary.[33]

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*an actress]….* The structure of *If an actress wins, an actress advances* has nucleus $Q_A \varsigma_3 [s_3$ *the actress]*, and it allows for some advancing actresses to be winning ones, or for their relationship to be unknown.

[31] Strong quantificational variability corresponds to other framework's direct quantification by an A-quantifier over individuals (Heim 1982, Chierchia 1995a). Semantically, there is not in fact the entailment from *Most minimal situations with one actress who wins are such that she advances* to *Most actresses who win advance*: for instance, the former but not the latter is true if there are three actresses, two that win once but do not advance, one that wins six times and always advances. It remains that typically *usually* does leads to the inference of *most*. This is the "proportion problem", whereby A-quantifiers usually count the individuals satisfying one indefinite in their restrictor, rather than counting situations, or counting all indefinites equally. There are cases where the semantically predicated situation counting occurs. For solutions within SD, with literature, see Fintel (1995: chapter 6), Schwarz (2009: 4.5.1); see Brasoveanu (2008), Nouwen (2014) for more complex examples.

[32] This reading is easier for *some* than got *a*, and unavailable for *any*; cf. (adapting Reinhart 1997): *At the family meeting, I learned that if some/a/any relative of mine dies, I will inherit a house* pretty much needs a particular relative for *some*, ranges over all relatives for *any*, and allows both with *a*.

[33] The terminology comes from a different analytical tradition, where strong quantificational variability has been called "generic-universal" and weak quantificational variability "generic-existential" when the A-

Definites show *resistance to quantificational variability*. In the foregoing examples, a definite cannot replace an indefinite and still show quantificational variability. For instance, in (34a) (= 30), restrictor *an actress* cannot be replaced by covarying *the actress* or *she*; these can only refer to a contextually salient actress.

(34a)   Always, if an actress wins, she/the actress advances.

The resistance of definites to quantificational variability derives from their uniqueness presupposition; modulo the presupposition, the LFs *[a NP VP]* and *[the NP VP]* are equivalent (Elbourne 2005: 2.3.3, Hinterwimmer 2008: chapter 2). We discuss the mechanics in the Appendix. When the presupposition is satisfied, definites do covary with higher quantifiers. This occurs chiefly in the case of nucleus definites whose presupposition is satisfied by a restrictor indefinite in the manner we have discussed, like nucleus *the actress, she* in (34a). It can however occur in other ways, as (34b). The details are set out in the Appendix.

(34b)   In the admissions process, we interview prospective students {one at a time, #ourselves}. If <u>the student</u> / <u>he</u> is tall, <u>he</u> is usually smart.

<div align="right">(adapted from Malamud 2012a)</div>

### 2.3.2    *Donkey extensions*

So far, our examples have had a clause-initial A-quantifier and an *if/when*-clause as restrictor. The *if/when*-clause may be absent, and the A-quantifier may be medial, (35a).

(35a)   In Saint Petersburg, (usually) an officer (usually) married a ballerina.
(35b)   [[usually $p_{<st>}$] [an officer married a ballerina]]
(35c)   In S.P., usually, if a ballerina was married, an officer married <u>her</u>.
   → In S.P., most ballerinas who were married were married by an officer.
(35d)   In S.P., usually, if an officer married, <u>he</u> married a ballerina.
   → In S.P., most officers who married married ballerinas.

We follow von Fintel (1995, 2004) in the analysis of these types of examples. The overt material maps into the nucleus, and the restrictor is a silent propositional variable, *p*. The value of *p* is some pragmatically infered proposition. (35a) with narrow focus on *officer* favours inference of a restrictor like the overt *if*-clause of (35c), while narrow focus on *ballerina* rather (35d). *p* is present even if there is an overt *if/when*-clauses, so the *if/when*-clause is only a partial guide to the actual restrictor; we might think of it as conjoined with *p* (cf. Elbourne 2013: 4.3).[34] Clause-medial A-quantifiers mostly work like clause-intitial ones (in chapter 3 we return to a difference on subject scope).

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quantifier is generic (under the DRT formalism where the A-quantifier binds the indefinite and the pronoun anaphoric to it qua variables; Diesing 1992ab).

[34] If the overt material maps into the nucleus as such, an unresolved issue is why overt indefinites are indefinite rather than definite even when they contribute to the silent restrictor, for instance why *an officer* rather than *the officer* on the reading paraphrased by (10c) (*he* would be ruled out because the silent NP of *he* would not be licensed). This is the problem of "requantification" (see Krifka 2001, von Fintel 2004, Hinterwimmer 2008: 2.4.3). We mention it because on von Fintel's (2004) solution to it, but not others,

Work in SD has analysed a variety of constructions in terms of overt or covert A-quantifiers like *always, never, usually, rarely, sometimes*: generic statements with an A-quantifier, modals, conditionals, future (Elbourne 2013 with references). Clausal negation may also be an A-quantifier as in (37) (Kratzer 1989, cf. de Swart and Molendijk 1999, also Zweig 2006). The meaning is essentially that of *never*, and an indefinite in restrictor or nucleus entails *no NP* as illustrated in (38c) for (38a,b) with *an officer* in the restrictor and *a ballerina* in the nucleus.[35]

(37a)  $\|not\|$ (SD) = $\lambda p_{st}.\lambda q_{sst}.\lambda s$ . for no $s'$ such that $s'$ is a minimal situation such that $s' \leq s$ and $p(s')$, $q(s)(s')$.

(37b)  $\|not\|$ (classical) = $\lambda p_{st}.\lambda s$ . 1 if $\neg p(s)$, 0 otherwise.

(38a)  In Saint Petersburg, an officer did not marry a ballerina.
(38b)  In Saint Petersburg, an officer never married a ballerina.
(38c)  In Saint Petersburg, it was never the case that if an officer married, he married a ballerina.
   $\rightarrow$ No officer married a ballerina and no ballerina was married by an officer.

A-quantification has also been avanced for coordination in SD, which otherwise presents problems for anaphora. Elbourne (2013: 4.3) works out an SD analysis of clausal disjunction as the conditional (40a). The conditional on the right-hand side is A-quantification with a silent A-quantifier close to *necessarily*. (40b) shows that the analysis gives the right results for anaphora. An indefinite in the first disjunct antecedes an anaphor in the second, but neither licenses outside anaphora.

(40a)  (Either) $S_1$ or $S_2$ $\Leftrightarrow$ If not $S_1$, then $S_2$
(40b)  Either Gwen does not own a house or it has a garden. $\Leftrightarrow$ If Gwen owns a house, then it has a garden.

A similar proposal is available for conjunction, as in (41a). In (41b), this lets an indefinite in the first conjunct licenses an anaphor in the second, and an indefinite in either conjunct licenses an outside anaphor.[36]

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relies on minimality contraining the nucleus extension of restrictor situations by *Q*.

[35] This situation-theoretic meaning of negation is just the meaning of *never* expected on the model of *always*; of course, *not* and *never* differ, as in *I have not/*never seen her today*, but that reveals that *never* and *always* have more subtle meanings that those adopted here (from Elbourne 2013 for *always*). When *not* is not paraphrasable by *never*, an indefinite subject necessarily outscopes *not*, for unclear reasons (von Fintel and Iatridou 2003, cf. Dekker 2004b): *Yesterday a medievalist {did not mention, *never mentioned} Martianus Capella* ($\exists > \neg$ only) vs. *When I was a student, a medievalist {did not mention, never mentioned} Martianus Capella* (covariation).

[36] Coordination under quantification, as in (i), cannot be treated as pragmatic discourse anaphora, and does not follow through standard logical meanings for conjunctions. The A-quantification approach predicts the anaphora facts: in (i-a) = (i-b), *a house* in the *if*-restrictor should license *it* in the *then*-nucleus, and because of *Gwen owns a house* in the *whenever*-restrictor, any situation that satisfies the whole *whenever*-restrictor has a house and a garden, so both should be available for anaphora in the *whenever*-nucleus.

(i-a)  Whenever Gwen owns a house$_i$ and it$_i$ has a garden$_l$, she {cleans it$_i$, waters it$_k$} daily.
(i-b)  Whenever it is the case that Gwen has a house, and that necessarily, if Gwen has a house, she has a

(41a)   $S_1$ and $S_2$ $\Leftrightarrow$ $S_1$ & if $S_1$, then $S_2$

(41b)   Gwen owns a house$_i$ and it$_i$ has a garden. $\Leftrightarrow$ Gwen owns a house and if Gwen owns a house, it has a garden.

We will chiefly use A-quantifiers to study *on*. For D-quantifiers, everything works as for A-quantifiers, with the difference that they quantify over individuals as well as situations, and pass that individual to their restrictor by using the type-variants $Q^D$ and $\varsigma^D$. In their case as well, there is quantificational variability of DPs in their restrictor and nucleus: *Every actress that a jury selects advances* makes a claim about every jury that selects an actress.

### 2.3.3   *Bound variable anaphora*

The development of SD has been by anaphora recalcitrant to binding under scope. To allow standard binding through individual indices, a definite can be optionally enriched with an individual index *i* in Elbourne (2005), Schwarz (2009), building on the treatment of movement copies in Fox (2002). We put the index in the NP following Fox (2002), and so construe it as a freely available NP property:

(70)    $\|i\|^g = \lambda x \lambda s \, . \, x = g(i)$

The following example then has indices in the definite copy and the bound pronoun.

(71)    Mary talked to no senator before the senator / he ~~senator~~ was lobbied.
[$_{CP1}$ [$_{DP}$ s$_3$ no [senator]] [$_{CP1}$ $\varsigma^D_3$ $Q^D$ $\lambda_2$ [$_{CP1}$ [$_{CP1}$ Mary talked to [$_{DP}$ s$_3$ ~~the~~ [~~senator~~ 2] $_{CP1}$] [$_{CP2}$ before [[$_{TP}$ [s$_3$ the [senator 2]] [was lobbied] $_{TP}$ $_{CP2}$] $_{CP1}$] $_{CP1}$] $_{CP1}$]
                                                    (Elbourne 2005, slightly adapted)

Here the individual index is here bound by a λ-abstractor over individual indices created by movement. Like any variable, it may also be free and valued to a salient individual, which is explored in Elbourne (2005), Schwarz (2009). A definite with individual index *i* denotes *g(i)*, so the uniqueness part of its uniqueness presupposition is trivial. The existential part of the uniqueness presupposition remains nontrivial. In (71), the definite presupposes that there is a senator identical to g(2) in g(3) (existential) and that there is exactly one (uniqueness, trivial thanks to identity to g(2)).

The relationship between indices and resource situations remains an important research question in SD. Elbourne (2013: 6.4) eliminates individual indices entirely in

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garden, she cleans/[*]waters it daily.

Empirically though, *a garden* in (i-b) does not license *it*, unlike in (i-a). This is expected from (ii), one of the paradigms raised in favour of DRT/DPL analysis of indefinites as dynamic discourse referent introducers. The reasons are unclear in SD. Insofar as (i, ii) are good with *the garden* for *it*, there is no problem semantically in SD, rather a fact about the Formal Licensing Condition on D-type pronouns.

(ii)    If Jane has a house, she has a garden and if Jane has a garden, she sprinkles it. Now Jane actually has a house. *(So she has a garden, and,) so she sprinkles it. (Dekker 2011: 935 given as "odd")

favour of situation binding: since D-quantifiers like *every* quantify over situations, it suffices that the situation binder $\varsigma^D$ capture the resource situation of a definite anaphor for it to covary with *every*. In SD, this is an elegant move that would eliminate individual indices entirely. The proposal does not allow definites to bind variables, since definites are quantifiers and so is problematic for phenomena where binding by definites has been essentialy like sloppy identity. One possible move is to adopt the quantificational semantics for definites in (27). We keep to the more standard mechanism of binding an individual index for variables bound under c-command. Replacing it with situation binding would not change our proposal when bound variables play a role, chapter 5.2 and chapter 6; in fact in the latter, it would make minimal pronouns even more minimal.[37]

### 2.3.4 *Discourse anaphora*

SD implements donkey anaphora semantically, through quantification over situations. Insofar as SD semantic is classical in being sentence-bound, intersentential or discourse anaphora must rely on pragmatics (Cooper 1979). In particular, the assertion of *An actress won* should satisfy the presuppositions of a subsequent *The actress (She) advanced* through its effect on the topic situation or other salient situations, one of which has exactly one actress. We sketch this approach here.[38]

Let us suppose a topic situation $s^*$ with the three women, Maya, Ronja, and Rybanna, a dance yesterday and another today. The assertion of S1 in (17) updates the context set, so as to keep only worlds where in the counterpart of $s^*$ at least one of the women danced alone yesterday. After S1, S2 is felicitously asserted, and it is truly asserted by one who believes that some woman who danced alone yesterday asked a woman to dance today.[39]

(60)   (S1) Yesterday, a woman danced alone. (S2) Today, she danced with a woman.
       S2: bound-variable LF$_b$: [$\varsigma_n$ [$s_n$ she ~~woman~~] [danced with [a $s_n$ woman]]]
       S2: free-variable LF$_f$: [[$s_n$ she ~~woman~~] [danced with [a $s_n$ woman]]]

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[37] Elbourne (2005) and Schwarz (2009) make the index an argument of *the*, and stipulate the identity predicate part of the interpretation of *the* when there is an index. Schwarz motivates D-placement of the index by a morphological consequence, but the arguments depends on commitment to dynamic semantics, and we suggest an alternative in the Excursus. Our following Fox (2002) in viewing indices as NP properties allows them in indefnites, which is important to let *on* as an indefinite be a bound variable below, unless we adopt situation binding generally (free indefinites with an individual index would be specific, cf. Schwarzschild 2002, when not beaten by definites under Maximise Presuppositions; other quantifiers would only be felicitous with a plurality-denoting index and then have an anaphoric restrictor).

[38] Discourse anaphora are relatively unexplored in static SD; see chiefly Elbourne (2013: 5.3) for attributive and referential uses of DPs through bound and free, pragmatically valued resource situations. Schwarz (2009) proposes a dynamic SD. We look only at singular indefinites anteceding singular definites; more complicated relationship are beyond our pale (for others, see classically Partee 1978, and recently in DRT and DPL, Kamp and Reyle 1993, Nouwen 2007, 2014, Brasoveanu 2007, 2008).

[39] The LFs are abridged from (i-a,b), since the fuller structure is irrelevant; LF$_b$'s are with the bracketed binder, LF$_f$'s without ((i-b) differs from (i-a) in letting $s_3$ have only the unique woman in the minimal situation that satisfies *a woman*, while in (i-a) $s_3$ is any extension thereof).

(i-a)   [[$s_7$ a woman] [$Q^D$ [$\lambda_1$ [($\varsigma_3$) [$s_3$ she ~~woman~~] [danced with $t_1$]]]]]
(i-b)   [[$s_7$ a woman] [($\varsigma^D_3$) [$Q^D$ [$\lambda_1$ [$s_3$ she ~~woman~~] [danced with $t_1$]]]]]

The puzzle is how S2 is felicitous and who *she* denotes. The topic situation for S2 has more than one woman, so in LF$_b$ where $s_n$ is the topic situation, the uniqueness presupposition of the definite cannot be met. For it to be met in LF$_f$ with $s_n$ free, the assertion of S1 must make salient a situation $s^{**}$ with exactly one woman who danced, to serve as the value of $s_n$ in all assignments that are contextually available to interpret S2. We assume that the assertion of a sentential LF with an indefinite does have this the pragmatic consequence (61) (see Cooper 1979, Heim 1990, Stalnaker 1998, Breheny 2004, Dekker 2004b). The ability of indefinites to do this is often expressed by saying that they come with "anaphoric potential" or "referential intentions".[40]

The pragmatic raising of a situation to salience by an indefinite is an instance of a general mechanism for all types of variables (e.g. von Fintel 1995, Heim and Kratzer 1998). A standard constraint on this mechanism is that an indefinite covarying with a quantifier does not make salient the individuals it ranges over: quantifiers block indefinites' anaphoric potential. In (63a), *she* of the second sentence cannot refer to any one of the five women. In (63b), *him* is anaphoric to *some/a relative* just in case the latter does not covary.

(63a)   In yesterday's dance, five women picked Tom. When a woman picked Tom, she enjoyed the dance. Tomorrow she/#they will pick Tom again.
(63b)   At the family meeting I learned that if some/a/#any relative of mine dies, I will inherit a house. I was surprised, since I barely even know him.

In principle then, the discourse anaphoricity in (64a) is pragmatic in SD, but in (64b) where the indefinite covaries, it is semantic (see above for the necessary semantics for disjunction, Elbourne 2013: 4.3).

(64a)   There is a horse in the house. {It, the horse} is in the bathroom.
(64b)   Usually, there isn't a horse in the house or {it, the horse} is is in the bathroom.

Covariation thus diagnose cases where anaphora to indefinites must be semantic rather than pragmatic. Two that occur in our study are in (65). In (65a), calls and callers covary; one analysis is by "local accommodation" that puts a silent proposition like *(and) there is a caller* into the restrictor. In (65b), neighbourhood states and their legislatures covary; an analysis in SD semantics is developed in Schwarz (2009: chapter 5).

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[40] We do not discuss the problem of which of the two women in $s^*$ is made salient: the speaker of S1 may not know that only one of the three women danced alone yesterday, and by asserting S2, may even allow for several of them to have danced with a woman today. This is the discourse-anaphoric counterpart to the problem of indistinguishable participants discussed below. The key discussion is Stalnaker (1998), who propose an indexical property (part of the context parameter) that identifies the woman that the speaker has in mind on the basis of whatever grounds lead him to make the assertion (cf. Breheny 2004, Dekker 2004b). For a different way to satisfy presuppositions than by raising objects to salience, in a classical semantics and incremental pragmatics, see Schlenker (2008, 2009, 2010, 2011cd). The solution in dynamic approaches enriches the context set of worlds with a tracking of discourse referents (part of pragmatics in classical approaches) and meanings are functions from and to such world-assignment pairs (Heim 1982; for general discussions, Groenendijk and Stokhof 2000, Dekker 2000, 2004b). Schwarz (2009) combines dynamic semantics with SD, at the cost of duplicating SD mechanisms for donkey anaphora.

(65a) When Ronja gets a call, the caller / *he is usually rude.
(65b) Usually, whenever the legislature of a state leans to the left, in some neighbouring state, {the legislature, it} is solidly to the right.

### 2.3.5 Contextual restrictions and indistinguishable participants

In SD, situation play the role of *contextual (c-) restrictions*. C-restrictions have been used to limit the NP of DPs in cases like (80), so that *the donkey* is the donkey owned by the farmer and *every table* ranges only over tables with a book on them.

(80a) Every farmer who owns a donkey beats <u>the donkey</u>.
(80b) The book on <u>every table</u> is the Eldanyárë.
 [Context: a library with many tables, some with one book, others empty.]

The traditional construal of c-restrictions in (80) is as variables valued to contextually salient properties. This makes (80a) roughly *...the donkey he owns* and (80b) *...every table with a book on it*.[41] Work in situation semantics has found cases where such properties are unavailable, and proposed that situations do the work (Kratzer 2004a, Schwarz 2009: 3.2, Elbourne 2013: chapter 9).[42]

However, situations do not handle a key case that c-restrictions have, the problem of indistinguishable participants in (82) (Elbourne 2005). It will arise for *on* as well.

(82a) Once up on a time, a bishop met a bishop. He ~~bishop~~ blessed him ~~bishop~~.
(82b) In this archway, when a bishop$_1$ meets a bishop$_2$, he$_1$ ~~bishop~~ blesses him$_2$ ~~bishop~~.
(82c) When a linguist$_1$ retires and a linguist$_2$ is hired, generally he$_2$ takes his$_1$ position.

The problem in (82a,b) is how to arrange for each *he* ~~bishop~~ to have a resource situation with exactly one bishop, so as to satisfy the uniqueness presupposition. In (82a), each indefinite might raise to salience a separate situation, but in (82b), the indefinites covary, so the solution must be semantic.

Traditional c-restrictions as silent properties have been used to solve this problem (Cooper 1979; Elbourne 2005). How they might do so is clear in (82c): if *he, his* have as their silent NP not just *linguist*, but *linguist* enriched with the c-restrictions *retired, hired*, they pick out unique individuals. *He takes his position* works like *the linguist hired takes position of the linguist retired*. In (82b), there are not obvious contextually salient properties, save the contrast between the two bishops. One candidate for c-restrictions are

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[41] In SD, c-restrictions are best developed in von Fintel (1995: chapter 2) for as restrictors of A-quantification through silent proposition variables.
[42] The argument of Kratzer (2004a) goes as follows. In (i), the property *be a phonologist* cannot enrich the NP of *most linguists* to *most linguists who are phonologists*, though it can serve as antecedent of the anaphor *such*. If restrictions are provided by situation, (i) is # because there is no situation with just phonologists available.

(i) A: Lisa is a phonologist. I think that most (such) linguists would agree with what she said.
 B: I don't think any syntacticians or semanticists would. (# without *such* in A)

(Kratzer 2004a)

arbitrary sequential properties like *third* in (83), which can be used to distinguish both indefinites and definites independently of any other content.[43]

(83a)   When a farmer helps a farmer who helps a farmer, the <u>first</u> has also helped the <u>third</u>.

(83b)   When <u>one</u> farmer helps a <u>second</u> farmer who helps a <u>third</u> farmer, the <u>first</u> has also helped the <u>third</u>.

The problem of indistinguishable participants does not depend on them being introduced by overt indefinites. In (84a,b), *the woman* must be distinguished from another woman, denoted by *the midwife*, both in the restrictor and in the nucleus. C-restrictions as silent properties work here too, e.g. as *the woman ~~giving birth~~*.

(84a)   Usually in a childbirth, if the woman knows the midwife, she trusts her.

(84b)   Usually in a childbirth, if the midwife is experienced, the woman trusts her.

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[43] Schlenker (2011a) finds that *bishop* examples in sign language distinguish the bishops by arbitrary signing space loci, and compares the *metalinguistic* use of *the former/first ... the latter/second* to index the temporal order of antecedents (note that this is not quite the *first, second* we are looking at, which do not necessarily depend on the order of antecedents). Schlenker argues that this supports a dynamic approach to anaphora, and indeed, it shows that there are devices that can individuate individuals in addition to any description (the role played by assignments paired with a world in dynamic DRT/DPL). However, that does not seem to us to forclude a pragmatic theory of such devices, e.g. of "arbitrary" properties like *second* in our examples, compatible with a classical semantics: indeed, properties like *former, second* are indexical (they depend on the context, like order of utterance) and so fit Stalnaker's (1998) solution to the similar problem of discourse anaphora discussed above.

Elbourne (2005: 4.3) has an elegant proposal for classical bishop sentences like (82b). Consider the restrictor (i) of (82b), assuming the version of $Q$ that enforces minimal nucleus extensions of restrictor situations. The situation $s^{**}$ that satisfies $\|\beta\|$ has two individuals, their meeting, and the bishophood of the meetee but not the meeter. $s^{**}$ is part of the situation $s^*$ that satisfies $\gamma$, which adds the bishophood of the meeter as well. Nothing requires there to be a situation $s^{**}$ like $s^*$ save that it has the bishophood of the meeter and not the meetee, and therefore the minimality imposed on $s^*$ prevents $s^*$ from containing $s^{***}$. Thus within $s^*$, the two bishops are distinguished by there being a situation, $s^{**}$, which contains both as individuals, their meeting, but only one bishophood. This asymmetry $s^*$, Elbourne proposes can serve as a c-restriction for one of the nucleus definites and distinguish it from the other.

(i)   $[_\gamma \, \varsigma_3 \, [s_3 \text{ a bishop}] \, [_\beta \, Q^D \, [\lambda_1 \, [s_3 \text{ a bishop}] \, [_\alpha \, Q^D \, [\lambda_2 \, [t_1 \text{ meets } t_2]]]]]]$

It is not clear just what sort of a thing a c-restriction is to pick up situation asymmetries of this sort. If it can do so, it seems plausible it could pick up other asymmetries, e.g. being or not an Agent in a neo-Davidsonian decomposition. Nothing in Elbourne's proposal entails that situation asymmetries are the only candidate for c-restrictions. (83c) has none, so it needs something else.

Elbourne (2005) attributes the unavailability of (ii) to the absence of a situation asymmetry. Schlenker (2011a) points out that examples like (ii) are good in sign language, and relates the goodness of *...the former blesses the latter*, suggesting something special to spoken languages is going on, and that the *bishop* problem arises in and needs a solution in (iii). We add that a context where all bishops are tall and all are fat, (iv) seems good, and it is predicted to be by Elbourne's (2005) semantics, but the pronouns are out.

(ii)   *If a bishop and a bishop meet, he blesses him.

(iii)   Whenever a woman and a childhood girlfriend of hers meet, she hugs her.

(iv)   If a tall bishop and a fat bishop meet, {?*he blesses him, the tall bishop blesses the fat bishop}.

Beyond problem of indistinguishable participants, there are other cases where traditional c-restrictions worked but situations do not step into their place. (85) relies on c-restrictions to exclude individuals from the domain of *no one*, in a context where the domain covaries and situations do not help. Traditional c-restrictions work: in (85a), for instance, *no one* can be analysed roughly as *no one distinct from the philologist*.

(85a)  Nowadays, if a philologist gives a talk, no one understand his/the arguments.
(85b)  At a trial, when the defendant refuses to testify, no one can know what he was thinking.
(85c)  Usually, when a researcher goes to a conference and/where no one cites his work, he leaves disappointed.

By restricting individuals in a situation, c-restrictions can mimic pronominal anaphora, and need to be controlled for when looking for the latter:

(85d)  If a linguist gives a talk about the date of Beowulf, metrics cannot go unmentioned (≈ by him/anyone), while if a literary theoriest does so, it is not even relevant evidence (≈ to him/anyone).

The force of arguments against c-restrictions as infered properties and propositions is that they must not come for free but be limited by factors like contrast between bishops (see von Fintel 1995: chapter 2, Hinterwimmer 2008 for restrictive theories).[44]

We now have enough of SD to turn to impersonal *on*. Section 5 completes SD by the theory of D-type pronouns with the licensing of silent NPs and DP structure.

## 2.4    The duality of *on*: A nonnovel indefinite

### 2.4.1    *The duality of on*

French impersonal *on* is fully introduced in chapter 3, but its basic semantics belongs here.[45] *On* is like an indefinite: existential, novel, quantificationally variable in the same way as an indefinite; and so it has mostly been analysed. Yet it also turns out to be like a definite: anaphoric to *on*, potentially maximal, capable of combining with cardinality predicates and anteceding floating quantifiers which mostly need definites. This duality is a puzzle. Certain frameworks allow a novel solution: they give indefinites precisely the same resources for "familiarity" as they give to definites, so if an indefinite can be divorced of its novelty, it behaves like a definite. Put briefly, anaphoricity is symmetric

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[44] If c-restrictions are due to silent property variables, NPs must allow for them. Arguably other contexts do too: in (i), *remained empty* like *no one* can be constrained in a way where (i) is equivalent to adding *except for the artist* (but it is less clear that this is not pragmatic slack). Traditional c-restrictions might make $\varsigma^{A/D}$ binders unnecessary, but there are other reasons for them (Schwarz 2009: 4.3 (end)).

(i)  Every artist who went to the gallery the day her paintings were displayed left disappointed because no one came to look at her paintings and the gallery remained empty the whole day.

[45] For this section, we use *on* for impersonal *on*, setting aside the specific *on* introduced in section 3.

for (in)definiteness. The version of SD in Elbourne (2013) has this property: it uses resource situations for familiarity, and gives resource situations to indefinites as well on principled grounds to account for intensional independence. Our adaptation of it keeps the property. It then suffices to understand why *on* would be the unique indefinite in French to be immune to novelty, which will follow from its unique content. In this section, we set out the duality of *on* by focusing on its anaphoric relationships, and then the theory of *on* as a nonnovel indefinite.

### 2.4.2   Novel and anaphoric on

(A1) introduces the indefinite-definite duality of *on* under an A-quantifier. We translate novel *on* as *a person, people*, *someone* as needed to differentiate one *on* from another, though each *on* is in fact neutral about number.

(A1)   [Context: Reporting my interviews with prisoners at the the Ploughkeepsie gulag, without remembering who said what.][46]

On m'a dit que quand on était de garde, on déclenchait rarement / d'habitude une bagarre.
ON told me that when ON was on watch, ON rarely / usually started a fight.

a   $ON_i$, $ON_k$, $ON_m$: Someone told me that when anyone was on watch, a person rarely / usually started a fight.
b   $ON_i$, $ON_k$, $ON_k$: Someone told me that when $anyone_k$ was on watch, $he_k$ rarely / usually started a fight.
c   $ON_i$, $ON_k$, $ON_i$: $Someone_i$ told me that when anyone was on watch, $he_i$ rarely / usually started a fight.
d   $ON_i$, $ON_i$, $ON_m$: $Someone_i$ told me that when $he_i$ was on watch, a person rarely / usually started a fight.
e   $ON_i$, $ON_i$, $ON_i$: $Someone_i$ told me that when $he_i$ was on watch, $he_i$ rarely / usually started a fight.

On each of the readings (a-e) of (A1), the first occurrence of $on_i$ (and $on_k$) is indefinite-like, because it covaries with the A-quantifier. This behavior is one basis for

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[46] The example and paraphrases are to be read with wide focus such that the if-clause is the restrictor, rather than for instance *Someone told me that if $anyone_i$ was on watch, $HE_i$ rarely started a fight = …that if $anyone_i$ was on watch and someone started a fight, it was rarely $him_i$.* (i) is another example, more natural on the different readings out of context (inspired by Reinhart 1997: 342), using a silent modal A-quantifier roughly like *necessarily* (Elbourne 2013).

(i)   A la réunion de famille, $on_i$ m'a dit que si $on_{i/k}$ meurt, $on_{i/k/m}$ me préviendra par courrier.
       At the family meeting, $ON_i$ told me that if $ON'_{i/k}$ dies, $ON''_{i/k/m}$ will send me a letter.
a    $ON_i$, $ON_k$, $ON_m$: someone told me that if anyone dies, someone will send me a letter.
b    $ON_i$, $ON_k$, $ON_k$: someone told me that if $anyone_k$ dies, $he_k$ will send me a letter.
c    $ON_i$, $ON_k$, $ON_i$: $someone_i$ told me that if anyone dies, $he_i$ will send me a letter.
d    $ON_i$, $ON_i$, $ON_m$: $someone_i$ told me that if $he_i$ dies, someone will send me a letter.
e    $ON_i$, $ON_i$, $ON_i$: $someone_i$ told me that if $he_i$ dies, $he_i$ will send me a letter.

the usual analysis of *on* and similar impersonals, which relates them to indefinites (Chierchia 1995b, Koenig and Mauner 2000, Mendikoetxea 2008). However, the subsequent occurrences of $on_i$ ($on_k$) are anaphoric, and need translation by a definite. (A1) is set up so as to bring out what prevents indefinites from being anaphoric, and so what property *on* must share with definites.

Indefinites are usually viewed as existential quantifiers plus a novelty condition. In *Gwen entered, and someone sat down*, *someone* as an existential quantifier could be satisfied by Gwen, but the novelty condition that bars this. Thus in (b) with *usually*, anaphoric $on_k$ 'he' could be analysed as such an existential quantifier immune to novelty, because (b) entails (a) modulo the novelty condition. On this view, the apparent ambiguity of (A1) between (a, b) is vagueness. However, for (b) with *rarely*, (b) does not entail (a), and must be a distinct reading. In this case, anaphoric $on_i$ cannot be analysed as an existential quantifier at all.

Chierchia (1995b) reaches this conclusion for the Italian impersonal *si* anaphoric to another if both are under an A-quantifier, and uses a mechanism to convert an existential quantifier to a bound variable in this environment. However, (A1) shows that *on* can be anaphoric even in the restrictor of an A-quantifier to an *on* outside the A-quantifier. (d, e) with anaphoric $on_i$ 'he' do not entail (a, b), as they would if *on* were an existential quantifier. So in this case too anaphoric *on* must be analysed otherwise.

(A2) illustrates the same dual behavior with negation. When the second *on* is novel, $on_k$, it behaves like an existential scoping under negation: the VP is denied to hold of anyone. English bare plurals show the same behavior. But the second *on* can also be anaphoric, $on_i$, and the VP is then denied to hold of just the antecedent, and cannot be analysed as an indefinite, such as a bare plural.

(A2)   Ce matin, $on_i$ m'a bousculé dans le métro, et $on_{i/k}$ s'est même pas excusé.
This morning,
i:   ON$_{\approx one\ or\ more\ persons}$ bumped into me in the metro, and ON$_{\approx they}$ did not even apologise.
k:   ON$_{\approx one\ or\ more\ persons}$ bumped into me in the metro, and ON$_{\approx one\ or\ more\ persons}$ did not even apologise.

(A2) also has a new context with anaphoric *on*. In (A1), *on* has been anaphoric when the antecedent is under the same A-quantifier, and when the antecedent c-commands *on* across an A-quantifier. In (A2), the antecedent and anaphor are in distinct conjuncts. Nothing changes if the coordination is replaced by a sentence boundary. In fact, one *on* can be anaphoric to another in any environment that a personal pronoun can be anaphoric to an indefinite. Inversely, when a personal pronoun cannot be anaphoric to an indefinite because the indefinite is "screened off" by a quantifier (section 2.3), *on* cannot be anaphoric to *on*. This is shown in (A3).

(A3a)   If a person$_i$ is invited, he$_i$ rarely reads us a modern work. Last year, *he$_i$ / they$_{\Sigma i}$ / someone$_k$ read us a poem from the alliterative revival.

(A3b)   Quand on$_i$ est invité, on$_i$ nous lit rarement une œuvre moderne. L'année passée, on$_i$ nous a lu un poème de la renaissance allitérative.

If $ON_i$ is invited, $ON_i$ rarely reads us a modern work. Last year $ON_{*i/\Sigma i/k}$ read us a poem from the alliterative revival.

In (A3a), *he* can be anaphoric to *a person* that covaries with the quantifier, but only when the quantifier scopes over *he* as well, and so not in the second sentence. The same goes for *on* in (A3b). The missing reading is one where *on* of the second sentence would covary with *on* of the first, like *on* in the nucleus of the first sentence does. This reading would be paraphraseable by *few people*. Instead, *on* can only be anaphoric to the pragmatically infered set of persons ranged over by the restrictor, like *they* in (A3a) (indicated by the index $\Sigma i$). Thus *on* again behaves as an anaphoric personal pronounn save that it is paraphraseable by both *he* and *they* because it is number-neutral. Beside this anaphoric readings, *on* of the second sentence can also be novel, 'someone, people'.

Multiple *on*'s may be novel or anaphoric independently of one another, as in (A4). As paraphrased by (a), the two *on*'s in the restrictor are each novel and each picked up separately by an *on* in the nucleus.[47] All other novel-anaphoric combinations are possible, so long as they are possible for indefinites and personal pronouns. On the (b) paraphrase, all the *on*'s are covalued.

(A4)    D'habitude, si $on_i$ veut me consoler parce qu'$on_k$ vient de refuser mon article, $on_i$ ne commence pas en m'expliquant qu'$on_k$ ne peut pas accepter n'importe quoi.
Usually, if $ON_i$ wants to comfort me because $ON_{i/k}$ has refused my article, $ON_i$ does not start by explaining to me that $ON_{i/k}$ cannot accept just anything.

   (a) Usually, if a $person_i$ wants to comfort me because a $person_k$ has refused my article, $he_i$ does not start by explaining that $he_k$ cannot accept just anything.
   (b) Usually, if a $person_i$ wants to comfort me because $he_i$ has refused my article, $he_i$ does not start by explaining that $he_i$ cannot accept just anything.

The definite-like uses of *on* can involve *on* anaphoric to individuals in salient situations, or "salient-situation uses": in (A6), *on* can be like *they* or *people*.

(A6)    Dans les soutenances de thèses, seules les questions du jury comptent. Heureusement, à la mienne, on ne m'a pas posé de questions difficiles: le public s'en est chargé!
In thesis defences only questions from juries matter. Luckily at my defence, ON did not ask me difficult questions: (#)that was left for the public!
   ≈    … {the jury, they} did not ask me any questions (*that…* ok)
*or* ≈    … people did not ask me any hard questions (*that…* #)

The duality of *on* is not limited to anaphoricity. Like an indefinite and unlike a definite, *on* can be a sluicing correlate in (A7a):

(A7a)    Il parait qu'on m'a cité mais je ne sais pas qui.
It seems that $ON_{\approx\text{one or more persons}}$ cited me but I do not know who.

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[47] On this reading, the two *on*'s are an example of indistinguishable participants discussed in section 3, just as the two *a person* indefinites in the paraphrase are.

Like a definite but not an indefinite, *on* is compatible with cardinality predicates and floating quantifiers, even though at the same time it is like an indefinite in being novel. In (A7b) *on* is naturally understood as some previously unmentioned subplurality of the players (further discussed in chapters 3, 4).

(A7b)  Dans le jeu, on était quatre à me suivre.
       In the game, ON$_{\approx?}$ was four to follow me.
       In the game, four people followed me.

To take stock then, *on* behaves as if both indefinite and definite. When novel, it behaves as expected of an existential quantifier; but it can also behave like a definite, including as anaphor to another *on* in all and only the environments where definites are anaphoric to indefinites. This is a new conclusion. Theories of *on* and similar impersonals focus on explaining why personal pronouns cannot be anaphoric to impersonals, and deny impersonals anaphoric potential entirely or limit it to under A-quantifiers (Koenig and Mauner 2000, Prince 2006, Chierchia 1995b). Like theirs, a chief focus of ours is to understand what hamstrings *on*'s anaphoric relationships. But first we need *on* to be able to participate in anaphoric relationships fully at least with itself, as antecedent and anaphor. The SD analysis of indefinites provides us with the tools for a unitary analysis.

*2.4.3   On as indefinite*

We start off by the asumption that the duality of *on* is not to be modeled by lexical ambiguity, an indefinite and a definite *on*, following other work (e.g. Cinque 1988, and esp. Chierchia 1995b). General grounds for the hypothesis that *on* is *not* lexically ambiguous come from the uniformity of all of *on*'s properties like number-neutrality whether indefinite- or definite-like, and the systematic coupling of novelty and anaphoricity in impersonals. In the case of *on*, further reasons for a unitary analysis come from examples like (A7), where *on* has the maximality of a definite yet is novel like an indefinite. Moreover, the theory of nonnovel, anaphoric indefinities we develop here predicts systems where the phenomenon is general, and this prediction offers a solution to the long-standing indefinite-definite duality of bare nouns in systems like that of Czech. These cross-linguistic consequences for *on*-like impersonals and bare nouns are addressed in chapter 8.[48]

In certain frameworks but not in others, indefinites have the same anaphoric potential as definites, if novelty is factored out. This is so in Heim's (1982) File Change Semantics, where both indefinites and definites contribute restricted variables, while their novelty is determined orthogonally to this basic meaning by their [±definite] status under the Novelty-Familiarity Condition. If there were a DP neutral for [±definite], it would have the duality of *on*. The version of SD in Elbourne (2013) that we use has this property, because definites are anaphoric through their resource situation – which indefinites have on independent grounds, namely intensional independence (Schwarz 2012). Thus modulo

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[48] It bears noting that a nonunitary analysis of *on*, as a definite and an indefinite, would be compatible with the rest of our work, for it would simply involve allowing the special NP of *on* to be lexicalised with both the definite and the indefinite article.

novelty, SD indefinites can be anaphoric/familiar like definites. Let us look at this in more detail for *on*.[49]

We give *on* the analysis in (A9), anticipating the findings of chapters 3 and 4. The NP of *on* is just the phi-feature [human]; here we adopt a simplified semantics for it, which makes *on* paraphraseable as *one or more persons possibly including me or you*. This NP combines with an existential quantifier we write ∃. The whole is realised as *on*.

(A9)  on = [$_{DP}$ $s_n$ ∃ [$_{NP}$ [human]]]
  ∃ = $a$
  $\|[\text{human}]\|^{c,g}$ = $\lambda x.\lambda s$ . x is person in s

The availability of SD indefinites as anaphora uses arises from their identity to definites in the devices on which anaphoricity depends: resource situations for donkey and discourse anaphora, and the index for bound anaphora (unless these too work through situation binding). Consider the donkey context (A10), to be compared with (30).

(A10)  If ON wins, ON usually/rarely advances
  ≈  If one or more persons wins, he, she or they usually/rarely advance

  $\|$[Usually/Rarely [$_{CP}$ ~~if~~ $\varsigma_7$ [$s_7$ ∃ [human]] [$Q^D$ [wins]]]] [$_{CP}$ $\varsigma^A_4$ $Q^A$ [$s_4$ ∃ [human]] [$Q^D$ [advances]]]]$\|$ =

  $\lambda s$ . for most/few $s_1$ s.t.min. $s_1 \leq s$ and
    there is $x$ and $s_3$ s.t.min. $s_3 \leq s_1$ and $x$ is person in $s_3$, such that
    there is $s_4$ s.t. $s_3 \leq s_4 \leq s_1$ and $x$ wins in $s_4$,
  there is $s_2$ s.t. $s_1 \leq s_2 \leq s$ and
    there is $y$ and $s_5$ s.t.min $s_5 \leq s_1$, $s_2$ and $y$ is person in $s_5$, such that
    there is $s_6$ s.t. $s_5 \leq s_6 \leq s_2$ and $y$ advances in $s_6$.
  *Convention*: "$s$ s.t.min. $p$" = "$s$ such that $s$ is a minimal situation such that $p$"

  *Roughly* ≈ For most/few minimal situations s' where a person individual (atom or plurality) wins, there is a situation extending s' where a person individual in s' [and thus the sole human individual in s'] advances.

The only difference between (A10) and (30) is replacement of the nucleus definite by an indefinite. Because the resource situation of the indefinite is bound to the restrictor situation through $\varsigma^A$, the indefinite behaves just like the definite. By minimality, the restrictor situation has only one person individual, so that individual must satisfy the nucleus indefinite, just as with the nucleus definite in (30). To loosely paraphrase (A10) with *rarely*, we get *Few situations where any win are such that they advance* ≈ *Few who win advance*.

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With these mechanics, an indefinite can only be anaphoric to a restrictor indefinite if the restrictor situation has exactly one individual meeting the indefinite's NP. That is the same as with definites. When there seem to be more such individuals, say two *a person* indefinites in the restrictor, the problem of indistinguishable participants arises, and any solution given it needs to extend to *on*, such as c-restrictions discussed in section 3. Thus (A4), restrictor *on*'s can introduce distinct individuals, and nucleus *on*'s can be anaphoric to distinct restrictor *on*'s. Nothing particular to *on* needs saying.

When the resource situation of an indefinite is not bound to the restrictor by $\varsigma$, *on* is not anaphoric. The working of a novel *on* in the nucleus is then as in (A12), to be compared to (32).

(A12)  If ON wins, ON rarely/usually advances.
  $\approx$  If one or more persons wins, he, she or they rarely/usually advance.

  $\|$Usually/Rarely [$_{CP}$ ~~if~~ $\varsigma_7$ [$s_7$ $\exists$ [human]] [$Q^D$ [wins]]] [$_{CP}$ $Q^A$ $\varsigma_4$ [$s_4$ $\exists$ [human]] [$Q^D$ [advances]]]$\|$ =

  $\lambda s$ . for most/few $s_1$ s.t.min. $s_1 \leq s$ and
      there is $x$ and $s_3$ s.t.min. $s_3 \leq s_1$ and $x$ is human in $s_3$, such that
      there is $s_4$ s.t. $s_3 \leq s_4 \leq s_1$ and $x$ wins in $s_4$,
  there is $s_2$ s.t. $s_1 \leq s_2 \leq s$ and
      there is $y$ and $s_5$ s.t.min $s_5 \leq s_2$ and $y$ is human in $s_5$, such that
      there is $s_6$ s.t. $s_6 \leq s_5, s_2$ and $y$ advances in $s_6$.
  *Convention*: "$s$ s.t.min. $p$" = "$s$ such that $s$ is a minimal situation such that $p$"

  $\approx$ For most/few minimal situations s' where a human individual (atom or plurality) wins, there is a situation s" extending s' where a human individual (atom or plurality) advances.

The difference between (A12) and (A10) is the value of the resource situation of the nucleus indefinite. In (A10), it is bound to the restrictor situation through $\varsigma^A_4$, like the definite in (32); in (A12) it is bound to the nucleus situation through $\varsigma_4$, like the indefinite in (32). By $Q^A$, the nucleus situation is some extension of the restrictor situation, so when an indefinite in the nucleus is not bound to the restrictor situation, it may introduce a new individual. (A12) with *rarely* comes to *Few situations where any win are such that any (including the winner) advance* $\approx$ *For few who win are there any who advance*, versus (A10) $\approx$ *Few who win advance*.[50]

Of course, ordinary indefinites cannot be anaphoric through having their resource situation bound to the restrictor situation, (A11). However, this is an effect of the novelty condition. We assume the view that the novelty condition arises from the blocking of indefinites by felicitous and equivalent definites (Heim 1991, 2011). For regular

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[50] We assume the conclusion of section 3 (ex. 30, 32) that the definition of the operators $Q^{A/D}$ does not require that nucleus extensions of restrictor situations be minimal; that lets an indefinite introduce a novel individual even if it is not inherently constrained to be novel. However, a solution to the problem of indistinguishable participants like c-restrictions might well let us distinguish the nucleus *on* from the restrictor *on*, and so force its novelty, even if nucleus extensions are kept minimal.

indefinites, a definite prevents binding the resource situation to the restrictor situation, since the definite is then felicitous and equivalent.

(A11)   If $a_i$ person wins, $a_{*i}$/the$_i$ person advances.

It should then be that the novelty condition does not apply to *on*, as proposed by Chierchia (1995b) for Italian *si*. A chief aim of chapter 5 is to derive this from independent principles. Briefly, *on* is immune to the novelty condition because there is no equivalent definite with would block it from anaphoric/familiar uses under Maximise Presuppositions; and there is no equivalent definite because *on* is lexicalised with a singularly poor NP, for instance one without number. It follows on the same grounds that no definite can be anaphoric to *on*, and so none can block it under the novelty condition. Consequently, *on* is never constrained to novelty. In contrast, for other indefinites in French, there is always a definite equivalent to an indefinite in examples like (A11), because the definite and the indefinite can have the same NP like *person*.[51]

Thus the indefinite-definite duality of *on* in a donkey context is expected in SD or any framework with anaphoricity symmetric for (in)definiteness, simply by treating *on* as an indefinite immune to the novelty condition. The sole distinctive element in the account is the binding of the resource situation of an indefinite by $\varsigma^{A/D}$ to give an anaphoric indefinite. But this is part and parcel of SD because indefinites have a resource situation, and that is independently needed for their intensional independence.

The account extends to discourse anaphoricity directly, since in SD it relies on resource situations as well. An anaphoric indefinite, like an anaphoric definite, has its resource situation valued to a situation that has just one individual satisfying its NP. Ordinarily, such an indefinite is blocked by the novelty condition, but *on* is not.

For bound variable anaphora, the account remains the same if they make use of resource situation binding as well (Elbourne 2013). We have also allowed for the more usual view that variable binding occurs through an individual index. Insofar as the index is available to indefinites as well as definites, they too can be bound when immune to the novelty condition. This is so if the index is in the NP (Fox 2002). *On* with an index is as in (A12); it can only be satisfied by a person individual identical to g(i), and so by g(i), and so is bound, and again the absence of an equivalent definite suspends novelty.

(A12)   $[_{DP}\ s_7\ \exists\ [_{NP}\ person\ [i]]]$
(70)     $\|i\|^g = \lambda x \lambda s\ .\ x=g(i)$

To take stock, the anaphoric potential of indefinites is part of any theory where indefinites and definites have the same anaphoric potential, and it arises for any indefinites that are immune to novelty.[52]

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[51] In Chierchia's (1995b) proposal, *si* is immune to novelty because it is pronominal and because novelty is reduced to Condition C. However, there are contexts where Condition C is suspended, *A linguist working on Binding Theory was so devoid of any moral sense that he forced a physicist to hire **the linguist's** girlfriend in his lab* (Schlenker 2005a), *John fed no cat of Mary's before **the cat** was bathed* (Elbourne 2005, 2013), and here indefinites – including pronominal ones – must be novel.

[52] We have not discussed the possibility of another indefinite, like *a woman*, being anaphoric to *on*. Technically, it is ruled out immediately if anaphoricity always uses resource situation (so instead of individual indices, situation binding is used, chapter 2.3), and if the resource situation in virtue of which an

In French, *on* is unique in not being blocked by a definite when anaphoric. In other systems, bare nouns quite generally correspond to English definites and indefinites (A20). These bare nouns are given a unitary analysis if the only thing that bars indefinites from being equivalent to definites is definites. We return to the idea in chapter 8.[53]

(A20)  Kdyz pastýř pošle za ovcemi psa, pes sežene ovce do stáda.
       When [a] shepherd sends after sheep [a] dog, [the] dog gathers [the] sheep in [a] flock.

(Czech)

*2.4.4  Note: Affinities and differences*

Chierchia (1995b) is the sole study of the indefinite-definite duality of an impersonal in full detail, for Italian *si*. On Chierchia's approach, impersonal *si* is an unrestricted existential quantifier that combines syncategorematically with its sister VP, saturates its subject argument and binds any variables indexed *arb*, with the restriction that it quantifies over a contextually-determined subset of human pluralities (in the formalism we have been using, $\|si\ VP\|^{c,g} = $ ⌜there is an $x \in D_{arb}$ such that $\|VP\|^{g(arb \to x)}(x))$⌝, where $D_{arb}$ is a contextually determined subset of human pluralities in $D_e$).[54] Under A-quantifiers, an existential quantifier can be be "disclosed" to be bound by the A-quantifier, giving anaphoricity in this and only this context: roughly, $\|always\ [si\ VP]\ [si\ VP']\| = $ ⌜for all x . $\|VP\|(x) \to \|VP'\|(x)$⌝ or ⌜for all x . $\|VP\|(x) \to \exists y\|VP'\|(y)$⌝ (see Chierchia 1995a on existential disclosure). Because *si* is not an R-expression, unlike indefinites (it is an existential quantifier without an NP), it is not subject to Condition C, to which Chierchia attributes the novelty condition on indefinites. Chierchia's proposal is used in a.o. Rivero and Sheppard (2003) for Slavic *se*-impersonals, and, in the setting of Chierchia (1995a), Malamud (2012a) for a variety of impersonal expressions. Chierchia (1995: 131, cf. 136) points out that disclosure could be extended if desired, bringing *si* closer to a DRT variable, and so to our proposal.

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indefinite is anaphoric to another always contains just one individual satisfying the latter (this is so in SD explicitly for donkey anaphora and situation binding, and may be naturally assumed for discourse anaphora). More generally, the account of novelty by competition with definites needs to have this or something else independently of *on*, in order to bar *There was exactly one animal$_i$ on sale, and I did not buy an$_{*i}$/the$_{??i}$ elephant* (*the* available only by accommodation). (See chapter 5.3 for similar examples with discussion of accommodation and pragmatics of NP content in anaphora.)

[53] English bare plurals are generally blocked by equivalent definites, outside special contexts (chapter 5.3). Thus they cannot be anaphoric: *When a farmer wants to sell sheep, {sheep ≠ the sheep} know*. Existential bare plurals are thought to have special scopal properties, essentially restriction to lowest scope unless modified in a particular way, and this has motivated analyses where the existential force is brought about otherwise than by an indefinite determiner (see esp. Chierchia 1998b, Krifka 2003, Mari, Beyssade and del Prete 2013; see also Dobrovie-Sorin and Beyssade 2012 on comparison with French *des*-plurals, that resist some scopal like negation entirely). However, there is now evidence that even ordinary bare plurals are not restricted to lowest scope (Le Bruyn, Min Que, and de Swart 2013). Thus we suppose that bare plurals have *a/∃*. The chief alternative view is that bare plurals denote kinds and get object-level reading by a mechanism that results in lowest-scope existential quantification over instances of the kind (Carlson 1980, Chierchia 1998b). The mechanism seems wholly importable into SD, though it remains to be done. We take it up briefly in chapter 4.6 in relation to similarities and differences between *on* and kind terms.

[54] Chierchia does not discuss a case where *si* binds another variable indexed *arb*; it cannot bind another *si* in general, unless existential discloure is extended.

Our approach has many of the distinctive features originally proposed by Chierchia, even when they are motivated by other evidence: role of context in the human restriction (chapter 4.2), its role in anaphoric restrictions (chapter 5.2), absence of Condition C (chapter 2.5), anaphoric behavior of an indefinite through absence of Condition C and general principles (this section).

Earlier, the analysis of Italian impersonal *si* in Cinque (1988: 546n29) hints at a treatment as a Heimian variable in all its uses, novel, anaphoric (536n18) and referential (550). Cinque (1988: 537-8) also proposes that anaphoric dependencies of *si* are restricted by a phi-feature mismatch in person with personal pronouns, since the person of *si* is generic and not 3$^{rd}$, partly coinciding with the work done by Chierchia's *arb* (chapter 5.2; cf. Burzio 1986: 80-1n47). Close to Cinque's treatment is Mendikoetxea (2002, 2008), who develops for Spanish impersonal *se* a detailed analysis in the framework of Diesing (1992a,b), based on Heim's (1982) static DRT but limited to sentences. Anaphoricity is not explored. For Diesing unlike for Heim (1982), anaphora outside bound and some donkey contexts are E-type pronouns. Chapter 4.5 establishes a contrast between *on* and D-type pronouns in terms of their NP content that goes agaist any E-type version of *on*. But if Cinque's idea were fully pursued in Heim's (1982) framework, the indefinite-definite duality of *on* would naturally emerge simply by not specifying *on* for [±definite].

Koenig and Mauner (2000) analyse *on* on its use as 'someone' in episodic contexts, arguing it is lexically distinct from *on* 'people' in generic contexts and 'we' generally. They work out a DRT approach to *on* where it fails to introduce a discourse referent in DRS construction, and so is incapable of anteceding anything (comparable to a DPL variable, Koenig and Mauner 2000: note 6). We introduce reasons for not following this view in chapter 3. Comparably in this respect, Prince (2006) equates *on* with indefinites save for inability to introduce an antecedent for discourse anaphora. Koenig and Mauner (2000) include the implicit agent of the passive under their approach, and in terms of anaphoric restrictions it works out to the same as the approach to it we adopt.[55]

2.5    D-type pronouns and DP structure

*2.5.1    D-type pronouns and the Formal Licensing Condition*

We have now the basic interpretation of indefinites, definites, and *on* in all anaphoric contexts. This section completes the account of syntax-interpretation mapping with assumptions about DP architecture and its parametrisation and realisation. The starting point is the D-type theory of personal pronouns, which leads to asymmetries between lexical and phi-featural content, and to the nature of lexicalisation.

Elbourne (2005, 2008, 2013), building on Postal (1966), analyses personal pronouns as definite descriptions with a silent NP, or *D-type pronouns*. We assume the hypothesis as part of the version of SD we adopt. Elbourne approaches in this manner uses of pronouns in (C1) that are not analysable as individual variables. Each pronoun can be replaced by a full definite, and the definite has an analysis in SD. For instance, *the*

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[55] Kański (1992) and Aranovich (2003) for Spanish *se* are also designed to preclude anaphoricity: essentially the impersonal is a λ-abstractor over the subject argument, with the resulting derived predicate taken as argument by quantifiers over predicates like adverbs.

*paycheck* is analysable as a definite that covaries with situations thanks to contextual salience of situations with one paycheck per person.

(C1a)  *Paycheck pronouns*: Gwen gave **her paycheck** to her wife, everybody else put **it** (the paycheck) in the bank.

(C1b)  *Neontological/descriptive pronouns*: This term **the president** is a communist, next term **he** will be an anarchist.

On the analysis of Elbourne (2005), D-type pronouns are definites with a morphosyntactic variant of *the*, *the_pron*. *The_pron* takes a silent NP, and surfaces with phi-features of the DP as a personal pronoun. Some determiners like *every* have no pronominal counterparts, but many do like *each, few, many*, and for some like *no, none* the basic and pronominal counterparts have different realisation. The difference between R-expressions and personal pronouns for Condition C must dependent on the overtness of the NP. For instance, Schlenker's (2005a) analysis of Condition C as a pragmatic injunction against redundant restrictors would have to apply to overt restrictors.[56]

Silent NPs are subject to the *Formal Licensing Condition* (FLC). It belongs to the family of licensing connstraints on elided material (Craenenbroeck and Merchant 2013). The availability of pronouns then depends on two factors: satisfiability of the uniqueness presupposition of a definite, and the FLC-licensing of its silent NP. In order to study the anaphoric relationship between *on* and personal pronouns, we need to understand both factors. The uniqueness presupposition has already been discussed; here we set out what is known of the FLC.

The FLC is usually met by an overt NP antecedent of a silent NP, and fails to be met otherwise. Thus in (C2a,b), the full definite *the roof* is fine, because both *thatched house* and *house with a thatched roof* allow the inference of a unique roof. However, only in (C2a) is the FLC satisfied for the pronoun *it*. Similarly in (C2c,d), a unique missing marble is inferable from the first sentence and satisfies a full definite, but only in (C2c) is the FLC satisfied by an overt antecedent for the NP of a legitimate definite. In contrast, the NP of *one/two* has an antecedent in both (C2c,d) and so can be silent by the FLC.[57]

(C2a)  Every house with a thatched roof had {it, the roof} damaged in the rain.

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[56] Cf. Schlenker (2008) on presuppositions as material that is silent when redundant.

[57] In this manner, the FLC accounts for some of the key data that motivated dynamic semantics, like (i). In fact, examples justifying the FLC like (i) and (C2) do not actually have linguistic content that satisfies the uniqueness presupposition of their full definites. All that is guaranteed by true assertion of the first sentece of (i-b) is that the topic situation has two pluralities of marbles, and that some possibly distinct supersituation has a marble atom, without necessarily raising to salience that supersituation or a situation with just one marble. A definite description like *the missing marble* in (i-b) needs the "accommodation" of such a situation. Overt NPs apparently make such accommodation easy, silent ones cannot handle it; cf. below for a pragmatic construal of the FLC. So indefinites contrast from inference in both FLC and dynamic approaches, but do their work differently.

(i-a)    I dropped ten marbles and found all of them, except for one. It is probably under the sofa

(i-b)    I dropped ten marbles and found only nine of them. ?It is probably under the sofa.

(Heim 1982: 21, attributed to B. Partee)

(C2b)   Every thatched house had {??it, the roof} damaged in the rain.

(C2c)   Gwen lost three <u>marbles</u> and found all but one ~~marble~~. She looked for {the marble, it ~~marble~~} under the sofa.

(C2d)   Gwen lost three <u>marbles</u> and found two ~~marbles~~. She looked for {the ??(missing) marble, ??it ~~marble~~} under the sofa (and then went out and bought one ~~marble~~).

In these examples, an indefinite satisfies the uniqueness presupposition of an anaphoric definite, and the same indefinite FLC-licenses the definite's silent NP when it is a pronoun. Generally, the FLC-licensor need not bear any semantic relationship to the DP whose silent NP it licenses, as in the case for *one, two* in (C2c,d), and paycheck pronouns in (C1a). Nevertheless, with pronouns, separation of presupposition satisfaction and FLC licensing is subject to strict constraints (Kehler 2015: 6.2). Usually, it is impossible, as in (C3b,c) unlike in (C3a), and the FLC-licensor of a pronoun must be the indefinite that satisfies the presupposition of an anaphoric definite.

(C3a)   {No <u>voters</u> came to, *No voting took place in} Gwen's polling station, and in most other stations, they/most left without actually voting!

(C3b)   Gwen brought <u>her husband$_i$</u>, while every other married woman$_k$ brought {his$_{i/??her(k)\text{ husband's}}$, her husbands's} parents.

(C3c)   There were four <u>missing step(s)</u> in the proof, but Gwen supplied two/three (of them), and I can probably supply {*them/*it, the missing step(s)} myself.

The silent NP licensed by the FLC can be any subconstituent of an antecedent NP containing the head N:

(C4a)   She wants a black short-haired cat, but she is allergic to most / them ((~~black~~) ~~short-haired~~) ~~cats~~.

(C4b)   She gave her first paycheck to her mother, even though everyone else gave it (~~first~~) ~~paycheck~~ to their spouse.

When a pronoun relates to multiple antecedents, (C5), each antecedent needs to have an NP to FLC-license the pronoun (Elbourne 2005: 2.7.2, 2008).

(C5a)   Usually, if a man$_i$ is chosen$_{Ag=k}$ ??(by a woman$_k$), they$_{i+k}$ meet at a cafe.

Sometimes, a silent NP is licensed without an antecedent. This is shown in (C8) for personal pronouns and quantificational determiners.

(C8a)   John bled so much <u>it</u>/<u>some</u> soaked through the bandage.

<div style="text-align: right">(Ward, Sproat and McKoon 1991)</div>

(C8b)   A pack was howling at the moon, and <u>they</u>/<u>several</u> seemed very close.

(C8c)   [Gesturing at scissors:] Do you like <u>them</u>/*<u>it</u>?

These cases demonstrate that silent NPs necessarily reflect NPs built on elements drawn from the lexicon of a language (Sauerland 2007, Elbourne 2013). In (C8c), *them* must be plural because it is a lexical property of the noun *scissor* that it is plural (outside compounds). In (C9), the gender and number of the pronoun must track the gender and number of a particular noun (Tasmowski and Verluyten 1982, 1985).

(C9)    Tu va la/le/les vendre?
        You will sell her/him/them?
        [Gesturing at a chair, fem.sg. *chaise*, stool masc.sg. *tabouret*, scissors, masc.pl. *ciseaux* respectively]

In light of pronouns without overt antecedents, it is tempting to understand the FLC not as a formal, that is syntactic, condition that relates a silent to an overt NP, but as the condition that there must be some sufficiently salient property which guides the pick of a lexical N on which to build a silent NP. Usually, an inferred or implicit argument does not provide the needed guidance, even in cases like *A boy was born. #She is well*, because it does not determine whether the NP should be *mother, woman, patient...*, while an overt NP does. However, this is subject to constraints, and there are examples where overt N is insufficient because too backgrounded or not distinct from other candidate Ns (Gundel, Hedberg and Zacharski 1993: 279-280; Roberts 2003: 3.1).[58]

## 2.5.2   FLC and phi-features

So far, the FLC has been seen to constrain the lexical N of a silent NP, and phi-features colexicalised with it like the plural of *scissors*. Number features that are not lexicalised with a noun are ignored by the FLC on the antecedent, and a pronoun or determiner may freely chose them. This is clear from foregoing examples like (C2c), or (C10). Thus the FLC relevals an asymmetry: the lexical N of a silent NP must be licensed, but number is free save if lexically associated with a lexical N. The asymmetry is familiar from studies of VP and predicate NP ellipsis for phi-features due to agreement and bound variable pronouns, that is those that are recoverable (Bobaljik and Zocca 2011, Johnson 2014).

(C10a) Gwen looked at one marble after another, and {none was/were, they were} blue.
(C10b) Gwen looked at both marbles, and one was blue.

The pattern of gender is complicated cross-linguistically, and French data do not entirely converge with those of other studies (on which see Craenenbroeck and Merchant 2013, Merchant 2014, Sudo and Spathas 2015). However, the clearest cases look like number. When a noun is lexicalised with a single gender as in (C9), it must be respected

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[58] In this manner might be approached recalcitrant examples like (i). The first two sentences should license the definite *the garden*, and do seem to. There is an overt antecedent for *it* ~~garden~~, yet *it* is illegitimate without the bracketed material. Perhaps neither of *house* nor *garden* are made sufficiently salient because there is not enough guidance to pick one or the other for *it*.

(i)    If Jane has a house, she has a garden and if Jane has a garden, she sprinkles it. Now Jane actually has a house. *(So she has a garden, and,) so she sprinkles it.

(Dekker 2011: 935 given as "odd")

by the FLC by pronominal determiners and pronouns. When a noun has a choice of gender, *poète* in (C11), the gender of the antecedent is irrelevant.[59]

(C11)  Sho a visité une poète à Praha, et un à Nis.
    Sho visited a poet.F in Praha, and one in Nis.

<div align="right">(modelled on Sudo and Spathas 2015)</div>

So while the FLC constraints lexical N, it does not constrain nonlexicalised number and gender. There are different theories of what the split between lexical N and gender/number for the FLC means (Craenenbroeck and Merchant 2013, Merchant 2014, Johnson 2014, Sudo and Spathas 2015).

### 2.5.3  FLC and $1^{st}/2^{nd}$ person

The FLC indicates that a $3^{rd}$ person pronoun must always be built on a lexical N. $1^{st}/2^{nd}$ person pronouns are never constrained by the FLC, suggesting they do not need a lexical N in addition to a person feature. Possibly, a $1^{st}/2^{nd}$ person feature is a lexical N, unlike ($3^{rd}$ person), gender, and number; we explore this possibility in chapter 4.

However, there is evidence that $1^{st}/2^{nd}$ person pronouns can have lexical Ns. One line of evidence is conditions on covariation, which are shared with $3^{rd}$ person pronouns. In (C12a), covariation of *we* needs *someone*, suggesting *someone* is FLC-licensing a silent N in *we* that lets it covary with situations (cf. Rullmann 2004, 2004, Schlenker 2004). Another line of evidence is Nunberg's (2004) descriptive indexicals like *I* in (C12b), which has been analysed with an infered silent NP like *condemned prisoner* (Elbourne 2013, Rezac 2013). In (C12c), the silent NP is putatively visible (Postal 1966, Elbourne 2005, 2008, 2013). Finally, $1^{st}/2^{nd}$ person pronouns can betray a silent NP through lexical gender (chapter 4.5).

(C12a) Usually, when I am given a birthday-present ?(by someone), we know each other.
(C12b) I am usually allowed a last meal.
(C12c) They don't like us/them/*me anarchist(s).

### 2.5.4  DP architecture

Let us take stock at this point. Pronominal determiners like *the_{pron}, some* need a silent NP built on the lexical N, and the N must usually be supplied by an overt antecedent or somehow determinable by contextual salience. $1^{st}/2^{nd}$ person pronouns may but do not need a silent N. Number and gender are freely added to a licensed silent N, modulo those lexically associated with particular lexical Ns. The split between lexical N and number/gender is consonant with theories of DP architecture that separate a lexical root (what we have been calling an N) and higher functional architecture that brings phi-features; for instance, the locus of silent N licensing might be the head n that nominalises a root (Merchant 2014). We now turn to DP architecture itself.

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[59] A pronoun's gender must match the antecedent simply because the pronoun is semantically anaphoric to it. When semantic anaphoricity is sidestepped, gender of pronouns too seems free: *This term the president is from Kansas, next year, she will be from Wyoming.*

We assume a common view of DP architecture. A DP is built on the basis of a lexical root, which has a property type meaning, $<e,st>$. This same property type is taken as argument by determiners. Elements of functional architecture between the root and D must preserve the type: by denoting properties (that combine with other properties by Predicate Modification) or functions from properties to properties (that combine with properties by Functional Application). We will take number and gender to behave in this lattre manner, as in (C12) (chapter 4; see e.g. Chierchia 1998b, Heycock and Zamparelli 2005 for number, Percus 2011, Merchant 2014 for gender).

(C12)  $\|[\text{feminine}]\|$   $= \lambda p_{est}.\lambda x.\lambda s : x$ is female in $s$ . $p(x)(s)$

(C12) has the consequence that gender (and analogously, number) cannot be alone in the DP: a property-denoting lexical root is needed as the bottommost element. At the top, the determiner turns properties into arguments as referential terms or generalised quantifiers, relative to the resource situation. Details of the functional architecture in between depend on particular theories of root and functional head meaning, common being a low gender, perhaps in the root nominaliser *n*, and a higher number in Num° (for number, see e.g. Borer 2005, Heycock and Zamparelli 2005, Rullmann and You 2006, Wilhelm 2008, Kratzer 2008, Paul 2012, Harbour 2014; for gender, Merchant 2014). We speak of the lexical root extended by functional architecture up to the complement of the determiner as the (extended) NP and as the "descriptive content" of a DP. Our study of *on* will lead us to further conclusions about DP architecture in chapter 4, and in chapter 8 we consider them in a cross-linguistic setting.

### 2.5.5  *Lexicalisation*

We end on our assumptions about lexicalisation, since the NP of *on* proves to be lexicalised. Among DPs traditionally called pronouns, some have a silent NP licensed by the FLC, like *some*, while others are lexicalised with a fixed NP, like *someone*. The lexicalised NP is immune to the FLC: in (C6a), *some, none* require an antecedent NP, but *someone, something* in (C6b) do not. The lexicalised NP cannot be modified: in (C6a), the missing NP of *none* may be *(smoking) patron/pancake(s)*, but in (C6b) the lexicalised NP of *someone* can only be singular *person*.

(C6)    Gwen raised her head,
(C6a)   …??(looked at the smoking patrons/pancakes,) and saw that {some were, none were/was} on her table.
(C6b)   …(looked at the smoking patrons/pancakes,) and saw that someone/something was on her table.

It is clear from this that it is possible to lexicalise a DP that has a fixed root, functional architecture, and determiner. The traditional way to handle such lexicalisation is as a combination of syntactic element in the lexicon fixed by c-selection. A more recent way to look at the lexicalisation is as realisability (externalisation) conditions (Berwick and Chomsky 2011). On both approaches, *someone* is (can only realise) a DP

with an indefinite determiner, singular number, and the root √*person*. Larger lexicalised units are illustrated by idioms like *kick the bucket*.

The lexical N in human indefinite pronouns like *someone, no one, who* is of interest to us, because they seem close to impersonals. We will find that this is not so: the root of indefinite pronouns is essentially like *person*, whereas the human restriction of impersonals will prove to work quite differently and be like the person feature of 1st/2nd person pronouns.

As for indefinite pronouns, it is not clear how far their root can be identified with *person* with they are human (*someone*) or with *thing* when they are inanimate (*something*). There is one clear difference. Unlike ordinary indefinites, pronominal indefinites cannot FLC-license the NP of pronominal determiners, (C7a), though they can license the NP of personal pronouns (C7b). It may have to do with the bound status of the NP, if in (C7a), *someone* FLC-licenses a bound NP, i.e. *-one*, and there is no means to realise it on *several*, while *the_pron* is a bound element that can amalgamate with *-one* to yield personal pronouns.[60]

(C7a)   Gwen found a person/*someone to help, but she still needs two/several more.
          Gwen did not see any person/*anyone with a hat, {but I saw several, and I saw none either}.
(C7b)   Gwen found a person/someone to help. I know him.


## 2.6    Appendix: Presupposition projection in SD

Here we look in more detail at the resistance of definites to covariation through their uniqueness presupposition (Elbourne 2005: 2.3.3, Hinterwimmer 2008: chapter 2; see Büring 2004: 4.5 for an alternative). Consider (45).

(45)    i.   *$\|$[always [$_{CP}$ $\cancel{\text{if}}$ ς$_7$ [s$_7$ the actress] [wins]]] …$\|^g$
          ii.  *$\|$… [$_{CP}$ ς$^A_3$ Q$^A$ [s$_3$ the actress] [advances]]$\|^g$

(45a)   $\|$[$_{CP}$ $\cancel{\text{if}}$ ς$_7$ [s$_7$ the actress] [wins]]$\|$
          =   λs : there is a exactly one *x* such that *x* is an actress in *s* . ιx[x is an actress in s] wins in s.

(45b)   $\|$always$\|$
          =   λp$_{st}$.λq$_{sst}$.λs . for every *s′* such that *s′* is a minimal situation such that *s′ ≤ s* and *p(s′) = 1*, *q(s)(s′) = 1*.
          =   λp$_{st}$.λq$_{sst}$.λs . for every *s′* such that [*s′ ≤ s* and *p(s′) = 1* and there is no *s\** such that *s\* < s′* and *p(s\*) = 1*], *q(s)(s′) = 1*. (*incorporating the definition of a minimal situation*)

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[60] As for the determiner, to go by overt morphology, it should be *some* rather than *a*, and so it is in a case like (i) *{A person, #Some person, #Someone} has legal rights*, but not in (ii) *At the family meeting, I found out that if {a person, some person, someone} dies, I inherit a house*, where *someone* does not have *some person*'s strong preference for a specific reading. Possibly, the determiner is semantically like *a*, and the problem in (ii) is the semantic poverty of *-one* in infering the restrictor of the generic quantifier (for *Typically, if x is a person, x has legal rights*).

The LF (45i) gives rise to a presupposition failure, and the culprit is the uniqueness presupposition of *the actress* in the restrictor. Under the rules we have, *always* in (45b) should combine with *the actress wins* in (45a) through Functional Application (FA), and the conditions on FA are met (both functor and argument are in the domain of $\|\cdot\|^g$ and the functor is a total function).[61]

But it is not clear how to evaluate a functor on an argument that is a partial function whose definedness depends on the functor: here, definedness of *the actress wins* depends on whether every situation quantified over by *always* has exactly one actress (Beaver and Krahmer 2001). The same problem arises for nucleus definites, (45ii). In (30, 32), we simply assumed the desired result: if the restrictor entails the domain condition of the nucleus, the latter is satisfied, giving a covarying definite in (30, 32), whilst otherwise presupposition failure arises.

This issue has been dealt with in work on the projection of presuppositions from embedded contexts, as from the restrictor of a quantifier. There are approaches compatible with the framework of Heim and Kratzer (1998) and so with SD; for instance, *always* can be enriched with the presupposition that its arguments are defined on every situation (e.g. Heim 2008: 38-9, Sauerland 2003, used below; see also esp. Beaver and Krahmer 2001; George 2008, Fox 2012; Schlenker 2008, 2009, 2010, 2011cd). Our aim is only to sketch, empirically and theoretically, how resistance to covariation can arise with definites but not indefinites, and so ultimately why *on* is an indefinite.

The facts of projection have been best studied for D-quantifiers on their standard analysis as quantifiers over individuals (see Sudo 2012 for an overview of both data and theories). In (47), the structure in bold has the meaning in (47c). The question is how and why its semantic presupposition projects in the two environments.

(47a)   Every participant $\lambda_i$ **$t_i$ brought both her$_i$ husbands**.
(47b)   Every participant **who$_i$ $t_i$ brought both her$_i$ husbands** complained.
(47c)   $\lambda x : x$ is a woman with exactly two husbands . x brought both x's husbands

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[61] For presupposition projection, we use the "pedantic" formulation of Predicate Abstraction PA in Heim and Kratzer (1998), which relies on the definedness conditions on the interpretation function $\|\cdot\|$, and extend it to situation binding; see Heim (2008: 36-38) and Sudo (2012: 3.1) for the projection of presuppositions on both bound and context-valued variables through PA. Working through (a), the results are the same as in the different system of Elbourne (2013: 3.2, 4.3, 6.3-4; cf. Coppock 2014): (iii) is obtained through $\lambda$ Conversion II, while if $s_1$ is free and there is no $\varsigma_1$, we stop at (ii), which is the result of $\lambda$ Conversion I.

(a)      $[\varsigma_1 [_\alpha [_{DP} s_1 [\text{the cat}]] [_{VP} \text{grins}]]]$

(i)   By FA, *[[the cat] $s_1$]* is in the domain of $\|\cdot\|^g$ for any $g$ only iff *[the cat]* and $s_1$ are, which they are, and $\|$*[the cat]*$\|^g$ is a function whose domain contains $\|s_1\|^g$, which it is only if there is exactly one $x$ such that $x$ is a cat in $g(1)$.

(ii) By FA, $\alpha$ is in the domain of $\|\cdot\|^g$ for any $g$ only if *[[the cat] $s_1$]* and *[grins]* are, which is so iff there is exactly one $x$ such that $x$ is a cat in $g(1)$; if defined, $\|\alpha\|^g = \ulcorner\lambda s . \iota x[x$ is a cat in g(1)] grins in s$\urcorner$.

(iii) By PA $\|[\varsigma_1 \alpha]\|^g = \ulcorner\lambda s : s \in D_s$ and $\alpha$ is in the domain of $\|\cdot\|^{g[1\rightarrow s]}$ and if so, s is in the domain of $\|\alpha\|^{g[1\rightarrow s]} . \|\alpha\|^{g[1\rightarrow s]}(s)\urcorner$; here $\ulcorner\alpha$ is in the domain of $\|\cdot\|^{g[1\rightarrow s]}\urcorner$, which by (ii) is so only if there is exactly one $x$ such that $x$ is a cat in $s$, and then given $\|\alpha\|^g$ from (ii), any $s$ is in the domain of $\|\alpha\|^{g[1\rightarrow s]}$; so $\|[\varsigma_1 \alpha]\|^g = \ulcorner\lambda s : s \in D_s$ and there is exactly one $x$ such that $x$ is a cat in $s . \|\alpha\|^{g[1\rightarrow s]}(s)\urcorner$.

The facts of projections are clearest for (47a). The presupposition of the nuclear scope of *every* projects "universally": it must be satisfied by every individual that satisfies the restrictor. Thus (47a) is felicitous only if it is common ground that every participant is a woman with exactly two husbands. In (47b), presupposition of the restrictor of *every* seems to project through the presupposition that *every* makes about its restrictor. This is the "familiarity" presupposition: that it is common ground that there is a plurality each atom of which satisfies the restrictor. Accordingly, (47b) with *every* is felicitous only if it is common ground that there is a plurality each atom of which brought both her husbands. This can only be so if each atom is a woman with exactly two husbands.

To see how the resistance of definites to covariation arises from these patterns of projection, we will look at the universal projection of the nuclear scope. In (48), it is implemented as a domain condition on *every* (Heim 2008: 39, adapted to SD). Essentially, it says that *every* is only defined if whenever some individual and situation satisfy the restrictor, they satisfy the domain condition of the nucleus.[62]

(48) $\|every\| = \lambda f_{est}.\lambda s°.\lambda g_{esst}.\lambda s$ : for every $x$, $s'$ such that $s'$ is a minimal situation such that $s' \leq s°$, $s$ and $f(x)(s')$, $\langle x, s, s' \rangle \in$ the domain of $g$ . for every $x$, $s'$ such that $s'$ is a minimal situation such that $s' \leq s°$, $s$ and $f(x)(s')$, $g(x)(s)(s')$.

Consider *Every man liked the woman* in (49), with the resource situation of *the woman* bound to the propositional situation in order for it to covary with *every man*. The presupposition of the sentence by the domain condition of *every* in (48) is (49a'), for topic situation $s^*$. Under the ontology of situations in SD, it can never be met, because every situation that has a man and a woman has a subsituation with just the man, and this subsituation falsifies (49a'). The sentence should be infelicitous, and is. The only available reading of *Every man like the woman* is one where the resource situation of *the woman* is free, leaving out $\varsigma_4$, and so valued to to an invariant context-salient situation $s^{**}$ with one woman. But then the definite *the woman* cannot covary with *every man*.

(49a) Men and women did the exercise together. Every man liked the woman.
  LF: $[_{CP} \varsigma_7 [_{DP} s_7 \text{ every man}] [_\beta \varsigma_4 [_\alpha Q^D [_{VP} \text{liked} [_{DP} s_4 \text{ the woman}]]]]]$
(49a') Every $x$, $s'$ such that $s'$ is a minimal situation such that $s' \leq s^*$, such that $x$ is a man in $s'$, is such that there is exactly one woman in $s'$.

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[62] Two notes. One, (48) equates "restrictor" in the foregoing generalisations to the metalanguage restrictor of ⌜every…⌝, not the restrictor argument of the quantifier. The latter would be give the same presupposition as (48) save without the condition ⌜$s'$ is a minimal situation … and⌝, that is a presupposition about situations *tout court*, which is too strong for (49b'). Two, we are skipping the question of how $Q^D$ projects the presuppositions of the VP. $Q^D$ needs to project the presupposition of the VP existentially, as $Q^D$ is existential, and there are problems with doing so (the "binding problem" and for some presuppositions others: Sudo 2012: chapter 4). However, in our example, it does not matter. The nucleus is (i). $s_4$ is free within the scope of $Q^D$, so by FA, $\alpha$ is in the domain of $\|\cdot\|^g$ only if the VP is, and this is so only if there is exactly one woman in $g(4)$, which by PA becomes part of the domain condition of the interpretation of $\beta$ on its $\lambda s'$ argument: ⌜$\lambda x.\lambda s.\lambda s'$ : there is exactly one woman in s' . …⌝.

(i) $[_\beta \varsigma_4 [_\alpha Q^D [_{VP} \text{liked} [s_4 \text{ the woman}]]]]$

When a nucleus definite is anaphoric to a restrictor indefinite as in (49b), the situation is different. The presupposition of the sentence by the domain condition of *every* is (49b'). It is necessarily met.

(49b)   Every man paired with a woman liked the woman.
(49b')  For every $x$, $s'$ such that $s'$ is a minimal situation such that $s' \leq s^*$, $s^{**}$, such that there is a woman $y$ in $s'$ and $x$ is a man in $s'$ paired with $y$ in $s'$, there is exactly one woman in $s'$.

Thus presupposition projection derives the resistance of definites to covariation, at least for the nucleus of quantifiers like *every*. It unclear how to extend the story to existential quantifiers like *a*. They often have only an existential presupposition about the nucleus, and no about the restrictor, modulo topichood (Geurts 2008). Even the implementation of this presupposition is difficult (see Sudo 2012 and chapter 4.5).[63]

Covarying definites are not confined to restrictor-nucleus relationships like (49b). Elbourne (2005: 2.3.3) shows that (49a) allows covariation if context sets up salient situations with exactly one woman per man in them, (51a). The recipe works for A-quantification as well, (51b) (Hinterwimmer 2008: chapter 2, Schwarz 2009: 5.2, Malamud 2012a). Common knowledge can set up such contexts, (51c-e). Kind definites in (51f) never resists covariation, arguably because they denote world-unique individuals (cf. Chierchia 1998b). All these definites vary like indefinites.

(51a)   Men and women were asked to do the exercise together. #(Each man was paired with a different woman.) Fortunately, every man liked the woman, and things went smoothly.

                                          (adapted from Elbourne 2005: 2.3.3)
(51b)   In the admissions process, we interview prospective students {one at a time, #ourselves}. If the student / he is tall, he is usually smart.

                                          (adapted from Malamud 2012a)
(51c)   Usually, if the president is a Republican one term, the next term he is a Democrat.
(51d)   In the US legal system, if the defence counsel does not put the defendant on the stand, the prosecutor cannot interrogate him or her.
(51e)   When the honeybee returns to the hive, it may do the waggle dance.

It is not quite clear how Elbourne's context and others help with presupposition failure. (51a) does nothing to defuse the problem in (49a) that some situations in the domain of *always* must have a man and no woman. One solution is to use the silent propositional variable $p$ assumed above to be the true restrictor of A-quantifiers (von Fintel 1995: 2.4, Hinterwimmer 2008: chapter 2; cf. Percus 1998, Sauerland 2005: 374). In (51a), the first sentence might provide a salient proposition like *we invite exactly one student into the room*, and as value of $p$ conjoined with the overt *if*-clause, it would license a donkey anaphor both in the *if*-clause and in the nucleus. D-quantifiers need a property variable, in (51a) something like *who was paired with a woman*.[64]

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[63] Thus *We do not have a participant who brought {two, both, her, both her} husbands* does not presuppose that there is a polyandrous participant with *two*, but *both* and *her* do have at least this presupposition.

[64] Infered content plays much role in applying SD in detail; we will look at one instance that will come up a

Importantly, only some presuppositions behave like the uniqueness presupposition of definites in blocking covariation. The "familiarity" presupposition of quantifiers like *every* works thus (von Fintel 1995: 2.4, Hinterwimmer 2008: chapter 2). However, indefinites are often thought to have an existential presupposition, but it has no effect on covariation. In (52), the indefinite might well presuppose the existence of an individual that satisfies their restrictor, but it covaries over such individuals. We have left it open how the existential presupposition of indefinites arises, so we only note this observation. It is relevant for the analysis of *on*, which will behave like an indefinite.

(52a)   Usually, if a woman who brings two/both husbands comes, she registers only one.
(52b)   Usually, if a woman who stops smoking starts drinking, she remains in the study.

We close on an apparent exception to the resistance of definites to quantificational variability. Definite plurals should resist covariation and contrast with indefinite (bare) plurals. This is so in (55a,b): the definite plurals are fixed to the maximal plurality of a hundred marines salient in the context, and that leads to oddity, because the plurality would have to die multiple times (the zombie scenario). However, with some predicates, (55c,d, 56), definite plurals seem usable like indefinite plurals, ranging over parts of that contextual plurality. Definite group singulars like *the battalion* show the same split behavior in these examples.

(55)   Context: Hundred infantry and hundred marines took part in the excercise.
(a)     (#The) marines died in every combat.
(b)     Usually, when (#the) marines died on mission, they were buried at sea.
(c)     (The) marines were attacked in every port.
        [Possible even if only some marines were attacked in every port.]
(d)     Usually, when (the) marines were attacked, they fought back.
        [Possible even if only some marines were attacked on a given occasion.]

(56)   {The girls, The group} ate every sandwich.
        [Scenario: All the sandwiches were eaten, each girl ate a sandwich individually]

We will call apparent covariation of a definite plural or group singular their *representative group use*. In it, a predicates seem to be true of a plurality or a group atoms even if it holds of only some of its parts or members  (cf. Barker 1992, Brisson 2003, Malamud 2012b). We mention this behavior because it needs to be controlled for when testing whether an impersonal covaries. Impersonals like *on* covary like true

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couple of times, "maximality" (Schwarz 2009: 3.3, 4.5.1, following Kratzer 2007). We want (i) to be usable if everyone at a fest-noz forms a circle, not only when every sub-plurality of them does. For (ii), we want a reading where it is false when everyone within earshot does not listen, and that needs maximality to apply to something like *there are people in earshot* conjoined with the *whenever* clause.

(i)     Whenever there are people dancing at a fest-noz, they form a circle.
(ii)    Whenever Gwen talks to Rybana and Mael, {everyone listens, there isn't a person not listening, no one pretends to do anything but listen}.

indefinites, while so-called arbitrary 3PL only seems to covary through the representative group use (cf. Malamud 2013).

## 3 *On*: A sketch

### 3.1 Introduction to *on*

In chapter 1, we introduced what it is about *on* that interests us under the cover-term "referential deficiency" (0). Impersonal *on* participates in a range of syntactic and semantic dependencies that identify a DP but is unlike any other DP in French. It lacks content like number in syntax and is neutral about it in interpretation. It participates in anaphoric dependencies, including local anaphora, yet refuses other anaphoric pronouns. It has a dual indefinite-definite behavior, including both novel and familiar or anaphoric uses. It cannot be used like personal pronouns, save in one case, the specific use as *we*, and has unique pseudospecific uses.

(0)     Referential deficiency:
        NP content: absence of usual NP properties like number in syntax and interpretation, but presence of a special restriction to humans.
        No anaphoric relationships with regular DPs, save local *s*-pronouns.
        Indefinite-definite duality.
        Specific use as *we* (only); pseudospecific uses.

In this chapter, we introduce *on* and its behaviour in some detail, and outline our approach to it. This section gives a first description of *on* itself, using the traditional categories of specific, generic, arbitrary, and pseudospecific uses of impersonals.

Morphosyntactically, French *on* is a subject clitic. Other subject clitics are all personal pronouns. They are given with *on* in Table X.[65]

Table X: French personal pronouns

|  | Strong | Possessor clitic | Subject clitic | Object clitic (ACC │ DAT │ reflexive) | | |
|---|---|---|---|---|---|---|
| 1SG | moi | mon (ma, mes) | je | | me | |
| 2SG | toi | ton (ta, tes) | tu | | te | |
| 1PL | nous | notre (nos) | †nous $\Rightarrow$ *on* | | nous | |
| 2PL | vous | votre (vos) | vous | | vous | |
| 3SGM | lui | $\Rightarrow$ *son* | il | le | lui | $\Rightarrow$ *se* |
| 3SGF | elle | $\Rightarrow$ *son* | elle | | | |
| 3PLM | eux | leur (leurs) | ils | les | leur | $\Rightarrow$ *se* |
| 3PLM | elles | leur (leurs) | elles | | | |
| *s-* | **soi** | **son (sa, ses)** | **-** | **-** | **-** | **se** |
| *on* | **-** | **-** | **on** | | **-** | |

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[65] The personal pronouns have roughly the same uses and properties as in English; chief differences are the use of 2PL pronouns as polite to the atomic addressee with 2PL finite agreement but singular concord; the existence of lexical as well as referential gender, discussed in chapter 4; the absence of the "singular" 3PL of *Nobody/The team is at their best today*.

Notes: strong pronouns are clitic doublees, objects of prepositions, predicates, dislocated; object clitics are verbal proclitics, subject clitics are weak pronouns (Cardinaletti and Starke 1999); possessor clitics are NP phrasal clitics that concord with the possessum in gender and number (Miller 1992); object enclitics to the imperative are omitted (Morin 1979ab); †*nous* is missing or restricted (chapter 7).

Subject clitics are incapable of coordination and modification, occur only in the subject position of agreeing clauses conventionally identified as Spec,T, and allow focus doubling by nondislocated strong pronouns (their syntax is further discussed in chapter 7). *On* is the sole subject clitic that is not a regular personal pronoun of the sort found in English. It has no strong, object, or possessor counterpart. In particular, although it stands in anaphoric and doubling relationship to the *s*-series of pronouns and they lack a subject clitic, *s*-pronouns do not have an impersonal use on their own and have uses that *on* does not. Their relationship of *on* and *s*-pronouns is an important focus of our study.

At a first look at *on*, there are reasons to distinguish two very different *on*'s. One is the 1PL *on* in (1a).[66]

(1a)    Nous on se parle tous à nous-mêmes de nos rêves.
        WE ON SE/*me talk.3SG to us-self.PL of our dreams.
        We all talk to ourselves about our dreams.

(1b)    (*Nous) on me parle (*tous) de soi/*lui/*eux/*nous-même(s) et de ses/*nos rêves.
        (*WE) ON me talk.3SG (*all.PL) of SOI/*him/*them/*us-self and of SON/*our dreams.
        One talks to me about oneself and one's dreams.

Specific *on* has the uses and all the syntactic and interpretive dependencies of a 1PL personal pronoun, save for finite verb agreement and reflexive clitic. In (1a), *on* is equivalent to *we*, it is focus-doubled by a 1PL strong pronoun, it licenses a floating quantifier with plural concord, and it antecedes 1PL personal pronouns locally and remotely. However, the finite verb *parle* agrees for 3SG, and the reflexive clitic *se* is the reflexive of 3rd and not 1st/2nd person subjects. There is thus a mismatch between 1PL and 3SG or default phi-features.

The other *on* is the *impersonal on* in (1b). In morphosyntax, *on* combines with 3SG (or default) finite verb agreement and reflexive clitic. In contrast to 1PL *on*, impersonal *on* in (1b) cannot relate to elements with person and number: anaphoric personal pronouns, focus-doubling personal pronoun, plural-concording floating quantifier. It does relate to the *s*-series of personal pronouns, some of which are used as 3SG, but they will turn out to be phi-default exponents. Impersonal *on* can usually be isolated from 1PL *on* by speaker-exclusion, as in (1b) where the object clitic *me* excludes the speaker from *on* through Condition B. Our business is first and foremost with impersonal *on*, though as we establish its properties, we compare it with 1PL *on*. 1PL *on* is the topic of chapter 7, where it is analysed as a combination of impersonal *on* and a 1PL element.

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[66] (1, 2) illustrate our glossing for *on*: *on* and *s*-pronouns are glossed by themselves, with meaning are subscripted or given in brackets if there is no separate gloss line; focus doubling is in small caps.

Studies of impersonals classify their uses as *generic*, *arbitrary*, *pseudospecific* and *specific*. The classification is a useful descriptive starting point, and at the same time helps bring out the unity of *on* on its properties across different uses.[67]

In the *generic* use (2), impersonal *on* is in the scope of a quantifier and covaries with it to give quantificational variability QV (chapter 2). As indicated by indices and translations, a given occurrence of *on* can be novel or anaphoric to another (chapter 2.4).

(2)     D'habitude/Parfois, quand on$_i$ m'invite dans son$_i$ cours, on$_{i/k}$ ne me critique pas.

   i:   Usually/Sometimes, when ON$_{\approx people}$ invites me to SON$_{\approx their}$ course, ON$_{\approx they}$ does not criticise me.

   $\approx_{QV}$ Most/Some people who invite me to their course do not criticise me.

   k:   Usually/Sometimes, when ON$_{\approx people}$ invites me into SON$_{\approx their}$ course, ON$_{\approx people}$ does not criticise me.

   $\approx_{QV}$ In the case of most/some people who invite me to their course, people do not criticise me.

In the *arbitrary* use (3), *on* is not in the scope of a quantifier and so does not vary.

(3)     Ce matin, on m'a bousculé dans le metro, et on s'est même pas excusé.
        This morning,

   i:   ON$_{\approx 1+\ persons}$ bumped into me in the metro, and ON$_{\approx they}$ did not even apologise.

   k:   ON$_{\approx 1+\ persons}$ bumped into me in the metro, and ON$_{\approx 1+\ persons}$ did not even apologise.

Useful translations of generic and arbitrary *on* when novel are *people, a person, someone, anyone,* and in a generic context *one*. However, *on* is number-neutral, while these translations usually commit to a particular number, so as needed we use the gloss *1+ persons* for *one or more (up to all) persons*. As anaphor, *on* is well translated as *they*, thanks to the availability in English of "singular" as well as plural *they*. The implicit agent of the passive is often a good translation for generic and arbitrary *on* by its neutrality about number, but unlike *on* it is also neutral about being a human, and it cannot participate in dependencies like the antecedence of *son* in (2).

The *pseudospecific* use of *on* in (4) occurs in any environment. In meaning, it is like a personal pronoun in use for a specific, salient individual, but laden with "indirectness". Syntactic and interpretive dependencies group the pseudospecific use with the generic and arbitrary uses and against 1PL *on* on such properties as concord and anaphora.

(4)     Alors Gwen$_i$, (*toi) on$_i$ ne veut pas m'inviter à son$_i$/*ton$_i$ anniversaire, mais on$_i$ n'est pas assez courageuse pour me le dire en face?

---

[67] The terminology arbitrary, generic, and specific is systematised by Egerland (2003b), save that his specific we separate into the specific and pseudospecific, coined by McCloskey (2007). The literature uses instead or in addition many other terms. Cinque seminally introduces *existential* for arbitrary and *universal* for generic, but the intended sense of of existentiality and universality was eventually found to cross-classify across arbitrary and generic environments (Mendikoetxea 2008; on *on*, Creissels 2008). Still other terminology is common, e.g. *on* with the silent generic A-quantifier as *gnomic* (Creissels 2008), or arbitrary *on* without negation as *referential indefinite* (Giacalone Ramat and Sansò 2007).

So Gwen, (*you) ON does not want to invite me to SON/*your birthday-party, but ON is not courageous.F enough to tell me in person?
[Context: speaking in front of a mixed group of colleagues.]

Finally, the term *specific* is reserved for the use of an impersonal as equivalent to a personal pronoun, without any indirectness. 1PL *on* is used in this manner for *we*. Impersonal *on* will also turn out to be usable for *we*, and *we* alone. In current French, *on* has largely replaced the 1PL personal pronoun subject clitic *nous*.

Impersonal *on* and similar impersonals are often described in such terms as vague, indeterminate, *indéfini* 'undefined', or reduced in referentiality, in comparison to indefinites, definites, and personal pronouns (e.g. Malchukov and Ogawa 2011, Siewierska 2011 generally, and for *on* e.g. CNRTL s.v. *on*, Viollet 1988, Creissels 2008, Landragin and Tanguy 2014). We have introduced *referential deficiency* as umbrella term for the inferences and properties of form behind these descriptions. The foregoing examples give several illustrations. One is number-neutrality: in the first clause of (3), *people* would entail that several people bumped into me, *someone* would suggest that only a single culprit is relevant to the speaker, while with *on* that number is unknown or irrelevant. A second illustration is limitations on anaphoric dependencies: though one *on* can be anaphoric to another in the same way as a definite to an indefinite, it is not possible to have *on* anaphoric to an indefinite or a definite anaphoric to *on*. A third example is the indirectness of the pseudospecific (but not the specific) use. Yet *on* is not as referentially deficient as the implicit agent of the passive or merely entailed arguments. In (2), *quand je suis invité* 'when I am invited' would be an excellent start for a paraphrase in French, but the implicit agent categorically cannot antecede the anaphor *son*.

It is our chief aim to give an account of these phenomena from a single hypothesis, that *on* is an indefinite DP with a unique, poor NP. This gives it a remarkable flexibility of use, but also limits it by interaction with more contentful DPs. We begin by setting out the proposed analysis of *on* and applying it to arbitrary and generic uses. Then we turn to the chief matters of referential deficency in the rest of the work: the dependencies of *on* and its "displaced" uses, setting up subsequent chapters.

## 3.2 The DP *on*

We begin by analysing impersonal *on* as the indefinite DP in (5):

(5)     *impersonal on*: [$_{DP}$ s$_n$ [∃ [$_{NP}$ [human]]]]
         ∃ = *a*, ||s$_n$||$^{c,g}$ = g(n), ||[human]|| = λxλs . x is PERSON in s

At the DP level, impersonal *on* is an indefinite, as set out in chapter 2.4. Its distinctiveness lies in poverty of NP content within the framework of chapter 2.5. Each aspect of this content is studied in chapter 4. The chief element is the phi-feature [human]. Here we give it a meaning similar to that of *person*, which is close enough for the purposes of this chapter. However, it will prove rather to be a context-sensitive person feature like [1$^{st}$], [2$^{nd}$] of 1$^{st}$/2$^{nd}$ person pronouns. As in their case, the feature serves as the lexical root of the NP, with no further lexical N. The NP and D are colexicalised, as in pronominal indefinites like *someone*, and cannot be enriched by other content like a

lexical N or [plural]. Along with other pronominal indefinites in French, impersonal *on* can control masculine or feminine concord by an optional [feminine] gender feature, but in this chapter we set aside its relationship to the structure in (5). The whole DP is immune to Condition C.[68]

On this analysis, impersonal *on* is a DP. DPs are one of two well-understood UG ways of saturating the individual argument of predicates. The other is "closure". It is the classical analysis of the implicit agent of the passive, implemented in the lexicon (Chierchia 2004) or in syntax (Bruening 2013). We adapt the proposal of Bruening (2013) in (8). The agentive *v* maps the VP to a property that needs an individual argument as agent. It can be satisfied by a DP, or existentially closed by the verbal head Voice$_{pass}$.

(8)     $\|[_{vP} \, v \, [\sqrt{see} \; Gwen]]\| = \lambda x.\lambda s \, . \, x \; sees \; Gwen \; in \; s$
        $\|Voice_{pass}\|^{c,g} = \lambda p_{est}.\lambda s \, . \, \exists x.p(x)(s)$
        $\|[_{VoiceP} \, Voice_{pass} \, [_{vP} \, v \, [\sqrt{see} \; Gwen]]]\| = \lambda s \, . \, \exists x[x \; sees \; Gwen \; in \; s]$

The two ways of saturating arguments, by DPs or by closure, have very different behavior for phenomena like agreement and anaphora, and impersonal *on* systematically goes against the implicit agent but with DPs. We are thus led to a DP analysis of *on*. Moreover, our aim is reductionist: impersonal *on* has only content found in other DPs. Its referential deficiency comes from uniquely poverty of content among the DPs of French. An example is lack of number: on the interpretive side, it gives *on* number-neutrality in (3) above, absent in its DP pharaphrases, while on the syntactic side it bars number concord even when *on* combines with a VP that can only be satisfied by pluralities in (6).

(6)     Aux réunions du parti, devant moi, on était amical/??amicaux les uns avec les autres.
        At the meetings of the Party, in front of me, ON$_{\approx people}$ was friendly.SG/??PL with each other.

The rest of this chapter begins by applying the analysis in (5) to the arbitrary and generic uses of *on* in section 3 and 4 while bringing out the consequences of poor content, and then it introduces anaphoric dependencies and displaced uses in sections 5 and 6.

### 3.3  Arbitrary *on*

Arbitrary *on* is the term used for impersonal *on* outside the scope of a quantifier without the indirectness of pseudospecific *on*. It works like indefinites such as *a person*, save that its NP content is uniquely poor and as consequence it is not subject to the novelty condition. This analysis has been set out in chapter 2.4. Here it is briefly resumed, and then we turn to the consequences of poor NP content.

In (9) is an ordinary, out-of-the-blue novel *on* and a second *on* that may either be anaphoric to it or also novel.

(9)     On$_i$ m'a viré ce matin. On$_{i/k}$ a été poli avec moi.

---

[68] As with *someone*, the resource situation index and any contextual restrictions are free; so is the individual index if it rather than the resource situation is the means of bound variable pronouns (chapter 2.3).

ON$_{\approx1+\text{ persons}}$ fired me this morning. ON$_{\approx\text{they}}$ / ON$_{\approx1+\text{ persons}}$ was polite to me.

The first sentence of (9) under the LF in (9a) expresses almost the same proposition as *A person fired me this morning*. The most important difference in this example is that *on* is number-neutral: (9a) is satisfied if *x* is a plurality just as well as if it is an atom, whereas *a person* needs *x* to be an atom, and *(some) people* needs it to be a plurality.

(9a)    [$_{\varsigma 3}$ [$_{DP}$ s$_3$ ∃ [$_{NP}$ [human]]] [Q$^D$ [$_{VP}$ fired me this morning]]]

   ≈   λs . there is an *x* and a minimal situation $s'_{\leq s}$ where *x* is PERSON, such that *s'* has an extension $s''_{\leq s}$ where *x* fired me this morning.[69]

As with an ordinary indefinite, the assertion of proposition (9a) about a topic situation *s\** does two things. One, it narrows down the context set by throwing out all worlds where the counterpart of *s\** does not satisfy the proposition. Two, it makes salient a situation *s\*\** such that the counterpart of *s\*\** in every world of the updated context set has exactly one ⌜PERSON⌝ individual of whom (9a) is true. Being a salient stuation, *s\*\** is the value of an index of the assignment function in the updated context, say *g(1)*.

Thanks to this salient situation, the second sentence may have the LF in (9b).

(9b)    [[$_{DP}$ s$_1$ ∃ [$_{NP}$ [human]]] [Q$^D$ [$_{VP}$ was polite to me]]]        (*with on$_i$*)

   ≈   λs . there is an *x* and a minimal situation $s'_{\leq g(1),s}$ where *x* is PERSON, such that *s'* has an extension $s''_{\leq s}$ where *x* was polite to me.

The assertion of (9b) is again applied to the topic situation *s\** and *x* must be the PERSON individual in *s\*\**. Thus *on* is anaphoric. The contribution of (9b) is close to that of *The person was polite to me* after *A person fired me this morning*.

The LF in (9c) is also available for the second sentence. Here the resource situation of *on* is bound to the propositional situation, the topic situation (as in (a)). This gives the novel use of *on*. It works like *A person was polite to me* after *A person fired me*.

(9c)    [$_{\varsigma 1}$ [$_{DP}$ s$_1$ ∃ [$_{NP}$ [human]]] [Q$^D$ [$_{VP}$ was polite to me]]]        (*with on$_k$*)

   ≈   λs . there is an *x* and a minimal situation $s'_{\leq s}$ where *x* is PERSON, such that *s'* has an extension $s''_{\leq s}$ where *x* was polite to me.

With this background, let us turn to the characteristic referential defiency of impersonal *on* through the examples in (10):[70]

(10a)    Après la présentation **on** m'a applaudi, **on** m'a critiqué devant tout le monde, **on** m'a arrêté pour atteinte à la dignité nationale, et **on** m'a viré.

---

[69] We use this phrasing for what in chapter 2 was more fully:

(i)   λs . there is an *x* and a minimal situation *s'* such that [*s'* ≤ *s* and *x* is PERSON in *s'*], such that there is *s''* such that [*s'* ≤ *s''* ≤ *s* and *x* fired me this morning in *s''*].

[70] We use our own examples in order to control for 1PL *on*, but many are modelled on the literature; beside reference works like Grevisse (2008), helpful in understanding the range of *on* are Oukada (1982), Boutet (1986, 1988), Viollet (1988), Le Bel (1991), Livia (2001), Creissels (2008), Landragin and Tanguy (2014).

After the presentation ON applauded me, ON criticised me in front of everyone, ON arrested me for attack on national dignity, and ON fired me.

≈ After the presentation, I was applauded, I was criticised, I was arrested for attacking on national dignity, and I was fired.

(10b) Comme je regardais les produits, **on** m'a mis une/la main sur l'épaule.

*la* As I was looked at the wares, ON$_{≈someone}$ put the$_{≈their}$ hand on my shoulder.

*une* As I was looking at the wares, ON$_{≈someone}$ put a hand on my shoulder ≈ a hand was put on my shoulder.

(10c) Dans le jeu hier **on**$_i$ était quatre à me suivre {et **on**$_{i/k}$ m'a marqué, mais **on**$_{i/k}$ ne m'a pas marqué}.

In the game yesterday ON was four to follow me [≈ there were four who followed me] {and ON$_{≈they/≈people}$ tagged me, but ON$_{≈they/≈people}$ did not tag me}.

(10d) Sur cette planète **on** a évolué d'un façon différente de nous.

On this planet ON$_{≈they}$ evolved in a manner different from us.

(10e) Quand j'ai parlé dans le séminaire, **on** m'a fait un bon accueil.

When I spoke in the seminar, ON$_{≈people/they}$ gave me a good welcome ≈ I was given a good welcome. [No accommodation perceived for ON$_{≈they}$.]

(10h) [Context: I am grateful for your remarks on my book. …]

Bien sûr, **on**$_{*i/\#k}$ a écrit le livre pour me plaire à moi$_i$.

Of course, ON wrote the book to please myself.

*vs.* Of course, the book was written$_{Ag=i}$ to please myself$_i$. (Tolkien, *Letters* #328)

(10i) On$_i$ a voulu me consoler parce qu'on$_k$ venait de refuser mon article, mais on$_i$ n'aurait pas dû commencer en expliquant qu'on$_k$ ne pouvait pas accepter n'importe quoi.

ON$_{≈someone}$ wanted to console me because ON$_{≈people}$ had just refused my article, but ON$_{≈he}$ should not have started by explaining that ON$_{≈they}$ cannot accept just anything.[71]

The characteristics that interest us can be described under the following rubrics:

*Number, person, and lexical N*: Impersonal *on* lacks person, number, and a lexical N. This gives it a remarkable flexibility of meaning, comparable to the implicit agent of the passive, though with a restriction to humans. To take number as an example, (10b) most plausibly describes a situation where *on* is satisfied by an atom, while in (10c) *on* can only be satisfied by plurality because of the cardinality predicate in the VP. In contrast, an indefinite like *a person* or *(some) people* commits to one or the other. The syntactic and semantic content of *on* is the subject of chapter 4.

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[71] In this example we differentiate multiple *on*'s arbitrarily by different glosses, but all are number neutral.

*Anaphoric dependencies:* Each of the *on*'s in (10) may be novel or familiar. (10a) may describe a situation where every participant at my talk applauded, some of them criticised me, the police arrested me, and my employer fired me. In (10c), the second *on* is naturally anaphoric to the first, but need not be. In (10e), *on* can be everyone in the seminar, or only some participants, or a novel individual like the organiser's family. The more complex example (10i) has interlocking anaphoric chains. In anaphoricity, impersonal *on* differs systematically from the implicit agent; for example, in (10h) *on* must not be used for the speaker because it is blocked by *je* 'I', but the implicit agent is unaffected because it is not a DP that can be blocked. Anaphoricity is introduced more fully in section 5, and chapter 5 derives the anaphoric possibilities and limits of impersonal *on* from its unique content and principles independent of *on*.

*Maximality*: Indefinites like *(some) people* have a nonmaximality implicature by competition from universals like *all people*. Impersonal *on* does not. In (10e), *on* is neutral about whether everyone congratulated me or only some people did; (10a) may report that everyone applauded and some criticised or inversely. This freedom is derived in chapter 5 in a manner similar to anaphoricity.

*Salience*: Impersonal *on* is perceived as backgrounded in comparison to an indefinite. To take the last clause of (10a), *on* puts all the salience on the VP of me being fired, and the identity and properties of the agent are irrelevant. In the place of *on*, *des gens* 'people' would entail that several people fired me collectively or distributively, and *quelqu'un* 'someone' would entail that a single person took the decision and suggest that only that person is relevant to the assertion. In chapter 5, we look at these effects as pragmatic interaction between the poor content of *on* and the richer one of indefinites.

We end our tour of arbitrary *on* on two constraints that have been posited for the arbitrary use alone and not for the generic and pseudospecific uses. One is a ban against being a derived subjects, and it has been advanced for both *on* and similar impersonals (Cinque 1988, Koenig 1999, Egerland 2003b). The other is a ban on anteceding *s*-pronouns, proposed for *on* alone (Koenig and Mauner 2000, Creissels 2008; cf. already Kayne 1975: 196n154). In both cases, we find in chapter 5 that arbitrary *on* does resist these environments, but that this resistance is modulable by information structure, anaphoricity, and maximality, as in (13). The conclusion we draw is that the constraints do not indicate categorial limits on *on*'s syntax and semantics, for instance the failure to introduce a discourse referent (Koenig and Mauner 2000). Rather, we suggest they arise from interaction between impersonal *on* and indefinites.

(13a)    Les auditions réalisées par la « commission d'enquête sur les évènements du 16 septembre 2016 » permettent d'affirmer qu'au plus haut niveau de l'armée, **on a** donné **son** aval.
   The hearings conducted by the "commision of inquiry into the events of September 16 2016" allow asserting that at the highest level of the army, ON gave SON approval [≈ approval was given at the highest level of the army]. (G/J)

(13b)  Nous avons vu que, même si la ville a survécu sept ou huit siècles, la vie a brusquement été interrompue par un tremblement de terre. […] **On** est mort sous les décombres, ou **on** a fui sans retour...

We have seen that, even if the city survived seven or eight centuries, life was suddenly interrupted by an earthquake. […] ON$_{\approx people}$ died under the rubble, or ON$_{\approx people}$ fled without returning… (G/L)

## 3.4  Generic *on*

### 3.4.1  *A-quantification*

The term *generic* (use of) *on* is established for *on* that covaries with a clausal A-quantifier; we extend it to *on* covarying with VP A-quantifiers and to D-quantifiers, as it works the same way.[72] Here we first go through an example with a clausal A-quantifier in the background chapter 2 to see how *on* covaries and is anaphoric. Then we introduce a wider range of examples, including ones where *on* is invariant by dint of anaphoricity or relativisation to a salient situation. Next we turn to VP A-quantifiers, where covariation is optional for reasons of scope, and clarify the interaction between subject positions and A-quantifier scope. Finally, we consider negation and D-quantifiers.

   (20, 22) illustrates the basic mechanics of impersonal *on* under quantifiers. There are two prominent readings, one where the nucleus *on* is anaphoric to the restrictor *on*, and one where it is novel.

(20)  D'habitude, quand on$_i$ m'invite, on$_{i/k}$ m'héberge.
a  *on$_k$*: Usually, when ON$_{\approx people}$ invites me, ON$_{\approx people}$ lodges me.
 $\approx_{QV}$  <u>For most persons who invite me, there is one more more people who lodge me</u>.
b  *on$_i$*: Usually, when ON$_{\approx people}$ invites me, ON$_{\approx they}$ lodges me.
 $\approx_{QV}$  <u>Most persons who invite me</u> lodge me.

(22)  D'habitude, quand on$_i$ m'emprunte mon vélo, on$_{i/k}$ le casse.
a  *on$_k$*: Usually, when ON$_{\approx people}$ borrows my bike from me, ON$_{\approx people}$ breaks it.
 $\approx_{QV}$  For most people who borrow my bike from me, <u>there are people who break it</u>.
b  *on$_i$*: Usually, when ON$_{\approx people}$ borrows my bike from me, ON$_{\approx they}$ breaks it.
 $\approx_{QV}$  Most people who borrow my bike from me break it.

   Let us look at (20) in detail. (21a) gives the LF for novel nucleus *on* (20a) and the proposition expressed.

(21a)  [usually [$_{CP}$ ~~when~~ ς$_7$ [$_{DP}$ s$_7$ ∃ [$_{NP}$ [human]]] [Q$^D$ [$_{VP}$ invites me]]]] [$_{CP}$ Q$^A$ ς$_3$ [$_{DP}$ s$_3$ ∃ [$_{NP}$ [human]]] [Q$^D$ [$_{VP}$ lodges me]]]

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[72] The term generic is established but fits ill. For impersonals like *on*, it has its origin in generalisations made with the silent modal A-quantifier GEN and adverbs like *always* (cf. Egerland 2003b). However, *on* like indefinites turns out to have the same behavior under all sentential A- and under all D-quantifiers, regardless of whether or not they license generic impersonals like *one*, discussed in chapter 8. (For generic phenomena, see Krifka et al. 1995, Carlson 2011, Mari, Beyssade and del Prete 2013).

λs . for most minimal situations $s'_{\leq s}$ such that there is a PERSON individual in $s'$ who invites me in $s'$, $s'$ has an extension $s''_{\leq s}$ such that there is a PERSON individual in $s''$ who lodges me in $s''$.

The mechanics are analogous to *When a person invites me, a person lodges me*. In each restrictor situation, there is by minimality exactly one individual that is PERSON and invites me.[73] Quantification over such situations gives *strong quantificational variability* QV for restrictor *on* (singly-underlined in (20a)): something made true by most situations with one inviter is made true by most inviters. The restrictor situations are extended by the nucleus operator $Q^A$. This gives *weak quantificational variability* of the nucleus *on* (doubly underlined in (20a)): each restrictor situation is part of a nucleus situation where some PERSON lodges me.

Anaphoric nucleus *on* (20b) differs only slightly, by using the binder $\varsigma^A$ instead of $\varsigma$ for the resource situation of *on* in (21b).

(20b)   [usually [$_{CP}$ ~~when~~ $\varsigma_7$ [$_{DP}$ s$_7$ ∃ [$_{NP}$ [human]]] [Q$^D$ [$_{VP}$ invites me]]]] [$_{CP}$ $\varsigma^A_3$ Q$^A$ [$_{DP}$ s$_7$ ∃ [$_{NP}$ [human]]] [Q$^D$ [$_{VP}$ lodges me]]]
λs . for most minimal situations $s'_{\leq s}$ such that there is a PERSON individual in $s'$ who invites me in $s'$, $s'$ has an extension $s''_{\leq s}$ such that there is a PERSON individual in $s'$ who lodges me in $s''$.

The binder $\varsigma^A$ makes sure that the resource situation of the nucleus *on* in (21b) is the restrictor situation, so the inviter is the lodger. The result is strong quantificational variability for nucleus as well as restrictor *on* (20a). The working is close to that of *When a person invites me, the person lodges me*.

Of course, *on* may occur in the restrictor or the nucleus alone. For instance, in (22) the restrictor could be replaced by *quand je visite l'université* 'When I visit the university', or the nucleus by *l'université me herberge* 'the university lodges me'.

The elements of referential deficiency discussed for arbitrary *on* carry over to generic *on*, like number neutrality. In (20), *on* is compatible with one or more people inviting me, because each minimal situation can contain one inviter atom or one inviter plurality. In (23) the VP of the restrictor cannot be satisfied by an atom, so *on* covaries over family members who meet on a given occasion, like *people* in the place of *on*.

(23)   Dans cette famille, quand on$_i$ se réunit, on$_{i/k}$ m'invite.
In this family, when ON$_{\approx people}$ meets, ON$_{\approx they}$ / ON$_{\approx 1+\,persons}$ invites me.

(23) also introduces a new reading, where *on* under a quantifier does not covary but is fixed to a salient individual. On this *invariant* reading, (23) is true if I am invited whenever all the family members meet, while on the *covariant* reading, I am invited whenever any family members meet. Further examples are (24, 25). In (24) with restrictor *on*, the covariant reading corresponds to *anyone*, while the invariant reading

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[73] For simplicity, we assume that *me* contributes only an individual (the speaker of the context), though both *on* and *me* are [human] and so both should be ⌜PERSON⌝ in the restrictor situation. These are then distinguished in in the manner discussed for "indistinguishable participants" in chapter 2.3, as in *When a person invites people, he should lodge them*. Likewise on the view of [human] developed in chapter 4.

may be paraphrased by *everyone*, *the family members*, *they*. In (25) with nucleus *on*, the covariant reading is the only one available without *dans ce village* 'in this village', while the invariant one is prefered with *dans ce village*.

(24)    Selon l'accord familial, si on meurt, j'hérite {d'une maison, du manoir}.
        According to the family agreement, if ON$_{\approx anyone}$ / ON$_{\approx everyone}$ dies, I inherit {a house, the mansion}.
        [The invariant reading is the most plausible one with 'mansion', but both are available with either nucleus.]

(25)    (Dans ce village,) quand il neige, on a rarement de l'électricité.
        (In this village,) when it snows,  ON$_{\approx people}$ rarely have electricity.
a    ≈    …when it snows, people/anyone rarely have/has electricity [because few can afford it].
      ≈$_{QV}$ …when it snows, few people have electricity.
b    ≈    …when it snows, the people / they rarely have electricity [because outages are common].
b'    [rarely [when it snows]] [$_{CP}$ Q$^A$ [$_{DP}$ s$_3$ ∃ [$_{NP}$ [human]]] [Q$^D$ [$_{VP}$ lodges me]]]

Invariant *on* is helped by material that supplies a salient situation with the relevant individual, like *dans ce village* 'in this village' with its villagers in (25). It works similarly to definites like *the family members* or *the people/villagers* in these examples. The definites need for it to be common ground of their resource situation that it has a maximal plurality of family members or people/villagers. This is the salient-situation reading (Schwarz 2009: chapter 4). Invariant *on* in (25b) can likewise reflect the LF (25b'), where the resource situation of *on* is not bound by the binder ç but valued to a salient situation. The salient situation used by invariant *on* and definites is not quite the same, since *on* does not presuppose anything about it. This leads to similar but different readings discussed in chapter 5.[74]

The salient-situation reading is one way in which impersonal *on* under a quantifier escapes covariation. The other is when anaphoric to another *on*, as in (26).

(26a)    Quand je suis arrivée ici, on$_i$ m'a prévenue de la dureté de la vie. Je ne me rappelle plus qui c'était, mais on$_i$ a été très convaincant. Quand on$_i$ me parlait, on$_i$ avait toujours une mauvaise toux qui venait des années dans la mine.
        When I came here, ON$_{\approx 1+ \text{ persons}}$ warned me about the harshness of life. I can't remember who it was, but ON$_{\approx they}$ were very convincing. When ON$_{\approx they}$ talked to me, ON$_{\approx they}$ always had a bad cough that came from years in the mine.
(26b)    Quand je suis arrivée ici, on$_i$ m'a dit que quand on$_{i/j}$ travaillait à la carrière, on$_{i/j/k}$ tombait souvent malade, mais je ne me rappelle plus qui c'était.
        When I came here, ON$_{\approx 1+ \text{ persons}}$ told me that when ON$_{\approx they/\approx people}$ worked at the quarry, ON$_{\approx they/\approx people}$ often fell ill, but I don't remember anymore who it was.

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[74] The term "salient situation reading" is convenient but not general enough, as discussed in chapter 2.3:. the situation may be supplied not only pragmatically but also semantically.

The mechanics of anaphoricity for impersonal *on* have been set out in chapter 2.4. In (26a), anaphoricity works as for arbitrary *on* in (9b): the antecedent *on* (underlined) makes salient a situation with exactly one PERSON, and this situation is the value of the resource situation of the anaphoric *on* (doubly underlined). In (26b), the antecedent *on* λ-binds an individual index available in every NP, including that of *on*. These mechanisms are the same as those that give anaphoricity between indefinites and definites.

As discussed in chapter 2.3, in all types of anaphoricity there can be multiple indefinites with the same NP and each antecede its own anaphor, giving rise to the issue of "indistinguishable participants". Impersonal *on* also supports this phenomenon, (27).

(27)    D'habitude, si on$_i$ veut me consoler parce qu'on$_k$ vient de refuser mon article, on$_i$ ne commence pas en m'expliquant qu'on$_k$ ne peut pas accepter n'importe quoi.
Usually, if ON$_{\approx 1+ \text{persons}(i)}$ wants to comfort me because ON$_{\approx 1+ \text{persons}(k)}$ person has refused my article, ON$_{\approx \text{they}(i)}$ does not start by explaining to me that ON$_{\approx \text{they}(k)}$ cannot accept just anything.

### 3.4.2 Syntax-semantics mapping in A-quantification and scope

Clausal A-quantifiers so far have mostly been clause initial and followed by an *if/when*-clause restrictor. Other options are in (30): no overt restrictor, and initial or medial A-quantifier.

(30)    (Souvent) on me salue (souvent) dans ce café.
(Usually) ON$_{\approx \text{people}}$ greet me (usually) in this café.

a    (Usually) when people see me in this café, they (usually) greet me.
b    (Usually) when I come to this café, people (usually) greet me.

The basic analysis of such examples has been introduced in chapter 2.3. We assume that the restrictor of an A-quantifier is supplied by a silent propositional variable, which intersects with an overt *if/when*-clause when one is present. (30) is naturally read with restrictors with meanings similar to (30a) or (30b), just like the English translation of (30) with *people*. (30a) and (30b) differ in whether *on/people* maps into the restrictor, giving strong quantificational variability, or not, giving weak quantificational variability.[75]

Our concern in the rest of this subsection is the interaction of the subject with the two different positions of clausal A-quantifiers like *usually* and with VP A-quantifiers like

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[75] A concern of the literature with sentences like (30) has been *fireman* restrictions on bare nouns and indefinites (Diesing 1992ab) and impersonals (Mendikoetxea 2008). As originally formulated, individual-level *A fireman is intelligent* must map the indefinite into the restrictor to give strong quantificational variability (also called the "generic-universal" reading), stage-level *A fireman man is available* can also map it into the nucleus to give weak quantificational variability (the "generic-existential" reading), and an episodic environment bars the individual-level predicate, *A fireman was available/#intelligent*. Current developments include Cohen and Erteschik-Shir (2002), Hinterwimmer (2008), Magri (2009), Mari, Beyssade and del Prete (2013), Dobrovie-Sorin and Beyssade (2012). Impersonal *on* behaves like indefinites and bare plurals, and it seems plausible that nothing specific to *on* needs saying on current approaches, e.g. Cohen and Erteschik-Shir (2002) where topics must map into the restrictor of A-quantifiers and certain VPs need the subject to be a topic.

*repeatedly*. We will first set out the consensus for indefinites and bare nouns, and then add *on*. The result is that *on* is not scopally inert by being fixed to lowest scope, as bare plurals are traditionally thought to be, though even these no longer seem to be so.

For initial clausal A-quantifiers, it is usually assumed that any lower subject scopes below them, and any apparent wide scope is obtained by a nonscopal mechanism of "specific" indefinites (Reinhart 1997; see Endriss 2009: 4.7, Schwarz 2011, Heusinger 2011 for overviews). For other configurations, the generalisations are as follows:

*Indefinites*: English *a*-indefinites and French *un* indefinites may but need not covary with a medial clausal A-quantifier, but cannot covary with a VP A-quantifier.[76]

(30a)   In the battle, a soldier rarely killed himself.
        [invariant ≈ a certain soldier (zombie scenario), or covariant, ≈ few soldiers]
(30b)   In the battle, a soldier repeatedly killed himself.
        In the battle, a soldier killed himself several/fewer than five times.
        [only invariant: ≈ a certain soldier (zombie scenario)]

*Bare nouns*: English bare plurals usually must covary with both a medial clausal A-quantifier and with a VP A-quantifier.

(30c)   In the battle, soldiers rarely killed themselves.
        [only covariant, ≈ few soldiers, not invariant, *≈ some/certain (zombie) soldiers]
(30d)   In the battle, soldiers repeatedly killed themselves.
        In the battle, soldiers killed themselves several/fewer than five times.
        [only covariant, not invariant *≈some/certain (zombie) soldiers]

The invariance of *a*-indefinites with medial clausal A-quantifiers might reflect wide scope (Hinterwimmer 2008), but it might also reflect specific indefinites (see above). The difference between *a*-indefinites and bare plurals with respect to VP A-quantifiers is part of the phenomenon known as "differentiated scope" (Carlson 1980: 2.2.4, Krifka et al. 1995, Carlson 1999, Dayal 2011, 2012). We assume that VP A-quantifiers are scope-bounded at the VP, indicating that *a*-indefinites must scope above this point but bare plurals must scope below it (Chierchia 1998b).

Impersonal *on* covaries with A-quantifiers unless there is a salient situation, and examples so far have included both initial and medial A-quantifiers. In this, it is like bare plurals. However, with VP A-quantifiers, it allows both covariation, like bare plurals, and noncovariation, unlike them. (31) emphasises covariation. Very clearly, *on* can covary with VP A-quantifiers like bare plurals: these are the nonzombie scenarios. At the same time, the zombie scenarios seem available, where *on* does not covary, and yet is not simply fixed to the salient plurality of everyone in the intervention.

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[76] Resistance to covariation with a VP A-quantifier is less clear for expletive associates:

(i)   {#Un cerf a été tué, ?il a été tué un cerf} trois fois dans la chasse
      {#A deer has been killed, there has been a deer killed} three time during the hunt.

(31)   Durant toute l'intervention, on s'est suicidé à plusieurs reprises / moins de cinq
       fois.
       During all the intervention, ON$_{≈people}$ killed themselves several times / less than
       five times.

       *à plusieurs reprises*: Several times, one or more people killed themselves
       (nonzombie scenario), or one or more people killed themselves several time in a
       (zombie scenario; entails the nonzombie scenario).
       *mois de cinq fois*: Fewer than five times, one or more people killed themselves
       (nonzombie scenario), or one or more people killed themselves fewer than five
       times in (zombie scenario; does not entail the nonzombie scenario).
       *Both adverbs*: Everyone killed themselves several / fewer than five times (zombie
       scenario).

   (32) shows that *on* can fail to covary with a VP A-quantifier without being fixed to a
salient individual and plurality. It is possible to fix *on* so to all the players in the game,
and that gives Scenario 1. It is also possible for *on* to covary with the VP A-quantifier,
and that gives Scenario 2. However, in Scenario 3, *on* is like arbitrary *on*, translatable by
"someone" or "some people", and fails to covary. If the VP A-quantifier is replaced by a
clausal A-quantifier, *... on m'a rarement attrapé* '… ON rarely caught me', both the fixed
Scenario 1 and the covariant Scenario 2 remain, but Scenario 3 disappears.

(32)   Dans le jeux hier, on m'a attrapé moins de cinq fois.
       In the game yesterday, ON has caught me fewer than five times.

       Scenario 1: Each player caught me fewer than five times [abetted by adding the
       floating quantifier *chacun* 'each' between *m'a* and *attrapé*].
       Scenario 2: I was caught fewer than five times during the entire game, possibly by
       different players.
       Scenario 3: Some player or players caught me fewer than five times, though
       others might have caught me more frequently.

   Putting this behavior in terms of scope, it seems that *on* can scope both above and
below a VP A-quantifier, unlike bare plurals that scope below one, though like bare
plurals *on* only scopes under a clausal A-quantifier.[77]
   In general, the behavior of *on* is that expected for an existential quantifier, if no other
conditions are imposed. Let us suppose that a VP A-quantifier like *repeatedly* occurs in
structures like (32): it is VP-peripheral, its restrictor is given by the propositional variable
$R_4$, and it takes the VP as nucleus.

(32a)  [$_{CP}$  [$_{TP}$ __            [$_{VP'}$ [*repeatedly* R$_4$] [$ς^A_3$ Q$^A$ [$_{DP}$ s$_3$ ∃ NP] VP] $_{VP'}$] $_{TP}$] $_{CP}$]

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[77] The literature, see Malamud (2012a) with references, claims that *on*-like impersonals must covary with,
i.e. scope under, VP A-quantifiers like *twice*, but these cannot logically make the point; for that we need a
downward-entailing VP A-quantifier like *fewer than five times* (Reinhart 1997). It might be that *a*-
indefinites are more strict about failing to covary with *several times, repeatedly* than with *fewer than five
times*, so we use both. A look at D-quantifiers below comes to the same conclusion.

(32b)   $[_{CP}\ \varsigma_3\ [_{TP}\ [_{DP}\ s_3\ \exists\ NP]\ [_{VP'}\ [repeatedly\ R_4]\ [\varsigma^A_3\ Q^A\ [_{VP}\ t\ \dots\ \quad _{VP}]]\ _{VP'}]\ _{TP}]\ _{CP}]$

One way of combining *repeatedly* with an indefinite is when the indefinite is interpreted outside the VP and only its trace remains in the VP, (32a). The indefinite then fails to covary with *repeatedly*, giving Scenario 3 in (31). Another is to reconstruct the indefinite into the VP, (32b). It then covaries with *repeatedly*, giving Scenario 2 in (31). In either case, the resource situation of the indefinite may be left unbound rather than bound by $\varsigma_3/\varsigma^A_3$ as in (32). It is then valued to a salient situation with just one individual like the plurality of players in (31), giving the invariant Scenario 1.

There are several explanations available for any differences between *on* and *a*-indefinites on the one hand and bare plurals on the other. If *on* is an DP, its scopal possibilities should be the same as those of an *a*-indefinite, yet *a*-indefinites can fails to covary with clause-medial A-quantifiers. One analytical option is that such invariant *a*-indefinites reflect QR, and the poor content of *on* disfavours QR (cf. Reinhart 2005 on the markedness of QR). Another option is that invariant *a*-indefinites rely on the specific indefinite mechanism, and the poor content of *on* resists it (for instance, if the mechanism is a restrictor fixed to an individual, Schwarzschild 2002). In either case, invariant *on* as in (25) might be *on* that behaves like an *a*-indefinite, with the preceding material helping either QR or the specificity mechanism. The contrast between *a*-indefinites and *on* needs a better examination in light of these options: it is not in fact very easy to get *a*-indefinites to remain invariant with a clause-medial A-quantifier. With bare plurals, the empirical situation is likewise unclear. Traditionally, bare plurals are supposed to take lowest scope with all A-quantifiers save if they have an "indexical" restrictor like *parts of this machine*, but recent work suggests that even ordinary bare plurals can outscope clausal A-quantifiers (Le Bruyn, Min Que and de Swart 2013; cf. Krifka 2003, Carlson 1999, Dayal 2011, 2012).[78]

### 3.4.3 Negation

Clausal negation may be analysed as an A-quantifier, roughly *never* (chapter 2.3):

(35a)   Dans le jeu hier, on ne m'a pas marqué.
        In the game yesterday, ON$_{\approx 1+\text{ persons}}$ / ON$_{\approx \text{the players}}$ did not tag me.
   cf.  In the game yesterday, people never tagged me.
        (both entail: In the game yesterday, no people tagged me.)

(35b)   On$_i$ a menti. Dans le jeu hier, on$_i$ ne m'a pas marqué.
        ON$_{\approx 1+\text{ persons}}$ lied. In the game yesterday, ON$_{\approx \text{they}}$ / ON$_{\approx 1+\text{ persons}}$ did not tag me.
   cf.  One or more people lied. In the game yesterday, they / people never marked me.

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[78] Chierchia's (1995b, 1998b) analyses of the Italian impersonal *si* and English bare plurals account for lowest scope behavior in two similar ways: impersonals are VP-level unrestricted existentials closing the highest argument, and bare plurals are NP properties closed by last-resort VP-level existential closure, while *a*-indefinites are regular existential generalised quantifiers (which for some reason must scope above negation, sec. 2.3). The cited literature poses problems, and so does the behavior of *on*. A further conundrum is *des*-indefinites in French, which have an overt determiner, lack all but the lowest-scope behavior of English bare plurals, and resist combining with negation (Dobrovie-Sorin and Beyssade 2012).

Because *on NEG VP* entails that the VP holds of no PERSON in the resource situation of *on* on either the classical or A-quantifier analysis of negation, negation is useful in studying salient-situation readings. In (36), *on* can be just the jury because a situation with just the jury is made salient by the first sentence.

(36)  Dans les soutenances de thèses, seules les questions du jury comptent. Heureusement, à la mienne, on ne m'a pas posé de questions difficiles: le public s'en est chargé!
In thesis defences only questions from juries matter. Luckily at my defence, ON$_{\approx people}$ did not ask me difficult questions: that was left for the public!
≈   … the jury did not ask me any questions (*that…* suite ok)
*or* ≈   … no one asked me any hard questions (*that…* suite #)

(38) illustrates factors that make available the contextual relativisation of *on*. (38a) is contradictory. (38b,c) avoid contradiction by using different predicates and adding a phrase indicating different parts of a situation are described. (38d) relies on asymmetry between the *on*-clauses as matrix and adjunct, in contrast to coordination. English bare plurals show similar behavior though they may differ on particular examples (cf. Cohen and Erteschik-Shir 2002, Dayal 2012).[79]

(38a)  #Après ma communication on m'a critiqué et on ne m'a pas critiqué.
After my talk ON$_{\approx people}$ criticised me and ON$_{\approx people}$ did not criticise me.

(38b)  Après ma communication, ?(il y avait de tout:) on m'a attaqué, on a pris mon parti, et on ne m'a rien dit du tout.
After my talk ?(all sort of things happened:) ON$_{\approx people}$ attacked me, ON$_{\approx people}$ took my side, and ON$_{\approx people}$ did not say anything at all.

(38c)  Après my communication, on est venu m'arrêter et on n'a pas osé empêcher ça.
After my talk, ON$_{\approx people}$ came to arrest me and ON$_{\approx people}$ did not dare prevent it.

(38d)  Après ma communication, on n'a rien dit quand on m'a attaqué.
After my talk, ON$_{\approx no\ one}$ said nothing when ON$_{\approx people}$ attacked me.

*3.4.4  D-quantification*

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[79] In chapter 2.3 we have also seen that cases like (i-a) need *no one* to be relativised to people except the artist through contextual restrictions that are not reducible to salient situations. In (i-b), *on* is likewise so relativised. It is unclear how to disentangle or unify salient situation readings and contextually restricted ones. This is all the more so as the felicity of *bishop* examples is sensitive to factors like those in (38).

(i-a)  Often an artist is diappointed when no one finds their work useful.

(i-b)  Souvent un artiste est deçu quand on ne trouve pas son travail utile.
Often an artist is diappointed when ON$_{\approx people}$ does not find his work useful.

Impersonals have been little studied with D-quantifiers. In SD, both A- and D-quantifiers quantify over situations. Accordingly, impersonal *on* should have the same possibilities of novel and anaphoric uses under D-quantifiers as under A-quantifiers. As far as we can tell, that is right. In (39), when *on* is novel it covaries with the D-quantifier, but the restrictor *on* can also be anaphoric to the nucleus *on* rather than novel.[80]

(39a)  Ce Noël, aucun cadeau qu'on$_i$ m'a offert ne correspondait à ce qu'on$_{i/k}$ m'avait laissé entendre.
This Christmas, no gift that ON$_{\approx anyone/\approx people}$ gave me matched what ON$_{\approx they}$ / ON$_{\approx anyone/\approx people}$ had made me suspect.

(39b)  Chaque poterie qu'on$_i$ m'a soumis montrait des indices qu'on$_{i/k}$ n'avait pas mangé dedans.
Every piece of pottery that ON$_{\approx anyone/\approx people}$ submitted to me me indicated that ON$_{\approx they}$ / ON$_{\approx anyone/\approx people}$ had not eaten out of it.

In (39), *on* is overtly under a D-quantifier, in its restrictor and nucleus, analogous to *on* under a clausal A-quantifier. We can also look at examples where *on* is not overtly under a D-quantifier but within the potential scope of one, analogous to *on* in the potential scope of a VP A-quantifier. Again, D- and A-quantifiers behave in the same way. In (40), *on* with a VP-internal D-quantifier has the same three readings as *on* with a VP A-quantifier in (32). They are are analysable in the same way: as in (32), *on* may be invariantly fixed to all the ushers in Scenario 1, scope under the QRed D-quantifier in Scenario 2, or scope above the D-quantifier in Scenario 3.

(40)  [Context: film festival, 7 screens, each with an usher. The collector receiving tickets from each usher states:]
Hier, on m'a ramené moins de cinq tickets!
Yesterday, ON brought me back fewer than five tickets!

Scenario 1: Yesterday, each usher brought me fewer than five tickets. [Reading abetted by adding the floating quantifier *chacun* 'each' between *m'a* and *ramené*]
Scenario 2: Yesterday, I was brought fewer than five tickets in total, possibly by different ushers.
Scenario 3: Yesterday, someone brought me fewer than five tickets, though others might have brought tickets too so that the total is greater than five. [The usher remains backgrounded, in contrast to *quelqu'un* 'someone'.]

(41) shows that that the covariation of *on* with an overtly lower quantifier needs for *on* to be in the range of QR of the quantifier, which it is in (41a) but not (41b).

(41a)  Hier on s'est suicidé dans chaque combat.

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[80] Impersonals under D-quantifiers seem to have been discussed only by Chierchia (1995b: 3.3) for Italian *si*. Chierchia proposes an asymmetry whereby only A-quantifiers allow "existential disclosure", so that restrictor *on* can be anaphoric to nucleus *on*. We are not certain how this difference translates into the examples given in Chierchia. At any rate, for *on* the possibility of anaphoricity seems general.

Yesterday ON$_{\approx someone/\approx people}$ killed themselves in each combat.
≈ In each combat one or more potentially different persons killed themselves.

(41b) Hier on s'est suicidé quand chaque combat avait été perdu.
Yesterday ON$_{\approx someone/\approx people}$ killed themselves when each combat was lost
≈ One or more persons killed themselves because all the engagements had been lost.
*≈ For every engagement, one or more persons killed themselves because that engagement had been lost.

We have gotten far from environments that gave rise to the term *generic* for generic uses of *on*: from clausal A-quantifiers including the silent generic operator, to VP A-quantifiers, to D-quantifiers. With all, impersonal *on* when novel covaries with the quantifier to give strong (in the restrictor) and weak (in the nucleus) quantificational variability, save when invariant through a salient situation, and it may throughout be anaphoric. In SD, all the quantificational environments are treated the same.

3.5 The dependencies of *on* and referential deficiency

We now have a story for how the analysis of *on* as an indefinite gives the basic behavior of impersonal *on*: existential force outside quantifiers, quantificational variability under quantifiers, invariance through salient situations, and anaphoricity to itself. In this section, we introduce the dependencies in which impersonal *on* participates.

In the study of French impersonal *on* and its kin, a central role has been played by the inability of impersonals to antecede personal pronouns (for *on*, see e.g. Morin 1978, Oukada 1982, Koenig and Mauner 2000, Prince 2006, Kayne 2010, Cabredo-Hofherr 2010). (49) is typical. In (49a), *quelqu'un* 'someone' antecedes bound and discourse anaphoric 3SG personal pronouns. In (49b), impersonal *on* cannot do so, and meanings that need a personal pronoun are ineffable. In this, *on* is like the implicit agent of the passive. In subject positions, there is an anaphor to *on* available: another *on* (49c).

(49a) A la sortie du métro, quelqu'un$_i$ m$_k$'a demandé de PRO$_k$ l'$_i$aider. Il$_i$ était perdu.
At the exit of the metro, someone asked me to help him. He was lost.

(49b) A la sortie du métro, on$_i$ m$_k$'a démandé {de l'aide, *de PRO$_k$ l'$_i$/les$_i$/… aider}. *Il$_i$ était perdu.
At the exit of the metro, ON$_{\approx 1+ persons}$ asked me {for help, *to help him/them/…}. *He was lost.
cf. At the exit of the metro, I was asked {for help, *to help him/them/…). *He was lost.

(49c) A la sortie du métro, on$_i$ m$_k$'a démandé de l'aide. On$_i$ était perdu.
At the exit of the metro, ON$_{\approx 1+ persons}$ asked me for help. ON$_{\approx they}$ was lost.

This limitation on the anaphoric relationships of *on* is a key phenomenon in referential deficiency. Explicit work on the contrast (49a-b) has differentiated *on* from DPs in anaphoric behavior. For Chierchia (1995b: 3.2), Italian *si* is an unrestricted

existential quantifier with a special index and so cannot bind a pronoun; for Koenig and Mauner (2000) arbitrary *on* and the implicit agent do not introduce discourse referents like indefinites do; and for Prince (2006) *on* is an indefinite that fails to introduce antecedents for the pragmatic mechanism of anaphora. Only dependencies analysable as a local argument-predicate relationships are expected to be available: obligatory control into complements and antecedence of coargument reflexives (Chierchia 1995b, Koenig and Mauner 2000).[81]

Our starting point is different: systematic contrasts a variety of dependencies that group impersonal *on* with DPs but against the implicit agent:

(50A) *Definite article of inalienable possession*

(a)    On$_i$ a pris ma main dans la$_i$/une main.
       ON$_{\approx someone}$ took my hand into LA$_{\approx their}$/a hand.

                                                                              (cf. 10b)

(b)    Ma main a été prise$_{Ag=i}$ dans *la$_i$/une main.
       May hand was taken into *LA/a hand.

(50B) *Phrasal reciprocals, adjunct control*

(a)    En thérapie, on$_i$ me parle de l'enfance les uns devant les autres$_i$ sans se PRO connaître.
       In therapy, ON$_{\approx people}$ speaks to me about childhood in front of each other without PRO knowing each other.

(b)    En thérapie, il m'est parlé$_{Ag=i}$ de l'enfance (*les uns devant les autres) (*sans se PRO connaître).
       In therapy, it is spoken to me about childhood (*in front of each other) (*without PRO knowing each other).

(50C) *Floating quantifiers: invariant* chacun *and plural-concording* tous

(a)    [Un croupier:] Au blackjack, une fois quand on m'a chacun déclaré son pari, on me regarde tirer les cartes comme si j'étais Dieu.
       [A croupier:] At blackjack, once ON$_{\approx the\ players}$ have each declared their bets to me, ON$_{\approx they}$ watch me turn the roulette as if I were God.
       [Context: the players covary with the game]

(b)    Au blackjack, quand le/son$_{*i/k}$ pari m'a (*chacun) été déclaré, …
       At blackjack, when the/SON$_{\approx *one's/his}$ bet has (*each) been declared$_{Ag=i}$ to me, …

(50D) *Antianaphoricity*

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[81] Thus for Chierchia (1995b), Koenig and Mauner (2000); on control see Chierchia (1990) and on reflexives Bach and Partee (1980/2004, 1984), Reinhart and Reuland (1993), Chierchia (2004). Prince (2006) emphasises that (generic) *on* antecedes local anaphora without specifying a mechanism.

**Je** vous suis reconnaisant de vos remarques sur mon livre.
I am grateful for your remarks on my books.

(a)    #Bien sûr, **on**$_{*me}$ a écrit le livre pour me plaire à moi.
       Of course, ON wrote the book

(b)    Bien sûr, le livre a été écrit$_{Ag=i}$ pour me plaire à moi.
       Of course, the book was written to please myself.

(50E)  *Gender concord*[82]

       Quand on est prête à accoucher, on nous appelle.
       When ON$_{\approx one}$ is ready.F to give birth, ON$_{\approx one}$ calls us.

These dependencies are studied in the following chapters. They are crosslinguistically properties of DP, and theories of them usually link them to various aspects DPhood. Details vary, but key elements include (with references to principal further discussion):

*Individual variable binding by DPs*: Typical of DPs and possibly restricted to them, for instance by priviledging DP movement in the introduction of individual variable binders. It has been seen in the definite article of inalienable possession; reciprocals; floating quantifiers; OC into adjuncts (see chapter 5.2).

*Movement out of DPs*: Floating quantifiers on some approaches move out of the quantificational layer of DPs (chapter 5.2).

*Competition among DPs*: Antianaphoricity is part of the novelty of indefinites. It involves definite-indefinite competition under Maximise Presupositions between sufficiently similar structures like *DP VP* (chapter 5.2).

*Phi-features on DPs/NPs*: Concord transmits phi-features from the controller, and these originate on DPs/NPs (chapter 4.5-6).[83]

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[82] Impersonal *on* cannot be contrasted with the passive as copula verbs with primary predicates do not passivise and the implicit agent of the passive does not antecede secondary predicates (Pylkkänen 2008; Safir 1987: 589 gives marginal examples like *?Whenever a patient is treated drunk, the hospital should be sued*, but we have been unable to make them good with a concording secondary predicate in French, though feminine is more ungrammatical than masculine/default).

[83] Explicit contrast of impersonals with implicit agents on anaphoric dependencies include Blevins (2003: 485, 491-4) on reflexives in Estonian and Polish impersonals, McCloskey (2007: 830) for reciprocals in Irish on such contrasts, Cabredo-Hofherr (2008: 51) for *man* and passive on *sein* binding in generic contexts, and within types of impersonals, Rivero and Sheppard (2003) and our chapter 8; for the definite article of inalienable possession, cf. Kayne (1975: 196n154 vs. 236). Invalid tests for anaphoric dependencies include possessor *each other* or exempt logophoric *oneself* Pollard and Sag 1992, Zribi-Hertz 1993, Janke and Neeleman 2012, Cinque 2006: 159, 165n42); and rationale clauses PRO that that does not need a grammatically represented controller (Fellbaum and Zribi-Hertz 1989, Lekakou 2005, Zribi-Hertz 2008, Landau 2001: 179-183, Landau 2013).

In contrast to impersonal *on*, the implicit agent has none of these DP properties. This follows under analyses of it like the one adopted in section 2, where it is the existential closure of the external argument by a nonnominal element. Only dependencies that do not rely on DPs/NPs are available to it. The best example is control into complements, (57), which relies on lexical semantics of the control verb (Chierchia 1990, Stephenson 2010, Pearson 2016; Schlenker 2003, 2004, 2011b, Anand and Nevins 2004)..

(57a)   On$_i$ a décidé [PRO$_i$ de nous libérer] [après PRO$_i$ avoir été sanctionné par l'ONU].
ON$_{\approx 1+ \text{ persons}}$ decided [PRO to free me] [after PRO having been sanctioned by the UN.]

(57b)   Il a été décidé$_{Ag=i}$ [PRO$_i$ de nous libérer] [*après PRO$_i$ avoir été sanctionné par l'ONU].
It was decided$_{Ag=i}$ [PRO$_i$ to free us] [*after PRO$_i$ having been sanctioned by the UN.]

If impersonal *on* is a DP capable of binding variables, we need a new theory of its resistance to anteceding personal pronouns in (49). In fact, impersonal *on* does not quite refuse personal pronoun anaphora: it antecedes *son* in (51, 52), in categorical contrast to the implicit agent.

(51a)   A Noël, on$_i$ offre des cadeaux à ses$_i$ / aux enfants.
At Christmas, ON$_{\approx \text{people}}$ offers gifts to SON$_{\approx \text{their}}$ / to.the children.

(51b)   A Noël, des cadeaux sont offerts$_{Ag=i}$ à ses$_{*i/k}$ / aux enfants.
At Christmas, gifts are offered to SON$_{\approx *\text{one's}/\approx \text{his}}$ / to.the children.

(52a)   En thérapie, on$_i$ me parle (des traumas) de son$_i$/ l'enfance.
In therapy, ON$_{\approx \text{people}}$ speaks to me about (traumas of) SON$_{\approx \text{their}}$ / the childhood (one after another).

(52b)   En thérapie, il m'est parlé$_{Ag=i}$ de son$_{*i/k}$/ l'enfance.
In therapy, it is spoken to me about SON$_{\approx *\text{one's}/\approx \text{his}}$ / the childhood.

Usually, *son* is the 3SG personal pronoun: in (51b, 52b), *son* can only be 'his, her, its' if there is a familiar discourse referent, and is infelicitous if there isn't one. In particular, *son* is never impersonal on its own; cases like *It's deducted from one's salary* cannot be translated in French with *son* (chapter 6.1). So when impersonal *on* antecedes *son*, it antecedes a personal pronoun rather than an impersonal, and there is a contrast with (49).

Chapters 5 and 6 address this puzzle of the anaphoric properties of impersonal *on*. In brief, the NP content of *on* does not satisfy either the presuppositions of personal anaphora as definites nor the licensing of their silent NP. In (49b) then, *on* cannot antecede *il* because no silent NP is licensed in *il*, and even when an NP is present as in *la personne* 'the person', and the presuppositions due to the lexical N and 3SG phi-features cannot be met. In this mode of explanation, we give impersonals no unique properties, but go back rather to the suggestion of Burzio (1986: 80-1n47) and Cinque (1988: 537-8)

for Italian *si* that the problem is the unique phi-content of impersonals (cf. also Kratzer 1997 on German, Albizu 1998 on Basque, and McCloskey 2007: 830 on Irish).

On this view, the 3SG personal pronoun possessor *son* should be just as impossible as anaphor to *on* as any other 3SG pronoun, and we show in chapter 6 that this is indeed so. The *son* anaphoric to *on* in (51, 52) is not a 3SG but the minimal pronoun of Kratzer (2009): DPs born with no NP content save a bindable index, and in need of phi-features supplied by a local syntactic dependency with their binder. Impersonal *on* as a DP with [human] can antecede minimal pronouns, while the implicit agent cannot. This analysis make striking and correct predictions. One is that *son* in (51, 52) is not 3SG but rather neutral about person and number, like *on*. Another is that *son* anaphoric to *on* is limited to the domain of local anaphora and so unavailable as a donkey or discourse anaphor, as in (54) (cf. Prince 2006).

(54)   Quand on$_i$ me laisse un message, …
       When ON$_{\approx 1+ \text{persons}}$ leaves me a message,

(54a)  on$_i$ me laisse automatiquement son$_i$/son$_k$ numéro sur le répondeur.
       ON$_{\approx \text{they}}$ leaves me automatically SON$_{\approx \text{their}/\approx \text{his}}$ number on the answering machine.

(54b)  son$_{*i/k}$ numéro s'affiche automatiquement sur le répondeur.
       SON$_{*\approx \text{their}/\approx \text{his}}$ number is automatically displayed on the answering machine.

Impersonal *on* then emerges as the only DP in French restricted to local anaphora thanks to its unique NP content. Through it, it is possible to study issues in the theory of minimal pronouns that cannot be examined with other DPs. We will use it to better understand their need to get phi-features from their binder.

A further consequence of the unavailability of definite anaphora to impersonal *on* is that *on* is the unique indefinite that can be anaphoric in French, to itself (chapter 2.4, 5.2). Examples are (G1a) for arbitrary *on* and (G2a) for generic *on*. They contrast *on* with the implicit agent and indicate that *on* is anaphoric by mechanisms specific to DPs, like the resource situation, rather than general mechanisms of contextual restriction (chapter 2.3).

(G1a)  Quand je suis arrivé, on$_i$ m'a promis devant tout le monde qu'on$_{i/j}$ ne m'enregistrerait pas pendant le casting, et autant que je sache {on$_{i/k}$ ne m'a pas enregistré, je n'ai pas été enregistré}.
       When I arrived, ON promised me in front of everyone that ON' would not record me during the casting, and as far as I know {ON" did not record me, I was not recorded}.

       *on$_i$...on'$_i$...on''$_i$*: …<u>someone/people</u> promised in front of everyone me <u>they</u> would not record me during the casting, and as far as I know <u>they</u> did not record me.

       *on$_i$...on'$_j$...on''$_k$*: When I arrived, <u>someone/people</u> promised in front of everyone me that <u>no one</u> would record me, and as far as I know <u>no one</u> recorded me.

*passive*: I was <u>promised</u> in front of everyone that I would not be <u>recorded</u>, and as far as I know I was not <u>recorded</u>. [= $on_i...on'_k...on''_k \neq on_i...on_i...on_i$]

(G2)  Quand $on_i$ m'invite pour parler aux enfants, {$on_{i/k}$ ne m'interrompe jamais (soi-même$_i$), je ne suis jamais interrompu$_{Ag=*i/k}$ (*soi-même$_i$)}.
When ON$_{\approx 1+ \text{ persons}}$ invites me to talk to children, {ON$_{\approx they/\approx people}$ never interrupts me (SOI$_{\approx them}$-self), I am never interrupted (*SOI-self)}.

This then is a portrait of the syntactic and semantic dependencies of impersonal *on*, the reasons they give for analysing as a DP with poor content, and a preview of their study to come in the following chapters.

## 3.6    Displaced uses: specific and pseudospecific *on*

So far we have seen *on* in its "ordinary" uses as an impersonal, arbitrary and generic. We conclude our presentation of it with pseudospecific and specific uses, and the contribution that they make to the understanding of the nature of "displaced" uses and the theory of linguistic variation.

The term *displaced* use is introduced by Zwicky (1977) for the uses of English *we* and *he* in (70), on analogy with displaced speech-acts like question for proposal in (70c).

(70a)   [nurse to patient:] Are we ready for dinner, Mr. Taber?
(70b)   [wife to husband:] Is he angry?
(70c)   Why not go out and get a beer?

(Zwicky 1977, slighty adapted)

The nature of displaced uses has been much debated, but chiefly for speech-acts. Displaced pronouns like (70a) make the conundrum clear. In morphosyntax, *we* has 1PL phi-features, and these have been given a semantics restrict *we* to denoting a speaker-inclusive plurality under usual principles of use. In (70a) this is apparently not so. Three analytical positions have been entertained. One is that there is no displacement and the semantics of 1PL does not in fact bar reference to a nonspeaker atom (cf. Rullmann 2010 on *we*). A second position views ordinary and displaced *we* as partly or wholly different in syntacticosemantic content (Zwicky 1977; cf. Collins and Postal 2010 for *we*). The third analysis posits that ordinary and displaced uses involve the same syntacticosemantic expression but different pragmatics and possibly pragmatic conventionalisation (Zwicky 1977; cf. Leech 2007 on speech-acts).

Our study support the three positions for different uses of *on*. The first position is illustrated by impersonal *on* used as 'we'. Generally, impersonal *on* generally cannot be used as a personal pronoun, along with other indefinites. This yields the antianaphoric effect in (10h). In chapter 5, we extend to *on* the proposal that such limits on indefinites reflect blocking by definites, here the subject clitic *je* 'I'.

(10h)   [Context: I am grateful for your remarks on my book. …]
Bien sûr, **on**$_{*i/\#k}$ a écrit le livre pour me plaire à moi$_i$.
Of course, ON wrote the book to please myself.
*vs*. Of course, the book was written$_{Ag=i}$ to please myself$_i$. (Tolkien, *Letters* #328)

However, current French has no 1PL subject clitic. In its absence, impersonal *on* should be usable for *we*. That is indeed so in (71). It is an apparently displaced use that is in fact expected on the independent meaning of impersonal *on*.

(71)    On n'a pas été amical avec le postier.
        ON$_{\approx people/we}$ has not been friendly.SG with the postman.

Nevertheless, this is not the whole story for *on* as 'we'. There is a distinct *on* that instantiates the second analytical position, that ordinary and displaced uses differ syntacticosemantically. This *on* is revealed by 1PL properties like concord in (72a).

(72a)   En Finistère **nous/*vous on** est **amicaux** avec **notre** postier.
        In Finisterre, WE/*YOU ON is friendly.PL with our postman
        In Finisterre, WE/*YOU are friendly with our postman.

(72b)   En Finistère **nous/*vous on** est **amicaux** avec **son** postier.
        In Finisterre, WE/*YOU ON is friendly.PL with SON postman
        In Finisterre, people like us/*you are friendly with their postman.

Kayne (2010) concludes from 1PL properties of *on* as 'we' that structures with it contain a silent 1PL personal pronoun. Our study shows that they also contain impersonal *on*. The result is a complex expression with syntax and semantics that does not reduce to either impersonal *on* or a 1PL personal pronoun, giving rise to unique dependencies like 1PL doubling and *son* anaphor in (72b). 1PL *on* is the subject of chapter 7.

The last analytical position is instantiated by pseudospecific *on* in (4), repeated here. The competition between *on* and personal pronouns seen in (10h) blocks *on* in (4) from use for the addressee Gwen as equivalent to *tu* 'you'. Pseudospecific *on* is perceived to be used for Gwen, yet not in the way of *tu*, but "indirectly".

(4)     Alors Gwen$_i$, (*toi) on$_i$ ne veut pas m'inviter à son$_i$/*ton$_i$ anniversaire, mais on$_i$ n'est pas assez courageuse pour me le dire en face?
        So Gwen, (*you) ON does not want to invite me to SON/*your birthday-party, but ON is not courageous.F enough to tell me in person?
        [Context: speaking in front of a mixed group of colleagues.]

We study pseudospecific *on* in chapter 5 and argue that it is the same expression syntacticosemantically as impersonal *on*. In order to use it for the addressee as in (4), the context of use of (4) must not be what it appears; rather, it is a context where Gwen is not the addressee. This line of thought gives an analysis of both pseudospecific *on* and the displaced use of *he* in (70b): the speaker temporarily pretends to be address someone else and this move gives rise to implicatures that constitute *on*'s "indirectness". Such pragmatic moves can be conventionalised.

These conclusions about displaced uses have consequences for the study of variation. The difference between impersonal and 1PL *on* is a paradigm case of classical generative variation through the syntactic properties of the lexicon. Variation in the uses of

impersonal *on* as a single syntactic expression cannot be modelled in this manner. However, there is great variation in the indirectness inferences that accompany the pseudospecific use according to factors like politeness conventions, and we look at it as variation in conventional implicatures and its consequences.

# 4 The content of *on*

## 4.1 Introduction

In this chapter, we study the "descriptive" or NP content of *on*: its phi-features and lexical N. The results show impersonal *on* to be uniquely poor among the DPs: *on* has no person, no number, no lexical N. Its sole NP content is [human], a person phi-feature, and optional gender in common with other indefinite pronouns in French. This poverty sets *on* apart from DPs that most closely ressemble it, including bare nouns like *people*, arbitrary 3PL, and generic *one, you*. The way content is absent in *on* contrasts with supposed lack of person and number content in other DPs within French, especially for plurals, where *on* and its crosslinguistic counterparts suggests that apparently number-neutral plurals in systems like French do have an interpreted plural feature.

All the content we are concerned with here is part of the NP in a broad sense. Part of this content is the lexical N or root: that which makes the difference between being a *cat* and being a *dog*. Lexical content is generally not visible to syntactic dependencies; there is, for instance, no subject-predicate concord that tracks the identity of the lexical N or root, as it does gender, number, and person. With Distributed Morphology, this is an architectural feature of human language: syntactic dependencies do not see lexical roots (Marantz 1997, Embick and Marantz 2008, Fox 2000).

The remaining content of concern is phi-features. They are similar to lexical content, for instance [feminine] to *female*, yet they are visible to syntactic dependencies, including concord for gender and number at which we will look more closely. There is considerable debate about the meaning of phi-features (see recently e.g. Sauerland 2003, Schlenker 2003, 2004, Heim 2008, Kratzer 2009, Sudo 2012, Harbour 2014) and a partly independent debate about the placement of phi-features in the DP (e.g. Ritter 1995, Déchaine and Wiltschko 2002, Sauerland 2003, Borer 2005, Heycock and Zamparelli 2005, Danon 2011, Merchant 2014). Our investigation is compatible with different positions, but we need to make concrete choices to frame the study.

We want a phi-feature like [feminine] to contributes to personal pronouns, definites, quantified DPs, and bare NPs, and within them, to elements where feminine marking can appear, namely nouns, modifiers and determiners. On the D-type analysis of personal pronouns as definites in chapter 2, it is natural to construe phi-features as NP-meanings, type $<est>$. This allows a uniform analysis of phi-features in both DPs and NPs, and correctly makes phi-features presuppositional in definites because the NP contributes to the uniquness presupposition (Schlenker 2004).[84] (1) illustrates candidate meanings:

(1a) $\|[\text{feminine}]\| = \lambda x.\lambda s \, . \, x$ is female in s

(1b) $\|[\text{feminine}]\| = \lambda x.\lambda s : x$ is female in s . 1

(1c) $\|[\text{feminine}]\| = \lambda p_{est}.\lambda x.\lambda s : x$ is female in s . p(x)(s) = 1

---

[84] On the non-D-type approach where pronouns are variables, phi-features need to be $<ee>$ meanings, and so with definites apply to the whole DP but with quantifiers to the trace: Heim (2008), Sauerland (2003). A possible argument for phi-features as NP meanings lies in systematic associations of lexical Ns with phi-features to the exclusion of the determiner layer, as with *scissors*, and not inversely; it is a type of contiguity argument from colexicalisation paterns (O'Grady 1998).

*where* ⌜female⌝ *is cumulative and distributive (see chapter 2)*

(1a) simply assimilates the meaning of [feminine] to that of *female*. This analysis has been given to gender (Kratzer 2009), number (Heycock and Zamparelli 2005), or to all phi-features (Schlenker 2004). However, there is reason to differentiate the contribution of [feminine] from *female* on quantified DPs, and for that (1b) or (1c) work well (Merchant 2014, Sudo and Spathas 2015). Both essentially view [feminine] as the presuppositional version of *female*. (1c) is not strictly speaking an NP meaning: it takes an NP meaning as argument and outputs another one. Such a view of phi-features derives the need for a lexical root "at the bottom" of NPs, onto which phi-features are added through, say by *n* for gender and Num for number (Ritter 1995, Heycock and Zamparelli 2005, Borer 2005, Danon 2011, Adger 2012, Merchant 2014, Harbour 2014). We often use (1b) for convenience, but (1c) is more appealing for a theory of DP structure.

For determiners, we assume that their phi-features come from syntactic concord with their NP and are not intepreted on them. This assumption is made for convenience and does not play any important role.

In the study of *on*, we have seen in chapter 3 that there is reason to separate 1PL *on* in (2a) and impersonal *on* in (2b). To go by the concord, focus doubling, and anaphora in (2), 1PL *on* has 1PL phi-features, while impersonal *on* relates only to elements that can be interpreted as phi-featurally default.

(2a)   Nous on se parle tous à nous-mêmes de nos rêves.
       WE ON SE/*me talk.3SG to us-self.PL of our dreams.
       WE all talk to OURSELVES about our dreams.

(2b)   (*Nous) on me parle (*tous) de soi/*lui/*eux/*nous-même et de ses/*nos rêves.
       (*WE) ON me talk.3SG (*all.PL) of SOI/*him/*them/*us-self of SON/*our dreams.
       One talks to me about oneself and one's dreams.

In this chapter we focus on impersonal *on*, but compare 1PL *on* at each point. To distinguish the two, we cannot rely on judgments whether a given use of *on* includes the speaker, any more than for generic *one* and *you*, or "displaced" *we* used to the addressee. There is no telling a priori which *on* is present in an example like (3). Usually we make use of Condition B to exclude the speaker. The results reached here will become clear that (3) is impersonal *on*, for 1PL *on* would require plural concord on *amical*.[85]

(3)    <u>On</u> est très <u>amical</u> <u>les uns avec les autres</u>, …
       ON$_{\approx people}$ is very friendly.SG the ones with the others … (G)
       [Context: author discussing attitudes of theologians he disapproves of]

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[85] For French clitics, Condition B is strong in overlap as well as covaluation, and even stronger if distributivity is ensured: *Est-ce que vous t'avez chacune choisie pour vous représenter?* 'Have you(PL) each chosen you(G) to represent you.PLN' (recent discussions with literature include Kayne 2005: 6.9, Schlenker 2005b, Rooryck 2006, Rezac 2011: 4.4.5).

The chapter proceeds by looking at the following aspects of *on* in order: human, gender, lexical content, person, and most extensively number.

4.2  Human

Impersonal *on* is restricted to humans, as are similar impersonals like Italian *si*, generic impersonals like *one* and generic 2nd person, and arbitrary 3PL (e.g. Egerland 2003b, Siewieska 2011, Malamud 2012a, 2013). The restriction of impersonals to humans has been analysed in different ways: as a pragmatic default (Kański 1992, Mendikoetxea 2008); as a sortal restriction on variables (Chierchia 1995b); or as a phi-feature [human] meaning *person* (Cinque 1988, Malamud 2012a). We begin by seeing why the restriction should be coded rather than pragmatic. Then we turn to its nature, proposing that [human] is an indexical unlike lexical Ns like *person*, and particularly a person feature.

The pragmatic explanation is summarised in (10).

(10)    human reference … is the result of a pragmatic convention to the effect 'that individual variables not restricted to any particular domain by a common noun denotation in NPs (either directly or by control) confine the universe of discourse to human individuals'

(Mendikoetxea 2008: 322 citing Kański 1992: 117)

The principle is meant to cover silent arguments like those of impersonals, generic object drop, and NOC PRO, illustrated in (11a). However, it does not work for other silent arguments, like the implicit agent of the passive or recipe object drop (chapter 8).

(11a)    After PRO [=#human/*food] being spoiled in the refrigerator, there is nothing even a good cook can do.

(Kawasaki 1993: 30, cited in Landau 2013: 236)

Moreover, among human-restricted arguments, there are differences that seem to reflect different content. Impersonal *on* differs from NOC PRO in (11b,c), where PRO can be nonhuman but *on* cannot. Generic *one* and *you* go with *on*.

(11b)    Quant aux fours, on s'est déjà mis d'accord: PRO être capable de s'autonettoyer et PRO avoir une minuterie programmable est important pour nous.
As for ovens, we've already agreed: PRO being able to clean itself and PRO having a programmable timer is important for us.

(11b')    #… qu'on puisse s'autonettoyer et qu'on ait un minuterie programmable …
#… that ON can clean itself, that ON have a programmable timer …

(11b")    Quant aux secrétaires, on s'est déjà mis d'accord: qu'on puisse s'auto-organiser et qu'on ait un planning rigoureux est important pour nous
As for secretaries, we've already agreed: that ON$_{\approx one}$ can self-organise and that ON$_{\approx one}$ have a rigorous scheduling is important for us.

(11c)    Dans une orbite géostationnaire, PRO percuter un autre satellite est quasiment impossible.

In a geostationary orbit, PRO colliding with another satelite is almost impossible.
[Context: collider may be an unmanned, uncontrolled satellite]

(adapting Thompson 1973: 377)

(11c')  Dans une orbite géostationnaire, qu'on percute un autre satellite est quasiment impossible.

In a geostationary orbit, that one (≈ for one to) collide with another satellite is almost impossible.

[Context: collider must be a human controller of the satellite.]

Thus we hardwire humanity in *on*'s content. Following the tradition of work on impersonals, we give *on* the phi-feature [human] (Cinque 1988, Egerland 2003b, Malamud 2012a). A first proposal is (14), parallel to [feminine] in (1b).[86]

(14)    ‖[[human]]‖ = λx.λs : x is PERSON in s . 1
        where ⌜is PERSON⌝ *is cumulative and distributive (see chapter 2)*

(14) combines three claims: presuppositionality; intensional shiftability and independence; and ⌜PERSON⌝ rather than ⌜person⌝ or ⌜human⌝. We take them up in turn.

The nontrivial content in (14) is part of the presupposition, following conclusions about phi-features generally. However, since *on* is an indefinite, this is difficult to test. The lexical N and phi-features of the restrictor of an indefinite generally do not contribute to presuppositions of the indefinite, as discussed in section 5. In (A1, A2) neither *on* nor indefinites presuppose there to be humans in the topic situation or some other salient situation. In this respect, *on* and indefinites work the same. The difference between them is greater salience to the VP with *on*; in chapter 5.3, we look at it as a pragmatic consequence of the poor content of *on*.[87]

(A1c)  Quand je suis tombé malade dans la steppe, {on ne m'a pas aidé, personne ne m'a aidé}.

When I fell ill in the steppe, {ON did not help me [≈I was not helped], no one helped me}.

(A1a)  Cette assiette s'est brisée sans que {on, quiconque, personne, une personne} ne la casse.

This dish broke without that {ON, anyone, no.one, a person} break it. [≈without ON$_{≈1+\ persons}$/anyone breaking it.]

(A2)   Au moins on ne m'embête pas.

At least ON don't bother me. = At least people don't bother me.

[Context: a lonely demiurge hesitating about the creation of humans.]

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[86] We take no stand on NOC PRO. See Landau (2013: chapter 7) on possible relationships between its typical human restriction and its typical logophoricity; examples like (11b) may suggest that the human restriction derives from logophoricity but that there exists a nonlogophoric, topic-oriented NOC PRO.

[87] At best, there is the inference that people exist in some situation or world, more in (A2) than elsewhere, likely due to the pragmatics of not using the passive.

(7) illustrates the shiftability and independence of the human restriction of *on* under intensional operators. In (7a), the restriction is not satisfied in the topic situation, since a branch is not a ⌜PERSON⌝. In (7b), it shifts and is evaluated with respect to Gwen's belief worlds, not the actual world. (7c) shows that the shift is optional.

(7a)    On m'a cassé le nez quand j'étais petite.
        ON broke my nose when I was little.
        [False in the context: I know that a falling branch broke my nose.]

(7b)    Gwen va me reconnaitre puisqu'elle croit qu'on m'a cassé le nez quand j'étais petite.
        Gwen will recognise me because she believes that ON broke my nose when I was little.
        [True in context: Gwen is examining the X-rays of my head; my nose had been broken by a falling branch but Gwen believes my sister had done it.]

(7c)    Gwen va me reconnaitre puisqu'elle sait qu'on m'a cassé le nez quand j'étais petite.
        Gwen will recognise me because she knows that ON broke my nose when I was little.
        [True in context: Gwen is examining the X-rays of my head; my nose had been broken by my sister but Gwen believes it had been broken by a falling branch.]

Thus the human restriction of *on* must be analysed as something whose evaluation can but need not be modified by intensional operators. This is clearly true of lexical N/A content in argument DPs (Schwarz 2012). As for phi-features, 1st/2nd person features cannot shift in English and French (Schlenker 2003, 2011), but number features can (Sauerland 2003), as likely can gender (recently Sudo 2012). Logophoricity or point of view holder also can shift (Bylinina, McCready and Sudo 2014). We turn to how the human restriction of *on* relates to these elements presently.

The core of the human restriction is the metalanguage predicate ⌜PERSON⌝ rather than ⌜person⌝. (A2) above introduces a difference between *on* and *people*. The translation of (A2) with *people* can be used to convey that human beings don't bother me, though gods might; *on* cannot draw this difference. This is one of a number of such contrasts between *on* and closest lexical nouns like *person, people, human*. They are illustrated in (15) for both arbitrary and generic *on*. DPs with lexical Ns like *person, people* cannot translate *on*. Generic impersonals often can. The effect of using *on* for entities like sheep, rats, diseases, is impressionistically similar treating such entities as addressees with deictic *you* in (15a): a conceptusalisation of them by the speaker as human in some way.

(15a)   [Context: watching sheep graze]
        C'est beau quand on / #une personne / #quelqu'un aime juste l'herbe fraîche.
        It's beautiful when ON$_{\approx one/you}$ / #a person / #someone just likes fresh grass.

(15a')  [Context: In the film, Shaun and company had to deal with problems like]
        Comment commander une pizza si on / #une personne est un mouton.
        How to order a pizza if ON$_{\approx one/you}$ / #a person is a sheep.

(15b)  [Context: the Pied Piper talking]
Les rats avaient envahi la ville, mais dès que j'ai sorti ma flûte, on était vingt à me suivre en se dandinant.
The rats invaded the town, but as soon as I took out my flute, ON$_{\approx they}$ was twenty to follow me while swaying to and fro.

(15c)  [Context: describing a disease or its vector like a virus]
On finit l'attaque quand on atteint le système nerveux.
ON$_{\approx?}$ finishes the attack when ON reaches the nervous system.

(15d)  [Context: talking about a DP undergoing A-movement]
Quand on / #une personne atterrit en Spec,T, on / #elle ne bouge pas plus loin.
When ON$_{\approx?one/you}$ / #a person lands in Spec,T, ON$_{\approx?one/you}$ / #she can't move further.

A similar phenomenon is found in (15x), which we must leave untranslated. The second sentence is close to *C'était alors le 17$^{ième}$ siècle* 'It was then the 17$^{th}$ century' but *on* for *ce* 'it' keeps its force of restriction to humans.

(15x)  Pour prêcher, il devait connaître le breton. On était alors au 17$^{ème}$.
To preach, he had to know Breton. ON was then in the 17th century.

It is to capture this aspect of *on* that (14) posits a metalanguage predicate ⌜PERSON⌝ as the meaning of [human]. Generic *you* and less so generic *one* goes with *on* in (15). Conversely, human indefinite pronouns like *someone, no one* go with *a person*. We thus take *someone* to have a lexicalised NP *-one* close to *person* (chapter 2.5). In (A2) *people* has optionally an even more restrictive meaning than *no person, no one* namely the (folk-)biological kind *human beings*.[88]

Intuitions about (15) suggest a different approach. What counts as [human] is sensitive to the intentions of the speaker in the same way as what counts as [2$^{nd}$] does. One cannot ordinarily use *on* for sheep any more than for a self-cleaning oven. *D'habitude, on ne donne pas du lait en hiver* 'Usually, ON does not give milk in winter' needs the same conceptualisation of sheep as direct address *Usually, you don't give milk in winter*. On this view, one possible meaning is (19°).

(19°)  $\|[\text{human}]\|^c = \lambda x.\lambda s : x$ is PERSON in c . $x \leq s$
        where ⌜PERSON⌝ *is cumulative and distributive*.

(19°) supposes that the context determines who counts as [human] ⌜PERSON of c⌝, just as it determines who counts as  [1$^{st}$] or ⌜speaker of c⌝, [2$^{nd}$] or ⌜addressee of c⌝, [author]

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[88] Malamud (2012a: 22) gives [human] in the meaning *person* to a subset of impersonals on the strength of contrasts like *If you're/*one is in the SpecIP, then you're/*one is... crashing the whole derivation*, but we have clear contrasts in the availability of *one* and *person* in (esp. 15a' adapting (G)). See Bolinger (1979) on differences between *one* and *you*.

or ⌜origo/holder/author of c⌝ (Schlenker 2003, 2004, 2011b, Anand and Nevins 2004, Kratzer 2006, Hacquard 2006) and [0th] or ⌜logophoric centre of c⌝ (Bylinina, McCready and Sudo 2014; see chapter 6). Just as one can operate in a context where where a sheep is ⌜addressee of c⌝, so also in one where it is ⌜PERSON of c⌝, yet not be ⌜person⌝ even in the context situation c. Impersonal *on* with [human] as in (19°) gets the meaning (X), which is the same meaning it would get with (14) save that ⌜PERSON$_c$⌝ would be ⌜PERSON⌝ (see section 5 on how phi-features contribute to indefinites).[89]

(X)     $\|[[_{DP} s_n [\exists [human]]]]\|^{c,g}$ = λg.λs . there is an *x* and a minimal situation *s′* in *g(n)*, s and *x* is a PERSON$_c$ in *s′*, such that *g(x)(s)(s′)*
       ≈ *one or more PERSONS$_c$ VP*
           where ⌜*x* is PERSON$_c$ in *s*⌝ *is short for* ⌜*x* is PERSON in *c* and $x \leq s$⌝

On this view, the PERSONhood ([human]) of *on* (7b) is not satisfied because the attitude predicate quantifies over nonactual situations that optionally bind the resource situation of *on*, like the shifting of lexical N content (Schwarz 2012). Rather, it is satisfied because the attitude predicate optionally modifies the context of evaluation for *on*. The latter is how logophoricity has been proposed to shift, illustrated in (19°°) by the perspective-holder for evaluating *himself* and *foreigner* (Bylinina, McCready and Sudo 2014). By contrast, speakerhood ([1st]) and addresseehood ([2nd]) in English and French do not shift, though they do elsewhere (Schlenker 2003, 2004, 2011b, Anand and Nevins 2004, also analysing OC PRO through obligatory context shifting of [author]).

(19a°°) John$_i$ is worried that Mark$_k$ has heard our stories about himself$_{i/k}$.
(19b°°) Mark$_i$ thinks that you$_k$ are a foreigner$_{[to\ Mark/me]}$.

Another way in which [human] differs from [1st], [2nd] is by being distributive. *On* can only be satisfied by pluralities each part of which is [human], while a 1st/2nd plurality need only include speakers/addressees (associative plurality: Cysouw 2009, Bobaljik 2008, Kratzer 2009, Wechsler 2010). [0th] and [author] also seem to be distributive in (19+a), where every atom of *they* must have a *de se* attitude and be a perspective holder.

(19+a) They$_i$ hope PRO$_i$ to read a story written by someone other than themselves$_i$.

Let us call [1st], [2nd], [0th], [author], [human] all person features, using this term for phi-features sensitive to the context, unlike number and gender which are sensitive to the index (resource situation). Pronouns bearing these features, e.g. deictic and generic *you*, generic *one*, logophoric *yourself, oneself* (Zribi-Hertz 1995, Moltmann 2006), along with impersonal *on*, differ from 3rd person pronouns by immunity to the Formal Licensing Condition (chapter 2.5). This suggests that marked person features are freely available as N roots. In terms of section 1, they are plain properties rather than functions from properties to properties, and they are always available as contextually salient. Just as

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[89] We suppose that $\|person\|^{c,g}(x)(s)$ entails $\|[human]\|^{c,g}(x)(s)$ (ditto *people, -one*): that is, that one cannot choose not to conceptualise a person as [human]. Evidence is that *on NEG VP* entails that the VP holds of no one, like *people NEG VP*, modulo devices that can relativise the latter as much as the former, like a salient situation (chapter 3.4). But this matter and its relationship to pseudospecific *on* merits further study.

pointing at scissors makes available the property of being scissors, so being the speaker of the context makes the property of being the speaker.[90]

Beside [human] being a person or indexical feature, there are two lines of evidence that it is part of personal-bearing expressions, that is, that [1st], [2nd] entail [human]. One line of evidence comes from the "adverbial" clitics of French, *en* 'thereof' in (17).

(17)    {!Gwen$_i$, !Elle$_i$, !!Personne$_i$, *On$_i$, *Je$_i$} ne mérite/*souhaite jamais que les gens en$_i$ disent tant de mal.
        {!Gwen, !She, !!No one, *ON$_{\approx one}$, *I} never deserve(s)/*wish(es) that people speak so ill EN$_{\approx thereof}$.

(adapting Ruwet 1990: 56-7)

Ruwet (1990) proposes that the adverbial clitics are antilogophoric, because they cannot pick up the logophoric center (q.v. chapter 6). In (17), *Gwen* can be markedly (indicated by !) picked up by *en* as subject of *deserve*, but not as subject of *wish*, because the subject of *wish* is the logophoric centre. Even with *deserve*, *en* resists 1st/2nd person antecedents and *on* in (17), so Ruwet concludes that these are inherently logophoric. However, section 4 shows that *on* need not be logophoric, and (18) adapts the argument to 1st/2nd person pronouns. NOC PRO must be the logophoric centre, which permits it to corefer with the object of *matter to* but not *bear on*, and with the object of *disturb* but not the subject of *say* (Landau 2013: 7.3). These restrictions are in force even though the object/subject is a 1st/2nd person pronoun, which is unexpected if the latter must be logophoric centres.

(18a)   [PRO$_i$ having been away for so long], nothing really {matters to, *bears on} you$_i$.
(18b)   You$_i$ said that it disturbed Sue$_k$ [PRO$_{*i/k}$ to make a fool of her/*your-self in public].

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[90] The person character of [human] might also explain difficulty in forming characterising generics with impersonals, raised in Chierchia (1995b) for Italian *si*. In (i-a), the silent generic A-quantifier GEN has its restrictor ⌜λx . x is a person in s⌝ infered from the NP restrictor of *a person*. In (i-b), the human restriction of *si* cannot be used to mean *A person sings*, nor is this possible for generic *One sings, You sing*. Chierchia analyses *si* as a quantifier over a variable sort restricted contextually-determined human groups, so the human restriction is not a property available for infering the restrictor of GEN, and our construal of [human] as person essentially follows this line of thought. Typically, 1st/2nd persons also do not provide such properties (*I sing*). However, generic impersonals allow characterising generics (*You (women) live longer*), as do Nunberg's (1993, 2004) descriptive indexicals (*I (as condemned prisoner) am usually allowed a last meal*) (cf. Stokke 2010). Moreover, feminine gender on impersonals does not them help form characterising generics, unlike gender on indefinites (*Une poète est mal payée* 'A.F poet(F) poet is badly paid.F' = *Women poets are badly paid*). Furthermore, plain indefinite pronouns also do not work in characterising generics (*Someone sings*). These last two considerations suggest that perhaps the problem are meanings somehow backgrounded. It is not in fact clear that impersonal *on*, even when guaranteed by speaker-exclusion, cannot form characterising generics, as in (ii).

(i-a)    ‖A person GEN sings‖ = GEN s,x [person (x) and C(s,x)] [sings(s,x)].
(i-b)    Si canta 'SI sings' ≠ A person sings.

(Chierchia 1995: 3.1)

(ii)     Soit on est moins destructif que nous, soit on disparait.
         Either ON$_{\approx one}$ is less destructive than us, or ON$_{\approx one}$ disappears.

(cf. Mendikoetxea 2002)

We would rather interpret (17) as follows: logophoric centres, $1^{st}/2^{nd}$ person pronouns and *on* share the feature [human], and the adverbial clitics cannot be [human]. Indeed, the adverbial clitics are prototypically used for nonhumans, and for humans only when conceptualised as "subject matter" (of saying, thinking, and so on). The attribution to $1^{st}/2^{nd}$ person pronouns, logophoric centres, and *on* the feature [human] keeps the essence of Ruwet's proposal without requiring that they all be logophoric centres.

The second line of evidence for [human] on $1^{st}/2^{nd}$ person pronouns is in (19). $3^{rd}$ person *they* allows split antecedent by inanimate and human individuals, but $1^{st}$ person *we* does not. The personal pronoun *we* is restricted the phi-features $[1^{st}]$, [plural] to denoting speaker-inclusive pluralities, but this does not explain why these pluralities cannot have nonhuman atoms, as (19) shows. A distributive phi-feature [human] would further correctly restrict it to pluralities of which each atom satisfies the property [human], just as [feminine] restricts its bearer to pluralities of [feminine] atoms.

(19)    The town blamed the low temperature$_i$, the heavy snowfall$_j$, and the bishop$_k$/me, and I think that all$_{i+j+k}$ / they$_{i+j+k}$ / we$_{me+\dots*(+i+j)}$ played a part in the disaster.

To take stock, impersonal *on* is lexically specified for [human], a property that seems to have greater affinities with context-sensitive expressions than with *person*, and is shared by generic impersonals, $1^{st}/2^{nd}$ person pronouns, and logophoric centres. We have analysed [human] as a person feature along with $[1^{st}]$, $[2^{nd}]$, $[0^{th}]$ but not $3^{rd}$ person, and argued that it is entailed by the other person features. Our proposal links to two important antecedents. One is Cinque (1988: 536-7), who proposes that Italian *si* has a "generic" person feature, in order to model *si*'s resistance to personal pronoun anaphora as a mismatch in person values. The other is Chierchia (1995b: 140), who gives Italian *si* an arbitrary index that must be valued to a plurality of humans in a set specified by the context, and the distinctive index prevents *si* from binding personal pronoun anaphora. Our grounds for [human] as person are different, but we too use it to explain *on*'s anaphoric properties in chapter 5.2.

4.3    Person

There are two broad views of person specifications currently entertained (see e.g. Schlenker 2003, 2004, 2012, Sauerland 2003, 2008ab, Heim 2008, Sudo 2012). One is that they have meanings like (40a), where $[3^{rd}]$ person excludes the speaker in virtue of its own meaning. Another is that they have meaning like (40b), where $[3^{rd}]$ say nothing about the speaker, but excludes her because *I* as a definite with $[1^{st}]$ has stronger presuppositions that *she* as a definite with $[3^{rd}]$ and stronger presuppositions are prefered by the principle of Maximise Presuppositions (chapter 5).

(40a)    $\|[1^{st}]\|^c = \lambda x.\lambda s :$ the speaker of c $\leq$ x . 1
$\|[2^{st}]\|^c = \lambda x.\lambda s :$ the speaker of c $* \leq$ x and the addressee of c $\leq$ x . 1
$\|[3^{rd}]\|^c = \lambda x.\lambda s :$ the speaker $* \leq$ x and the addressee of c $* \leq$ x. 1

(40b)    $\|[1^{st}]\|^c = \lambda x.\lambda s :$ the speaker of c $\leq$ x . 1

$\|[2^{st}]\|^c = \lambda x.\lambda s : \text{the addressee of } c \le x \ . \ 1$
$\|[3^{rd}]\|^c = \lambda x.\lambda s \ . \ 1 \ \textit{or} \ [3^{rd}] \text{ is absent}$

Under either view, it is demontrable that impersonal *on* imposes no semantic constraints on being or not a speech act participant SAP, or SAPhood. On the second view, this is semantically the same as having [3$^{rd}$], though morphosyntactically one could still distinguish [3$^{rd}$] from its absence (see Nevins 2007, 2008 in favour of impersonals not having [3$^{rd}$] against 3$^{rd}$ person expressions). However, as we compare *on* with 3$^{rd}$ persons, we will see that it is more personless than 3$^{rd}$ person DPs.

Initial evidence for the absence of person on impersonal *on* comes comparison of the Italian impersonal *si* with the Italian "arbitrary" 3PL *pro*: in *SI/3PL approached you*, 3PL excludes the speaker but *SI* does not (Cinque 1988: 543n25, Chierchia 1995b: 126). The same is true of impersonal *on* versus 3PL *ils* in French (Creissels 2008: exx. 24-5). Typical is (41). Here *on* is absolutely neutral about including the addressee or not, whether it is invariant or covaries, while 3PL *ils* 'they' strictly excludes the addressee.

(41)   J'adore ce marché: ici {on me propose, ils me proposent} parfois des légumes qu'on fait pousser soi-même dans son jardin.
        I love this market: here ON$_{\approx people/\approx they}$ / they always offer me vegetables that ON grows SOI$_{\approx them}$-self in SON$_{\approx their}$ own garden.

In (41), it is not clear whether *ils* 'they' for *on* could covary with instances. (42) controls for this by setting up a context where a personal pronoun can covary, along the lines discussed in chapter 2.3. Again, *on* is absolutely neutral about including the addressee, while 3SG *elle* 'she' tends to exclude her (though there is some leeway).

(42)   [Context: Suppose an actress, Mai, is worried about spending all day while auditioning for a role, and you reassure her that the auditions will be speedy.]
        Pour les auditions, j'entends les comédiennes une par une sans m'arrêter.
        For the auditions, I listen to the actresses one by one without stopping.

(42a)  D'habitude, dès qu'on m'a dit le texte, on part, donc tu risques d'être libre avant midi.
        Usually, as soon as ON has read me the text, ON leaves, so you(SG) are likely to be free before noon.

(42b)  D'habitude, dès qu'elle m'a dit le texte, elle part, #donc tu risques d'être libre avant midi.
        Usually, as soon as SHE has read me the text, SHE leaves, so you(SG) are likely to be free before noon.

It is thus clear that *on* has no semantic restriction on SAP inclusion/exclusion, while 3$^{rd}$ person personal pronouns do. The status of 3$^{rd}$ person DPs is unclear. 3$^{rd}$ person definites in (41), *les marchands* 'the merchants', and (42), *la comédienne* 'the actress', are less exclusive of the addressee. Indefinites, *des marchands* 'merchants', *une comédienne … elle* 'an actress … she', are still less exclusive. Indeed, an important argument for the

person-neutrality of 3$^{rd}$ person have been quantificational sentences like *Every man (including me) is likes his mother* (Schlenker 2003). This contrast between definite and quantified DPs is expected on the view of person features in (40b). By the principle of Maximise Presuppositions (chapter 5), person-neutral 3$^{rd}$ person DPs only exclude the addressee when a 2$^{nd}$ DP in its place is felicitous and equivalent, and since the only 2$^{nd}$ person DPs are definites, only 3$^{rd}$ person definites are affected. However, (42) sets up a context where *tu* 'you' in the place of *elle* 'she' is not equivalent: *elle* covaries and one of the values it takes on is the addressee, but *tu* is fixed to the addressee. Thus *elle* should be neutral about SAP inclusion/exclusion, but it is not.[91]

We have no certain conclusion about the nature of 3$^{rd}$ person. If [3$^{rd}$] is a person feature like [1$^{st}$], [2$^{nd}$], it is not clear why it excludes the SAPs differently across pronouns, definites, and indefinites. We also cannot use the property of being a person feature, i.e. irreducibly indexical, in explaining differences between 1$^{st}$/2$^{nd}$ and 3$^{rd}$ person expressions, notably for us the need of a lexical N root subject to the Formal Licensing Condition in 3$^{rd}$ person expressions (the same goes for a binary system if [3$^{rd}$] is [-1$^{st}$, -2$^{nd}$]). If [3$^{rd}$] is rather not a person feature, something needs to be put in place to explain tendencies to exclude speaker and addressee unlike *on*. Possibly, the key is our conclusion that impersonal *on* does have a person feature, [human], shared with 1$^{st}$/2$^{nd}$ person expression and logophoric centres. In that case, 3$^{rd}$ person is fully personless, and we posit principles, semantic or pragmatic, that make 3$^{rd}$ person expressions resist SAP inclusion/exclusion, without affecting [human] *on* (cf. masculine gender in section 5).

We can also use disjoint reference to probe the person specifications of a DP. In all the above examples, impersonal *on* excludes the speaker by Condition B with the local 1SG clitic *me*. The clitic can be replaced be omitted without impact on impersonal *on*, so by this impersonal *on* again has no person specification. English generic *one* behaves in this respect like impersonal *on*. Generic 2$^{nd}$ person, in French at least, cannot combine with a local non-generic 2$^{nd}$ person, (44a), unlike with a remote one (44b), suggesting that it is semantically specified for addressee inclusion. This is curious, because it need not have the addressee among its values; we return to this in the next section.

(42a)  Ça doit prendre du temps quand tu$_{GEN}$ nous/*vous fais chacun un repas différent
It must take time when you(SG)$_{GEN}$ cook us/*you(PL) each a different meal.

(42b)  Ça doit prendre du temps quand tu$_{GEN}$ cuisines vos repas séparément.
It must take time when you(SG)$_{GEN}$ cook your(PL) meals separately.

Thus impersonal *on* can be "personless" or "unspecified for person", meaning by this that it can lack the features that restrict 1$^{st}$, 2$^{nd}$, and 3$^{rd}$ person expressions to SAP inclusion or exclusion. If [human] is really person, as suggested section 2, then *on* is in fact specified for a person feature. 1PL *on* is clearly [1$^{st}$] person by all diagnostics: it

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[91] Also problematic for the inertness of 3$^{rd}$ person are cases of ineffability like *Either you or I raised __ head* (cf. Pullum and Zwicky 1986: 766, McCawley 1998: 506). Even indefinites give rise to a stronger inference of speaker/addressee exclusion than *on*, though it can be overridden, in a case like (i).

(i)        Après la présentation {on m'a, ils m'ont, des gens m'ont} posé des questions.
After the talk, {ON$_{\approx people}$, they, people} asked me questions.

cannot exclude the speaker, can be doubled by 1PL personal pronouns, and can antecede these (chapter 3.1).

## 4.4    Logophoricity

The question of person specification relates to logophoricity broadly construed, insofar as logophoricity is characterised as "1st- (or 2nd-)person perspective" (recent overviews include Anand 2007, Ninan 2009, Schlenker 2011b, Pearson 2012). Logophoricity has played a part in the analysis of the German impersonal *man* and Italian *si* as well as the generic impersonals *one* and *you* (Kratzer 1997, Moltmann 2006, 2010, Malamud 2006, 2012a). As far as we can tell, it has no bearing on impersonal *on*.

At the outset, we may contrast *on* with two sorts of behavior that has been called logophoric. One is characteristic of NOC PRO: it is limited to logophoric centres, that is perspective or poin-of-view holders, in the context (Landau 2013: 7.3; see further chapter 6). In (50a), NOC PRO can relate to *te* because *te* is the experiencer of *déranger* 'disturb', which makes it a natural, salient perspective-holder. However, it cannot relate to the theme Arthur, which is not one. Impersonal *on* can be the theme subject and does not control NOC PRO any more easily.

(50a)    Il est étrange PRO$_{i/*k}$ d'être content parce qu'Arthur$_k$/on$_k$ te$_i$ dérange.
         It is strange PRO to be happy because Arthur/ON$_{≈people}$ bothers you.

Inversely in (50b), *on* does not need its antecedent to be the logophoric centre, while NOC PRO does and so is limited to Gwen as the experiencer.

(50b)    On$_i$ pense toujours que ça surprendrait Gwen$_k$ {qu'on$_{i/*k/arb}$ ne soit pas pris, de PRO$_{*i/k/*arb}$ ne pas être  pris*(e)}.
         ON$_{≈people}$ always thinks that it would surprise Gwen$_k$ {that ON$_{≈they/*k/*l/≈people}$ has not been accepted, PRO$_{*i/k/*arb}$ not to be accepted*(.F)}.

The other sort of logophoric behavior characterises OC PRO in attitude complement: it must be read *de se*, that is, under a first-person perspective, reportable by "I". In (51a) with OC PRO, Arthur must have a *de se* thought, while *he* allows also a *de re* thought about someone that Arthur does recognise as himself. Impersonal *on* in (51b) is like *he*.

(51a)    Yesterday Arthur listened to an old campaign speech of his, and he told me that
         he hoped that he lost [Arthur may think, "I hope that I lost" or "…that he lost"]
    ≠    he hoped PRO to have lost. [Arthur must think, "I hope that I lost"]

(51b)    On sait qu'on a changé si, en écoutant un vieux discourse de campagne, (on me dit qu') on espère qu'on ait perdu.
         ON$_{≈a person}$ knows that ON$_{≈he}$ has changed if, reading an old campaign speech, (ON$_{≈he}$ tells me that) ON$_{≈he}$ hopes that ON$_{≈he}$ lost
    ≠    on espère PRO avoir perdu.
         ON$_{≈he}$ hopes PRO to have lost.

It may be that impersonal *on* differs in this behaviour from generic 2nd person and *one* (but see Malamud 2012a for variation on *one* in obligatoriness of *de se*).

Kratzer (1997) has proposed a logophoric analysis for the German impersonal *man* partly on the basis of (52a), where *man* is reported to covary with attitude holder couples. On the analysis, *man* works the same way as OC PRO in (51).

(52a)  Jedes Paar glaubte/behauptete, man verstünde sich gut.
        Each couple believed/affirmed that MAN understood each other well.
        *De-se* analysis: Each couple self-ascribed the property: $\lambda x.\lambda w$ . the group of x got along well with each other in w.

Malamud (2006: 104) observes that for Italian *si* speakers split in judgments on similar examples. French *on* in (52b) clearly cannot covary. Each couple has beliefs about people in general, not about themselves, in contrast to OC PRO.

(52b)  (#)Chaque couple croyait qu'on se comprenait bien.
        Each couple believed that $ON_{\approx people}$ understood each other well.

    $\neq$  Chaque couple croyait PRO bien se comprendre.
        Each couple believed to understand each other well.

In Kratzer's analysis for (52a), *man* is "directly" logophoric: the attitude holder self-ascribes the property denoted by the embedded clause by abstracting over *man*. It remains that *on* might be "indirectly" logophoric, with the attitude holder playing some role in it. Such proposals are explored in Moltmann (2006, 2010) for *one* and Malamud (2012a) for *you* and *man, si*. We may contrast *on* and generic 2nd person on this matter (cf. Kwon 2003, Peeters 2006).

In (53), generic *you* is clearly distinct from the indexical addressee *you*.[92]

(53)  Back in the Middle Ages, you$_{GEN}$ just didn't go out dressed like you$_{INDEX}$ are.

Yet generic 2nd person is perceived to involve the indexical addressee, often described as inviting the addressee to put themselves in the generic's shoes; this is indirect logophoricity. It has testable correlates. One is that generic 2nd person tends track the politeness relationship of the speaker and addressee, 2SG familiar *tu* versus polite *vous* (exceptions occur, Peeters 2006: 214; cf. Italian in Maiden and Robustelli 2000:6.34). Another has been mentioned for (42), where generic 2nd person cannot combine with an indexical 2nd person in the domain where Condition B bans forces disjoint references. Impersonal *on* can so combine with 1st, 2nd, or both persons, as can generic *one*. A third is that generic 2nd person generalises over individuals who share certain properties of the

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[92] Boutet (1986: 26) has a nice, widely acceptable spontaneous example in French, contrast Kitagawa and Lehrer (1990: 742 ex (5c)) on English and Peeters (2006: 216-7) on French; Malamud (2006: 83ff.) bars deictic c-commanding generic combinations, but we find to be available *Tu$_{DEIC}$ sais bien que à l'époque tu$_{GEN}$ ne pouvais pas encore voter* 'You$_{DEIC}$ know perfectly well that back in those days you$_{GEN}$ still couldn't vote'. Cf. Kitagawa and Lehrer (1990) for *you*. Generalising *we* is more restricted in this respect (Whitley 1978), but then it is not a generic pronoun (Malamud 2012a).

speaker and addressee (Bolinger 1979: 199ff., Kitagawa and Lehrer 1990: 752-3). Bolinger explains the oddity of (54a) with *you* because the speaker and addressee share the norm that burning witches is immoral and without further ado generic 2$^{nd}$ person must share that norm. Impersonal *on* does not.

(54a) A l'époque coloniale, contrairement à maintenant, {ils brûlaient, on brûlait, #tu brûlais} les vielles femmes comme sorcières.
In colonial times, unlike today, they / ON$_{\approx people}$ / !!you burned old women as witches.

<div align="right">(adapted from Bolinger 1979: 204)</div>

Consider in this light (54b,c). The presupposition that projects from *X's wife* needs accommodation of the proposition that every person in the situation made salient by *in Saudi Arabia* has a wife in the sense relevant to the norms of S.A. or Texas. With *on*, this is perceived as merely androcentrism: women are tacitly excluded from the domain of quantification that by its semantics should include all persons in S.A. With *tu*, there is near incoherence, because it is difficult to divest the individuals ranged over by *tu* of the addressee's property of being a woman.

(54b) En Arabie Saoudite {!!tu peux, (!)on peut} interdire à {ta, sa} femme de sortir.
In Saudi Arabia {!!you can, ON$_{\approx one}$ can} forbid {you, SON$_{\approx one's}$} wife to go out.
[With *tu*, odd if said by a man to a woman, since she cannot be included in *tu*, possible if said by a woman to a man, against a common ground that having a wife in the sense relevant to S.A. implies being a man.]

(54c) Au Texas, le campus universitaire, c'est l'endroit où {!!tu sors, (!)on sort} avec {ta, sa} femme.
[With *tu*, impolite with *tu* said by a man to a woman against a common ground that a woman may have a wife and that in Texas it is not easy for married women to go out: *tu* is either androcentric or heteronormative or both.]

<div align="right">(adaptation of a real-life example)</div>

In sum then, impersonal *on* has no correlate of logophoricity as a necessary property.

## 4.5   Gender

### 4.5.1   Introduction

The sole content beside [human] that we give the NP of *on* is referential gender. In this section, we go through evidence for the availability of [feminine] on *on*, as well as through evidence from grammatical gender about the lexical N in *on*.

French contrasts two genders called masculine and feminine. All nouns have grammatical gender, for instance *chaise* fem. 'chair' beside *tabouret* masc. 'stool'. For noun properties of humans, grammatical gender typically matches referential gender, *actrice* fem. 'actress', but not always fem. *personne* 'person', masc. *être* 'being' (Schafroth 2003). Referential masculine gender is neutral. (20) shows the system at work.

(20a) Je ne connais pas les acteurs / actrices.

I do not know the actors(M) [men, men and women, or gender unknown, but not just women] / actresses(F) [women only].

(20b)  Je ne connais pas d'acteur / actrice.
I do not know an actor(M) [ambiguous: no man actor, or no man or woman actor] / actress(F) [no woman actor only].

With *on*, indefinite pronouns like *qui*, and 1st/2nd person pronouns, gender is not visible on the pronoun itself, but through gender concord:[93]

(21)  Si {tu es, on est, quiconque est} certaine d'être dangereuse (à harceler), …
If {you are, ON is, anyone is} certain to be dangerous.F (to harrass)

=  S'il est certain/*certaine que {tu es, on est, quiconque est} dangereuse (à harceler), …
If it is certain(*.F) that {you are, ON is, anyone is} dangerous.F (to harrass)

We suppose therefore that feminine concord shows that 1st/2nd person pronouns and *on* are [feminine]. [feminine] has the semantics in (1b), repeated here:

(1b)  ‖[feminine]‖ = λx.λs : x is female in s . 1
    where ⌜female⌝ *is cumulative and distributive (see chapter 2)*

This semantics is obviously only suitable for referential gender; we do not venture into the nature of grammatical gender (reviewed in Rezac 2016). The gender-neutrality of masculine concord indicates that masculine forms can reflect the absence of gender, though perhaps it can also reflect the feature [masculine] that is like (1b) but with ⌜male⌝ for ⌜female⌝ (cf. Wechsler 2015; Bobaljik and Zocca 2011, Merchant 2014, Sudo and Spathas 2015).[94]

### 4.5.2  Feminine on

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[93] We use *tough* adjectives because is shows that the adjective's gender is a property of the subject, not a property of the adjective that restricts the interpretation of the argument (as in Dowty and Jacobson 1988); *tough* adjectives take the infinitive as their only argument. This gives rise to the entailments indicated. (See Authier and Reed 2009 for *tough* adjectives in French.)

[94] It is a striking fact that, on seeing a professor slouch onto a podium too far off to determine gender, *Il est fatigué* 'He is tired.M' is no more gender neutral than the English translation, *L'enseignant est fatigué* 'The professor(M) is tired' also does not seem to be, and more weakly *Un enseignant approche* 'A.M teacher(M) is approaching' also invites the inference that it is a man; cf. 3rd person below. See Sudo (2012: 2.2.1) for this type of phenomenon with free *he* in English and Rezac (2013) with bound *he.* There does seem to be gender neutrality in the plural, in use of the noun that highlights the function, *L'enseignant est responsable du bien-être des étudiants*, 'The teacher(M) is responsible for the well being of the students', and as predicate, *Pierre/*Anne est le meilleur enseignant* 'Pierre/*Anne is the.M best [male or female] teacher(M)' (but note that *Anne* requires feminine *la meilleure enseignante* 'the.F best teacher(F)', and that in turn is much harder though not impossible to construe as gender-neutral; cf. number of NP predicates below). Whatever "masculine" *on* has gives rise to no inference about natural gender.

Impersonal *on* can control feminine concord across its arbitrary, generic, and pseudospecific uses, as can 1PL *on*:

(22a) Dans le couvent, on m'a dit avoir été surpris*(e) de voter la première fois.
In the convent, ON≈one or more women told me to have been surprised.F to vote for the first time. [arbitrary]

(22b) Quand on me soutient trop ouvertement, on devient dangereus*(e) à promouvoir.
When ON≈women supports me too overtly, ON≈they becomes dangerous.F to promote. [generic]
[Context: A victim of sexual harrasment in a company explains why few of her female colleagues support her openly.]

(22c) Alors, Gwen_i, on_i est content*(e) de me faire des embrouilles?
So, Gwen, ON are content.F to cause me trouble? [pseudospecific]

(22d) Nous on est (toutes) content*(es) de notre vie de sorcières.
We ON is (all.FPL) happy.FPL with our life of witches. [1PL]

For 1PL *on*, the generalisation is simple: it is feminine when *we* is, namely when it is common ground that the speaker-inclusive plurality that it denotes is constituted of women. For impersonal *on* ranging over women, feminine gender can be obligatory, (22a,b), unavailable, (23a), or optional, (23b,c,d).[95]

(23a) Est-ce qu'on est mort(??e) en couche l'année dernière?
Has ON≈anyone died(??F) in childbirth last year?
[Context: investigative journalist at the maternity department.]

(23b) Quand on est prêt(e) à accoucher, on nous appelle.
When ON≈one is ready(.F) to give birth, ON≈one calls us.
[Context: ambulance taxi driver describing the service to a woman who might be or become pregnant would tend to use F, while M might be prefered but is not obligatory if describing it to his grandmother or to a man.]

(23c) Quant aux femmes de quatre enfants, quand on a finalement droit à la retraite, on est d'habitude déjà mort(e).
As for women with four children, when ON finally has the right to retire, ON is usually already dead(F).

(23d) Nous nous sommes réunis pour célébrer nos sorcières. Le temps a montré que même quand on est pris(e)[s] par le temps, on nous fait de beaux grimoires.[96]

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[95] Some speakers may allow the masculine quite generally. Cf. Grevisse (2008: 438b1°, 753b1°) for literary examples, but conflating all classes of *on*. Conversely, the adjective *enceinte* 'pregnant.F' must be feminine with *on* at least for some speakers, but they resist masculine *enceint* even in hypotheticals like *If men were pregnant*, though it is more available for metaphorical uses.

[96] Here and below, we use *[s]* for when an orthographic-only concord is felt as prefered; it is established

We have met to celebrate our witches. Time has shown that even when ON is taken(.F) by time, ON makes us beautiful grimoires.

vs. …vous$_i$ êtes pris*(es)…vous$_i$ nous faites…

…you are taken*(F)… you make us…

The same phenomenon appears with some other indefinite pronouns, such as *qui* 'who', *quiconque* 'anyone', *nul* 'no one', *personne* 'anyone (as NPI)', and *quelqu'un* 'someone' which resists feminine more than the others (cf. Grevisse 2008: §730, 740, 755, 758b; cf. Motschenbacher and Weikert 2015 elsewhere).

(24a)   En sortant de la réunion des filles, je me demande bien {qui, si quiconque} était satisfait(e) de cette discussion.

Leaving the meeting with the girls, I wondered {who, if anyone} was satisfied(?.F) of this discussion. [female speaker]

(24b)   Quant aux actrices, si quiconque est pris??(e), c'est assez.

As for the actresses, if anyone is accepted??(F), it's enough.

Feminine with indefinite pronouns including *on* seems to have two requirements. One, that the domain of quantification of the indefinite consists of women, that is, it is common ground of the situation in which the indefinite is evaluated or over which it ranges that the only persons in it are women. Two, that their womanhood be contextually relevant. These conditions are met in (22a,b), (24b); (23c,d), (24b) have VPs that need not meet the second condition; (23b) meets the second condition but meets the first most easily if talking to a potentially pregnant woman to help infer the situation; (23a) is worse because the speaker is interested in deaths rather than deaths of women.

This is not the way [feminine] ordinarily works or is expected to work in indefinites. Regarding the first condition, indefinites do not presuppose the existence of the restrictor, as in *Dirk has never met a professor of chronology*, unlike *Dirk has never met every professor of chronology* (chapter 2, Appendix). The phi-features of restrictors behave like proffered content in this respect, including feminine gender in (25):[97]

(25)   Dirk n'a pas rencontré une professeur de chronologie.

Dirk did not meet a.F professor of chronology

[Truly assertable if the sole professor of chronology is a man.]

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below using overt concord that it is in fact unavailable.

[97] The semantics of indefinitess in chapter 2 does not have an existence presupposition about the restrictor, as is common (e.g. Chierchia 2005). It gives the right result here, whereby the NP restrictors ⌜λx . P⌝ and ⌜λx : P . 1⌝ both make *A NP VP* false if there is no individual with the property *P*, giving (i). However, while this is correct for phi-features of the restrictor NP (including number, *Dirk has unicorns in his garden)*, presuppositions do project out of the restrictor in other cases (definites, *Dirk has unicorns from the enchanted forest in his garden*) (see chapter 2, Appendix).

(i)   $\|[[_{DP} s_n [\exists [feminine]]]\|^{c,g} = \lambda g.\lambda s$ . there is an *x* and a minimal situation *s′* in *g(n)*, *s* and $P(x)(s') = 1$, such that *g(x)(s)(s′)*

where for all x, s, P(x)(s)=1 *if* x *is female in* s′ *and is undefined otherwise*

On the basis of such full indefinites, we would expect that [feminine] on indefinite pronouns like *on* be felicitous at least if there is a woman in the topic or another salient situation, and if that is satisfied, for *on VP* to be false if there is no woman of whom the VP is true in that situation. However, *on VP* seems infelicitous in such a context; rather, the topic or another salient situation must only contain women. (26) compares *on* with full indefinites directly on this score.

(26a)   Ce n'est pas le cas qu'une actrice est prête pour tourner dans notre clip.
        It is not the case that an.F actress.F is ready.F to be filmed in our clip.
        [Context: the director of an electoral campain video realises that she does not have any actresses, as financing rules demands.]

(26a')  Ce n'est pas le cas qu'on est prête pour tourner dans notre clip.
        It is not the case that ON$_{\approx anyone}$ is ready.F to be filmed in our clip.
        [Context: impossible in the context of (26a); possible if the director in the same situation calls up an acting agency to get an actress but they are all busy.]

(26b)   Quand une actrice sera prête pour tourner dans notre clip, on commencera.
        When an.F actress(F) will be ready to be filmed in our clip, we will begin.
        [Context: the evening before filming an electoral campain video, the director realises that financing rules require an actress and he has only actors.]

(26b')  Quand on sera prête pour tourner dans notre clip, on commencera.
        When ON will be ready.F to be filmed in our clip, we will begin.
        [Context: impossible in the context of (26b), possible after a set up like *Il ne nous manque plus qu'une actrice* 'Now we are only missing an actress.']

Likewise regarding the second condition, when the topic or another salient situation contains only women, it is not possible for a full indefinite to be masculine, unlike for *on* and other indefinite pronouns which are feminine only if womanhood is relevant.

(27)    En sortant de la réunion des filles, je me demande bien si une étudiante / *un étudiant en théologie était présent*(e).
        Leaving the meeting with the girls, I wondered if a.F student.F / *a.M student.M student of theology was present*(.F).

We do not have a sure explanation for this behavior. Possibly, [feminine] on indefinite pronouns reflects the feature of a domain restrictor optionally added to the indefinite, to be viewed essentially as a 3PL.FEM personal pronoun *elles* 'they' (cf. the familiarity presupposition of quantifiers like *no, every*, chapter 2.3). As a personal pronoun, such restrictor comes with the right presupposition, i.e. that there is a salient plurality of women which it denotes. The presence of the domain restrictor should give rise to the pragmatic inference that womanhood is relevant, since the restrictor is optional (see chapter 5 on pragmatic inferences). We discussed the specific syntax of such domain restrictors for 1PL *on* in chapter 7.

## 4.5.3 Grammatical gender and lexical N

On hybrid nouns like fem. *sentinelle* 'sentry', *victime* 'victim', grammatical and referential gender may mismatch. When such nouns are picked up by personal pronouns or ranged over by stranded quantifiers, these may track grammatical gender is possible, particularly when the descriptive content of the noun is relevant, like being a sentry or a victim. Impersonal *on* does not allow this:

(30)    Nous nous sommes réunis pour célébrer nos sentinelles.
        We have met to celebrate our sentries(F).

(a)     Elles/Toutes sont dangereuses mais elles nous protègent.
        They.M/All.F are dangerous.F but they.F protect us.

(b)     Ils/Tous sont dangereux mais ils nous protègent.
        They.M/All.M are dangerous.M but they.M protect us.

(c)     On est dangereux/*dangereuse[s] mais on nous protège.
        ON$_{≈peopl/≈they}$ is dangerous.M/*F but ON protects us.

(31)    Rapellons-nous les victimes de la grande guerre.
        Let us remember the victims(F) of the great war.

(a)     Elles ont été prêtes à tout donner, et elles ont rarement été certaines de revenir.
        They.F were ready.F to give all, and they.F were rarely certain.F to return.

(b)     On a été prêt(*e)[s] à tout donner, et on a rarement été certain(*e)[s] de revenir.
        ON$_{≈people/≈they}$ were ready(*F) to give all, and ON$_{≈people/≈they}$ were rarely certain(*F) to return.

The tracking of grammatical gender by personal pronouns and stranded quantifiers reflects a silent lexical N, here supplied by an overt antecedent (chapter 2.5). Impersonal *on* does not allow such a contextually supplied lexical N. Its NP is fixed.[98]

1$^{st}$/2$^{nd}$ person pronouns offer an interesting point of comparison. We have seen in chapter 2.5 that they do not need but do allow a lexical N. Accordingly we would expect that they can track grammatical gender. This is indeed possible albeit marked in examples like (32), where feminine agreement again gives rise to the inference that being a victim is relevant (as explicitly with *you (who are) victims*).

(32)    Alors les ?victimes/*plaignants: Êtes vous prêt(e)s à vous venger?
        So the ?victims/*plaintifs: are you ready.(F)PL to avenge yourselves?
        [Context: male or mixed addressees]

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[98] Arguably indefinite pronouns behave the same way, though the argument would take some space.

The fixity of *on*'s NP creates subtle but interesting difference with personal pronouns in (33). Here *ils* 'they' and *certains* 'some' are most easily understood to mean that the couples reconciled couple to couple, because *couples* provides an overt antecedent for its silent NP. Only markedly can they be understood to mean that the eight people reconciled, perhaps person to person within each couple, because a silent NP *gens* 'people' must be infered for the silent NP. With *on*, there is no such preference, and this is as expected: it is equally satisfiable by the plurality of the four couple-atoms or the eight people-atoms in the topic situation of the sentence.

(33)  Dans le film, il y avait **quatres couples**, il y avait des moments durs, mais à la fin, {**ils**ᵢ se sont, **certains** se sont, **on** s'est} réconcilié[s].
  In the movie, there were four couples, and at the end, {they, some, ON≈they} reconciled.

## 4.6  Number and numerosity

### *4.6.1  Numerosity and number*

Among phi-features, number has the richest array of diagnostics available to study both interpretation and syntax. We distinguish interpretive and syntactic properties related to number as *numerosity* versus *number*. Ideally, the two go together, as in *the chair* versus *the chairs*. However, there are unclarities, such as the number-numerosity link in *the furniture, the furnishings* or *I do not have friends* entailing *I do not have a friend*. We thus study numerosity and number separately. For *on*, the findings are clear. Impersonal *on* has no numerosity restrictions and no number specification in any of its uses, while 1PL *on* behaves the same as the older 1PL personal pronoun *nous*, which mostly means restriction to pluralities and plural concord. We will see that impersonal *on* is neutral about numerosity well beyond the apparent neutrality of indefinite plurals, and suggests that these are in fact restricted in numerosity as they are in number.

We begin with an informal description of numerosity and number, and then establish the properties of *on* using diagnostics like reciprocals and concord. Along the way, we will also meet phenomena that need special discussion, notably definite-like behavior of *on* with floating quantifiers, cardinality predicates, and kind reference.

For numerosity, we follow the framework of Link (1983), Barker (1992) (for recent overviews, see Nouwen 2016, Winter and Scha 2015, Champollion 2014). The domain of individuals includes both atoms (the denotations of definite singulars like *the dog, the pack*) and proper sums (the denotations of definite plurals like *the dogs, the packs*). If $\|Gwen\| = \mathbf{g}$ and $\|Ronja\| = \mathbf{r}$, $\mathbf{g+r}$ is the individual that is the sum of $\mathbf{g}$ and $\mathbf{r}$, and $\mathbf{g}$, $\mathbf{r}$, and $\mathbf{g+r}$ are all parts of $\mathbf{g+r}$, written $\mathbf{g} \leq_e \mathbf{g+r}$ (we usually omit the subscript). Atoms have no parts other than themselves, while proper sums do. Among atoms, some are group atoms. Being atoms, they do not have parts with respect to $\leq$, but there is a member-of function $f$ that maps each group atom to the sum that is "in" the group in a given situation: $\|s_7\ the\ club\| = \mathbf{c}$, a group atom, $f$ may map $\mathbf{c}$ in a given situation to $\mathbf{g+r}$. We usually call individuals that have no parts but are not in the domain of $f$ simply *atoms* (technically: pure atoms), atoms in the domain of $f$ *groups* (group atoms), and individuals that are proper sums of atoms *pluralities* (proper sums).

For syntactic number, we adopt the NP-meanings in (60) on the model of (1b).

(60)    ‖[singular]‖ = λx.λs : x is an atom . 1
        ‖[plural]‖ = λx.λs : x is not an atom . 1
            *where* ⌜x is an atom⌝ ↔ ⌜x ∈ $D_e$ and for all y ∈ $D_e$, if y ≤ x, then y = x⌝

These meanings are naturally viewed as "portioning out" into atoms and proper pluralities a meaning that is itself neutral about numerosity (Kratzer 2008). Suppose that the √DOG holds of individual dogs as well as of all their pluralities; then *[√DOG [singular]]* holds just of the atoms, and *[√DOG [plural]]* just of the pluralities. In English and French, NPs generally must combine with a number feature, both freely-built like *tall person* and lexicalised like that of *someone*, and usually are clearly restricted to the expected numerosity. Other systems have number-unmarked, numerosity-neutral DPs, for instance Malagasy (Paul 2012; see futher chapter 8).[99] The parametric need for number features may be localised in DP architecture, e.g. determiner meanings, whereby English *every* for instance needs to combine with properties of atoms.

Impersonal *on* will prove both unspecified for number and neutral about numerosity. Its property [human] can be satisfied by atoms that count as ⌜PERSON⌝, of pluralities composed of such atoms, and of groups that have such atoms as members. It is an isolated instance of general number in French. In chapter 8, we return to the cross-linguistic setting and other *on*-like impersonals.[100]

### 4.6.2    Collective and group predicates

We begin by collective predicates, which take groups or pluralities but not atoms as arguments. Generic and arbitrary *on* are good with collective predicates, (61).

(61a)    Dans ce jeu, on m'encercle en chantant.
        In this game, ON≈people/≈they surrounds me while singing.

(61b)    On m'a encerclé rapidement et j'ai dû dancer.
        ON≈people surrounded me quickly and I had to dance.

(61c)    J'ai entendu qu'en Turquie, on se rencontre communément au café.
        I've heard that in Turkey, ON≈people meets commonly in a café.

As we establish the number-related propertis of *on*, we will compare those of generic impersonals to reveal similarities and differences. Generic *one* has been said to resist collective predicates (Safir 2004), but counterexamples exist, (62). Generic 2nd person is fine with collective predicates, and in French even as 2SG in (63), as if the 2SG phi-

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[99] These works show that general number is found not only with lowest-scope bare nouns but also in nouns in richer DPs that scope like indefinite DPs in English, whether overtly bare or not (with numerals).

[100] We skirt the issue of mass noun denotations (Chierchia 1998ab, Borer 2005, Wilhelm 2008, Doetjes 2011). Impersonal *on* lacks the sort of mass meaning due to the universal grinder, *how much dog*, and we have found no way to probe whether it might have the sort of mass meaning found in "aggregate" mass nouns like *how much furniture / infantry* as distinct from pluralities.

features derived from a component of a more complex structure (cf. Collins and Postal 2010). This does not appear to be true in other languages (cf. Malamud 2012a).[101]

(62a)   Love is much stronger when one meets in the second half of one's life. (Clint Eastwood)

(63a)   Quand tu te réunis à deux/plusieurs…
        When you(SG) meet in two/several (G)

(63b)   Les uns sont des acteurs les autres des tueurs, mais à la fin du match tu te fais la bise.
        The ones are actors the others killers, but at the end of the match you kiss. (G)

There are also predicates that only hold of groups, (64). Impersonal *on* is fine with them, and in French so is generic 2SG, but not English *one*.

(64)    On$_i$ ne m'avertit pas si on$_i$ {n'a que deux membres, s'est dissous}.
        ON$_{\approx you}$ does not warn me if ON$_{\approx you}$ {has only two members, has dissolved}.

### 4.6.3  Reciprocals

Reciprocals let us distinguish groups from pluralities. French has two reciprocal formants, shown in (65). One is the reflexive clitic *se* (limited to objects reflexive to the subject). It allows group antecedents like *le jury* 'the jury'. The other is the phrasal reciprocal *l'un(e)(s) … l'autre(s)* 'the one(F)(PL) … the other(PL)' (doubled by *se* when *se* is possible). It needs pluralities as antecedents, like English *each other*, showing that its meaning depends on accessing atoms by the part-of ≤ relation.[102]

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[101] English generic *you* has been given as only singular (Kitagawa and Lehrer 1990), but it appears merely to need context:

(i)   There's nothing more "intimate" and special between two people than when **you** commit **yourselves** to **each other**. (G)

[102] An influential analysis is that of Heim, Lasnik and May (1991ab), Beck (2001), Magri (2012), which for English is roughly *They spoke to each other ≈ They$_k$ each$_i$ (= Each$_i$ of them$_k$) spoke to (the) other(s) than themselves$_i$ among them$_k$*. In this analysis the issue of the presuppositions introduced by *the others* and *them* comes up, and more clearly in French where the reciprocals are definite in form *the one the other, the ones the others*. We might expect reciprocals to be restricted to quantificational antecedents whose restrictor limits them to ranging over pluralities, like *every two girls*, but this is not so: *no, few(er than five)* cannot be restricted to pluralities, since *No girls at a whole pizza* needs for no girl atoms not to have eaten a pizza, yet *No girls copied from each other* is just fine; see further chapter 5.2. We do not give any role to syntactic concord in reciprocals, raising worries about how to explain the deviance of *\*John did not talk about each other*, which should be true purely in terms of profered content if it is not a presupposition failure. But this deviance is independent of concord, of reciprocals, of pluralities: *The group/\*John has not {met at six, been numerous, come together}*, intuitively akin to *\*John is not {extinct, widespread}*, and perhaps unlike *#John is not {unchecked, paratactic, haploid}*. Just how to draw which distinctions is a debated issues since Chomsky (1965: 2.3.1) articulated it: as syntactic subcategorisation (which needs distinctions beyond overt form, as between singular *the group* and *John*), semantic domain condition or sortal restriction (Beck 2001: 140 for reciprocals, not from the presupposition of definites but from cumulativity operations, Chierchia 1998b on kind-level predicates), pragmatic deviance (applying *is numerous* to *John* is necessarily false if

(65a) Le jury s'est salué (*les uns les autres).
The jury SE greeted [≈ greeted each other] (*the ones the others).

(65b) Les / Des membres du jury se sont salués (les uns les autres).
The / Some members of the jury SE greeted (the ones the others) [≈ greeted each other].

The French phrasal reciprocal distinguishes number and gender on itself. Number is interpreted on the reciprocal and does not depend on the antecedent: singular *l'un … l'autre* 'the one … the other' establishes a reciprocal relationship for pluralities of two atoms, while plural *les uns … les autres* 'the ones … the others' is used otherwise (cf. Grevisse 2008: §744b3°, Jones 1996: 6.7.11-12). Gender also we take to be interpretable. The reciprocal is used for antecedents of all persons and has no person morphology, so we take it to be featurally unspecified for and interpretively neutral about person.

Impersonal *on* generic and arbitrary is good with *se*-reciprocals, (66a). With phrasal reciprocals, *on* sometimes resists, (66a), but it can also be good, (66a-d).[103]

(66a) On$_i$ m'a dit qu'on$_i$ ne s'était même pas salués (√/?les uns les autres) au théâtre hier.
ON$_{≈people}$ told me that ON$_{≈they}$ had not even greeted SE$_{≈each.other}$ (√/?the ones the others) at the theater yesterday.

(66b) A la sortie du métro, on {me refuse souvent, on m'a réfusé ce matin} mes tracts les uns après les autres.
At the metro exit, ON$_{≈people}$ {often refuses, refused this morning} my tracts the ones after the others.

(66c) Dans le film, il y avait quatres couples, et on$_i$ se$_i$ parlait les uns aux autres$_i$ de ses$_i$ / *leurs$_i$ intérêts communs pendant des heures.
In the film, there were four couples, and ON$_{≈people/≈they}$ talked SE$_{≈to.each.other}$ the ones the others about SON$_{≈their}$ / *their common interests for hours?
[Context: May report a film where all the eight people talked to each other at one time or at different occasions, *on ≈ they* or where only a subset of them did, possibly different subsets at different occasions, *on ≈ people*.]

(66c) shows not only that *on* is satisfied by a plurality, but also that it continues so to antecede the possessive pronoun *son*, which is otherwise only 3SG 'his, her, its'. Thus *on*-anteceded *son* is not 3SG, but number-neutral, a conclusion developed in chapter 6.

Reciprocal predicates like *be similar* are restricted to pluralities. (67a) shows that they are good with *on*. (67b) shows the reciprocal predicate *commun* 'common' constraining *on* to pluralities indirectly, by requiring that *son* bound by *on* denote a plurality.

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*John* denotes a world-independent atom, and so trivial; cf. Abrusán 2014).

[103] The resistance may be due to tension between using *on* rather than *les/des gens* 'the/∅ people', which implicates that numerosity is unknown or irrelevant (chapter 5), and a VP that requires a particular numerosity. But see also chapter 5.2 (note) for the possibility of accommodation, a solution similar to that of McCloskey (2007: 840) for similar resistance in Irish.

(67a) En thérapie on$_i$ commence souvent par me dire qu'on$_i$ est lentement devenu[s] trop différent[s] (l'un de l'autre).
In therapy ON$_{\approx people}$ begins always by telling me that ON$_{\approx they}$ has slowly become too different (the one.SG from the other.SG)
[Couples therapy context: each member of a couple from the other].

(66b) Dans le film, il y avait quatres couples, et à la fin, on$_i$ s$_i$'est réconcilié pour ses$_i$ / *leurs$_i$ intérêts communs.
In the movie, there were four couples, and in the end, ON$_{\approx they}$ reconciled SE$_{\approx with.each.other}$ for SON$_{\approx their}$ / *their$_i$ common interests.

For generic impersonal, French generic 2PL but also 2SG admit phrasal reciprocals, while English generic *one* does not (Safir 2004).

(68) Quand tu commences à te bouffer les uns les autres ce n'est plus possible de continuer.
When you(SG) begin to you(SG) devour the ones the others [=fight with each other] it is not possible to continue anymore (G)

### 4.6.4 Floating quantifiers

Floating quantifers (FQs) confirm that impersonal *on* can be satisfied by pluralities, but raise interesting issues of their own. In French, the FQs are *chacun(e)* 'each(F)' (distributive) and *tou(te)s* 'all(F)' (distributive or collective). Both require pluralities as antecedents. (69) shows it for the FQ *chacun* in the middle-field, position 1 (on FQs, Bobaljik 2003, and in French, Junker 1991, Doetjes 1997, Puskas 2002). There are also two other placements for *chacun*, positions 2 and 3 (Tellier and Valois 1993). These do allow groups as antecedents, and differ in other respects such as the number of dependent pronouns (cf. Brasoveanu and Henderson 2009 on FQs vs. *one by one*). They are not our concern.

(69a) Les filles avaient ($_1$ chacune$_i$) amené ($_2$ chacune$_m$) {leur$_{i/m/n}$ propre, sa$_{*i/m/*n}$ propre / une$_{i/m/n}$} tente ($_3$ chacune$_n$).
The girls had ($_1$ each$_i$) brought ($_2$ each) {their$_{i/m/n}$ own, her$_{*i/m/*n}$ own, a$_{i/m/n}$ tent} ($_3$ each$_n$).

(69b) La troupe des filles avait ($_1$ *chacune) amené ($_2$ chacune) une tente ($_3$ chacune).
The troop of girls had ($_1$ *each) brought ($_2$ each) a tent ($_3$ each).

FQs are finicky about their antecedents, as seen in (70) (cf. Hoeksema 1997). Definites are good, and more marginally, bare plurals when they lack the usual nonmaximality inference of indefinites (q.v. chapter 5.4). Quantified DPs including overtly marked indefinites are mostly out. Personal pronoun are good if anaphoric or denoting discourse-salient individuals, but "arbitrary" 3PL is difficult (Kayne 2010).[104]

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[104] French is parallel save that there are no bare plurals; closest come *des*-plurals, but they lack maximal

(70)    In the Green Party {the members, *some/*most/?*all members, ??(?full) members, ?they} are each allowed to give their opinion, so why can't we?

Impersonal *on* in (71) is possible with FQs if it is maximal. In (71a), generic *on* with the FQ ranges over different but maximal pluralities of players per game, and cannot be read nonmaximally. This is a context where a covariant definite is easily accommodated, *les joueurs* 'the players' (in the manner discussed in chapter 2.3). A maximal bare plural *players* also seems. Impersonal *on* is like *(the) players* but perceived to commit to less descriptive content.[105]

(71a)    [Un croupier:] Au blackjack, une fois quand on m'a chacun/??tous déclaré son pari, on me regarde tirer les cartes comme si j'étais Dieu.
         [A croupier:] At blackjack, once ON$_{≈(the)\ players}$ have each/??all.PL declared their bets to me, ON$_{≈they}$ watch me turn the roulette as if I were God.
         [Context: the players covary with the game]

In (71b) there is an arbitrary *on*. Without the first clause, *on* is used for all the players in the game, not some, which is a salient-situation reading (chapter 3.4). With the first clause, *on* is discourse-anaphoric to the four that followed me, and so is maximal by definite with respect to its resource situation (chapter 3.3, 2.3).

(71b)    Hier dans le jeu, ?(on$_i$ était quatre à me suivre et) on$_i$ m'a chacun/*tous marqué deux fois.
         Yesterday in the game, ?(ON$_{≈they}$ were four to follow me and) ON$_{≈they}$ each/*all.PL tagged me twice.

In (71c), the first *on* may be the thirty students or some subset of them, like *people*; the FQ is licensed by an *on* anaphoric to it.

(71c)    J'ai trente étudiants et je leur ai tous dit de laisser un message quand ils appellent, eh bien devine ce qu'on$_i$ a fait, on$_i$ m'a (?chacun / *tous) téléphoné sans dire pourquoi.
         I have thirty students and I told them all to leave a message when they call, and well guess what ON$_{≈people}$ did, ON$_{≈they}$ (?each/*all.PL) called me without saying why.

(71d) is difficult to translate other than by a passive, but the FQ gives rise to the inference that there are some people believed to be responsible for my mishaps.

(71d)    [Someone trying to figure out why things are going awry for them.]

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and kind readings both and do not support FQs (cf. Dobrovie-Sorin and Beyssade 2012).
[105] The difference between *on* and *(the) players* seems comparable to that between *folks* and *(the) players*;

Later, swinging styles are put to the test at the driving range where players/folks are each awarded 50 balls to hit as far as they possibly can (G with *folks*).

On m'aura (chacun/*tous) jeté un sort.
ON≈they will have (each/*all.PL) thrown me a curse.

None of the examples that permit *chacun* are grammatical with *tous*.[106] We attribute the impossibility of *tous* to number concord and discuss it below. *Chacun* is morphologically invariant but *tous* is plural and needs a [plural] antecedent. Thus *tous* differentiates impersonal and 1PL *on*. Kayne (2010) points out the effect with (72a), and (72b) extends it to an impersonal *on* that can antecede *chacun*.

(72a)   En France on boit tous beaucoup de vin.
        In France ON≈we/*≈people drink all.PL a lot of wine.

                                                                (Kayne 2010: 133-4)

(72b)   Dans les locaux du Parti, on donne tous/chacun son avis.
        *tous*: In the precincts of the Party, ON≈we/*people gives all.PL/each SON opinion.
        *chacun*: In the precincts of the Party, ON≈we/≈people gives each SON opinion.

For impersonal *on* then, floating quantifiers show that it can be satisfied by pluralities, but cannot combine with those that need number concord. Among the generic impersonals (73), *one* is strictly incompatible with FQs, while *you* is fine. In French, generic 2SG is like *on*: it combines with *chacun* but not *tous*.

(73a)   In a couple, if you both work at home, you each need your workspace. [**one*]

(73b)   Au Parti tu peux chacun/*tous donner ton avis et ça apparaît dans le compte rendu.
        At.the Party you(SG) can each/*all.PL give you opinion and it appears in the minutes.

To end with FQs, something needs to be said about how FQs are available with *on* at all, given their incompatibility with overtly quantified DPs, including specific indefinites:

(73a)   Some people, who knew enough about carpentry, were (??each) eager to build their own rafts; others wanted to collaborate.
(73b)   Well, I see that SOME people are (??each) eager to get this over with, aren't we?

On one analysis of FQs, they originate in the antecedent DP (Sportiche 1998). The impossibility of FQs with quantified DPs can then be explored as the impossibility of multiple quantifiers in a DP. However, analyses of FQs have found this inadequate to account for which FQs can float from what DPs (see esp. Hoeksema 1996) and more generally (cf. Bobaljik 2003, Fitzpatrick 2006).

An alternative is that there is a semantic constraint on FQs and impersonal *on* can meet it, whereas other indefinites usually cannot. When impersonal *on* supports FQs, it clearly seems maximal, and so do bare plurals. Usually, indefinites give rise to a nonmaximality inference, but *on* does not: *At my first talk, some people fell asleep* comes

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[106] At any rate, there is always a sharp contrast on reflection between *chacun* and *tous*; nuances are given and explained when discussing concord below.

with the inference that not all people fell asleep, but *on* for *some people* does not. We derive this in chapter 5; briefly, *some people* is blocked by *the/all people* on equivalent meaning/use, but the unique NP of *on* has no *the/all* NP to block it. So if FQs need indefinites to be maximal, the compatibility of *on* with them follows.

### 4.6.5   Cardinality predicates

Cardinality predicates like *be many, few, innumerable, two hundred in number* are like FQs in needing plurality arguments and in restriction to definites and certain bare plurals. Thus (74) may be compared to (70) (see esp. Solt 2009, 2015).[107]

(74a)   {The/*some/*all/*most protesters, Protesters ??(?inside the square)} are two hundred in number.
(74b)   (Some) protesters have entered the square and they are two hundred in number.
(74c)   Well, I see that SOME people are (*many and) happy tonight!

Impersonal *on* is perfect with cardinality expressions, as in (75), without any need to construct special contexts as with reciprocals and floating quantifiers. There is no close translation to English, and the construction must be changed.

(75a)   Hier dans le jeu, on était {peu, plusieurs, vingt} à me poursuivre.
Yesterday in the game, ON was {few, several, twenty} pursuing me.
≈ … few, several, twenty people were pursuing me.

Aux dernières éléctions, on était {peu, vingt-trois} à voter pour moi.
In the last elections, ON were {few, twenty three} to vote for me.
≈ … {few, twenty three} people voted for me.

(75b)   Quand on est {peu, plusieurs, vingt} à me poursuivre, j'emprunte cette ruelle.
When ON is {few, several, twenty} pursuing me, I take this alley.
≈ When few, several, twenty people pursue me, ….

Quand on n'est que vingt à voter pour moi, je ne me représente pas.
When ON is only twenty to vote for me, I do not run again.
≈ When only twenty people vote for me, …

The restriction of cardinality predicates to definites, maximal bare plurals and *on* resembles that of floating quantifiers. However, examples of floating quantifiers with *on* involved *on* paraphraseable by definites or bare plurals maximal with respect to some salient situation, say all the players infered from a game situation. In (75), there is no such paraphrase, since even if there is an inferable plurality, *on* is used for some novel subset of it. Nevertheless, it still seems that the key to this behavior of *on* is the absence of a nonmaximality implicature, since that is what unifies definites and those bare plurals

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[107] Solt (2009, 2015) includes *wh*-pronouns on the strength of appositive relatives, but this is not a general fact: *\*No protesters who were many/few managed to penetrate the square*, cf. *No protesters who did not meet in sufficient numbers managed to penetrate the square*.

that are compatible with cardinality predicates (in (74), *protesters in the square* is necessarily all, not some, of the protesters in the square).[108]

Among other impersonal expressions, *one* is incompatible with cardinality predictes, but generic 2nd person is fine, again in French strikingly even when 2SG:

(76a)   Tu peux être cinquante à attendre, sans être les uns derière les autres, et tout le monde sait qui est après qui.
        You(SG) can be fifty to wait, without being the ones behind the others, and everyone knows who is after who. (G)

(76b)   Si tu es plusieurs, tu les chasses à coups de pied au cul….
        If you are several, you(SG) chase them with kicks to the ass…. (SG)

### 4.6.6   Atoms

The foregoing tests show that impersonal *on* can be satisfied by groups (group atoms) and pluralities. It is difficult to find expressions that would ensure that impersonal *on* can be used for atoms, because a plurality can usually be distributed. Singular predicate nominals for some reason disallow plural subjects (Dotlačil 2011). Impersonal *on* can combine with singular predicate nominals as well as plural ones.[109]

(77a)   *Quand des/les gens sont un ami à moi …
        When people are a friend of mine…

(77b)   Quand on est {un ami à moi, des amis à moi}, on me soutient.
        When ON$_{\approx some one/\approx people}$ is {a friend of mine, friends of mine}, ON$_{\approx they}$ support me.

Entailments also show that impersonal *on* can be satisfied by atoms. In (78a), a plural *people* (French *les/des gens*) in the place of *on* entails that multiple people put each a hand on my shoulder, or all a single hand by collective action. This is not so for *on*, which is best paraphraseable by the implicit agent passive. The same goes for (78b,c).

(78a)   Comme je regardais les produits, on m'a mis une main sur l'épaule, et je me suis retournée.

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[108] The sole analysis of cardinality predicates that addresses their restriction to certain subjects, Solt (2009, 2015), proposes that cardinality predicates must combine with a subject inside a *MeasP*, where *Meas* is is restricted to *e*-type arguments, roughly like *the number of*, cf. *The number of the/*some/*no protesters was small*. Then either some way is needed to convert bare plurals and *on* from quantificational to referential meaning, or *Meas/the number of* require a maximal rather than an *e*-type argument. Among unresolved questions is whether subject restrictions of FQs and cardinality predicates are indeed the same, for instance in those cases where Hoeksema (1997) finds FQs compatible with quantified antecedents, and may well be differences: cf. *The machine started displaying a text that included isolated numbers and batches of consecutive ones, but no consecutive numbers were {each prime / *many}*; *A mathematician, scientist, and engineer were {each asked a question, *three}*.

[109] This is Egerland's (2003b: 79) argument for Italian *si* not being only plural (chapter 8). The number of predicate DPs is interpretable on them and in principle independent of the subject, unlike that of predicate adjectives: e.g. *Animal languages are their main research interest, Their main research interest is animal languages* (Chomsky 2000); *These glasses are a special tool to watch IMAX movies* (Hahm 2010).

As I was examining the wares, $ON_{\approx 1+\ persons}$ put a hand on my shoulder [≈ a hand was put on my shoulder] and I turned.

(78b)  On m'a soulevé (avec un seul bras).
$ON_{\approx 1+\ persons}$ lifted me up [≈ I was lifted up] (with only one arm).

(78c)  **On** a mangé une pizza entière devant moi sans m'en proposer.
$ON_{\approx 1+\ persons}$ ate a whole pizza in front of me without offering me any.

### 4.6.7 *Numerosity neutrality*

So far, impersonal *on* has been satisfied by atoms, groups, or pluralities, but only one at a time. Thus in an example like (78b), the speaker may report a situation where a single person lifted them up with their hand, or several, or an unknown number. This state of affairs could be captured by making *on* ambiguous in numerosity. Full neutrality about numerosity can be shown by impersonal *on* covarying under a quantifier, (79). The indefinite plural *des gens* entails that several people are lifting me, *une personne* that one person is, and only *on* can be truly asserted if on some photos one person is lifting me and on others several people are. Impersonal *on* ranges over atoms and groups/pluralities, eliminating the ambiguity analysis: it is neutral about numerosity.

(79)  Chaque photo de l'époque montre que {des gens me soulèvent, une personne me soulève, on me soulève}.
Each photo of the period shows that {some people, a person, $ON_{\approx one\ or\ more\ persons}$} are lifting me [ON: ≈ I am being lifted].

The numerosity-neutrality of *on* differs from the more limited numerosity-neutrality of plurals, both morhosyntactically and interpretively. Certain plurals are thought to include atoms in certain contexts. On this view, (83a) is judged false if I have one friend. There is also contrary evidence, (83b), where the plural does not include atoms. The matter remains under debate (Sauerland 2003, Sauerland, Andersen, and Yatsushiro 2005, Zweig 2009, Lasersohn 2011, Bale, Gagnon and Khanjian 2011 vs. Farkas and de Swart 2010, Grimm 2013, Mathieu 2014, with literature).

(83a)  I don't have (any) friends. → I don't have a friend.
(83b)  What I said before, John, I meant it. I don't have (#any) friends. I've just got one.
                                (bare plural from *Sherlock*, "The hound of the Baskervilles")

The behavior of the plurals in (83a) has led to the hypothesis that plurals are neutral about numerosity and blocked by singulars from including atoms in most contexts, roughly, when the singular gives a stronger meaning. However, with nondistributive predicates it is possible to contrast putatively numerosity-neutral plurals and impersonal *on*. Consider (84) (adapting 78c). In the place of *on*, *someone* entails that one person ate a whole pizza, while *people* entails that there were several eaters for one pizza (collective) or several eaters one per pizza (distributive). When it is not known how many eaters there

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were, neither may be truly asserted. In English, one has to resort to the implicit agent passive. In French, *on* is also possible. Ditto for (84b).

(84a)　On a mangé une pizza entière sans m'en proposer.
　　　　ON$_{\approx\text{one or more people}}$ ate a whole pizza without offering me any.

(84b)　On a construit ce mur en novembre.
　　　　ON built this wall in November. [≈ This wall was built in November.]

Both examples contrast with bare and other indefinite plurals in allowing *on* to be vague about numerosity in ellipsis:

(79*a)　Marijo pense {qu'on a, #que des gens ont} mangé une pizza entière devant moi sans m'en proposer, et Fañch aussi, mais seul Fañch pense qu'en plus c'était une seule personne.
　　　　Marijo thinkgs that {ON, #people} ate a whole pizza in front of me without offering me any, and Fañch [does] as well, but only Fañch thinks that it was moreover a single person.
　　　　[Context 1: Marijo thinks several people ate the pizza together.]
　　　　[Context 2: Marijo has no opinion on how many people at the pizza.]

(79*b)　Marijo croit qu'on a construit ce mur au moyen âge et Fañch aussi, mais Fañch en plus croit qu'il a été construit par une seule personne.
　　　　Marijo believes that ON built this wall in the Middle Ages and Fañch [does] as well, but Fañch believes moreover that it was built by a single person.

In this case then, *people* is not numerosity-neutral despite not being blocked by a singular, while impersonal *on* is. The numerosity neutrality of *on* is like that of "general number" in other systems (chapter 8). In *on* we can see it in a system where all other DPs are marked for number and not neutral for numerosity, save plurals in certain contexts. In comparison with *on*, even these seem to have content that prevents them from being fully neutral about numerosity. [plural] in (60) is one way to analyse this content, though it leaves open how numerosity-neutrality arises (on which see Chierchia 1998b, Farkas and de Swart 2010).

### 4.6.8　*Number and numerosity*

To look at the number rather than the numerosity of *on*, we need morphology due to a syntactic dependency with *on*. For the finite verb, all uses of *on* control the same agreement as 3SG expressions. Possibly, it is simply default morphology due to lack of number; we return to it in chapter 7. Remaining evidence comes from concord, the term we use for syntactic phi-dependencies between an argument and expressions other than the finite verb. Concord does not all arise in the same manner: there are differences between different types of predicate adjectives, complex tense participles, and middle-

field elements (Corbett 2004: 6.4, 2010: 7.7, Kayne 2000: 181n35). In French, we look at two sources of evidence: (primary) predicate adjectives and floating quantifiers.[110]

Evidence from predicate adjectives is limited to a small number of adjectives in *-al* like *amical* (80), that make the phonological distinction betwen /al/ for MSG *-al*, FSG *-ale*, and FPL *-ales*, and /ɔ/ for MPL *-aux*; other distinctions are only orthographic.[111] Number concord of these adjectives is obligatory.[112]

(80)  Vous êtes amical/amicaux.
      You are.2PL friendly.MSG/MPL
      [MSG to a single person not known to be a woman, MPL to a plurality thereof.]

(81a) Ces arguments sont *génial/géniaux à demonter.
      These arguments are great.*MS/MP to dismantle.
   →  C'est génial de démonter ces arguments. [*géniaux]
      It's great.MS to dismantle these arguments.

(81b) Ce groupe d'arguments est génial/*géniaux à demonter.
      This group of arguments is great.MS/*MP to dismantle.

Impersonal *on* in (82a-d), arbitrary and generic, allows only singular concord on primary predicate adjectives. This is so even when *on* is restricted to pluralities by elements like phrasal reciprocals (underlined).

(82)  Aux réunions des secrétaires du comité central du Parti, …
      At.the meetings of.the secretaries of.the central committee of.the Party

(82a) …quand on est ouvertement amical/*amicaux avec moi <u>les uns après les autres</u>, je fais mes valises.
      …when ON$_{\approx people}$ is openly friendly.MSG/*MPL with me the ones after the others, I pack my bags.

(82b) …quand on est <u>chacun</u>/*tous amical/*amicaux avec moi, je fais mes valises.
      …when ON$_{\approx people}$ is each/*all.MP friendly.MSG/*MPL with me, I pack my bags.

(82c) …on a <u>chacun</u>/*tous été beaucoup trop amical/*amicaux avec moi.
      …ON$_{\approx people}$ has each/*all.MPL been far too friendly.MSG/*MPL with me.

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[110] Secondary predicate adjectives generally have greater leeway for ad-sensum concod, perhaps through a covert element like PRO, which we look at for floating quantifiers below.

[111] Not all adjectives in *-al* concord, which ones do varies among speakers, and even for the most robustly concording ones like *amical, égal, loyal*, nonconcord *Ils sont tous égal* 'They be.3PL all.PL **equal.MSG**' seems to be becoming more widely available. Intuitions on purely orthographic concord in plural *-s* with impersonal *on* vary with speakers and examples (see Grevisse 2008: §438b1° on variation in literary usage). The "liaison" phenomenon does not seem usable in probing when *-s* reflects other than orthographic conventions (see esp. Morin and Kaye 1982: 310-2).

[112] As with gender in section 5, raising adjectives show that concord is due rather to a syntactic dependency with the subject, not to a semantic constraint imposed by the adjective's number on its argument.

(82d)  …on a été <u>beaucoup</u> à être amical/*amicaux avec moi.
       …ON$_{\approx people}$ has been many to be friend.MSG/*MPL with me.

In contrast, 1PL *on* (82e) allows and needs plural concord.

(82e)  …NOUS on$_i$ a été amicaux/*amical les uns avec les autres.
       …WE ON$_{\approx we}$ have been friendly.MPL/*MSG the ones with the others.

The factor that isolates 1PL *on* in (82e) 1PL is the 1PL focus-doubling strong pronoun *nous*. When such 1PL elements are absent, (82f), singular concord is, somewhat variably, available with *on* used specifically as *we*, suggesting that impersonal *on* has the specific use for *we* like 1PL *on* (see chapter 7).

(82f)  …$^{(\%)}$on$_i$ a été plutôt amical.
       …ON$_{\approx we}$ have been rather friendly.MSG.

The capacity to control singular concord while anteceding plurality-sensitive items like reciprocals is unique to *on*; (B) contrasts a group noun on this point.

(B)    On$_i$/*Le groupe$_i$ est d'habitude amical les uns avec les autres et avec moi.
       ON$_{\approx people}$/*the group is usally friendly.MSG with each other.MPL and with me

We conclude that impersonal *on* lacks [plural] for concord even when satisfiable only be pluralities. It must also not have [singular] in such cases, if [singular] has any relationship to numerosity as in (60). We conclude then that impersonal *on* lacks a number feature. The concord found with it must be default morphology in the absence of a number feature, syncretic with the realisation of concord for [singular] for other DPs. On the view that syntactic number determines interpretive numerosity as in (60), the unavailability of a syntactic number feature on *on* derives its numerosity-neutrality.

The other line of evidence for number on *on* is floating quantifers, discussed above. There are two FQs in French, the number-invariant *chacun(e)* 'each(F)' (same as pronominal *chacun* 'each one') and the plural *tou(te)s* 'all(F)' (plural of singular determiner *tout(e)* 'all(F)', with invariant *tout* also adverbial 'all'). Both can combine with 1PL *on*, but only *chacun* combines with impersonal *on*. We interpret the impossibility of *tous* with impersonal *on* as failure to supply *tous* with [plural] by concord. However, the impossibility of *tous* with impersonal *on* is weaker than that of plural predicate adjectives, and sometimes an example seems fine at first pass, though it ends up ungrammatical on reflection. Perhaps this difference reflects no more than the availability of a default (singular) form for predicate adjectives but not for the FQ *tous*, or interference from adverbial *tout* 'all' (q.v. Kayne 2010: 133n5 for English).

However, the mechanism of predicate adjective and *tous* concord need not be the same. On some theories of FQ, *tous* concords with a silent pronominal argument of itself anteceded by *on* rather than *on* directly, similar to overt *We must all of us get this right* (Fitzpatrick 2006). Anaphoric pronouns sometimes tolerate phi-mismatches, including grammatical feminines anteceding referentially masculine anaphora, and Kayne (2000: 181n136) suggests that this underlies the gender mismatch in (83b) between MPL *ces*

*laiderons* and the MPL FQ *toutes*, "really *toutes* plus covert feminine pronoun, so that gender mismatch is really between pronoun and antecedent."

(83a)　We must all of us get this right.
(83b)　Ces laiderons essaieront toutes de séduire Antoine.
　　　　These.MPL ugly.women(M) will.try each.FPL to seduce Antoine.

<div align="right">(Kayne 2000: 181n136)</div>

Thus we would get a marginal *tous* with impersonal *on* if there were a marginal tolerance for number mismatch between impersonal *on* and the silent anaphoric pronoun in FQs. (83c) indicates that a mismatch between group singular antecedents and plural anaphora is marginal with local anaphora, PRO, and FQ-internal pronouns, but better nonlocal anaphora in (83d). The silent anaphor in FQs would have to behave like the former group (in chapter 7 we analyse this group as minimal pronouns).

(83c)　The board (*each) expects itself/?themselves to vote in favour.
　　　　The board (*each) expects PRO to (?each) vote in favour.
　　　　The board is {*each, ?each of them, *each of it} expecting to vote in favour.
(83d=　The board (*each) expects that they will (each) vote in favour.

The concord of predicate adjectives cannot pass through a pronominal argument of the adjective, because it occurs between raising/*tough*-adjectives and their noncoargument subjects (81). We suppose it to involve a direct phi-featural dependency between the subject and the adjective, Agree. This leaves no leeway for plural-concording adjectives with impersonal *on*, unlike with FQs.

For impersonal *on*, then, the evidence is clear that it lacks syntactic number, and it is also clear that it is neutral about numerosity in a way that goes beyond singulars or plurals. On one simple view of the number-numerosity relation, that of (60), numerosity restrictions arise from number specifications that constrain numerosity-neutral meanings. In impersonal *on*, this number-numerosity correlation is met.

For generic impersonals, in French we can only look at the generic 2$^{nd}$ person. 2PL takes plural concord, but with 2SG, judgments are difficult; (85) is representative.

(85)　Dans un couple, il faut que tu sois… 'In a couple, it is necessary that you(sg) be'
　　　　{égal, égaux, ??tous (les) deux loyal/loyaux}
　　　　{equal.MS, equal.MP, all.MP (the) two [≈both] loyal.MPL}
　　　　[Judgments vary considerably.]

### 4.6.9　1PL and pseudospecific on

We have so far kept in this section to the ordinary uses of impersonal *on*, excluding its pseudospecific use, and excluding also 1PL *on*. We turn to these now. The results confirm the evidence from pronominal relationships introduced in chapter 3 (cf. example (2) of this chapter): 1PL *on* behaves like a 1PL personal pronoun and pseudospecific *on* like impersonal *on*.

1PL *on* has all the uses of the older 1PL personal pronoun subject clitic *nous*, and on a given use, controls the same concord as *nous* does, as in (82e). However, the

description must be somewhat nuanced. In (88a), *on* with singular *amical* has its impersonal reading, 'someone, people'. Yet it also has use as *we*, for a speaker-inclusive plurality, though plural *amicaux* is prefered on such use. This *we*-use is not pseudopsecific *on*; *on* with *amical* may also be used indirectly for *you* or a third party, but with a clearly perceived indirectness, while for *we* such indirectness is absent. This impersonal *on* is out with focus-doubling *nous*, marginal with a 1PL anaphor, and out with a phrasal reciprocal, which prefer or need plural concord *amicaux* (chapter 7).

(88a)   On n'a pas été amicaux/amical avec Gwen.
        ON$_{\approx we}$ has not been friendly.PL/SG with Gwen.

(88b)   Nous on n'a pas été amicaux/*amical Gwen.
        WE ON$_{\approx we}$ has not been friendly.PL/SG with Gwen

(88c)   On$_i$ n'a pas été amical {?avec nos$_i$ amis, *les uns avec les autres}.
        ON$_{\approx we}$ has not been friendly.SG {?with our friends, *with each other.PL}

It seems clear from (88) that plain impersonal *on* can be used as equivalent to *we*, alone among personal pronouns. Our approach to the limits on the uses of impersonal *on* will predict this in chapter 5, because impersonal *on* is blocked from being equivalent to definites by the availability of definites, and the subject clitic *nous* is the sole subject clitic lost in current French. It is also clear from (88) that 1PL elements in dependencies to *on* mostly force *on* to be plural for concord. This it is the business of chapter 7 to derive: in brief, there is evidence for a 1PL *on* distinct from impersonal *on* by combining with a silent 1PL element *NOUS*, following Kayne (2010).

Displaced uses of 1PL *on* are not necessarily plural in concord, but in this they pattern with the same displaced uses of older *nous* 'we'. One displaced use is the *editorial* 1PL, used by the single author for himself or herself alone, rather than to include the reader in the *authorial* 1PL (Quirk et al. 1985: 6.18). As editorial 1PL, French *nous* allows or requires singular concord, as in (87) (Grevisse 2008: §438a1°; cf. Collins and Postal 2010 on English). The register where editorial rather than authorial *on* is available is largely disjoint with the register where *on* can be used for *we*. To the extent *on* is possible for *nous* in (90), concord is singular. This is expected both from *on* and from *nous*.[113]

(90)    Dans notre$_i$ thèse, nous$_i$ n'avons pas été égal/*égaux à la tâche.
        In our thesis, we have not been equal.MSG/*MPL to the task.

The 1PL personal pronouns of French have among their displaced uses an analogue of the English one in (91a). We call it empathic 1PL.

(91a)   [nurse to patient$_i$:] Are we$_i$ ready for dinner, Mr. Taber$_i$?

                                                                (Zwicky 1977, adapted)

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[113] We should nuance this by noting the role of register: registers with the subject clitic *nous* must concord -*al* adjectives, but registers with the specific use of *on* include those where -*al* adjectives allow absence of concord. Thus some do allow *On est tous égal {à nous-même* [sic]*, devant la loi}* 'WE ON is all.MPL equal.MSG {to our-self, before death}' (G; cf. Rezac 2011: 294n16).

(91b)  [secretary to another about boss$_i$]: We$_i$'re in a bad mood today.

<div align="right">(Quirk et al. 1985: 6.18)</div>

In French, *nous* as empathic 1PL is highly marked (indicated by !). For our speakers, it requires plural concord, (71) (on variation, cf. English empathic *we* in Collins and Postal 2010). This remains the case when *nous* is replaced by *on* in (92), identified as 1PL by the 1PL anaphor *notre* 'our'.

(92)  Alors, Fañch$_i$, {nous$_i$ sommes, on$_i$ est} amicaux / *amical avec notre$_i$ petit frère?
So, Frank, {we are, ON$_{≈we}$ is} friendly.MPL / *friendly.MSG with our little brother?

The concord of 1PL *on* on the empathic use helps make sense of the concord of pseudospecific *on*. Pseudospecific *on* in (93) has been introduced in chapter 3 as a use of impersonal rather than 1PL *on* in an oblique fashion reminiscent of but not identical with empathic 1PL. It has the properties of impersonal *on* for pronominal dependencies: it cannot be doubled by or antecede personal pronouns other than *s*-pronouns, as shown.

(93)  Alors Gwen$_i$ (et Maya$_k$), on$_{i(+k)}$ ne veut pas m'inviter à son$_{i(+k)}$/*votre$_{i(+k)}$ anniversaire, mais on$_i$ n'est pas assez courageuse[s?] pour me le dire en face?
So Gwen (and Maya), ON does not want to invite me to SON/*your birthday-party, but ON is not courageous.F[PL?] enough to tell me in person?
[Context: speaking in front of a mixed group of colleagues.]

In examples like (93), the morphosyntax does not indicate whether we have to hand an impersonal *on* or 1PL *on*. However, there is a perception that the example is ambiguous. On one reading, quite marked, *on* is perceived as similar to empathic 1PL in English: highly rhetorical, typically condescending or ironic. This reading is isolated by replacing *son* with *notre* 'our' or doubling *on* by the strong pronoun *nous* 'we'.[114] On the second, far less marked reading, *on* is simply used for the addressee with less directness than *tu/vous* 'you(SG/PL)'. This reading only allows for *son* as possessor and no doublee for *on*. In either case, plural concord of the adjective is purely orthographic.

When an audibly concording adjective is used in such examples, (94), the two readings attach to distinct concord options. Plural concord comes with the marked reading comparable to English empathic *we*, and like English empathic *we*, it is far more available in (94a) than in (94b). Singular or default concord isolates the unmarked reading. That is our pseudospecific *on* as a species of impersonal *on*, keeping all its properties of form including concord.

(94a)  Alors les garçons$_i$, on$_{i/k}$ n'allait pas être amical/!amicaux les uns avec les autres?
Now boys, ON wasn't going to be friendly.MSG/PL the ones with the others?

(94b)  Fañch$_i$ et Reun$_k$, je te jure… on$_{i+k}$ ne veut pas m'inviter à son$_{i+k}$ anniversaire, mais on$_{i+k}$ n'est pas assez loyal/??loyaux pour me le dire en face!

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[114] As introduced in chapter 3.6, 1PL *on* is not limited to 1PL anaphora and may combine with *s*-pronoun anaphora, like impersonal *on*, so *son* in (73) tells us nothing. This is the subject of chapter 7.

Fañch and Reun, I swear… ON does not want to invite me to SON birthday, but ON isn't loyal.MSG/PL to tell me face to face.

We can thus isolate a pseudospecific *on* that is a displaced use of impersonal *on*: in morphosyntax, it shares with impersonal *on* the impossibility of dependencies with personal pronouns other than *s*-pronouns, and in interpretation it is characterised by the perception of indirect reference distinct from empathic 1PL.

4.7   Conclusion

The study of the descriptive or NP content of impersonal *on* gives clear results:

Human: Impersonal *on* is restricted to humans, and this restriction is irreducible to pragmatics. The notion of human is broader than any lexical N like *person*. We code it by the phi-feature [human], arguabl a person feature also borne by generic impersonals and 1st/2nd person pronouns. Indefinite pronouns like *someone* have the N *person*.

Gender: Impersonal *on* allows specification for the referential gender [feminine]. On both *on* and indefinite pronouns, [feminine] is subject to the same special conditions and may reflect doubling by a feminine domain restrictor pronoun.

Person and logophoricity: Impersonal *on* is unspecified for 1st/2nd/3rd person and lacks correlated restrictions on including/excluding the speaker or addressee, in a way that contrasts even with 3rd person DPs. It does not need to be satisfied by a logophoric centre or to be read *de se* under attitude predicates like OC PRO, nor does it have an indirect logophoric component like the role of the addressee in generic 2nd person.

Number: Impersonal *on* is unspecified for number and so neutral about numerosity, whereas by contrast even bare plurals are [plural] and constrained to pluralities.

Lexical N: The NP of impersonal *on* is lexically fixed to [human], like *someone* is fixed to the NP *person*, and does not allow enrichment by an NP licensed in the manner of D-type pronouns or determiners like *many*.

We have examined impersonal *on* chiefly in its ordinary uses, but as far as can be told the displaced pseudospecific use has the same content. 1PL *on* has the content of the 1PL subject clitic *nous*, including [1st] and [plural] phi-features on its ordinary uses. However, plain impersonal *on* is also available in use for *we*.

We should like to know whether there are reasons for why *on* is the way it is, if there are answers deeper than the apparent accident that furnishes English but not French with the generic impersonal *one, one's* and French but not English with impersonal *on*. In chapter 8, we approach *on*-like impersonals cross-linguistically as minima in the possible NP content of DPs. The existence of such minima has a functional role: it gives DPs that are unlike the implicit agent in participating in DP dependencies, but like the implicit agent in non committing to most of the content of richer DPs (see ex. 78, 79, 84 above).

4.8    Appendix: Kinds

Among predicates, kind-level ones like *evolve* hold of kinds, while others like *loiter* hold of instances of a kind.

(79)    Spotty's kind / (#)Spotty evolved from the wolf-kind.
        Spotty / (#)The wolf-kind loitered on the shores of Styx.

Impersonal *on* easily combines with kind-level predicates, (80). For generic impersons, 2nd person is fine, even 2SG in French in (80d), while *one* has been reported to resist kind-level predicates (Moltmann 2006: 260).[115]

(80a)    Sur cette planète on a évolué à partir d'hominidés très semblables à nous.
         On this planet ON$_{\approx they}$ evolved from hominids very similar to us.

(80b)    Sur cette planète, on était déjà en voie d'extiction avant que nous on n'arrive !
         On this planet, ON$_{\approx they}$ were already on the way to extinction before we arrived!

(80c)    Nous voyons bien qu'on {se raréfie, s'est raréfié} surtout lors de la création d'un Etat-nation.
         We see clearly that ON$_{\approx nomads}$ {become, became} more rare especially during the creation of a nation-state.
         [Context: looking at a graph of nomad populations.]

(80d)    Quand {on descend, tu descends} des hominidés, {on n'est pas, tu n'es pas} en voie d'extinction.
         When ON$_{\approx you}$/you(SG) descend from hominids, ON$_{\approx you}$/you(SG) you are not on the way to extinction.

The kind use of impersonal *on* is evidence about the nature of impersonal *on*, but the specifics depend on the theory of kinds and kind predication (Krifka et al. 1995, Chierchia 1998b, Dayal 2011, Mari, Beyssade and del Prete 2013). In French, kind predicates are felicitous only with two sorts of DPs. One is definite but not indefinite singulars for "well-established" kinds, (81a). The other sort is definite but not indefinite singulars for any kinds, (81b). English differs by using bare plurals in the latter case.

(81a)    Le/*un chien (#comme Spotty) est en voie d'extinction.
         The/*A dog (#like Spotty) is becoming extinct.

(81b)    Les/*Des chiens (comme Spotty / (#)derrière moi) sont en voie d'extinction.

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[115] The literature concludes that *on*-like impersonals do not support kind reference (Chierchia 1995b: 108, Malamud 2012a). However, the examples use quantificational predicates like *be rare, be everywhere* (Krifka et al. 1995: 1.4.1, Zamparelli 2000). Indeed we have no idea what goes wrong with *Dans le jeux hier, on a été partout, on nous a empechées de marquer le moindre but* 'In the game yesterday, ON [≈ *people, they*] was everywhere, ON prevented us from scoring the least goal'.

*The/*Some dogs (like Spotty / (#)behind me) are becoming extinct.

We expect the kind use of impersonal *on* because *on* is definite-like as well as indefinite like, in the way discussed for floating quantifiers: it can be used maximally. We sketch very roughly one way of working this out, under the perspective on kind reference in Chierchia (1998b) within the SD approach to DPs we have adopted.

Two key aspect of Chierchia's proposal for us are as follows. One, in the domain of individuals, there are kind atoms (the atom that corresponds to the dog-kind, for instance) as well as instance-of-a-kind atoms (the atom that corresponds to my dog Spotty). Two, felicitous kind predication requires that the argument of the kind predicate denote either a kind atom or else the maximal plurality of instances of a kind in a world. Taking French (81b), the only way for a DP with the NP *loups* 'wolves' to participate in felicitous kind predication is for it to have a resource situation with every wolf-instance in a world, say the world situation itself. The definite then denotes the maximal plurality of wolf-instances. Apparently, such a situation is salient in any context, since kind definite plurals are always felicitous. With that resource situation, the indefinite *des loups* 'some wolves' could also be satisfied by the maximal plurality of wolf-instances, but just then *des loups* + kind predicate is equivalent to *les loups* + kind predicate, and so the latter blocks it (chapter 5). (81a) must work roughly in the same way: any resource situation that lets a DP with *loup* 'wolf' participate in felicitous kind predication must have only one atom that satisfies *loup*, the wolf-kind atom, and the situation comes for free.

That is enough to return to impersonal *on*. We know *on* can be satisfied by the unique/maximal ⌜PERSON⌝ individual in its resource situation, provided that the situation is such that it does not meet the uniqueness presupposition of a definite: that is what happens in anaphoric and salient-situation uses of *on* (chapters 2.4, 3.4, and in detail chapter 5). Let us take for concreteness the entire actual world $w_0$: since the NP ⌜PERSON⌝ of *on* is a broader property than any lexical N that it entails, like *person, human, people*, no definite can block *on* from being satisfied by the maximal plurality of ⌜PERSON⌝ individuals in $w_0$. That plurality in turn leads to felicitous kind predication. So *on* is available to work as in (81b). Much the same can be said for *on* working as in (81a), as no definite denotes the PERSON-kind atom.

A different question is whether *on* could basically be a kind expression in some interesting sense. This is Carlson's (1980) classical analysis of English bare plurals, and Chierchia's (1998b) neo-Carlsonian proposal, extended by Dayal (2004) bare nouns in systems like Hindi. Taking Chierchia's analysis, roughly, *people* is a plural NP and so a predicate holding of pluralities, to use it as argument UG provides a type-shift from predicates to their maximal plurality in a world identified with the kind, the *people kind*, and to use a kind with object-level predicates, UG provides Derived Kind Predication (DKP) that which gives existential quantification over instances of the kind.[116]

By and large, this move would not affect our solutions to the puzzles of *on*. We still need to get *on* to be anaphoric to itself, whereas DKP is designed for existential readings, so something needs adding that corresponds to our use of SD's resource situation. Arguably, we also do not want to restrict *on* to lowest scope. The issues that arise are

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[116] The denotation of *people* is a property holding of pluralities; $^{\cap}$*people* in a situation *s* is the people-kind, and if P applies to objects and k denotes a kind, the by DKP, $P(k) = \exists x\,[^{U}k(x) \wedge P(x)]$, where $^{U} = \lambda k_{se}.\lambda x_e . x \leq k(s)$.

similar to those that arise under the hypothesis that noun roots denote kinds, that of *on* and others (Krifka 1995, Kratzer 2008; cf. Borer 2005 for discussion). This is all the more so if *on* is not restricted to lowest scope, though we have seen that bare nouns also do not seem to be (chapter 3.4). We still need to differentiate *on* from bare plurals by denying them anaphoric uses, so something like our use of competition with definites as source of novelty is needed. Likewise, our account of the limitation on *on*'s anaphoric dependencies through this competition would not be affected.

# 5    The interactions of *on*

## 5.1    Introduction

### *5.1.1    Competition*

The theme of this chapter is the behaviour of impersonal *on* brought by interaction with other DPs. By their existential semantics alone, indefinites should be usable whenever definites are, and the poor content of *on* should give it a very wide latitude. We adopt the view that indefinites are circumscribed by competition with definites, and apply it to the unique case of *on* whose NP is poorer than any definite's. From this interaction derive both the unique referential potential and limitations of impersonal *on*, notably its dual novel and anaphoric uses and its pseudospecific use. This leads to two studies: one on the anaphoric relationships of impersonal *on* in section 2, and another on the nature of pseudospecific *on* in section 3. A further study in section 3 considers the relationship between impersonal *on* and ordinary indefinites with respect to their NP content.

In the rest of this section, we introduce the tools we need: the competition of expressions, structural constraints on competition, and competition specifically for presuppositional strength. We assume the theory of impersonal *on* developed in earlier chapters and sumarised in (1).

(1)    *impersonal on*: $[_{DP}\ s_n\ [\exists\ [_{NP}\ [human]]]]$
       $\exists = a$, $\|s_n\|^{c,g} = g(n)$, $\|[human]\|^c = \lambda x.\lambda s\ .\ x$ is PERSON in c . $x \leq s$

Impersonal *on* is an indefinite, close to *a person, people*, but differs in ways that will be crucial to our proposals. The meaning of [human], ⌜PERSON⌝, is weaker than that of *person*, ⌜person⌝, letting *on* but not *a person, people, someone* be satisfied by entities like sheep under a particular perspective. The meaning is also neutral about numerosity, so that [human] holds of [human] atoms, groups with [human] atoms as members, and pluralities with [human] atoms as parts. It is also neutral about including or excluding the speaker or the addressee. These properties come from number and person phi-features, and impersonal *on* does not have any. Throughout this chapter, *on* refers to impersonal *on*, and when we have cause to talk about 1PL *on*, it is identified.

### *5.1.2    Conversational implicatures*

In this chapter, we need the notion pragmatic implicature, and implicatures also introduce competition between  linguistic expressions.

Pragmatics is the use of linguistic expressions, that is the form-meaning pairs computed from the lexicon by syntax and give phonological and semantic interpretation. Gricean pragmatics studies inferences that arise from the use of linguistic expressions under general  rules of behavior. These inferences enrich the *literal meaning* coded in linguistic expressions with *conversational implicatures*. For ordinary communictive exhanges, Grice proposed the Cooperative Principle, and specifically four Maxims.

(2)     *The Cooperative Principle*: Make your contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged.
In particular, follow the *Maxims of*:
*Quality*: Try to make your contribution one that is true.
1.  Do not say that which you believe to be false.
2.  Do not say that for which you lack adequate evidence.
*Quantity*:
1.  Make your contribution as informative as required (for the current purposes of the exchange).
2.  Do not make your contribution more informative than is required.
*Relation*: Be relevant.
*Manner*: Be perspicuous.
1.  Avoid obscurity of expression.
2.  Avoid ambiguity.
3.  Be brief (avoid unnecessary prolixity).
4.  Be orderly.

Much work has developed and modified the Maxims in different ways (overviews include Horn 2004, 2012, Beaver and Geurts 2011, Bach 2012, Potts 2015). One focus are *scalar implicatures*, illustrated in (4). They introduce competition under structural constraints.

(4)      After the conference session on early medieval history,
(4a)     some historians met to discuss ethnogenesis.
(4b)     all historians met to discuss ethnogenesis.
(4c)     some but not for all I know all historians met to discuss ethnogenesis.
(4d)     some but not all historians met to discuss ethnogenesis.

The literal (encoded, conventional) meaning of *some* is an existential quantifier. By it, whenever (b) is true, so should be (a), yet (a) is not ordinarily a good way to report a scenario that makes (b) true. The culprit is conversational implicatures calculated from the interaction of (a) and (b) under the Quantity 1. By Relation and Quantity 2, an assertion of (a) implicates that the speaker believes *some* to be relevant and not to be more informative than needed. When that is so, the same usually goes for *all* in (b). Since (b) is more informative than (asymmetricaly entails) (a), by Quantity 1 the speaker would have preferred (b) if (b) were known to be true. Thus an assertion of (a) leads one to infer the *ignorance implicature*, that the speaker implicates that he does not know (b) to be true; this implicature together with (b) can be paraphrased as (c). If one further expects the speaker to be in possession of relevant knowledge, one infers the *scalar implicature*, that the speakers implicates that he knows (b) to be false; this with (b) can be paraphrased as (d). It is useful to call both implicatures *nonmaximality implicatures* of indefinites.

There are ways at getting at the literal meaning of (a). One is to "cancel" the implicature by added content. (a) can be combined with *..., in fact all did*, since the literal meaning of *some* allows this, unlike the literal meaning of *some but (for all I know) not*

*all* in (c, d). This addition checks the implicature because the first step of its calculation is unavailable: *...some historians met to discuss ethnogenesis, in fact all did* does not compete with the unavailable *\*...all historians met to discuss ethnogensis, in fact all did.* Another way of bringing out the literal meaning of (a) is to embed it in a downward-entailing context, as in *Ethnogenesis is a hot topic if* + (a): here (b) is not more informative than (a), and indeed (a) is not paraphraseable by (c, d).

The calculation of implicatures for (a) depends on alternative ways that the speaker could have acted, in particular on the possibility of asserting (b). It has been found necessary to impose linguistic constraints on alternatives. In brief, if the alternatives to (a) included (d), then (d) as equally relevant but more informative than (a) would prevent (a) from being enriched with its scalar implicature. The remedy is to posit that *some* competes with *all* but not with *some but not all*. More generally, the calculation of the scalar implicatures of a sentence *S* takes into account only the *(structural) alternatives* of *S*. These are to a first approximation modifications of *S* by the replacement of lexical items with other lexical items, like *some* with *all* (Horn 2004; Sauerland 2004; Katzir 2007, Fox and Katzir 2011; see further below).

Defining alternatives linguistically goes beyond the Gricean program by adding specifically linguistic restrictions to the domain-general Cooperative Principle. A further step in this direction is to grammaticalise the calculation of scalar implicatures as part of the semantics of linguistic expressions, rather than the pragmatics of their use (Fox 2007, Chierchia, Fox and Spector 2011). For us, the details are not relevant in themselves, only as parallel to the competition we look at next.

### 5.1.3   *Maximise Presuppositions*

Our chief interest is an intuitively similar competition between expressions for presuppositional strength rather than for informativeness: the principle of *Maximise Presuppositions* (MP). Semantic presuppositions are domain conditions on denotations. MP prefers more restrictive domain conditions. (5) introduces MP:[117]

(5a)    My sister$_i$ washed all her$_i$ toys/(#)ears.
(5b)    My sister$_i$ washed both her$_i$ toys/ears.

The MP account for (5) with *toys* goes broadly as follows. The DPs *all/both her toys* have exactly the same meaning, save that *both her toys* has a stronger presupposition about the topic situation: it is defined only if my sister has exactly two toys, whereas *all her toys* only requires that she have toys. By presupposition projection and the Bridging Principle in chapter 2, presuppositions impose a felicity condition on the assertion. To assert (5b), it must be common ground of the topic situation that my sister has exactly two toys, i.e. that she has exactly two toys in the counterpart of the topic situation in every world of the context set. In this common ground, (5a,b) are equivalent, so the Maxim of Quantity is inoperative. MP steps in to prefer (5b) as presuppositionally stronger. All the same goes for (5) with *ears*, but as it is common ground that if a human has several ears, they have exactly two of them, *all* is always blocked by *both*.

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[117] Assume that the resource situations of all DPs are bound to the propositional situation and so supplied by the topic situation, and indexed pronouns are are λ-bound by their antecedent.

The original motivation of MP and a chief concern of ours is the novelty-familiarity condition, whereby definites are familiar and indefinites novel (Heim 1991, 2011, Singh 2011). Consider (6a). If the presupposition of *the book* is met, namely when there is exactly one book in the topic situation, (6a) with *the* is equivalent to (6a) with *a*, since exactly one individual satisfies *a*. MP prefers the former to the latter. In the same way, in (6b,c) MP needs *the* in ordinary contexts.

(6a)    The/A book arrived.
(6b)    The/(#)A {biological mother of, person who gave birth to} the barkeep entered.
(6c)    The/(#)A Moon rose above the hills.

An initial formulation of MP is (7) (see Heim 1991, 2011, Sauerland 2003, 2008a, Percus 2006, Chemla 2008, Singh 2011, Schlenker 2012).

(7)    *Maximise Presuppositions* (MP): Do not assert a sentence S' of the topic situation s in a context c if:[118]
       (i) There is a presuppositional alternative S of S', namely a sentence obtained from S' by replacing one or more lexical items by (possibly designated) lexical items;
       (ii) S and S' are felicitous in c (by the Bridging Principle, chapter 2.2) and, if so, equivalent in c (for every world w of the context set of c, $\|S\|^{c,g_w}(s_w) = \|S'\|^{c,g_w}(s_w)$, where $s_w$, $g_w$ are as in the Bridging Principle);
       (iii) S is presuppositionally stronger than S' (for all contexts c, assignments g, situation s, {s: s $\in$ domain of $\|S'\|^{c,g}$} is a subset of {s: s $\in$ domain of $\|S\|^{c,g}$}).

MP in (7) works almost transparently for cases like (5), (6), under the assumption that in the definition of a presuppositional alternative *both* can replace *all* and *the* can replace *a*. Let us go through (6a').

(6a')    [ς₃ [s₃ A/the book] [λ₁ [(Q$^D$) [t₁ arrived]]]]
*a*  =   λs : there is s', y such that s' is a minimal situation such that s' ≤ s and y is a book in s', such that there is s'' such that s' ≤ s'' ≤ s and y arrived in s''.
*the* =  λs : there is exactly one x such that x is a book in s . ιy[y is a book in s] arrived in s.

For (7i), the *the*-sentence is a presuppositional alternative of the *a*-sentence provided we ignore Q$^D$; let us assume so (it is derived below). For (7iii), the *the*-sentence has a presupposition strictly stronger than the *a*-sentence. For (7ii), the Bridging Principle of chapter 2.2 translates presuppositions to felicity: the *the* sentence is contextually felicitous only if it is common ground that there is exactly one book in the topic situation. When the *the*- and *a*-sentences are asserted of such a topic situation, they are contextually equivalent, since the only individual that satisfies the restrictor of *a book* is the individual denoted by *the book*. Therefore, MP prefers the *the*-sentence.

The felicity requirement imposed by the uniqueness presupposition of the definite is the familiarity part of the novelty-familiarity condition. The novelty part is the blocking

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[118] As always, a sentence means the LF of a sentence.

of the indefinite by MP. More precisely, the novelty condition as derived by MP is that assertion (6a) *A book arrived* implicates that the *the*-sentence cannot be felicitously asserted. This is a weak implicature: it suffices that the existence and number of books in the topic situation not be common ground, even if it be known to the speaker. Such a weak implicature is the novelty condition in (A).

(Aa)    I met a student before class. A student came to see me after class as well. It was (not) the same student.
(Ab)    Usually, if I buy a book on a given day, I read a book that same day. It's (not) always he same book.

(Aa adapts Hawkins 1991)

This basic implicature derived from MP is often "strengthened": (6a) with *a* may implicate not only that it is not common ground (known to speaker and addressee) that there is exactly one book in the topic situation, but that the speaker does not know this, or knows this to be false (see Chemla 2008 on the pragmatic steps in such strengthenings). The strengthening is optional, though sometimes it is the pragmatic "default".

### 5.1.4    Refining MP: Domains

We will be appying MP to the interaction of *on* with definites essentially along the lines of (6a). In more complex examples, two issues have arisen that are pertinent to us. One is the *domain problem*, what expressions MP applies to. The other is the *alternatives problem*, what the alternatives of an expression are.

(8, 9) illustrate the *domain problem* (Percus 2006, Singh 2011). MP in (7) applies to sentences. However, as sentences, neither the *both* nor the *all* versions of (8a) have any presuppositions, because the restrictor satisfies the presupposition that *both, all* contribute to the nucleus (chapter 2.3). (7iii) of MP thus cannot discriminate between the *both/all* and *the/a* sentences here. The same goes for the other examples.

(8a)    Every farm that has exactly two donkeys fed both/#all its donkeys.
(8b)    If a farm has exactly two donkeys, it feeds both/#all its donkeys.

(9a)    Every farm that has a donkey$_i$ fed the/#a donkey$_i$.
(9b)    Always, if a farm has a donkey$_i$, it feeds the/#a donkey$_i$.

Two solutions have been offered. One, Percus (2006: ex. 36), keeps MP in (7) with (7i) and (7ii), so that entire sentences are compared to contextually felicitous and equivalent alternatives. However, it relativises (7iii) to subconstituents of the compared sentences. In particular, (7iii) might be replaced by (7iii'):[119]

(7iii'):    Every lexical item in S is as presuppositionally strong as the item it replaces in S' and at least one is stronger.

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[119] Percus actual defines alternatives by limiting replacements of a lexical item (or a constituent) to a presuppositionally stronger one; we put it this way in to keep as close as possible to (7), and because it fits better with the idea that the grammar has a single characterisation of alternatives, which is used not just by MP but also and differently by scalar implicatures and focus interpretation (see below).

*where* for A, B of the same type, ||A|| is presuppositionally stronger than ||B|| iff for all contexts c, assignments g, the domain of $||A||^{c,g}$ is a proper subset of the domain of $||B||^{c,g}$.[120]

This prefers the *both*-sentences to the *all*-sentences in (8), because the only difference is the replacement of *all* by the presuppositionally stronger *both*. Essentially the same can be said of the preference for *the* to *a* in (9), save *the* and *a* are not of the same type: *the NP* is a referential term, *a NP* is a generalised quantifier. We can analyse *the* as *a* with the uniqueness presupposition (chapter 2.2), or we can admit a type-shift as part of the comparison (7iii') (Percus 2006: note 23). This solution works both if presuppositional alternatives are defined in terms of lexical items as in (7) or by replacement of one subconstituent with another of an identical type as below.

The other solution, Singh (2011), keeps (7i-iii), but applies MP to clauses in their local context rather than (assertions or utterances of) sentences in the global context. To sketch it for (8b), the local context of the nucleus is the update of the global context by the restrictor proposition, which comes to the set of situations in each of which there is exactly one farm and that farm has exactly two donkeys. Each such situation meets the presupposition of the nucleus proposition with *both*: that there is exactly one farm with exactly two donkeys in the nucleus situation. Accordingly, MP in (7) prefers the *both*-nucleus over the *all*-nucleus clause: both are felicitous and equivalent in the local context, but the *both*-clause has the stronger presupposition. The idea has not been worked out in SD, but it is possible under the approach to presupposition satisfaction in local contexts in Schlenker (2011cd) and related work.

The domain problem arises for constituents smaller than clauses, as in (10).

(10)    The representative of an actress$_i$ tells me [$_{CP}$ that [$_{DP}$ friends of the/*an actress$_i$] [$_{VP}$ like the actresses's$_i$ work]].

We want MP to bar *an actress* in favour of *the actress* (or *her*). The problem is that once one anaphor contributes its presupposition to the clause, a second does not strengthen them. The largest constituent where *the actress* is stronger than *an actress* in the embedded clause is its subject. Here Percus's approach works, while Singh's approach needs for MP to apply to smaller constituents than clauses like DPs.[121]

### 5.1.5 *Refining MP: Alternatives*

The other issue with MP may be dubbed the *alternatives problem*: the characterisation a presuppositional alternative to an expression. (7i) limits replacements to "lexical items", but the notion is left unanalysed and not obviously to correct. Impersonal *on* is an indefinite lexicalised with a particular NP. A first line of evidence about what *on* should

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[120] Where ||A||, ||B|| are "adjusted to apply to sequences", e.g. ⌜λv$_1$…λv$_n$….⌝ to ⌜λ<v$_1$…v$_n$….>⌝.

[121] Ditto for other applications of MP, such as to maximising phi-features: in *Gwen told my story about you$_i$ to your$_i$ spouse*, only one of the *you*'s can strengthen the clause with the presupposition that g(i) (is a situation whose unique/maximal individual) includes the addressee of c.

compete with comes from other indefinite pronouns like *quelqu'un* 'someone' that also have a lexicalized NP (chapter 4.5). Consider (11).

(11)     [Context: an unknown person whose gender I cannot determine walks onto the podium and takes the microphone. I say to the person next to me:]
Il laissent entrer n'importe qui$_i$. {#Il$_i$/##Elle$_i$, *Quelqu'un$_i$, Cette/?La personne$_i$} va parler pendant des heures.
They let anyone enter. {#He/##She, *Someone, This/?The person} will talk for hours.

In this example, the pronominal indefinites *n'importe qui* 'anyone', *quelqu'un* 'someone' are wholly neutral about referential gender, but the personal pronouns *il, elle* commit to one and so are felicitous as anaphora (chapter 4.5). In the second sentence, *quelqu'un* is blocked as a nonnovel indefinite. Since it cannot be blocked by the infelicitous personal pronouns, it seems to be blocked by a full DP like *la personne* 'the person'. This is natural insofar as *quelqu'un* is the lexicalisation of *une N*, but we must allow a lexicalised morphophonological word to compete with an unlexicalised phrase.

(7i) leaves it open how far the source and the alternative lexical item can differ in content. They may differ in presuppositions like *both* versus *all*. Schlenker (2012: 3.2.1) shows that they can also differ in profered content by studying the difference between *know* and *believe*. Thus we do not expect for the uniqueness of *on*'s NP to prevent it from competing with other expressions under MP.

Finally, there are various hints that alternatives can substitute larger constituents for lexical items. Percus (2006: section 6) introduces this problem with the need to block *a graduate student of his* by *his graduate student* since there is no *the graduate student of his*. Another instance is in (12a). The French floating quantifier that corresponds to *all* is *tous*, but the FQ that corresponds to *both* is phrasal, *tous (les) deux* 'all (the) two'. Nevertheless, the two compete in the way *all - both* do under MP.[122]

(12a)   Mes parents sont tous #((les) deux) morts.
My parents are all #((the) two) dead.

(12b) makes the same point for indefinite - definite competition. In (12b) *a person* and *someone* are blocked as nonnovel by MP, but *the person* is infelicitous, so they need to compete with something like *the remaining person*.

(12b)   At closing, there were exactly four persons still eating in the restaurant. Three left at ten thirty. At eleven {the #(remaining) person, #someone, #a woman} ordered desert.

At the same time, in (12c) we do not want to block *the donkey* by *the donkey that Mary bought*, even though the latter has the stronger presupposition and the two are equivalent in the context (as would be allowed if alternatives were structurally essentially unrestricted as in Percus 2000: ex. 56).

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[122] Interestingly, with other cardinals there is lesser yet not no blocking: *Mes grandparents sont tous ?((les) quatre)) morts* 'My grandparents are all ((the) four) dead'.

(12c)  Mary bought a donkey. The donkey (that Mary bought) is named Amadeus.

We adopt tentatively the characterisation of alternatives developed in Katzir (2007), Fox and Katzir (2011) (for scalar implicatures; see Sudo and Spathas 2015 for MP). It allows the replacement a syntactic terminal by another terminal or by $\varnothing$, and by a more complex constituent only if it is salient in the context. Thus *on* as $\exists\,N$ competes with definites of the form *the N* and only under special circumstances with more complex *NP*s.

Independently of *on*, the alternatives problem arises because we need to compare sentences with a indefinite quantifier to sentences with a referential definite, and in SD the former but not the prefix the operators $Q^D$ to the overt nucleus. If *the*-definites are analysed as *a*-indefinites with the uniqueness presupposition, as above, then they too need $Q^D$. Otherwise, on both the foregoing proposals for defining alternatives, $Q^D$ is unproblematic because *[[a NP] [$Q^D$ VP]]* has among its alternatives *[[the NP] [VP]]*.

## 5.1.6  *Applying MP to on*

Impersonal *on* is an indefinite lexicalised with an NP that contains only the the phi-feature [human]. By the foregoing conclusions, we expect a sentence/clause with impersonal *on*'s to have among its alternatives the same sentence modified by replacing one or more of the *on*'s with *the N* and with *the NP* for salient NPs. Under MP, the *on*-sentence/clause is blocked by alternatives that are contextually felicitous and equivalent.

Definites in French always include a lexical N or 1st/2nd person feature, number, and gender; none have [human] as their sole NP content as *on* does (chapter 4). Personal pronouns are definites (chapter 2.5). Definites give rise to presuppositions through the uniqueness presupposition of *the*. (13a) illustrates the structure and presupposition of the 2nd person pronoun in contrast to impersonal *on* in (13b). By MP, an assertion of *tu VP* when felicitous will block an assertion of *on VP* as presuppositionally stronger, namely when *on* would be satisfied uniquely by the atomic addressee.

(13a)  *tu* = [DP s$_n$ the [NP [2nd][singular][human]]]
       Presupposition: there is exactly one individual who is atomic and addressee of c and PERSON in g(n).

(13b)  *on* = [DP s$_n$ $\exists$ [NP [human]]]||
       Presupposes: nothing (chapter 4.2).

By contrast, current French lacks a 1PL personal pronoun among subject clitics, so MP is not expected to block *on* used for any speaker-inclusive plurality of persons. This is right. In (14), impersonal *on*, diagnosed as such by singular concord, can be neutrally used as 'we' as well as 'people', and only indirectly can it be used for the addressee as pseudospecific *on* (see further chapter 7 on impersonal and 1PL *on* and MP).

(14)   On n'a pas été amical avec le postier.
       ON$_{\approx people/\approx we/\approx !you}$ has not been friendly with the postman.

This interaction between impersonal *on* and definites is at the heart of our account of the anaphoric behavior of *on* and the nature of pseudospecific *on* in the next two sections.

## 5.2    Anaphoricity

### *5.2.1    Introduction*

The anaphoric relationships of impersonal *on* present a puzzle that we introduced in chapter 3.5. On the one hand, *on* participates in dependencies with elements otherwise limited to DPs and excluded for the implicit agent of the passive, such as floating quantifiers or the definite article of inalienable possession. On the other hand, it fails to participate in anaphoric dependencies with other DPs, save for *s*-pronouns as local anaphora. In this section, we aim to derive these restrictions from the poor content of *on* in interaction with independent principles.

We start by introducing the anaphoric relationships of impersonal *on*. Then the next two subsections constrain *on* as anaphor through MP, and inversely *on* as antecedent through conditions on definites. That leaves essentially *on* as antecedent and anaphor to itself, save for *s*-pronouns as "minimal pronouns". After that, we look at examples where *on* and definites are nearly but not quite equivalent thanks to accommodation. The chapter ends with other relationships like overlap that are correctly allowed.

(20) introduces one side of the anaphoric limitations of *on*, its inability to be the antecedent of personal pronouns, save local *s*-pronouns (20c).

(20a)    En Mongolie, quand les/des gens$_i$ nous demandaient de les$_i$ prendre en photo…
En Mongolie, when the/∅ people asked us to take a picture of them…

En Mongolie, les/des gens$_i$ nous ont demandé de les$_i$ prendre en photo.
In Mongolia, they asked us to take a picture of them.

(20b)    *En Mongolie, quand on$_i$ nous demandait de __$_i$ prendre en photo…
In Mongolia, when ON$_{≈the/∅\ people}$ asked us to take a picture of __$_{them}$

*En Mongolie, on$_i$ nous a demandé de __$_i$ prendre en photo.
In Mongolia, when ON$_{≈people\ /\ ≈someone\ /\ ≈they}$ asked us to __$_{them}$ photograph
(both good with …*prendre des photos.* 'take pictures.')

(20c)    En Mongolie, quand on$_i$ nous invitait dans sa$_i$ yourte…
In Mongolia, when ON$_{≈the/∅\ people}$ invited us into SON$_{≈their}$ ger…

Inversely, as anaphor, impersonal *on* cannot be used as equivalent to an anaphoric personal pronoun. In (21), *on* cannot covary with the refugees, unlike *il*.

(21a)    Tout réfugié$_i$ m'a décrit la personne qu'il$_i$/on$_{*i}$ a mariée.
Every refugee described to me the person that he/ON$_{*≈he/√≈1+\ persons}$ married.

(21b)    Quand un réfugié$_i$ veut rester dans ce pays, il$_i$/on$_{*i}$ marie un national.

When a refugee wants to remain in this country, he/ON$_{*\approx he/\sqrt{\approx 1+ persons}}$ marries a citizen.

*On* can be anaphoric to another *on*. This is brought out by the contrast in (22). In (22a), *on* cannot be anaphoric, and with a clausemate negation amounts to denial that the VP holds of anyone. In (22b), it can also be anaphoric.

(22a)　A la réunion, quelqu'un$_i$ m'a critiqué mais il$_{i/k}$ / on$_{*i/\sqrt{k}}$ n'a pas écouté mes réponses.
　　　At the meeting, someone$_i$ criticised me but he$_{i/k}$/ON$_{*\approx he/\approx people}$ did not listen to my answers.

(22b)　A la réunion, on$_i$ m'a critiqué mais il$_{*i/\sqrt{k}}$ / on$_{i/k}$ n'a pas écouté mes réponses.
　　　At the meeting, ON$_{\approx 1+ persons}$ criticised me but he / ON$_{\approx they/\approx people}$ did not listen to my answers.

These restrictions are general across all uses of impersonal *on*. Only 1PL *on* differs, being fine as antecedent and anaphor alike to 1PL personal pronouns.

(23)　La guide **nous** a dit qu'**on** pourrait lui demander de **nous** photographier.
　　　The guide told us that ON$_{\approx we}$ could ask her to photograph us.

Impersonal *on* can relate to other DPs by relationships that we will call "loosely anaphoric". One is through accommodation, to which we will give special attention. In (24), the definite *le terroriste* is not felicitous in the context updated by the first sentence, and accordingly the indefinite *un terroriste* is fine. However, *le terroriste* can be accommodated by changing the context.

(24)　Hier **on**$_i$ a assassiné le dissident chilien Orlando Letelier. {**On**$_i$/**Il**$_{*i}$, Un/Le **terroriste**$_i$} avait dissimulé une bombe dans sa voiture.
　　　Yesterday ON$_{\approx 1+ persons}$ assassinated the Chilean dissident O.L. {ON$_{\approx they}$/He$_k$, The/A terrorist } had hidden a bomb in his car.

Our aim is reductionist: to derive the limits on the anaphoric dependencies of *on* from its poor content, namely the absence of the uniqueness presupposition of definites and its poor NP. Roughly, *on* cannot be anaphoric to a DP because a personal pronoun beats *on* under MP (subsection 2), and a definite cannot be anaphoric to *on* because *on* cannot guarantee the definite's presuppositions (subsection 3). When these considerations do not apply, *on* can be antecedent and anaphor, namely when it relates to another *on*.

*5.2.2　Anaphoric on*

The impossibility of *on* anaphoric to non-*on* DPs follows from the principle of Maximise Presuppositions (MP). Section 1 has set out how MP blocks anaphoric indefinites by competition with equivalent but presuppositionally stronger anaphoric definites. In the same way, MP blocks *on*, an indefinite, everywhere that it blocks other indefinites. (24) illustrates the blocking for discourse anaphoricity, given the mechanics in chapters 2, 3.

(24)  [α Un réfugié₍ᵢ₎ est arrivé]. [β/β' Il ~~réfugié~~ / *On₍ᵢ₎ s'est assis]
      A refugee₍ᵢ₎ arrived.          He ~~refugee₍ᵢ₎~~ / *ON₍ᵢ₎ sat down.

(24a)  $\|[_β [_{DP} s_3\ he_{pron}\ [_{NP}\ [3^{rd}]\ ([singular]\ \sqrt{refugee}]]]\ VP]\|^{c,g}$
  = λs : there is exactly one $x$ such that $x$ is atomic and $x$ does not include the speaker
    or addressee of $c$ and $x$ is a refugee in $g(3)$ . $\iota x[x$ is atomic and $x$ does not include
    the speaker or addressee of $c$ and $x$ is a refugee in $g(3)]$ sat down in $s$.

(24b)  $\|[_{β'} [_{DP} s_3\ \exists\ [_{NP}\ [human]]]\ [Q^D\ VP]]\|^{c,g}$
  = λs . there is $x$ and a minimal situation $s'_{\leq s,g(3)}$ where $x$ is PERSON$_c$, such that $s'$ has
    an extension $s''_{\leq s}$ where $x$ sat down.

An assertion of α in (24) makes salient a situation $s^*$, of which it is common ground
that there is exactly one individual in it who is atomic, not the speaker or the addressee,
and instantiates the property ⌜(PERSON and) refugee⌝ (where ⌜refugee⌝ entails ⌜PERSON⌝).
$s^*$ is the value of g(3) for the assertion of β and β'. With this value of g(3), the assertions
of β and β' are felicitous and contextually equivalent, since the indefinite *on* in β' can only
be satisfied by the very individual that the definite of β denotes. MP then prefers β as
presuppositionally stronger. The mechanics are precisely the same as for the standard
application of MP, with *quelqu'un* 'someone' in the place of *on* blocked by *il*.

Generalision of this proposal faces issues that arise in applying MP to regular
indefinites in order to derive the novelty condition, and their remedies extend to *on*. We
have discussed them as the domain problem and the alternatives problem in section 1. To
illustrate, consider the domain problem in (25).

(25)  L'avocat de [la femme]₍ᵢ₎ est parti quand {elle₍ᵢ₎ ~~femme~~, *on₍ᵢ₎} a demandé qu'il {la₍ᵢ₎
      ~~femme~~} laisse seule.
      The attorney of the woman₍ᵢ₎ left when {she₍ᵢ₎ ~~woman~~, *ON₍ᵢ₎} asked that he leave
      {her₍ᵢ₎ ~~woman~~} alone.

In (25), we want to rule out the *on* sentence when equivalent to the *elle* sentence,
namely when the resource situation of *on* has just one woman, say Gwen, as PERSON.
However, the *elle*-sentence is not presuppositionally stronger than the *on*-sentence,
because *la* contributes the same presupposition as *elle* would to the embedded clause and
any larger constituent. The remedy is to take into account the presuppositional strength of
subsentential constituents. Taking one of the two proposals discussed in section 1, the
*elle*-sentence beats the *on*-sentence when contextually equivalent because it replaces a
constituent in the *on*-sentence by a presuppositionally stronger one, namely *on* by *elle*.[123]

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[123] In section 1, our example (10) of the domain problem was more complex than (25) in order to ensure
that the additional presupposition-introducer (*la*) was not c-commanded by the definite/indefinite. This
avoided having to say anything about the phi-features of bound pronouns. In chapter 7 we set out the
arguments of Cable (2005) and Sudo (2012) that their apparent phi-features are interpreted. However, on
the view that they get phi-features by syntactic phi-transmission, all that would chage in (25) is that *on* λ-
binding the dependent D-type pronoun would not give rise to 3SGFEM *la*, and indeed nothing else. We
would still need to rule out base-generating *on* and a non-λ-bound *la* on the relevant reading by MP, as in
the text.

*On* is blocked in the exact same configurations in which other indefinites are blocked, so that the instances of *on*-blocking form a subset of the instances of indefinite-blocking in general. In the SD framework we have adopted in chapter 2, anaphoricity works in three different ways in the three configurations in (26): through pragmatically salient situations for discourse anaphora (26a), through quantification over minimal situations for donkey anaphora (26b), through λ-binding of an individual index that may be freely added to any NP for bound anaphora (26c). However, in each configuration MP by hypothesis blocks anaphoric indefinites by definites, so it is up to the task of blocking anaphoric *on* as an indefinite.

(26a) *Discourse:* I asked a waiter and a waitress$_i$. The/*a waitress$_i$ answered.
(26b) *Donkey:* If I ask a waiter and a waitress$_i$, the/*a waitress$_i$ will answer.
(26c) *Bound:* John fed [no cat of Mary's]$_i$ before the/*a cat$_i$ was bathed.

(bound example from Elbourne 2005: 126 with *the*)

There is an issue proper to *on*, namely which definites compete with it under MP. In (24) it is personal pronouns. It is possible to show that *on* is blocked by definites even when the only competitor for *on* is a nonpronominal definite:

(27a)  Un enfant est né cette nuit sans problème, mais {la$_i$/*une$_i$ mère, !!elle$_i$, quelqu'un$_{*i}$, on$_{*i}$} a eu une épisiotomie.
A child was born this night, but {the$_i$/a$_{*i}$ (surrogate) mother, !!she$_i$, someone$_{*i}$, ON} had a an episiotomy.

(27b)  Un bébé a été porté$_{Ag=i}$ pendant huit mois, puis {la$_i$/*une$_i$ mère porteuse, on$_{*i}$, !!elle$_i$} a changé d'avis.
An baby was carried for eight months, then the/*a surrogate mother changed her mind.[124]
[Context: beginning of an abstract for a conference on reproductive ethics.]

(27c)  Vingt ouvriers$_{i+k}$ avaient pensé venir, mais trois$_i$ ne pouvaient pas. {Les$_k$/Des$_{*k}$ ouvriers *(restants), !!Ils$_k$, On$_{*k}$} ont/a réfusé de venir sans eux$_i$.
Twenty workers$_{i+k}$ meant to come, but three$_i$ could not. {The$_k$/Some$_{*k}$/Ø$_{*k}$ *(remaining) workers, !!They$_k$, ON$_{*k}$} refused to come without them$_i$.

Personal pronouns usually need an antecedent DP, because their silent NP requires an antecedent by the Formal Licensing Condition FLC, though the NP may be markedly infered (notated !!). In (27), personal pronouns are unavailable by the FLC, but the definites are good. In (27c), the first sentence entails that there is a maximal plurality of *the remaining workers*, satisfying the presupposition of the definite. In (27b), the definite's presupposition is satisfied by "default" accommodation.[125] (27a) works like

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[124] Here *on* is natural as pseudospecific.
[125] "Default" is descriptive of the ease of accommodation of the definite and of the "strengthened" implicature of the indefinite. The indefinite in (27b) should implicate that it is not common ground that there is exactly one surrogate mother in the indefinite's resource situation, say the topic situation. However, in (27b) unlike in (24), this implicature is ordinarily strengthened to the implicature that the speaker does not know that she is, or knows that she is not. Compare *Gwen takes both/all her children to school herself*, where *all* naturally implicates not only that it is not common ground that Gwen has more than two children,

(27c) or (27b), depending on further assumptions. Anaphoric *on* is blocked in (27) like other indefinites. This follows if *on* competes under MP with nonpronominal definites, as argued in section 1. Alternatively, it follows if MP does not see FLC problems.[126]

The MP account of constraints on anaphoric *on* lends itself to explaining a striking difference between impersonal *on* and the implicit agent of the passive, and in turn the explanation sharpens MP. Impersonal *on* and the implicit agent are similar in absence of commitment to properties like numerosity, but only *on* antecede anaphora like *s-*pronouns. Inversely, *on* but not the implicit agent is barred from anaphoric use in (28).

(28a)   D'une cachette cousue dans **sa**$_i$ robe **elle**$_i$ prit un petit objet, et {**elle**$_i$ le tendit, **on**$_{*i/\#k}$ le tendit, il fut tendu$_{Ag=i}$} à Ged avec timidité.
From some hiding place sewn in her$_i$ dress she$_i$ took a small object, and {she$_i$ held it out, ON$_{\approx 1+ \text{persons}/*\approx \text{she}}$ held it out, it was held out} to Ged with timidity.
[Context: Ged and a woman are alone on a small island.]

(the passive adapts *Wizard of Earthsea*)

(28b)   **Je** vous suis reconnaisant de vos remarques sur mon livre. Bien sûr, {**j'**ai écrit le livre, **on**$_{*i/\#k}$ a écrit le livre, **le livre** a été écrit$_{Ag=i}$} pour me plaire à moi$_i$.
I am grateful for your remarks on my book. Of course, {I wrote the book, ON$_{*I/\#k}$ wrote the book, the book was written$_{Ag=I}$} to please myself.

(the passive adapts Tolkien, *Letters* #329)

(28c)   Si un linguiste$_i$ écrit un roman, {il$_i$ l'écrit, *on$_i$ l'écrit, il est écrit$_{Ag=i}$} sur son temps libre.
If a linguist writes a book, {he writes it, *ON$_{\approx \text{the}}$ writes it, it is written} in his spare time.

Impersonal *on* is blocked from being anaphoric in (28) by MP exactly as *quelqu'un* 'someone' would be in its place. Concretely for (28b), in order for *on* to be anaphoric, it would have to have a resource situation (perhaps the topic situation) that only has the speaker as PERSON, and with that resource situation (28b) with *on* is equivalent to (28b) with *je* 'I' with the same resource situation. By MP, the latter blocks the former, because it is identical save for one presuppositionally stronger DP, *je* for *on*.

The implicit agent is immune to this blocking. This follows if the passive LF does not have the active LF as a presuppositional alternative. That is natural on the view of the

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but also that the speaker does not know how many children Gwen has, or that the speaker knows that Gwen has more than two children. See Chemla (2008) for such strengthening of MP-derived implicatures. There is presumably a link between ease of accommodation and strengthening here due to the sense of *carry a child* and *surrogate mother*. Compare default accommodation of "inferables" ("bridging"), also accompanied by strenthening: *One house had the/a roof damaged in the storm.*

[126] A similar argument might be made from deictic contexts like (i). Indefinites are barred, apparently by MP, but personal pronouns are unavailable since they commit to referential gender, as are to a lesser extent definites with overt NPs that commit to referential gender (chapter 4.5). It seems that *on* competes with full DPs like *la personne* (or better in a deictic context, *cette personne* 'this person'). A comparison with English would be enlightening; "epicene" *they* resists deictic contexts (cf. Newman 1997).

(i)   {*Quelqu'un, *On, #Il, (#)L'/*Un enseignant, La/*Une personne} doit avoir peur de nous.
{*Someone, *ON, #He, (#)The/*A teacher, The/*A person} has to be afraid of us.
[Context: pointing at a person of unknown gender walking onto the podium.]

implicit agent adopted in chapter 3.2, following Bruening (2013). It is sketched in (29). Whereas *on* and *je* are both DPs, the implicit agent is a verbal head that existentially closes the outermost argument of the the *<est>* function denoted v+VP.

(29a)  *on/je* LF:      [… T [[$_{DP}$ s$_3$ ∃/the NP] [(Voice$_{act}$) [v [$_{VP}$ write the book]]]]]
(29b)  passive LF:    [… T [Voice$_{pass}$ [v [$_{VP}$ write the book]]]]]
    *where* $\|v\ VP\|^{c,g} = \lambda x.\lambda s\ .\ x\ write\_the\_book$
    *and* $\|Voice_{pass}\|^{c,g} = \lambda p_{est}.\lambda s\ .\ \exists x.p(x)(s)$

 (29b) does not have (29a) as presuppositional alternative if alternatives can delete structure but not add it, in this case Spec,Voice (Katzir 2007, Fox and Katzir 2011; in the same way, (29b) does not have *by*-phrase passives as alternatives).

MP only blocks *on* in (28) as anaphoric, which happens to be the sole possibility. Elsewhere there are other possibilities, and MP predicts the nuanced interpretations of *on* found in such cases: it must not be equivalent to a felicitous definite. Two examples are in (29).

(29a)  **Les gobelins**$_i$ préparaient une expédition pour se venger des nains ou au moins des gens {qu'**ils**$_i$ soupçonnaient, qu'**on**$_{*i}$ soupçonnait, qui étaient soupçonnés} de les avoir herbergés.
    The goblins were preparing an expedition to venge themselves on the dwarves or at least on the people {that they suspected, that ON$_{*\approx they}$ suspected, that were suspected} to have harboured them.
    [Context: the suspicion is held by and only by goblins.]
                    (*on* translates the Finnish impersonal in *Hobitti*, p. 147 of 2$^{nd}$ ed.)
(29b)  **Trois gars**$_i$ ont rassemblé une petite cagnotte, et {**ils**$_i$ l'ont offerte, **on**$_{*\approx i}$ l'a offerte, elle a été offerte} à la maman.
    Three guys put together a small kitty, and {they offered it, ON$_{*\approx they}$ offered it, it was offered} to the mother.

Here impersonal *on* is possible but must not be interpreted as equivalent to anaphoric *ils* 'they'. For (29a), the perceived meaning is that *on* must be "vaguer" than *they*, evoking scenarios where it is not necessarily all of the goblins that hold the suspicion, while *they* must be the goblins.[127] (29b) works in the same way.[128] There is no easy translation for *on* in these examples, because of the poor content of *on* discussed in chapter 4.2 and 4.6.

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[127] In (28a), even in a set-up where all and only the goblins hold the suspicion, another way to understand *on* is with the inference there might be others who hold the suspicion, as if the set-up did not matter. The example needs a more nuanced look in view of the fact that *on* can be satisfied by a group atom whose members are the goblins, while *ils* must denote a plurality, yet in its turn has leeway through the representative group use of plurals in chapter 2 (which in the case of definite plurals is known as the nonmaximal use, Brisson 2003, Malamud 2012b with literature).
[128] In (28b), with a scenario where the three guys gave the gift, *on* is possible if the two sentences are separated as *...et je ne sais pas ce qui s'est passé...* '…and I don't know what happened,…', with the perception that it no longer matters that they are the ones giving the gift. Other indefinites work this way too: *All workshop participants signed a small thank-you card and (I don't know exactly how and when, but sometimes before the end,) people offered it to the organisers.* In such cases there is accommodation of the context to allow the antipresupposition of *on* to go through.

However, to the extent indefinites are usable in meanings similar to *on*, they share the requirement that they must not be equivalent to *ils/they*. In contrast, there is no perception that the passive excludes a scenario where its agent is the goblins or the three guys.

In this manner, MP prevents *on* from being anaphoric to any DP to which a definite can be anaphoric, just as it does so for other indefinites. Conversely, *on* can be anaphoric to another *on* because no definite can be, as in (22) above (cf. chapter 3.5 and the Appendix). Next we turn to why *on* cannot antecede a definite.

### 5.2.3 *Antecedent on*

In the foregoing examples, when definite anaphora occur, their presuppositions are satisfied in virtue of an indefinite DP antecedent, and when they are personal pronouns, their NP is FLC-licensed by the indefinite's NP. In a typical case of impersonal *on* antecedent like (30), definite anaphora to *on* are ruled out for both reasons (! indicates marked accommodation, !! a more difficult one).

(30a)  A la sortie du métro $on_i$ m'a sifflée. {*$Il_i$, !$Ils_i$, !La $personne_i$, !!Les $gens_i$, $On_{i/k}$} étai(en)t saoul(e)(s) en plus.
　　　At the metro exit $ON_{\approx 1+\ personss}$ whistled at me. What's more, {*he, !they, !the person(F), !!the people, $ON_{\approx they/\approx 1+\ persons}$} was/were drunk(.F)(.PL).

(30a)  A la sortie du métro $on_i$ m'a serré la main. {*$Il_i$, !!$Ils_i$, !La $personne_i$, !!Les $gens_i$, $On_{i/k}$} étai(en)t saoul(e)(s).
　　　At the metro exit $ON_{\approx 1+\ personss}$ shook my hand. {*He, !!They, !!The person(F), !!The people, $ON_{\approx they/\approx 1+\ persons}$} was/were drunk(.F)(.PL).
　　　[Context: out of the blue.]

The anaphoric relationships in (30) is discourse anaphoricity (chapter 2.3, 3.1).[129] Upon the assertion of the first sentence about a topic situation *s\**, it is common ground that *s\** has an individual that is conceptualised as ⌜PERSON of c⌝, and that a salient situation *s\*\** has exactly one such individual. However, it is not common ground that the individual is an atom, group, or plurality, inclusive or exclusive of the speaker or the addressee, or satisfies any lexical N like *person* ⌜person⌝.

This indeterminacy fails to support any anaphoric definite in the second sentence. For instance, *la personne* 'the person', needs a resource situation of which it is common ground that there is exactly one individual satisfying its NP: an atom, not the speaker or addressee, and ⌜person⌝.[130] *s\*\** is not such a situation. It is not in fact impossible to use *la personne* as subject of the second sentence, but it needs accommodation: on encountering the second sentence with *la personne*, the addressee may constrain the context set so that it is common ground of *s\*\** that there is exactly one atomic non-speaker/addressee ⌜person⌝. This extra step is optional and fairly marked; we use (*) to indicate this here.

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[129] We assume for concreteness that the resource situation of *on* is bound to the propositional situation in the first sentence and free in the second.

[130] Possible contextual restrictions in the NP nuance these requirements, but not in a way important for the argument: in the context, a natural contextual restriction results in an NP paraphreable as *person other than me* (see chapter 2.3).

Personal pronouns moreover have a silent NP that needs to satisfy the FLC, usually by an overt NP antecedent like the NP of *une personne* 'a person' or the lexicalised N in *quelqu'un* 'someone'. The N of *on* cannot satisfy the FLC for any personal pronoun, since in French that the N [human] is not freely available to combine with *the_{pron}* but only found in *on*. It is sometimes possible to infer an NP to satisfy the FLC, but it is marked. 3PL *ils* 'they' in French and cross-linguistically allows inference of an NP like *gens* 'people' more easily than other personal pronouns.

In contrast to the definites, anaphoric *on* is perfect, and expected to be. With *s\*\** as resource situation, *on* in the second sentence is satisfied by exactly one of the individuals that satisfies *on* in the first sentence, and so anaphoric to it. As an indefinite, *on* has no presuppositions. Only *on* among indefinites has an NP that is poorer than the NP of any definite, and so only *on* is not blocked by some definite as anaphor to itself.[131]

This reasoning extends to all anaphoric configurations, discourse, donkey, and bound anaphora, illustrated in (31).[132]

(31)     [Context: a servant commenting that their employers believe themselves invisible to the staff.]

(31a)    *Donkey anaphoricity*:
         Quand on_i se parle de ses intêrets communs devant toi et moi, {on_i, \*ils_i, \*les gens_i, \*les personnes_i} ne nous remarque(nt) même pas.
         When ON_{≈people} speak about SON_{≈their} common interests in front of you and me. {ON_{≈they}, \*They, \*The people, \*The persons} do not even notice us.

(31b)    *Discourse anaphoricity*:
         Tu te rappelles, on_i s'était parlé de ses_i intérêts communs devant toi et moi. {On_i, !Ils_i, !!Les gens_i, !!Les personnes_i} ne nous avai(en)t même pas remarqués.
         You remember, ON_{≈1+ persons} spoke about SON_{≈their} common interests in front of you and me. {ON_{≈they}, !They, !!The people, !!The persons} did not even notice us.

(31c)    *Bound anaphoricity*:
         Tu te rappelles, on_i s'était même promis solennellement les uns aux autres_i devant toi et moi qu'{on_i, \*ils_i} ne parlerai(en)t de ces secrets à âme qui vive.
         You remember, ON_{≈1+ persons} even promised to each other_i in front of us_{you+me} that {ON_{≈they}, \*they_i} would not talk of these secrets to a living soul.

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[131] If anaphoric *on* in (30) is replaced by an indefinite with a richer NP like *une personne* 'a person', the indefinite is not anaphoric, since it is not common ground of any situation (*s\**, *s\*\**) that there is an individual satisfying the NP *personne* 'person' in it (salvo accommodation, but then *la personne* would beat *une personne*). The indefinite would assert that there is an atomic person in its resource situation, who might be the same as the individual that satisfies the antecedent *on*. That is possible, as in (24) or (A) in section 1. In (30) it is difficult just as NP switch is difficult in *A person fired me this morning. A project manager was not polite with me*. We discuss the pragmatic reasons below.

[132] For bound variable pronouns on individual index rather than situation binding, the uniqueness part of the presupposition definites is trivial since the index $i$ makes the pronoun denote $\iota x . \dots \lambda x.x=g(i)$, but the existence part is nontrivial, i.e. that there is an individual identical to $g(i)$ which is (for instance) a non-speaker/addressee-inclusive atom and a ⌜person⌝.

However, (31) is also shows the limits of this reasoning. The effect of *on VP* depends not only on *on* but also on the *VP*, and in (31a,b), the VPs are constructed to help satisfy the presuppositions of anaphoric *les personnes* 'the persons'. Consider (31a). In every minimal situation satisfying the restrictor, there is exactly one maximal plurality exclusive of the speaker and addressee satisfying $\ulcorner$PERSON of c$\urcorner$. This situation almost meets the presuppositions of *les personnes* 'the persons' in the nucleus: that there is a maximal plurality exclusive of the speaker and addressee satisfying $\ulcorner$person$\urcorner$. The last requirement is not satisfied by *on*, because an individual that is [human], $\ulcorner$PERSON of c$\urcorner$, is not necessarily *personne* 'person', since the former is a matter of how an individual like a sheep is conceptualised in a context (chapter 4.2). It is also not satisfied by the VP, since other things than people like programs can *parler* 'talk' to each other. Accommodation is possible in some cases though not (31a). The *on VP* of (31b) should satisfy the presuppositions of anaphoric *les individus qui se parlent* 'the individuals who are talking', perhaps correctly, though judgements are difficult.[133]

There is a distinct factor that limits the anaphoric relationships of *on*, including accommodation: the pragmatics of NP choice in antecedent and anaphor (see esp. Dowty and Jacobson 1988: 99, Levinson 2000: 4.2.1, Huang 2000: 4.2; generally Kehler 2015). It is illustrated in (34). The NPs of the definite anaphora hold uniquely of the individual introduced by the antecedent in the context, so all the anaphora have their presupposition satisfied. However, not all all good. Infelicity comes from lack of pragmatically calculable motivation for NP choice, like contribution of relevant information.

(34)    Draw an equilateral triangle in the upper right quadrant of a Cartesian plane. Now draw a line from the origin that meets the {equilateral triangle, #equiangular triangle, #polygon, triangle, figure} at an apex.

This factor is expected to play a role in (31). It also gives rise to the contrast in (35). In (35a) after the implicit agent of the passive, "default" accommodation makes the definite natural and blocks the indefinite. In (35b) after impersonal *on*, accommodation is out. This is not a fact about *on* but about switching NPs, and independently bars (35c).

(35)    [Context: international conference on reproductive ethics.]

(a)    Un bébé a été porté$_{Ag=i}$ pendant huit mois. Puis {la$_i$/*une$_i$ mère porteuse, on$_{*i}$, elle$_{(*)i}$} a changé d'avis.
       An baby was carried for eight months. Then the/*a surrogate mother changed her mind. [*on* is available as pseudospecfic]

(b)    On$_i$ a porté un bébé pendant huit mois. Puis {(*)la$_i$/*une$_i$ mère porteuse, (??)la$_i$/*une$_i$ personne, elle$_{(*)i}$, on$_i$} a changé d'avis.
       ON$_{\approx someone}$ carried an baby for eight months. Then {(*)the/a surrogate mother, (??)the/a person, (*)she, ON$_{\approx they}$} changed her mind.

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[133] We are not using simple predication to create a suitable situation for a definite anaphir, because for some ill-understood reason it does not work independently of *on*: *Quand une personne est toi, elle/*tu ne reçois pas d'ordres* 'When a person is you, she/*you do not receive orders'; *When a person is a waitress, does {the person, she, (*)the waitress} think differently?* (cf. Kathol 1999: 246).

(c)     Une femme a porté un bébé pendant huit mois. Puis {elle$_i$, (*)la$_i$/*une$_i$ mère porteuse} a changé d'avis.

A woman$_i$ carried a child for eight months. Then {she$_i$, (*)the$_i$/*a$_i$ surrogate mother, ?the$_i$/*a person$_i$} changed her mind.

To take stock, definite anaphora to *on* are usually unavailable because their NP is not entailed by the uniquely poor NP of *on*, and even when they are, there is a pragmatic clash in following up *on* with a definite. Personal pronouns run into the further problem of licensing their silent NP for the FLC. The role played by the poverty of *on*'s content and the distinctiveness of [human] is novel in detail, but also converges with traditional approaches to the incompatibility of impersonals with personal pronoun anaphora in Burzio (1986: 80-1n47) and Cinque (1988: 537-8).

If there were definites immune to these problems, they could be anaphoric to *on*. This will be our analysis of *s*-pronoun anaphora to *on* in chapter 6 as minimal pronouns. Aside from *on* and *s*-pronouns, other anaphoric dependencies of impersonal *on* in chapter 3.5 are the definite article of inalienable possession, the person/number-invariant floating quantifier *chacun* 'each', adjunct OC PRO, and the phrasal reciprocal. Most clearly differ from definites by absence of restrictions that would not be satisfied by impersonal *on* as antecedent. This difference is striking for the definite article of inalienable possession (Guéron 1985, 2005, Vergnaud and Zubizarreta 1992). Unlike personal pronoun possessors, it does not have phi-features reflecting properties of the possessor and so constraining its antecedent. OC PRO does have phi features, but analyses of it attribute them to a syntactic relationship with the controller (Landau 2013, Pearson 2016). Both the definite article of inalienable possession and OC PRO are subject to locality conditions that suggest an analysis as minimal pronouns (Kratzer 1998 on OC PRO). The floating quantifier *chacun* is invariant for person and number, and only distinguishes gender, which impersonal *on* does as well. The locality of floating quantifiers may also suggest that they contain minimal pronouns (chapter 7). For these three elements then, there is no evidence for content that would impose presuppositional restrictions unsatisfiable by *on* as antecedent.

Phrasal reciprocals differ at first sight. In French, they have interpreted number and gender, though not person, and they have the form of definites, *the one(s) ... the other(s)* (chapter 4.6). In English, *each other* has been analyzed as involving a plural definite, so (32a) has roughly the analysis (32b) (Beck 2001). A number specification on such a definite reciprocal is expected to contribute to the presupposition of the VP, and so constrain the subject to denoting or ranging over individuals of the corresponding numerosity. However, no such constraint is evident. Consider quantifiers like *no, fewer than*. They must range over both atoms and pluralities that satisfy their NP, so that *No students ate a pizza* asserts that no student atom and no student plurality eight pizza. (32c,d) should then be presuppositions failures if the reciprocal required the subject to range over pluralities only. Either the number on the reciprocal does not contribute to the presupposition of the VP, or it is transparently accommodated. Both of these solutions work for impersonal *on*; its occasional resistance with phrasal reciprocals may reveal the accommodation step (chapter 4.6; cf. in the same spirit McCloskey 2007: 841).

[feminine] on the reciprocal may contribute a presupposition as expected the definite analysis, but this is unproblematic because it is satisfied by [feminine] *on* (chapter 4.5).

(32a)   The boys copied from each other.
(32b)   The boys$_k$ copied each one$_i$ from the other(s) apart from himself$_i$ among them$_k$
(32c)   Moins de cinq garçons ont copié les uns sur les autres.
         Fewer than five boys copied the.PL one.PL from the.PL others.PL
(32d)   No/Fewer than five boys copied from each other

## 5.2.4 *Accommodation*

In the preceding subsection, we have mentioned that nonpronominal definites anaphoric to *on* are to some extent available through accommodation. Accommodation gives rise to apparent alternation between indefinites and definites, including to alternation between *on* and definites as anaphora to *on*. (40) introduces the phenomenon .

(40a)   [First sentence:] Orlando Letelier died last night.
(40b)   [Second sentence:] An assassin planted a bomb in his car.
(40b)   [Second sentence:]  (!)The assassin planted a bomb in his car.
         [Context: it is common ground that O.L. is a Chilean dissident and that dissidents commonly die by assassination.]

Let us suppose for concreteness that the resource situation of all DPs is bound to the propositional situation and so supplied by the topic situation $s^*$. (40c) is felicitously asserted only if it is common ground that there is exactly one atomic assassin in $s^*$. Upon assertion of (40a), this condition is not met. Accordingly, (40c) is infelicitous, and does not block (40b) under MP. However, upon encountering (40c), the addressee may decide that the speaker wishes to convey that it is common ground that there is exactly one assassin in $s^*$, and update the context accordingly. This is accommodation (Beaver and Krahmer 2001, von Fintel 2008, and with respect to MP, Chemla 2008). In the modified context, *the assassin* is felicitous, and blocks *an assassin*. The result is an alternation between apparently equivalent indefinites and definites, but in any given context (and its context set), there is no alternation: either the definite is infelicitous, or else it is felicitous and blocks the indefinite under MP.

For *the assassin*, accommodation is perceived, which we indicate by !, and it is given away by the availability of an indefinite. Sometimes accommodation is "default". In (40b), *his* can be replaced by *the former Chilean ambassador's*, where accommodation is essentially unperceived, and *a former Chilean ambassador's* is deviant, although it is not common ground that O.L. has been a Chilean ambassador.

In this subsection, we look at accommodations that give rise to alternation between and indefinite and a definite, specifically *on* and a definite, with a perception of near-equivalence between the two. Thinking of them as accommodation makes precise how the alternational and equivalence arise, and how *on* and the definite differ. Our starting example is (41)+(42): any sentence in (41) can be followed by any in (42).[134]

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[134] The examples have been inspired by Koenig and Mauner's (2000) *On a tué le PDG de Renault. Les terroristes ont été impitoyables* 'ON killed the CEO of Renault. The terrorists were pityless.'

(41)     [Context: beginning of a news report:]

(41a)    Hier, une explosion a tué le dissident chilien Orlando Letelier.
         Yesterday, an explosion killed the Chilean dissident O.L.

(41b)    Hier, le dissident chilien Orlando Letelier a été tué.
         Yesterday, the Chilean dissident O.L. was killed.

(41c)    Hier, on a tué le dissident chilien Orlando Letelier.
         Yesterday, ON killed the Chilean dissident O.L.

(42a)    {L'/Un assassin, On, *Il/*Elle} avait dissimulé une bombe dans sa voiture.
         {The/An assassin, ON$_{\approx 1+ \text{persons}}$, *He/*She} had hidden a bomb in his car.

(42b)    {Les/Des assassins, ?Ils/*Elles} avaient dissimulé une bombe dans sa voiture.
         {The/∅ assassins, They(?M/*F)} had hidden a bomb in his car.

(42c)    Un bombe avait été dissimulée dans sa voiture.
         A bomb was hidden in his car.

Let us begin with (41a) followed by (42). (41a) does not entail that someone is responsible for the explosion, still less that someone meant it to kill O.L. Accordingly, the indefinite in (42a) is not blocked by MP. However, common knowledge about dissidents and explosions leads to easy accommodation of the definite in (42a), and it becomes common ground of the topic situation that there is exactly one assassin. This revised context is then updated with the assertion of (42a). The result is alternation between indefinite and definite perceived as virtually equivalent yet distinct in "familiarity". The plurals in (42b) work the same way, save for numerosity. Impersonal *on* in (42c) works like the indefinites, save for its poorer content, including no commitment to numerosity. Because of it, *on* is not perceived to be near-equivalent to any definite, but rather to a disjunction like ≈ *the person or persons responsible*. The personal pronouns in (42a,b) are more difficult save for 3PL, because of the Formal Licensing Condition (FLC) on their silent NP.

If we now take (41b) as the first sentence, with an implicit agent passive, there is entailed to be an individual that killed O.L., but no more: it might be a person or not, an atom or a plurality. The follow-ups in (42) work exactly the same, save that there is less to accommodate. With (41c) as the first sentence, there is still less to accommodate, since *on* as an indefinite guarantees that the second sentence has available a salient situation with exactly one ⌜PERSON in c⌝ in it. We have seen that there are pragmatic restrictions on switching NP content between antedent and anaphor, but in the case at hand they do not arise, and we can sketch why. Assertion of (41a) implicates that the speaker is not in a position to use a more informative NP than [human], or else deems it irrelevant to the communicative intent. The latter is the case if the intent is to assert that O.L. has been murdered. A second sentence may then elaborate by describing the murderer as an assassin, with accommodated *l'assassin* or with *un assassin* otherwise.

If (41) is replaced by (43), the status of the follow-ups in (42) changes drastically in line with expectations. *Un assassin* can be picked up by *il* or *l'assassin*. However, *un assassin* or *on* which are blocked by MP. In contrast, the implicit agent carries no such implicature, since it does not compete with a definite under MP.

(43)   Hier, un assassin a tué le dissident chilien Orlando Letelier.
       Yesterday, an assassin killed the Chilean dissident O.L.

We have noted that when definites are accommodated, personal pronouns remain deviant by the FLC, but an NP can sometimes be infered (chapter 2.5). When this is possible, there arises an alternation between *on* and personal pronouns, though differences between them remain. (46) is a case in point. *On* could be satisfied by Zeus giving birth to Athena, or the nine waves giving birth to Heimdall, while *elle* must denote an atomic individual satisfying a feminine NP. Inversely the infered NP of *elle* need not entail ⌜PERSON of c⌝, as when pointing makes salient the feminine NP *tête* 'head'. However, under typical assumptions about the topic situation of (46), anaphoric *on* and accommodated *elle* ~~femme~~ 'woman' will be close enough.

(46)   Vite, appelez les urgences! $On_i$ est en train d'accoucher dans mon taxi! C'est urgent, $on_i$/!$elle_i$ saigne.
       Quick, call the hospital! $ON_{\approx1+\ persons}$ is giving birth in my taxi. It's urgent, $ON_{\approx they}$/she is bleeding.

Particularly common is alternation between *on* and 3PL *ils* 'they' (cf. Lagane 1963, Boutet 1986).

(47a)  Pardon, Monsieur, voilà deux heures qu'$on_i$ appelle de Zurich. {(!)$Ils_i$ demandent, $On_i$ demande} une réponse.
       Excuse me, sir, it's been two hours that $ON_{\approx1+\ persons}$ is calling from Zurich. {They, $On_{\approx they}$} are asking for an answer.

(CNRTL, s.v. *on*, with *ils*)

(47b)  puis les anciennes $on_i$ les déplaçait bon ben je dis mince $i_i$ nous mettent des nouvelles à la place et puis nous $on_i$ nous déplace
       then the old ones, **$ON_{\approx1+\ persons}$** moved them, well, I say damn **they** are giving us new ones instead and then us **$ON_{\approx they}$** moves us

(Boutet 1988 for "advanced French")

A common use of antecedentless 3PL personal pronouns is illustrated by (48), a variety of "arbitrary 3PL" (see Cabredo-Hofherr 2003, Siewerska and Papastathi 2011). It alternates with near-equivalent *on*.

(48a)  Hier en Andorre, {les $gens_i$, !$ils_i$} ont célébré $leur_i$ fête nationale.
       Yesterday in Andorra, {the people, they} celebrated the/their national holiday.
       [Context: the topic situation does not have any salient plurality of people.]

(48b)  Hier en Andorre, $on_i$ a célébré $sa_i$ fête nationale.
       Yesterday in Andorra, $ON_{\approx1+\ persons/\approx they}$ celebrated the/$SON_{\approx their}$ national holiday.

In (48a), the definites must denote the Andorans or some other nationality alreadys salient in the context like the Czech immigrants when uttered by a Czech. In either case, this group must have multiple members, so the definites are infelicitous if there is only one Czech immigrant in Andorra or only one Andorran has survived the zombie apocalypse. The felicity of the definites relies on a salient situation $s^{**}$ of which it is common ground that there is a plurality in it who have in common a national holiday. Impersonal *on* in (48b) is similar in that *sa fête nationale* forces *on* to be "maximal" while *la fête nationale* 'the national holiday' would let *on* mean simply *one or more people*, as discussed in section 4. On the maximal reading, (48b) asserts that yesterday in Andorra, all members of a nationality celebrated that nationality's national holiday. In contrast to (48a), however, the context does not seem to need to identify this nationality, and independently, there is clearly no commitment to how many members of it are in Andorra. So the resource situation $s^{***}$ of maximal *on* is not $s^{**}$ where a definite would be felicitous and equivalent and block *on*. $s^{***}$ must have just one individual to achieve the "maximal" reading of *on* rather than the existential *one or more people* reading, but nothing is presupposed of that individual, including numerosity.

Arbitrary 3PL *ils* 'they' differs from apparently similar "corporate" 3PL *ils* 'they' in (49) (q.v. Cabredo-Hofherr 2003, Creissels 2008).

(49a)   **Ils** vont augmenter les impôts pour financer les/*ses/leurs réformes.
        They will again raise taxes to finance the/*SON/their affairs.

(49b)   **On** va encore augmenter les impôts pour financer les/*ses/*leurs réformes.
        $ON_{\approx 1+ persons}$ will again raise taxes to finance the/*$SON_{\approx their}$/*their affairs.

(adapting Creissels 2008)

Corporate *ils* is used for certain pluralities like the government that sometimes seem available "by convention", here with the predicates like *raise taxes*. When available, corporate *ils* seems unmarked. *On* in the place of *ils* seems existential rather than maximal, and indeed cannot combine with an *s*-pronoun possessor (Creissels 2008). That follows if corporate *ils* in (49) somehow has access to a resource situation of which it is common ground that there is a plurality in it, namely government members. With respect to it, *ils* beats *on*, while no other situation is salient. Availability of such a situation is presumably part of what it means for corporate *ils* to be conventionalised.[135]

So far we have looked at near-equivalence between *on* and definites by accommodation when *on* is invariant. It also occurs when *on* covaries, as in (44). Here the nucleus presupposition of *l'assassin* 'the assassin' is met by an infered proposition like *there is an assassin* (chapter 2.3). Otherwise, *on, *il, un assassin* work as in (42), save that the switch of NPs between *on* and *un assassin* in (44a) is more jarring, recalling (35).

(44a)   Quand on tue un dissident chilien sur le sol américain, {on, *il, l'assassin, ?un assassin} procède avec l'aval de la CIA.

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[135] As in other cases of resistance to possessor binding with arbitrary *on*, it disappears in a generic context: *Quand on augmente les impôts pour financer ses promesses électorales…* 'When ON raises taxes to finance SON own electoral promises…'.

When ON kills a Chilean dissident on American soil, {ON, *he, the assassin, ?an assassin} proceeds with accord of the CIA.

(44b) Quand un dissident chilien est tué sur le sol américain, {on, *il, l'assassin, un assassin} procède avec l'aval de la CIA.
When a Chilean dissident is killed on American soil, {ON, *he, the assassin, an assassin} proceeds with accord of the CIA.

In the examples discussed in this section, impersonal *on* seems near-equivalent to a definite, but there is never contextual semantic equivalence, and indeed full equivalence is never perceived. The near-equivalence arises from evaluating *on* and definites in slightly different contexts that are available thanks to accommodation: pragmatic context change to make part of the context information that is not so in virtue of the semantics of preceding linguistic expressions alone.

### 5.2.5   On in other anaphoric relationships

Our aim in this section has been to derive limits on the anaphoric dependencies of *on* from its uniquely content and independent principles: principally to the uniqueness presupposition of definites (responsible for the "familiarity" of definites), preference for presuppositionally stronger expressions (responsible the "novelty" of indefinites), and licensing of silent NPs in personal pronouns (giving their extra limitations).

These principles have nothing to say about a variety of relationships between *on* and other DPs, such as those in (55). (55a) would be typically asserted of a situation where the definite is part of the individual that satisfies *on*, but this is not a requirement. In this respect, *on* works the same as the indefinite *des gens* 'some people', but it is number-neutral and lacks the nonmaximality presupposition of indefinites (q.v. section 3).

(55a)   **Les invités** m'ont dit **qu'on** a apprécié la soirée.
The guests told me that $ON_{\approx 1+ \text{ persons}}$ liked the party.

In (55b), the definite *la plupart de nos académicians* can supply the ⌜PERSON⌝ individuals in the resource situation of *on*, so one or more up to all of the academicians liked the party.[136]   MP only blocks use of *on* to assert that they all did something, where *ils* beats *on*. The definites *les uns* and *les autres* in turn are parts of *on* in virtue of apposition. Again, *on* works like *des gens* '(some) people' in this respect.

 (55b) J'ai vu **la plupart de nos académiciens**ᵢ. **On** m'a parlé, **les uns** d'une nouvelle planète, **les autres** d'une nouvelle comète; j'attends **qu'ils**ᵢ décident de son sort, pour l'honorer en conférence. (G)

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[136] For an example in English:

(i)   **They** … had come to realize that when Vir Cotto spoke of warnings, then those warnings were ignored$_{\text{Ag=i}}$ at **one's** / **a person's** extreme peril.

(P. David, *Legions of Fire,* with *one*)

I have seen the majority of **our academicians**. **ON**$_{\approx people \neq they}$ spoke to.me, the ones of a new planet, the others of a new comet; I wait that **they** decide of its fate, to honor it at a conference.

The unavailability of definite anaphora to *on* has been seen to leave *on* available as anaphor to *on*, as the sole case of an anaphoric indefinite allowed by MP. However, *on* is only a subject clitic, and there is no counterpart of it in other configurations. For nonsubject positions, the 1PL personal pronoun can sometimes step in, and in generic contexts the 2nd person generic (e.g. Bescherelle 1871: 454, Grevisse 2008: §754e; Kayne 1975: 172n123, Oukada 1982: 102, Creissels 2008). (56) illustrates 1PL:

(56)  **On** réclame d'abord le bonheur à la vie. Elle **nous** le doit.
      **ON**$_{\approx one/\approx people/\approx a\,person}$ demands first happiness from life. It owes it to **us**.
      [Commentary: "*On* can designate 'all men' or 'all men of a certain epoch. In that case, *nous* can serve as the object case of *on*."]

(CNRTL, s.v. *on*)

In (56), *on* is ambiguous between impersonal *on*, covariant with the silent generic A-quantifier, and the specific use of *on* for *we* (whether reflecting impersonal or 1PL *on*). *Nous* in the second sentence denotes either a speaker-inclusive plurality large enough to encompass everyone *on* ranges over, or the human kind on the kind use of definite plurals (chapter 4.8; cf. Malamud 2012a). The relationship between impersonal *on* and *nous* is of the same sort as in (56), and *une person* 'a person' for *on* behaves the same (cf. Ruwet 1990: n20).

(57a,b) illustrates the relationship of *on* to generic 2nd person, while (57c) gives a parallel in English. Generic 2nd person is particularly common to link *on* to a nonsubject position, (57a), but it is also possible in a subject position, (57b).[137]

(57a)  **On** n'ose plus se/vous/me demander si cela **vous** plait.
  se:     ON$_{\approx one(i)}$ daren't ask SE$_{\approx oneself}$ anymore if it pleases you$_{GEN(i)}$.
  vous:  ON$_{\approx one(i)}$ daren't ask you$_{GEN/DEIC(k)}$ anymore if it pleases you$_{k/*i}$.
  me:    ON$_{\approx one(i)}$ daren't ask me anymore if it pleases you$_{DEIC/*i}$.

(adapting Grevisse 2008: §754e)

(57b)  Quand **on** utilise notre service de sécurité, {**vous** êtes, **on** est} à l'abri de tous les dangers.
      When **ON**$_{\approx one}$ uses our security service, {**you** are, **ON**$_{\approx one}$ is} safe from all dangers.

(57c)  It's difficult if **your** house gets burgled, when **one** is out late at work.

(Quirk et al. 1985: 6.56)

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[137] There is resistance for *on* to relate to generic 2SG, ***On** attend toujours des autres qu'ils **vous**/*t'aident* 'ON$_{\approx one}$ expects always of others that they help you(PL/*SG)' (Creissels 2008), though good examples certainly occur, *Quand **on** est pauvre, les gens **te/vous** méprisent* 'When ON$_{\approx one}$ is poor, people scorn you(SG/PL)' (Jones 1996: 287). Perhaps there is interaction with the spread of generic 2nd person at the expense of *on* in more familiar styles and their preference to 2SG over 2PL (see Coveney 2009, Williams and van Compernolle 2009 with references).

The analysis of generic 2nd remains elusive (chapter 4.4). It is not a simple definite like other personal pronouns, because it does not resist covariation unlike even 1PL and 3PL personal pronouns (Malamud 2012a, 2013), and because person and number do not make their regular contributions to it (chapter 4.3-6). Impressionistically, in switching from impersonal *on* to generic *vous* there is a shift of perspective between *on* and *vous*: in (57b), *vous* and not *on* invites the addressee to put themselves in the shoes of the generic individual. Generic 2nd person seems strictly incompatible with exclusion of the actual addressee, so in (57a) with local *vous*, addressee-exclusive *on* cannot relate to generic *vous*. Usually, generic 2nd person dislikes exclusion of the speaker as well, so *me* has the same effect in (57a).

Overall in this section, our aim has been to derive the anaphoric restrictions on impersonal *on* from the poor content we have establihed from it, rather than by special antianaphoric properties. To do so, we have relied on interpretive principles. We should like to end by mentioning that the reductionist view idea could have been pursued in another way, syntactically. One domain where our interpretive tools have played a role is in phi-restrictions on anaphoric dependencies, as in (59). In (59a) *lui* is blocked by *elle* under MP, while in (59b) *acteur* fails to satisfy the presupposition of *elle*.

(59a)   L'actrice$_i$ a gagné. Je suis fière d'elle$_i$ / *lui$_i$.
        The actress won. I am proud of her / *him.

(59b)   L'actrice$_i$ / *acteur$_i$ a gagné. Je suis fière d'elle$_i$.
        The actress / *actor won, and I am proud of her.

An alternative is a syntactic mechanism that ensures the right degree of phi-matching in anaphoric dependencies. It would require an agreement beyond the usual boundaries of syntactic dependencies like sentences, as in Collins and Postal (2010). With it to hand, the phi-deficiency of *on* might be used to limit its anaphoric relationships syntactically, still without saying anything specific to the limits themselves.

5.3   Pseudospecific *on*

*5.3.1   Introduction*

In this section, our subject is the pseudospecific use of *on*. It is introduced in (60). Interpretively, the *on* in (60b) is close to *tu* 'you' in (60a), save that it is "indirect".[138]

(60a)   Alors Gwen$_i$, (toi$_i$) tu$_i$ ne veux pas m'inviter à *son$_i$/ton$_i$ anniversaire, mais tu$_i$ n'es pas assez courageuse/*courageux pour me le dire en face?
        So Gwen, (YOU) you don't want to invite me to *SON/your birthday, but you are not courageous.F/*M[SG] enough to tell me in person?

(60b)   Alors Gwen$_i$, (*toi$_i$) on$_i$ ne veut pas m'inviter à son$_i$/*ton$_i$ anniversaire, mais on$_i$ n'est pas assez courageuse/*courageux pour me le dire en face?

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[138] We bracket concord that is only orthographic.

So Gwen, (*YOU) ON does not want to invite me to SON/*your birthday, but ON is not courageous.F/*M[SG] enough to tell me in person?
[Context: speaking to Gwen in front of a mixed group of colleagues.]

The same goes for *on* in (61) with respect to the 3PL personal pronoun *ils* 'they'. Later we will see examples for all personal pronouns.

(61)    Ces deux gars$_i$, je te jure… on$_i$ ne veut pas m'inviter à son$_i$/*leur$_i$ mariage, mais on$_i$ n'est même pas assez amical/(*)amicaux l'un avec l'autre pour se le dire clairement.
Those two guys, I tell ya… ON does not want to invite me to SON/*their wedding, but ON is not even friendly.SG/(*)PL enough with each other to tell each other clearly.

As far as form goes, the pseudospecific use of *on* has the properties of other uses of impersonal *on*, such as absence of pronoun doubling, no anaphoric pronouns other than *s*-pronouns, and only default (singular) concord even when used for pluralities (chapter 3, 4). Interpretively, in (60b) the pseudospecific use comes with the inference that the first disjunct is only true if the addressee Gwen satisfies the VP, not just any (salient) woman, and it is true if Gwen satisfies the VP even if no one else does. Likewise for (61) with respect to those two guys. Let us call this the *reference inference*. This inference accompanies *tu* 'you'*, ils* 'they' thanks to their semantics, since they denote Gwen and those two respectively. Yet unlike *tu*, *ils*, *on* is perceived as "indirect" reference.

It is difficult to convey this indirectness. It is of the same sort as that associated with indirect illocutionary acts like *Can you reach the salt?* when asking to pass the salt (Leech 2007, Lempert 2012, Terkourafi 2012, Haugh 2015). Among DPs, indirectness characterises the "empathic" *we* in (62a) (chapter 3.6) or the indefinite in (62b).

(62a)   We are quite the rebel, aren't we Gwen?
(62b)   Someone's quite the rebel, aren't we dear?

Both empathic *we* and indirect indefinites are available in French. In fact, if (61) has plural concord, it must be analysed as 1PL *on* 'we', and the empathic use is available with the same marginality as *we* in the translation, patronising or quotative (chapter 4.6). Pseudospecific *on* with its default concord has a far lesser degree of indirectness. Yet it is there. By contrast, there is no indirectness to *on* on the specific use as *we* in (63a), where 1PL focus doubling and anaphor identify it as 1PL *on* (see esp. Morin 1978, Oukada 1982, Creissels 2008). There is also no indirectness for *on* as *we* in (63b), where singular concord identifies it as impersonal *on* used as 'we'.

(63a)   Gwen$_k$, (nous) on ne veut pas t$_k$'inviter à notre anniversaire, et on est assez amicaux pour te$_k$ le dire en face.
Gwen, (WE) ON$_{≈we}$ does not want to invite you to our birthday-party, and ON$_{≈we}$ is friendly.MPL enough to tell you in person.

(63b)   (?) Gwen$_k$, on ne veut pas t$_k$'inviter (à notre anniversaire), et on est assez amical pour te$_k$ le dire en face.
Gwen, ON$_{\approx we}$ does not want to invite you (to our birthday-party), and ON$_{\approx we}$ is friendly.MPL enough to tell you in person.

The morphosyntax of pseudospecific *on* suggests that it is to be analysed as use of impersonal *on*, rather than *on* combining with a personal pronoun, as 1PL *on* is analysed in chapter 7 following Kayne (2010). However, if pseudospecific *on* is impersonal *on*, then its use for a specific, salient individual as in (60, 61) should be blocked by Maximise Presuppositions (MP). To take (60), the reference inference indicates that there is a single ⌜PERSON$_c$⌝ individual in *on*'s resource situation, Gwen, not multiple individuals over which *on* quantifies existentially. With this resouce situation, the presupposition of (60b) with *tu* is met, and *tu* should block *on* under MP as contextually equivalent but presuppositionally stronger. At the same time, there is a sense in which *on* and *tu* are not equivalent, since *on* is perceived as "indirect" reference.

This is the conundrum that we address in this section. Our solution is briefly as follows. Impersonal *on* on the pseudospecific use is impersonal *on* with the resource situation indicated by the reference inference, and it should be blocked by MP. To accept an utterance with pseudospecific *on*, context change or accommodation takes place, eliminating the information in virtue of which impersonal *on* would be blocked. Inferences about the context change, that is conversational implicatures, constitute the indirectness of pseudospecific *on*. We develop this proposal in the next subsection, drawing on clear parallels outside *on*. Then we turn to variation in implicatures of the pseudospecific use of *on*, using it to explore a domain of linguistic variation.

Before giving our proposal, we should like to strengthen the hypothesis that the pseudospecific use of *on* involves a resource situation where *on* should be blocked by a definite under MP. To begin with, there is the reference inference. Impersonal *on* + clausemate negation + *VP* is true if the VP does not hold of any ⌜PERSON$_c$⌝, like the bare plural *people* (chapter 3). On the pseudospecific use, the first disjunct of (60), (61) is true if and only if the VP fails to hold of the coindexed individual, so that is the sole ⌜PERSON$_c$⌝ individual in the resource situation of *on*: Gwen in (60), those two guys in (61). We assume for (60) that being the addressee makes available a salient situation containing only the addressee that allows *tu* to felicitously denote it. For (61), we assume that for an individual denoted by the demonstrative NP, there is a salient situation with just that individual and at least the NP property (cf. chapter 2.3).

This conclusion is confirmed by gender concord. Impersonal *on* can be feminine only if it is common ground of the resource situation of *on* that the only ⌜PERSON$_c$⌝ individuals in it are female (chapter 4.5).[139] In (60b), one such situation is the situation that contains the addressee Gwen. It is the only such situation if Gwen is the only woman among her colleagues, or if no other women are salient. The same goes for (64). Here impersonal *on* should covary with the A-quantifier *jamais* 'never' over all ⌜PERSON$_c$⌝ individuals in the topic situation. Concord and the reference inference that the situation has only Gwen.

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[139] More properly, the situation of which this is common ground is the resource situation of invariant *on* or the supersituation of the resource situations of covarying *on*. We use the simplified phrasing.

(64)     C'est clair qu'on$_i$ n'est jamais contente de mon travail; d'aucun dirait qu'on$_i$ est à
         peine amicale, mais peut-on$_i$ commenter?
         It's obvious that ON is never/not happy.F[SG] with my work; some would say that
         ON is barely friendly.[F]SG, but can ON clarify?
         [Context: said indirectly to Gwen in a mixed group of colleagues, whether or not
         Gwen is the sole woman.]

Finally, the anaphoric *s*-pronoun possessor in (60b), (61) also suggests that there is only a single individual in *on*'s resource situation. In section 3, we will see that invariant *on* resists *s*-possessors unless that is so.

In and of itself, the inference that an assertion is used to indirectly to say something about a specific individual is not evidence that there is an expression denoting or satisfiable only by that individual. In (64), default concord *content*, *amical* is available even if *on* is perceived as indirectly used to Gwen, though not in (60b) where the *s*-possessor requires there to be just one individual in *on*'s resource situation. The indirectness of (64) with default concord is considerably greater than with feminine concord. With default concord, *on* should range over Gwen and her colleagues. Gwen is among them, so the assertions in (64) are true and the question may be answered by Gwen. However, if one has reason to believe that the speaker uses *on* for Gwen, then one is faced with a violation of the Maxim of Quantity: the speaker has used a sentence less informative than one where the resource situation of *on* is the situation made salient by the addressee Gwen. Indirectness is the inference drawn about why the speaker might have done so, that is, a conversational implicature (see Leech 2007, Lempert 2012, Terkourafi 2012, Haugh 2015 for recent overviews of implicature-based approaches to indirectness). We will call this *camouflage*.[140] The term pseudospecific *on* we keep for *on* that should be blocked by a definite under MP, and so one that is definite-like. It is the nature of this use of impersonal *on* that we explore as context change.

## 5.3.2   Revising the context

We thus have in pseudospecific *on* an impersonal *on* with a resource sitation of which it is common ground that there is exactly one ⌜(female) PERSON$_c$⌝ individual in it. With that resource situation, *on VP* is true only iff VP holds of that individual. As consequence, a definite in the place *on* is felicitous and equivalent in (60b, 64) because Gwen is the ⌜addressee of c⌝, and in (61) because the plurality is ⌜guys⌝ on the topic situation. In order to allow *on*, the context must change to make the definite infelicitous.

The mechanics is introduced independently of *on* in (65).[141]

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[140] To take a different scenario for illustration, consider a book reviewer's, *These serious flaws in ... make for a disappointing and misleading edition ...* **One** *hopes for a corrected and revamped edition in the future, one which better and more fully presents the archival materials.* (G/J) To be truly asserted, there must be in the domain of the silent generic quantifier only readers sufficiently like the reviewer, and the reader may infer that he is using this domain in order to avoid making an assertion about himself, and infer reasons for doing so from matters like avoidance of authorial *I* in certain styles of writing.

[141] Here are several nonconstructed examples, (i, ii) for the addresse, (iii) for the speaker.

(i)     [Context: a high-stakes poker-game organised by Le Chiffre; one of the players orders a drink and the
        other oponents of Le Chiffre start ordering one after another.]

(65)    [Context: Man speaking to Goldilocks$_i$; no other persons are present.]

(65a)   Goldilocks, you$_i$ ate their porridge?! You$_i$ break into a bears' den and eat their porridge! Didn't you$_i$ notice it was bear porridge?

(65b)   Goldilocks, you$_i$/*she$_i$ ate their porridge?! She$_i$ breaks into a bears' den and eats their porridge! Didn't you$_i$ notice it was bear porridge?

(65c)   Goldilocks, you$_i$ ate their porridge?! My, someone was hungry, wasn't she? Didn't you$_i$ notice it was bear porridge?

(65) is uttered in a context where Goldilocks is the addressee. In this context, *you* for Goldilocks gives the felicitous (65a). In (65b), *she* is used for Goldilocks. As a $3^{rd}$ person personal pronoun, *she* has an NP whose FLC would be met here by *(who is) Goldilocks*. Yet in the context, *she* cannot denote Goldilocks. If the phi-feature [$3^{rd}$] of *she* leads to the presupposition that *she* does not denote the addressee, then that presupposition is not satisfied in any situation. If [$3^{rd}$] is inert, then under MP *you* blocks *she* in any situation where *she* would otherwise denote Goldilocks. In order for *she* to be legitimate in (65b), the context must change to remove the information that Goldilocks is the addressee.

That fits the impression given by the second sentence of (65b): the speaker pretends to address or make an aside to a third party. We can say something about how this impression arises if we suppose that change of context gives rise to pragmatic inferences of reasons for it, at least when the change is not the default change of adding information. In (65b), *she* is made available by removing the information that the porridge-eater is the addressee. This change occurs ordinarily in switching from one addressee to another. (65b) itself would be natural in a conversation between Bjorn, Goldilocks, and Ursula, where Bjorn says the second sentence to Ursula as an aside in order to convey that he considers Goldilock's behaviour outrageous. On finding *she* in this context, one ordinarily infers that the referent of *she* is Goldilocks (by however reference tracking works), supposes that the speaker has switched addressees (since *she* and not *you* is used), and that the assertion is this sort of aside (presumably by dint of repeating what everyone has just learned). The actual context of (65b) involves only a slight difference: one infers that the speaker pretends to change addressees, in order to allow the rest of the foregoing inferences to go through. This inference of pretense constitutes the specific indirectness of *she* for *you*, additional to any indirectness that Bjorn's aside has.

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Le Chiffre: [annoyed] That's it? Hm? Anyone want to play poker now?
Leiter: Someone's in a hurry. (*Casino Royale*)

(ii) [Context: husband and wife wake up late because the alarm didn't go off].
Wife: We set it for the wrong time. Instead of six we set it for half past six.
Husband: WE forgot to set the alarm? YOU forgot to set the alarm!
Wife: [ironising] I forgot to set the alarm.
Husband: God, she can't even set the alarm. (*Obecná Škola*, our translation)

(iii) Guest: Is this the first one [baby] for you and your husband?
Sara: My husband? Ew, gross, no hi, I'm Audrey, I'm the mommy [surrogate mother].
Audrey [mother]: That little person in there is mine, actually. And that guy is my husband. [looks at her husband in a ridiculous situation] She said proudly. Jeez. (*Rules of Engagement* episode 608)

(65c) can be analysed similarly.[142] At first sight, it does not need context change: the indefinite might have a resource situation that has other people than Goldilocks, yet be used indirectly for Goldilocks through camouflage. In French, we have excluded this analysis by a feminine indefinite in (66), and we suppose so also for (65c), where *isn't she* might provide this control. The feminine indefinite needs a resource situation of which it is common ground that there are one or more women in it and the only persons in it are women (chapter 4.5). There is only one such situation in the context, the situation $s**$ made salient by Goldilock as the addressee. With $s**$ as resource situation, the indefinite ought to be blocked by a definite: by *you* in an unchanged context, by *she who is Goldilocks* in the context as changed above. To allow the indefinite, the context must be revised so that there is a situation $s***$ where the feminine indefinite's requirement is met, but that fails to satisfy the presupposition of any definite. One way to do so is for there to be several women in some counterparts of $s***$. Possibly, we want the change to be conservative, in the sense that $s***$ keeps only Goldilocks in those worlds of the post-change context set that correspond to worlds of the pre-change context set.

The result is a context where (65c) is not blocked by MP because no definite is felicitous with $s***$ as resource situation. The changed context is one that would obtain ordinarily upon learning that the bears' porridge had been eaten and knowing that the only possible culprit(s) is one or more salient women. The specific indirectness of *someone* for *you* arises from the inference that the speaker is pretending to this context. This matches well intuitions about (65c). There is a pretense that the indefinite is satisfied by a woman or women who need not be Goldilocks (this comes from the changed $s***$), yet among women in the pre-change topic or another salient situation, Goldilocks alone satisfies the indefinite (because the change to $s***$ is conservative).

This story extends directly to the pseudospecific use of impersonal *on*. It asks for revisions similar to those of an indefinite, but not identical, because of its poorer content. We will go through a variation on (65). (66a) has indirect 3SG *elle* 'she' for *tu* 'you'. It works exactly like (65b).[143]

(66a)   T'as mangé leur bouillie?! Elle entre par infraction dans une maison d'ours et elle mange leur bouillie! T'as pas remarqué que c'était de la bouillie d'ours?
        You ate their porridge? She breaks into a bears' den and eats their porridge! Didn't you notice it was bear porridge?

(66b)   T'as mangé leur bouillie?! On entre par infraction dans une maison d'ours et on mange leur bouillie! ?(Eh ben bravo!) T'as pas remarqué que c'était de la bouillie d'ours?
        You ate their porridge? ON breaks into a bears' den and ON eats their porridge! Well bravo! Didn't you notice it was bear porridge?

(66c)   T'as mangé leur bouillie?! Eh ben on avait faim dans ces bois-là(, petite gourmande)! T'as pas remarqué que c'était de la bouillie d'ours?

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[142] If the indefinite is analysed as specific (Endriss 2009: 4.7, Schwarz 2011, Heusinger 2011, Heim 2011), we need to understand better how MP fails to block specific indefinites when they are available without regularly allowing them for definites.
[143] Kwon (2003) gives essentially this intuition about 3rd person pronouns to the addressee.

You ate their porridge?! Well ON$_{\approx \text{people}}$ were hungry in those woods, little foodie! You didn't notice it was bear porridge?

(66b,c) modify (66a) with *on*. They are perceived as indirect use of impersonal *on* under the pretense to not knowing the identity of the porridge eater. In themselves, they may ambiguous between camouflage, where the resource situation of *on* has ⌜PERSON$_c$⌝ individuals other than Goldilocks, and the pseudospecific use where Goldilocks is the sole ⌜PERSON$_c$⌝ in the resource situation and context change is needed if *on* is not to be blocked by a definite under MP. Introspection offers some guidance. Without *petite gourmande*, (66c) with its *dans ces-bois-là* gives the impression of existentially quantifying over whoever there was in those woods, of which only Goldilocks is known and relevant, and so the *on* sentence is infered to be about her; this is camouflage. On the other hand, with *la petite gourmande*, (66c) gives the impression of *on* being indirectly used to refer to a specific person, on the pseudospecific use.

(66d) gives away the pseudospecific use of *on* through feminine gender concord, as in (60, 64): the resource situation of *on* is the situation $s^{**}$ made salient by and containing only the addressee Goldilocks.[144]

(66d)  $_{S1}$ T'as mangé leur bouillie?! $_{S2}$ Eh ben on faisait pas sa fière / *son fier! $_{S3}$ Tu sais ce qu'il ya dedans?

You ate their porridge?! Well ON was not making SON proud.F/*M [≈ being very picky]! You know what's in it?

(66d')  … $_{S2}$ On a été bien curieuse/!curieux! …

… ON was quite curious.F/!M!

[Context: Goldilocks is the only woman known to be in the context.]

Here *on* clearly has the referential inference. As for indirectness, it gives the impression of pretense that there is a choice of salient women to satisfy *on*, though in fact Goldilocks is the only salient woman. Camouflage with default masculine gender is far more marked in (66d') with *curieux*, and in (66d) with *son fier* it is unavailable because the *s*-possessor that *on*'s resource situation have just one individual. *Quelqu'un* 'someone' is far more marked for *on* in (66d'), unusable in (66d).

The analysis of *on* should be essentially the same as that of *someone* in (65c). There is only one situation of which it is common ground that its ⌜PERSON$_c$⌝ individual(s) are women and only women, namely the situation $s^{**}$ made salient by the addressee and

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[144] For various examples of indirect *on* in episodic and quantified contexts, see Grevisse (2008: §438b1° and H4). In examples there concord when present is orthographic, they furnish a good stock for further testing. Consider (i). Here *elle* is an indirect 3SG pronoun for the addressee, *on* is camouflage *on* by its lack of concord, while *on est fâchée* 'ON is upset.F' should be pseudospecific and so less indirect. Putting in audible concord, *pris(e) par la colère* 'taken(F) by anger', does indeed make for this difference.

(i)  Elle est vraiment offensée. Il rit encore : / « Ha ! Ha ! Ça m'a échappé, dites donc. On est fâché? Elle est fâchée », dit-il en s'adressant vaguement à moi.
   She is really offended.F He laughs again: / "Ha! Ha! I didn't realise that. ON is upset.M? She is upset.F", says he vaguely addressing me. (Sartre, cit. Grevisse 2008: 753b1°).

containing only Goldilocks as individual. In the changed context, there must be a situation $s^{***}$, possibly $s^{**}$ itself, of which this remains common ground, but that does not satisfy the presuppositions of any definite with which MP compares the indefinite *on*. For instance, some counterparts of $s^{***}$ might have just the addressee, and others a group or plurality of women including the addressee. Moreover, counterparts of $s^{***}$ in worlds of the original context set keep just Goldilocks. This analysis goes well with the impression given by (66d,d'), as described for (65c). The lesser markedness of *on* beside *quelqu'un* 'someone' may come from the pragmatics of the indefinites' NPs, discussed in section 3: assertion of S2 with *quelqu'un* implicates that it is relevant that the individual satisfying it is an atomic ⌜person⌝, since *on* might have been used.

The impressions of indirect reference given by indirect *elle* 'she' in (66a) and pseudospecific *on* in (66d) as well as other indefinites are quite different from each other, and match the different context changes they need. In (66a) the situation $s^{**}$ made salient by Goldilocks is unchanged and her being the addressee is erased, while in (66d) $s^{**}$ is loosened up as to who is in it but can retain the addressee. A correlate of this difference is the compatibility of vocatives with indirect indefinites but not 3$^{rd}$ persons, as in (68a,b). Here *elle* must be disjoint from the vocatives, since it is exclusive of the speaker and addressee. *On*, *quelqu'un* need not be disjoint, and indeed indefinites may combine with cocatives in a similar manner independently, as shown.

(68a)   Dis donc, (*toi) on$_i$/(?)quelqu'un$_i$/*elle$_i$ a été bien curieuse, n'est-ce pas, Goldilocks$_i$?
        Say, (*YOU) ON/(?)someone/*she was rather curious.F, no, Goldilocks?

cf.     Women, including you, were curious, weren't they/you, Goldilocks?

(68b)   On reprend le cours et vous deux$_i$, (*vous$_i$) on se$_i$/*vous$_i$ tait!
        We will continue the class and yout two, (*YOU) ON SE/*yourself keep.quiet!

cf.     You guys, someone help me, won't you?

Let us take stock of our proposal. Pseudospecific *on* is the use of impersonal *on* in a context where it should be blocked by a definite under MP. Its availability depends on context change, and the change leads to implicatures that enrich its meaning beyond plain existential quantification. This analysis falls at one endpoint of the gamut of theories of "displaced" uses of DPs (Zwicky 1977) and other expressions (chiefly speech acts, Lempert 2012): their coded or conventionalised properties are the same as those of ordinary uses, and their "displacement" reflects inferences that accompany their use in particular contexts. Our construal of pseudospecific *on*, and camouflage *on* as well, as impersonal *on*, accounts for the identity of their testable syntacticosemantic properties, notably the absence of person and number for syntactic dependencies (concord, chapter 4, pronoun focus doubling, q.v. see chapter 7), and semantic ones (anaphoric pronouns, including bound ones, q.v. see chapter 7). This is striking in examples like (68), where pseudospecific or camouflage *on* combines a 2SG/2PL vocative yet remains person- and number-less for these dependencies. At the other endpoint in analyses of displaced uses is

the view that they involve a proprietary syntax and semantics. We explore it for 1PL *on* in chapter 7.

Between these positions lies the possibility that a displaced use is the same as the ordinary one in syntax and semantics, yet still different in some other coded, conventionalised way. We look at it next.[145] [1]

### 5.3.3  Variation through competition

Pragmatic analyses of displaced uses face the challenge of variation. When there is variation in the availability of a syntactically distinctive expression, its syntax can be used to code the variation. For instance, if 1PL *on* is impersonal *on* with 1PL phi-features, its emergence at a particular point in time can be modelled as change in the lexicalisation of these features with *on* (chapter 7). If indirect *on* is just impersonal *on* in syntax and semantics, variation must come from elsewhere. There is indeed great variation on the indirect uses of *on*. At a first look, some of it might suggest a distinctive syntax-semantics. If a tavern keeper routinely says to customers *On arrive* 'ON is coming' where the linguist would use *je* 'I', perhaps the tavern keeper has a 1SG *on*. At a closer look, probes for 1SG phi-features fail to find them, unlike the 1PL they find with 1PL *on*. A still closer examination quickly suggests that the variation is not an attractive candidate for syntactic parametrisation, when it turns out that the tavern keeper too would use *je* to acquaintances who stay drinking after hours.[146]

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[145] We are not claiming that there could not be an *on* doubled by a personal pronoun or with full phi-features, but in French we are aware of few candidates. Even the handful of reports of doubling by non-1PL expressions, chiefly *Voilà qu'après dinner, **tous ces messieurs** on était là à fumer en rond autour de moi* 'So after dinner, all these gentlemen$_i$ ON$_i$ was there smoking in a circle around me' (Frei 1929, Nyrop 1925 §388, cf. 387, Grevisse 2008§438H3 as popular), do not constitute the relevant *focus doubling* that bears on the properties of *on*, as we discuss in chapter 7. Classical French examples like *Vous, Narcisse, approchez; et **vous**, qu'on se retire* 'You, Narcisse, approach; and you$_i$, that ON$_i$ withdraw' (Racine) (q.v. Bescherelle 1871: 454 §400, Nyrop 1925: §385, Morin 1996: 256, Livia 2001: 101), combine a vocative and an *on* clause, as is still possible. What we see in classical French is easier switching from a personal pronoun to *on* than now, which is consistent with lesser indirectness of its pseudospecific *on* explained in the next subsection. There remains a handful of examples like (i), where *on* is anaphoric to a pronoun too close to be at all available now. They recall mixing of T- and V-forms available in pre-classical French, now impossible (q.v. Grevisse 2008: §655H3, Peeters 2004, cf. Lass 1999 for analytical options).

(i-a)  **On**$_i$ a certain attraits, un certain enjouement, que personne ne peut **me**$_i$ disputer, **je**$_i$ pense.
        **ON** has certain attractions, a certain cheerfulness, that none can deny **me**, **I** think.
                                                                    (Regnard, cit. Bescherelle 1871: 454)
(i-b)  Allons, qu'**on**$_i$ l'embrasse tout-à-l'heure devant moi ; qu'**on**$_i$ lui témoigne **son**$_i$ repentir, et qu'**on**$_i$ la prie de vouloir **te**$_i$ pardonner.[145]
        Let's.go.1PL, that ON kisses her later before me; that ON declares SON repentance, and that ON asks her to be willing to pardon you.
                                                                    (Hauteur, cit. Larousse)
(i-c)  **Je**$_i$ prétends qu'**on**$_i$ soit sourde à tous les damoiseaux.
        **I** pretend that **ON** is deaf to all the young men.
                                                                    (Molière, cit. Larousse)

[146] Cf. variation among English speakers on indirect *one* for *I* in (i).

(i)  Rassilon: The Sisterhood of Karn has no business in this chamber, or on this planet.
      Ohila [a priestess of Karn]: I heard the Doctor had come home. **One** so loves fireworks!

The sort of variation found with indirect uses of *on* recalls conditions on the use of familiar or T-form and respectuous or V-form 2SG personal pronouns in French (Peeters 2004). It resides in a special sort of meaning: the meaning that makes the T-form used to a sibling but not a police officer, and to an unknown customer at the village market but not the town market. Such meanings may well be part of impersonal *on*. However, here we will look into them as an indirect source of variation in *on*: variation in the availability of definites through them interacts with implicatures derived from Maximise Presuppositions to modulate the indirect uses of *on*.

Let us begin with the observation that *on* is usually used indirectly in order to respect cultural conventions about maters like giving commands or attributing blame. The descriptions in (70) bring out this role.[147]

(70a) [A sentence with pseudospecific *on*] conveys a sense of discretion. This type of indirect reference does not formally state the connection between the person implicated in the action and the action itself. *On* is often used in the second person as a hedge on a direct question, statement, or imperative that might be interpreted as rude or invasive. In the first person singular, it is intended to express a degree of humility, although if overused or used ironically, it may indicate the reverse.

(Livia 2001: 101-2)

(70b) [I]n attributing to the addressee a sort of anonymity, the speaker in a way protects their addressee. The use of *on* in this case permits to attenuate the sense of guilt or shame on the part of the latter. It also attentuates the responsibility of the speaker who speaks impersonally, who does not want to implicate themselves by a direct address. In other cases, a sarcastic effect arises from the use of *on*.

(Kwon 2003, our translation)

In (71) are examples that illustrate this aspect of the use of *on*. All have the properties of impersonal *on*; for instance, *sa* in (71b) cannot be *ma* 'my'. All but (70b) are identifiable as pseudospecific by *s*-possessors or concord, rather than camouflage.

(71)
a 1SG **Moi je** refuse de lui écrire. **On** a encore **sa** fierté.
ᴍᴇ I refuse to write to.him. ON still has SON pride.

Comment: Conveys that anyone in the speaker's situation would feel the same, respecting a social convention not to attribute pride to a particular person. Available for every other personal pronoun (3SG in Kwon 2003).

b 1SG **On** arrive.
ON is coming. (cf. Livia 2001)

Comment: *On* is conventionalised for speaker self-reference by service personnel, e.g. the sole tavern keeper, to keep distance with the customer, and it is unmarked (cf. *Coming!*). Outside this conventional use, the same sentence may be uttered in exasperation by a person badgered about being late (roughly *Coming already!*).

c 2SG **On** présentera les principaux thèmes développés dans **ses** recherches; **on** précisera le cas échéant les collaborations nationales ou internationales associées. **On** donnera la liste […] de **ses** principales publications depuis le 1$^{er}$ janvier 2007.
ON will present the principal themes developed on SON research; ON will as needed specify associated national or international collaboration. ON will give the list […] of SON pricipal publications since January 1 2007.

(CNRS report directions for individual researchers)

Comment: *On* is conventionalised in instructions from authority to subordinates as avoidance of direct command, along with the future instead of the imperative, with effects ranging from polite to patronising (cf. Haugh 2015: 14).

d 2SG **On** me prendra une tarte pour **ses** enfants, comme d'habitude?
ON will will take from us a pie for SON children, as usual?

Comment: *On* is conventionalised from salespersonnel to customers to avoid directness in professions like the bakery but not others like the jeweler's.

e 2SG **Ma pauvre amie**, **on** est toujours tellement **courageuse**!
My poor friend(F), ON is always so courageous.F[SG]!

Comment: Indirect address conventionalised as affectionately pitying in certain milieux, while unusable by others who perceive it as offensively condescending.

f 3SG **On** aura dormi dans **son** propre lit.
ON will have slept in SON own bed.

Comment: Said of a person missing the morning of a party to reassure one wondering if they have not gotten lost, to avoid direct reference in contexts where there are such possibilities as belief that person is mentally unstable (associated with a somewhat remote register).

In these examples, speakers perceive that *on* is used to refer indirectly in order to respect identifiable cultural conventions. The conventions do not usually mandate the use of *on*, but rather the avoidance of direct reference. Other ways to satisfy the conventions may exist: in (71c) *on…on* may be replaced by *le chercheur* 'the researcher' … *il* 'he', in (71d) *on* may be replaced by *elle* 'she' to which we return below, in (71e) by *nous sommes* 'we are' (keeping FSG concord) in a rather rarefied register or by *je connais quelqu'un qui est* 'I know someone who is', in (71b) *on* seems the only option.

The uses of *on* in (71) are all familiar to our speakers, but there is a great deal of variation on them. A particular waiter or baker in a community that uses the waiter's *on*

(71b) or the baker's *on* (71d) may refuse them, while allowing other uses like (71a). (71e) is very familiar and yet unusable for many. Other uses like (72) may be simply unknown:

(72a)  Farmers carefully avoid using the first person pronoun. When one asks a farmer: *où allez-vous?* he will answer: *on va à Angers*
       where go-you                    ON goes to Angers.
<div align="center">(Nyrop 1925: §380, our translation)</div>

(72b)  Patient:    Je veux vous demander, on peut venir demain matin?
                   I would like to ask you, ON can come tomorrow morning?
       Doctor:     Qui, on?
                   Who, ON?
       Patient:    Moi, oui, entrer demain matin.
                   Me, yes, come in tomorrow morning.
<div align="center">(Blanche-Benveniste 2003: 50, Peeters 2006: 204)</div>
We take our clue to the nature of this variation from observations like (73):

(73a)  *on* was a stylistic option employed by the upper classes as a negative politeness strategy as a means to avoid direct confrontation … "*On* was in fashion in high society in the seventeenth century; it made it possible through a kind of understatement to remain vague while implying something more precise and this attribute made it an attractive option for a social group who looked upon direct expression as a sign of coarseness and bad taste." … a grammarian writing at the very beginning of the eighteenth century […] notes that *on* may be used for singular *je* and for *nous* 'quite correctly' in particular contexts[:] "[…] Thus a man who will have gone a long time without seeing another will say quite correctly: *il y a long-temps qu'on ne vous a veu* [it is long since ON has not seen you(V)]" (King, Martineau and Mougeon 2011: 488-9, their translations for cited extracts).[148]

(73b)  [*on* for 2SG:] In the usage of the bourgeoisie, one readily uses *on* in addressing oneself to children of a certain age; in this way one avoids *tu* ['you' familiar] which, above all with respect to the parents, would be too familiar, and *vous* ['you' polite] which would seem too ceremonious. […] *On a fait du latin ce matin?* [ON has done Latin this morning?] one would say to children that one does not know very well, with whom one is not familiar. (Nyrop 1925 : §386, our translation)[149]

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[148] Cf. Rousseau's observation on classical French tragedies, and cf. Herkman (2006) for discussion:

Almost all is said in general maxims. […] *je* ['I'] is almost as scrupulously banished from the French stage as from the writings of Port-Royal, and human passions, as modest as Christian humility, there speak only through *on*. (Jean-Jacques Rousseau, *la Nouvelle Héloïse*, partly cited for pseudospecific *on* in Nyrop 1925: §380, our translation).

[149] Cf.:

I remember a time in my childhood when I avoided forms of direct address with the parents of my best friend because I was not sure whether to use the polite or the familiar form, thinking that either might offend them. Talking to these folks on an extended basis without using second person pronouns at all was quite a feat of verbal acrobatics. (von Fintel 2008n15)

These observations suggest that *on* "spreads" onto territory that should belong to personal pronouns under Maximise Presuppositions, but that they leave unoccupied through cultural conventions. We will call the meaning/usage knowledge underlying these conventions *conventional implicatures*, following one of the uses of this term, for whatever distinguishes the familiar or T- (*tu*) and respectuous or V- (*vous*) forms of 2SG personal pronouns. Conventional implicatures are distinctive in failure to interact with other meanings (cf. Potts 2015, Horn 2013, Wayne 2014):

(74a)  Gwen croit (que je te/#vous tutoie) et qu' [α il n'y a que toi qui aimes ta foutue chatte].
Gwens thinks (that I address you.T/#V with *tu* and) that only you.T like your.T.F damned.F cat.F.

If α of (74a) is unembedded, one infers that the speaker believes that the addressee's cat is female and has a pejorative attitude to it. Embedding α in (74a) can "shift" the inferences to Gwen having that belief and attitude, while the speaker may really believe that the adressee has a nice hermaphrodite platypus. Not so for the familiarity due to the 2nd person T-forms *toi, ta*. (74a) requires that the speaker be in a familiar relationship to the addressee, and this cannot be helped even by the bracketed clause. The unshiftability extends to all the particular conditions on T/V-uses. If one is uncomfortable with the T- or either form to Gwen's father, then that discomfort remains when relaying a question of Gwen's as *Gwen is asking if you would like cake*, though Gwen would use the T-form.

The same unshiftability is characteristic of the inferences or conditions accompanying indirect *on*. (75c), with the baker's *on* of (71d), may be said by another bakery salesperson, but not by a friend of the addressee doing the queue with him or her.

(75c)  La boulangère demande si on prend une tarte pour ses enfants.
The bakery saleswoman is asking if $ON_k$ is taking a cake for $SON_k$ children.

The circumstances under which the T- and V-forms are used are matters of cultural convention and vary across communities and within them across individuals (cf. Peeters 2004, and elsewhere e.g. Plevoets, Speelman and Geeraerts 2008 with literature).[150] At a market in one town (say Gourin), merchants conventionally address an unknown customer of the same gender, age-group and socioeconomic class by the T-form, in another (Montroulez) by the V-form; in a given town both the T- and V- forms may be conventionally avoided to customers at a bakery while at the jeweller's they use the V-form; and members of these speech communities refuse the conventions. In the bakery case, conventions leave a *gap*, where neither the T- nor the V-form is usable, and the

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[150] A divisive question has been the extent to which use of the T/V-forms falls under generalisations independent of particular linguistic forms, and how broad these might be (Brown and Gilman 1960, Brown and Levinson 1987, and their critics from many different perspectives, e.g. Goddard 2006, Leech 2007). We can at any rate observe this: the fine-grained conditions on the use of the T/V-forms in French do not correlate neatly with similar devices of power and solidarity, like the use of first names or titles. Cf. work on the conventionalisation of originally indirect speech acts and variation (Lempert 2012, Holmes 2012).

baker's *on* steps in, (71d). Nyrop's (73b) describes another such gap. The same goes for a convention against 1SG in (71a,b).

In convention gaps, a speaker must resort to alternative expressions, and impersonal *on* seems to step into the breach by default. There are two ways of conceiving of this. Consider Nyrop's scenario (73b), where *On a fait du latin ce matin* 'ON had Latin this morning' is said to Sara, while the T- *tu* and V- *vous* 2SG personal pronouns are both unusable by their conventional implicatures. One possibility is that Maximise Presuppositions takes conventional implicatures into account. When MP compares the *on*-sentence with its *tu/vous*-alternatives, it counts unusability of the latter as infelicity, just as it does presupposition failure. On this view, *on* in (73b) ought to be wholly unmarked since there is no competitor, like *on* that alternates with only accommodated definites in section 2. We still expect T/V-forms to block *on* under MP when usable.

Empirically, this fails: Nyrop's scenario (73b) remains common, and *on* is felt as indirect, despite being the most unmarked DP to use for the addressee. It seems that conventional implicatures are not the sort of meaning that MP sees, a T/V-forms block *on* even when unusable, and *on* is only used indirectly as pseudospecific or camouflage. It remains the case that the more unavailable the T-/V-forms are, the less marked *on* is. However, this is an immediate consequence of the fact that Gricean pragmatics has access to what we are calling the conventional implicatures of T/V-forms, namely cultural conventions about matters like politeness (whatever these are – Leech 2007, Haugh 2015; Goddard 2006). Taking the *on* in (73b) to be pseudospecific, a context change must take place, and in infering the reasons for it, one has access to the information that there so no 2SG personal pronoun avalaible, which furnishes a reason. By use of *on* in (73b), a speaker need conversationally implicate only that they are not in a position to use a TV-form by the latter's conventional implicatures (cultural conventions). The same goes camouflage *on*, where one seeks reasons for the use of an unexpectedly uninformative expression.

On this view, variation on uses of *on* like (72) can be derived from by the conventional implicatures of definites, in this case 1SG personal pronouns. Nyrop's farmer respects a cultural convention where *je* 'I' is avoided, and context change to use pseudospecific *on* is unmarked (supposing a pseudospecific *on*). Our speakers lack any motivation to avoid *on*, so reasons for context change are hard to fathom. In fact, the use of *on* is not ungrammatical; it just gives rise to the inference that *je* is being avoided for a reason like modesty, which has no cultural grounds in this case. Those grounds do exist for the attribution of pride, (71a). Here *je* is perfectly available, but leads to an assertion that carries a culturally negative valuation, and that in turn supplies one with a reason to which to attribute the speaker's use of *on* with its context change.

Variation noted for the examples in (71) may be approached in the same way. There is nothing wrong with using the V-form *you* to a cusomer at the baker's or the jeweller's, but at the baker's it is common to follow a convention to avoid it nevertheless. In this case, it is not only *on* that may step in, but also 3SG personal pronouns (75a), unlike in English (75b) (cf. Kwon 2003).

(75a)   Et qu'est-ce qu'on/elle prend avec ça?
        And what she takes with that?
        [Context: a bakery salespeson to a customer.]

(75b)   And what will Madam/#she be having with that?

Comparing the baker's 3$^{rd}$ person personal pronouns with *on* is revealing. 3$^{rd}$ person DPs are commonly recruited cross-linguistically for reference to the addressee. It is possible to show that some are grammaticalised with a [2$^{nd}$] person feature while some are not, and that the baker's 3$^{rd}$ person pronouns in French are not (Rezac 2011: 6.4; contrast Collins and Postal 2010 who argue for [2$^{nd}$] in English *Madam*). To explain their use, we have the unusability of 2$^{nd}$ person pronouns by convention, but it is not enough. That alone should permit 3$^{rd}$ person pronouns to the child in (73b) or for oneself in (71b), yet that is as odd as in English, while *on* is natural. Ideally, the difference should follow from the different context changes needed for *elle* and *on*. On the specific proposal for (65, 66), *elle* would involve a pretense that the customer is passing commands through a third party. It is hard to say whether that matches the impression given by *elle*; it might explain why *elle* is good in (75a) but odd (71d), since (71d) is independently odder than (75a) if it really directed at a third party to relay to the customer. Ultimately,  it might be that the baker's 3$^{rd}$ person pronoun is itself conventionalised, that is, carries a conventional implicature governing its use.

In theory, indirect *on* itself might be associated with conventional implicatures to fully capture its behaviour. We have looked at examples where there is promise in deriving the inferences that come with the indirect uses of *on* from pragmatic reasoning about the use of impersonal *on* under given circumstances. However, we have also avoided a closer look at difficult examples such as the variation noted for (71e).

Beyond *on*, the variation we see with it is endemic to displaced uses: with pronouns, like editorial 1PL for a single author (chapter 3.6, 7, and on variation e.g. Breitkopf 2009), and the better-studied domain of speech acts (e.g. Lempert 2012, Terkourafi 2012 for variation across communities, Holtgraves 1997 across individuals). Much of the variation is candidate for derivation from conventions (conventional implicatures) limiting ordinary uses, like the convention for an author not to use the 1SG personal pronouns. Some variation may call for conventions associated directly with the indirect use. In the domain of impersonals, we find parallels to *on* in Germanic *man* (*men*) impersonals. In German, Swedish, Frisian, and Dutch, *man* impersonals have in common their ordinary arbitrary and generic uses, but differ on pseudospecific uses for *I* and *we* (see, for Swedish 1SG, Egerland 2003ab, Sigurðsson and Egerland 2009, Frisian 1SG vs. German and Dutch, Hoekstra 2010, Swedish vs. Dutch, Coussé and van Auwera 2012, German 1PL, Kratzer 1997, Malamud 2012a; see Cabredo-Hofherr 2012 for terminology and clarification).[151] To take one case, in Swedish and Frisian *man* for *I* is common and unmarked to an extent that it is not in German and Dutch, yet there is speaker variation. The Swedish use is described in (76) much as French *on*. As with French *on*, there seem to be no 1SG properties that Frisian or Swedish but not German *man* would have, like 1SG anaphora. It seems a candidate for the analysis we have given *on*.

(76)   Why does the speaker use the impersonal pronoun *man*  to refer to himself instead of the simple first person singular personal pronoun? Pettersson (1978:22) argues that *man*  in (4) [*Uh uh, vad man blir trött och slö av den här hettan* 'He, he, I get

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[151] The properties of *man* impersonal have however not usually been studied

really tired and slow from this heat'] expresses the personal experience of the speaker and at the same time indicates that everyone in the same situation would experience the same thing. By using an impersonal pronoun, the speaker thus generalizes his own personal experience to a universal level (Linell and Norén 2005:122). Another motivation for using *man* with a definite usage can be observed in (5) [*Nåja, man har väl läst ett antal böcker om astronomi* 'Well, I have read a couple of books about astronomy']. Pettersson (1978:22) argues that *man* expresses modesty and reservation on behalf of the speaker. Using *man* instead of *jag* can here be seen as a strategy by which "the ego hides his or her intentions and desires in an anonymous mass" (Mühlhäusler and Harré 1990:199).

<div align="right">(Coussé and van Auwera 2012)</div>

## 5.4  *On* and indefinites

### 5.4.1  Introduction

Impersonal *on* is constrained by interaction with other indefinites as well as definite, though far less clearly. In this section, we sketch the perceived differences between *on* and other indefinites, and how they might arise from pragmatic inferences due to their different content. Then we take up two restrictions on impersonal *on* that have played an important role in the literature: the resistance of arbitrary *on* to anaphoric *s*-pronouns and to being a derived subject. The restrictions have been viewed as categorical properties of impersonals, and guided theories of their syntax and semantics (Cinque 1988, Koenig 1999, Koenig and Mauner 2000, Egerland 2003b, all discussing *on*). Our chief contribution is to show that they are rather malleable tendencies, influenced by factors like anaphoricity and backgroudedness, but we also suggest how they might be consequent to the interaction between *on* and other indefinites due to *on*'s poor content.

Descriptions of the difference between *on* and indefinites are illustrated in (80):

(80)    Opposition *on/quelqu'un* [someone]. *Quelqu'un* is the sign of indeterminacy of the subject, and *on* of its indefiniteness: *quelqu'un vous attend* [someone is waiting for you] indicates that I do not know their identity or that I do not want to reveal it. *On vous attend* indicates that the identity of the subject, its particulars, have no bearing on verbal action. Perhaps there are several persons involved. All the emphasis is put on the process.

…

In a negative sentence, *on* comes close to the indefinite pronoun *personne* [no one]; *on* indicates indifference as to the particular nature of the subject, the negation bearing uniquely on the verb. *Depuis bien des années déjà. Le fils est parti et l'on ne sait plus où il est* [It's been years already. The son has left and ON does not know anymore where he is.]

<div align="right">(CNRTL s.v. *on*., our translation)</div>

The described difference is an aspect of the "referential deficiency" of *on* from chapter 3. We should like to derive it from the poor content of *on*. On our approach, impersonal *on* and *quelqu'un* have the same D-layer, namely the existential quantifier of indefinites, but differ in their NP (chapter 4). Impersonal *on* is only [human], satisfied by

any individual conceptualised in a particular way in the context, namely as ⌜PERSON$_c$⌝. *Quelqu'un* is [singular] with the N *person*, satisfied by any atomic individual that is a ⌜person⌝. Let us suppose that *person* is strictly stronger than [human], since any individual that is *person* can satisfy *on*, while *on* is not limited to *person* individuals.[152] Thus *on VP* and is true when *quelqu'un VP* is, but not inversely. These semantic differences yield pragmatic ones through the Gricean Maxims of Quality (speak truly), Quantity 1 and 2 (be as but no more informative than needed for communicative goals), and Relation (be relevant).[153]

Consider (83) in this light.

(83a)  **On** a mangé une pizza entière sans m'en proposer.
ON$_{\approx 1+ \text{persons}}$ ate a whole pizza without offering any to me.
(83a)  **Quelqu'un** a mangé une pizza entière sans m'en proposer.
Someone ate a whole pizza without offering any to me.

The Maxim of Quality is usually viewed as having priority over the others, which are only considered if it is satisfied. By Quality, a speaker asserts (83b) only if she knows that the pizza was eaten by one person; if she knows rather that it had been eaten by several people, Quality would be satisfied by *des gens* '(some) people'. (83a) is true in both cases, and it alone can be used by Quality if the speaker does not know which is true. Yet even if the speaker has this knowledge, Quantity and Relation come into play. To use *quelqu'un* rather than *on* in (83b), the speaker must consider it as informative as required but no more, and relevant, that it was a single person and/or that it was ⌜person⌝ rather than ⌜PERSON⌝, and inversely if she uses *on* rather than *quelqu'un*. If the speaker wishes to implicate that she thought it rude to eat a whole pizza without offering her any, she would choose *on*, since numerosity and personhood is irrelevant and too informative for this goal. If she wishes to implicate that she thought it odd for one person to wolf down a whole pizza alone, she would choose *quelqu'un*. Such implicatures do a good job of deriving the description in (80).

In (83), the indefinites are in an upward-entailing context. In a downward-entailing contexts like (84), entailments switch: (84a) is the more informative, stronger statement, because (84b) is true whenever (84a) is, while (84b) but not (84a) is true if the speaker is not surprised at several people eating a whole pizza without offering her any.

(84a)  Si on mange une pizza entière sans m'en proposer, je suis surprise.
If ON$_{\approx \text{people}}$ eats a whole pizza without offering any to me, I am surprised.
(84b)  Si quelqu'un mange une pizza entière sans m'en proposer, je suis surprise.
If someone eats a whole pizza without offering any to me, I am surprised.

By Quality, the use *on* requires that the speaker be in a position to make the stronger statement. As for Quantity, the speaker asserts the stronger (84b) if (84a) is not

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[152] Strictly speaking, chapter 4.2 advanced no evidence that every *person* individual is necessarily conceptualised as ⌜PERSON of c⌝, only that it can be and that non-*person* individuals can be as well.

[153] As throughout, we use the Maxims without a formalisation. For related discussion of a pragmatic principle, see Farkas and de Swart (2010) on the Strongest Meaning Hypothesis, intuitively relevant though literally not applicable to decide between *on* (numberless) and plural indefinites (plural).

informative enough for the purposes of the current exchange, and the weaker (84a) if (84b) is too informative. Suppose that (84a) is true because the speaker expects to be offered a slice of pizza when one is eaten in front of her, and also because she does not expect one person to want to eat a whole pizza alone. Then she might assert the weaker (84b) to convey that the source of her surprise is the latter expectation, and the stronger (84a) that the source is the former expectation. Relation leads to the same conclusions. These theoretical differences match inferences that accompany assertions of (84a,b).

A consequence of these differences between *on* and indefinites is that *on* does not have the nonmaximality implicatures of indefinites. In section 1, we set out how the literal meaning of (85a) is enriched with nonmaximality implicatures to (85c) or (85d) by competition with (85b). With *on* in (85e), the implicatures are absent.[154]

(85)    After the conference session on early medieval history,
(85a)   some persons met to talk about ethnogenesis.
(85b)   all persons met to talk about ethnogenesis.
(85c)   some but not for all I know all persons met to talk about ethnogenesis.
(85d)   some but not all persons met to talk about ethnogenesis.
(85e)   on s'est réuni pour discuter de l'ethnogenèse.
        ON$_{\approx\text{some-all people}}$ met to talk about ethnogenesis.

This is a consequence of the weaker meaning of *on* than *some people*. A speaker cannot assert (85a) when she knows (85b) to be true because the Maxim of Quantity prefers (85b) as more informative, given two further conditions that are held to typically hold: one, (85a,b) are equally relevant, and two, it is not the case that (85a) is informative enough for the purposes of the current exchange and (85b) is too informative. The use of *on* (85e) rather than *some persons* (85a) entails under the Maxims that it is unknown, irrelevant, or overly informative that a ⌜person⌝ plurality met, rather than a ⌜PERSON⌝ group or plurality. When that is so, it is motivation not only to use *on* (85e) rather than *some persons* (85a), but equally rather than *all persons* (85b).[155]

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[154] Unlike *on,* English bare plurals are generally not immune to either the novelty condition or the nonmaximality implicature: *The class-room door was open. {Students ≠ (All) the students} were fighting.* They are immune in Condoravdi's (1992, 1997) "functional" (universal, maximal) readings, as in *In 1987 there was a ghost haunting the campus. Students were aware of the danger.* These are unproblematic for the novelty condition construed as blocking of indefinites by definites, if *the students* in such contexts calls for accommodation, however weakly perceived, but they are difficult for the scalar implicature of nonmaximality. Condoravdi views them as a variety of the existential reading with weakened novelty condition, while other approaches include bare plurals in particularly restricted generic contexts (von Fintel 1996, Greenberg 2003), bare plurals as ad-hoc kinds (Krifka 2003), and simply ordinary bare plurals given a particular theory of these (Cohen 2005, Dayal 2012). For interaction with definites, pertinent may be Matthewson's (2001) discussion of the difference between *all students* and *all the students*. In French, existential bare plurals correspond to *des*-indefinites, which lack maximal readings always, while kind bare plurals correspond to definite plurals, and these would indeed be used in Condoravdi's examples (Dobrovie-Sorin and Beyssade 2012).

[155] On a semantic approach to scalar implicatures like that of Fox (2007), Chierchia, Fox, and Spector (2011), pragmatic factors like relevance do not directly affect the blocking of *some* by *all*, though they apply to the semantics that results from the blocking, which is rough that of *Only SOME people met to discuss ethnogenesis*. In particular contexts, *all people* would block *on*. A straightforward way to always render *on* immune to nonmaximality on this approach is to suppose that exhaustification relies on F-marking and that the existential quantifier in *on* cannot be F-marked because *on* is a subject clitic.

These theoretical semantic and pragmatic differences between *on* and other indefinites arise solely from the poorer NP content of *on*. They fit the observed interpretive differences of *on* and indefinites. They also rely on principles independent of *on*, and whose effects can be observed for other differences in content. By chosing the adjective of *A starving/rude person ate a whole pizza without offering me any*, a speaker implicates why she asserts this about a starving/rude person. Likewise, *Some people met to talk about ethnogenesis* is not blocked by (85b) from asserting that all historians met.

We have not considered a major potential source of differences in the meaning and use of *on* and indefinites, the subject clitic status of *on*. This has consequences for any interpretive phenomena that require a stressable or phrasal element (cf. Cardinaletti and Starke 1999 generally). In particular, all interpretations of indefinites that rely on F-marking in the alternative semantics approach of Rooth (1992) and its developments are unavailable to *on*, if F-marking needs a stressable element. Indeed, *on* cannot associate with focus-sensitive particles like *aussi* 'also', or answer *qui* 'who'. A neat contrast is (86). Here *quelqu'un* can be F-marked and so be part of the answer to the *qui*-question, while *on* cannot and so both *on* alone and any *on VP* is not a possible answer.

(86)   A: **On** est venu te voir - B: Qui? - A: **Quelqu'un**.
       A: ON has come to see you [≈ You have a visit.] - B: Who? - A: Someone.
       
       (Livia 2001: 101)

In the rest of this section, we will look at two mysterious restrictions on *on* with which these differences between *on* and indefinites might help.

### 5.4.2   S-possessors

Impersonal *on* antecedes *s*-pronoun possessors in some uses but not others (Koenig 1999, Koenig and Mauner 2000, Creissels 2008).[156] Resistance to *s*-possessors occurs with arbitrary *on* paraphraseable as *someone, some people*, (87a, 88a), but not with *on* perceived as "maximal", (87b, 88b), used for everyone and paraphraseable here as an accommodated definite or a "functional" bare plural (Condoravdi 1992).

(87a)   A la fin de ma présentation, on$_i$ m'a donné un/??son$_i$ numéro.
        At the end of my talk, ON$_{≈someone}$ gave me a/??SON$_{≈their}$ number.

(87b)   A la fin de ma présentation, on$_i$ m'a donné son$_i$ aval.

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[156] Koenig (1999), Koenig and Mauner (2000) seminally establish the resistance of *on* as 'someone' to *s*-possessors. They set aside *on* paraphraseable as 'we' and 'people' as different grammatical constructions on the basis of limitation of the first to agents. We argue against this in the next subsection. Creissels's (2008) comprehensive discussion explicitly brings in generic and pseudospecific *on*, and highlights that even in generic contexts *on* resist *s*-anaphora in contexts like (90a), and that even in arbitrary contexts *s*-anaphora can be improved by means that "some […] kind of generalisation" in *Hier c'était Noël, #(partout en France) on$_i$ a fait des cadeaux à ses$_i$ enfants* '. We built on these studies, though through our examples that ensure impersonal *on* by speaker-exclusion. This is important: *Aux 16$^{ème}$, on a commencé à utiliser son imaginaire* 'In the sixteenth century, ON began to use SON imagination' (spontaneous) seems to be a counterexample to the resistance of impersonal *on* to *s*-possessors, and indeed, it is fine only in the measure that the speaker can include themselves in *on*, indicating a kind use of *we*.

At the end of my talk, ON$_{\approx\text{the people}}$ gave me SON$_{\approx\text{their}}$ accord.

(88a)  Hier en Andorre, on$_i$ a célébré un/*son$_i$ anniversaire.
       Yesterday in Andorra, ON$_{\approx\text{someone}}$ celebrated their/SON$_{\approx\text{their}}$ birthday.

(88b)  Hier en Andorre, on$_i$ a célébré la/sa$_i$ fête nationale.
       Yesterday in Andorra, ON$_{\approx\text{they}}$ celebrated the/SON$_{\approx\text{their}}$ national holiday.

Examples like (87b, 88b) have been discussed in section 3: the scene-setting adjunct makes salient a situation with just one ⌜PERSON$_c$⌝ individual, the atom, group, or plurality that lives in Andorra or was at my talk. Examples like (88c) works in the same manner, but leaves it open how many individuals there are at the highest level of the army.

(88c)  Les auditions réalisées par la « commission d'enquête sur les évènements du 16 septembre 2016 » permettent d'affirmer qu'au plus haut niveau de l'armée, **on a donné son aval**. (G/J)
       The hearings conducted by the "commission of inquiry into the events of September 16 2016" permit affirming that at the highest level of the army, ON gave SON accord [≈ accord was given at the highest level of the army].

(89) sets up such a situation differently, by inference from the first disjunct. (89) also shows that the *s*-possessor remains available under a distributive interpretation of *son*, as well as the collective one of (87b, 88b).

(89)  J'ai eu plusieurs appels ce matin, mais je ne peux {pas rappeler, rappeler personne}, puisqu'on ne m'a pas laissé un/son numéro de portable.
      I had several calls this morning, but I cannot {call back, call anyone back}, because ON$_{\approx\text{they}}$ did not leave me a/SON$_{\approx\text{their}}$ mobile number.
      [Context: the callers may but need not be the same person.]

For generic (covarying) *on*, the same restriction appears in the nucleus of a quantifier (90a, 90b). Here *on* has what we called weak quantificational variability in chapter 3.4: for each situation satifying the restrictor, there exists an individual satisfying the nucleus. In (90a), for instance, for every presentation there is someone who gives me their number. In (90b), the *s*-possessor requires a use where for every talk, everyone rather than just someone present gives me their accord, and in that sense is maximal; again, it is well paraphrased by an accommodated definite or a functional bare plural.

(90a)  Quand je fais une bon effet, on$_i$ me donne toujours un/??son$_i$ numéro.
       When I make a good impression, ON$_{\approx\text{someone}}$ always gives me a/??SON$_{\approx\text{their}}$ number.

(90b)  Quand je fais une bonne présentation, on$_i$ me donne toujours son$_i$ aval.
       When I give a good talk, ON$_{\approx\text{the people}}$ always gives me SON$_{\approx\text{their}}$ accord.

In contrast, generic *on* in the restrictor of a quantifier has no restriction, (91a), nor does *on* anaphoric to it, (91b). Here *on* shows strong quantificational variability, so that (91) makes a claim about everyone who gives me their number.

(91a)   Quand on$_i$ me donne son$_i$ numéro, j'espère toujours appeller.
        When ON$_{\approx one}$ gives one SON$_{\approx one's}$ number, I always hope to call.

(91b)   Quand on$_i$ aime ma présentation, on$_i$ me donne ses$_i$ coordonnées et je rapelle.
        When ON$_{\approx one}$ likes my talk, ON$_{\approx one}$ gives me SON$_{\approx one's}$ number and I call back.

In (92), there is a silent restrictor, something like typical situations in the street or at Sein, and *on* most naturally has the salient-situation reading where it is fixed to the inhabitants of the street or Sein. The contrast in (92a) may arise because it is easier to convoke a context where everyone is a garden-owner rather than food truck operator.

(92a)   Dans cette rue **on** vend des légumes {??dans **son** camion, de **son** propre jardin}.
        In this street ON$_{\approx they}$ sells vegetables {in SON truck, from SON own garden}.

(92b)   A Sein, c'est encore le cas **qu'on** parle habituellement/parfois breton à **ses** enfants.
        In Sein, it's still the case that ON$_{\approx they}$ usually/sometimes speaks Breton to SON children.

*S*-possessors are fine with pseudospecific *on*, which is contrasted with arbitrary *on* in (93). In the pseudospecific use, impersonal *on* is best paraphraseable by a definite, and is interpreted as used for a specific, salient individual like the addressee (section 3).

(93)    (Tiens, monsieur mon voisin$_i$,) on$_i$ a encore garé sa$_i$ voiture devant ma porte.
(93a)   (So, Mister my neighbour,) ON has again parked SON car in front of my door.
(93b)   ??ON$_{\approx 1+\ persons}$ has again parked SON car in front of my door.

These generalisations are robust, but the bad cases can be improved in two ways. One is by anaphoricity of one *on* to another, even if the latter is a nonmaximal 'someone, some people', (95). The examples in (95) degrade if the *on* anteceding the *s*-possessor is read disjoint, as 'someone, people', unless the *s*-possessor is eliminated, say by replacing *son numéro* by *un numéro* 'a number'.[157]

(95a)   $^{(\%)}$**On**$_i$ m'a promis devant tout le monde qu'**on**$_i$ ne m'enregistrerait pas pendant le casting, et autant que je sache **on**$_i$ a tenu **sa**$_i$ promesse.

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[157] Examples in (95, 96) are unexpected from the literature. We give in the text those that proved the best in our study. $^{(\%)}$ indicates that the example passed almost uniformly, while no mark indicates uniform goodness. Other examples we tested revealed a great deal of variation, e.g. (i).

(i)   $^\%$Quand je suis arrivé à Bayonne, **on**$_i$ est venu me chercher à l'hotel, **on**$_i$ m'a montré le département, **on**$_i$ m'a même proposé **son**$_i$ bureau.
      When I arrived in Bayonne, ON$_{\approx they}$ came to get me at the hotel, ON$_{\approx they}$ showed me the deparment, ON$_{\approx they}$ even offered SON$_{\approx their}$ office to me.

ON$_{≈1+ \text{persons}}$ promised me in front of everyone that ON$_{≈\text{they}}$ would not record me during the casting, and as far as I know ON$_{≈\text{they}}$ kept SON$_{≈\text{their}}$ promise.

(95c)  $^{(\%)}$Dans le quartier je ne connaissais personne; **on**$_i$ m'a abordé en me demandant une addresse, et **on**$_i$ m'a tout de suite donné **son**$_i$ numéro.
In the neighbourhood I did not know anyone; ON$_{≈\text{they}}$ approached asking me for an address, and ON$_{≈\text{they}}$ immediately gave me SON$_{≈\text{their}}$ number.

The other way *s*-possessors can be made good is by "distraction" in (96), by overt material (underlined) or by context. Without the underlined material or the context, the examples are bad.

(96a)  <u>Tu ne comprends pas, moi, c'est</u> tous les soirs <u>qu'</u>**on** gare **sa** voiture devant ma porte.
<u>You don't get it, me, it's</u> every evening <u>that</u> ON$_{≈1+ \text{persons}}$ parks SON car in front of my door.

(96b)  $^{(\%)}$Tiens, **on** m'a laissé **son** numéro!
Look here, ON$_{≈\text{someone}}$ left me SON$_{≈\text{their}}$ number!
[Context: upon filing raffle tickets that one has spent all day collecting from people, suddenly one finds a phone-number on one.]

(96c)  $^{(\%)}$<u>A l'île de Sein, c'est cool</u>, **on** m'a prêté **son** vélo.
At the Isle of Sein, it's cool, ON lent me SON bike (≈ I was lent a bike).[158]

In all these examples of distraction, *on* differs from an indefinite by allowing all salience to be elsewhere than on itself. To take (96a), the difference between *quelqu'un* and *on* is close to that between *someone parks a car* and *a car is parked* in what concerns the nonsalience of the subject.

Aside from improvement by distraction, even in the bad examples, the degradation of the *s*-possessor is not as severe as its categorical impossibility with the implicit agent of the passive. Beside the sharp ungrammaticality of (100), that of (93b) feels like an infelicity of some sort.

(100)  Hier une/*sa$_i$ voiture a encore été garée$_{\text{Ag}=i}$ devant ma porte.
Yesterday a/*SON$_{≈\text{someone's}}$ car has again been parked in front of my door.

We now have a fuller pattern of resistance of *on* to *s*-possessors. It does not fit the sole proposal made in the literature to account for the resistance, that of Koenig and Mauner (2000): roughly, that arbitrary *on* unlike other *on*'s is anaphorically inert. We do not have a full account ourselves, only the suggestion that the resistance reflects the preference for an indefinite to *on*, and some ideas about how it might work.

The role of indefinites is suggested by the distribution of *on*'s resistance to *s*-possessors. Mostly, *on* antecedes *s*-possessors when it is not closely "paraphraseable" by an indefinite, understanding paraphraseability to ignore the number neutrality of *on*. This

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[158] This example might also be analysed as a maximal use: *they* lent me a bike.

is so: (i) when *on* is "maximal", in which case it is paraphrasable by an accommodated definite, whereas an indefinite would have a nonmaximality implicature; (ii) when *on* is pseudospecific, in which case an indirect indefinite is far more marked; (iii) when *on* is anaphoric, which an indefinite cannot be; (iv) through "distraction", where *on* allows all salience to be elsewhere than on *on* whereas an indefinite does not. That leaves just *on* covarying with a quantifier in its restrictor as an environment where *on* antecedes *s*-possessors, but is paraphraseable by a definite. Intuitively, what is special about this context is strong quantificational variability, whereby *on* ranges over everyone in (91), but we do not have more than that to suggest.[159]

If this is on the right track, the resistance of *on* to *s*-possessors might derive from the pragmatic competition of *on* with indefinites of the preceding subsection. Here is the idea for (87a), repeated here.

(87a)  A la fin de ma présentation, on$_i$ m'a donné un/??son$_i$ numéro.
         At the end of my talk, ON$_{\approx someone}$ gave me a/??SON$_{\approx their}$ number.

*Son$_i$ numero* contributes to the VP denotation the presupposition that the subject has a (unique) phone-number, while the VP with *un numéro* does not. Let us suppose that a subject indefinite presupposes that there is individual satisfying its NP, and that at least one such individual satisfies the presupposition of the VP (chapter 2.3). Thus an assertion of (87a) is only felicitous if it is common ground that some ⌜PERSON⌝ individual in the topic situation has a phone number. To go from this to the preference for an indefinite over *on* with an *s*-possessor in (87a), we need two assumptions. One: usually, if this is common ground, then the speaker also knows the numerosity of the owner of the number. Two: usually, in asserting (87a), the speaker considers numerosity relevant.

The first assumption seems plausible, but the second we are in no position to evaluate. A closer look is needed at our examples with "distraction", as well as other phenomena where relevance has been invoked in a similar way (see Horn 1984 on the type *I've lost a pen/car*, the pen usually mine, the car usually not mine). Probably relevant is that *on* quickly degrades as information about an individual accummulates, even if that information is not directly about numerosity. This is shown in (101a,b) for a sequence of anaphoric *on*'s. The implicit agent of the passive in (101c) seems degraded for the same reason.

(101a)  A la poste, **on** allait fermer quand je suis arrivée, (?**on** m'a reçu poliment, (??mais **on** était fatigué)).
         At the post office, ON$_{\approx they}$ were going to close when I arrived, (?ON$_{\approx they}$ received me politenely, (??but ON$_{\approx they}$ was tired)).

(101b)  A la carrière **on**$_{\approx people}$ m'a parlé des conditions de travail, (?**on**$_{\approx they}$ était nostalgique, (??mais **on**$_{\approx they}$ le cachait de son mieux)).

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[159] A troubling gap in relating the resistance to competition with indefinites is that negation does not seem to improve illegitimate *s*-possessors although *on* with clausemate negation is not paraphrasable by an indefinite in subject position: singular *un* 'a' indefinites fail to scope under negation (von Fintel and Iatridou 2003 on English), plural *des* 'some, ∅' indefinites resist combining with clausemate negation or else get a marked partitive reading (Dobrovie-Sorin and Beyssade 2012), and French has no bare plurals.

At the mine, ON$_{\approx\text{people}}$ spoke to me about the work conditions, (?ON$_{\approx\text{they}}$ was nostalgic, (??but ON$_{\approx\text{they}}$ did SON$_{\approx\text{their}}$ best to hide it)).

(101c) The line at the book-signing was short, my copy of the book was signed exactly where I asked (, ?and a kind note was even added).

We have so far only spoken about the *s*-possessor *son*, not about the strong *s*-pronoun *soi* which can also be anaphoric to impersonal *on* (chapter 3.5, 6). Insofar as the foregoing reasoning relies on the presupposition of the possession construction, resistance should be absent for similar anaphora that do not have this presupposition. One clear case is the definite article of inalienable possession, found to contrast with *son* on resistance to *on* in Kayne (1975: 196n154):

(102)   On$_i$ m'a mis la$_i$/*sa$_i$ main dessus.
ON$_{\approx\text{someone}}$ has put LA$_{\approx\text{his}}$/*SON$_{\approx\text{his}}$ hand on me.

(Kayne 1975: 196n154)

The definite article of inalienable possession is usually analysed as a locally bound pronoun (Guéron 1985, 2005, Vergnaud and Zubizarreta 1992). It itself bears no phi-features constraining its possessor, explaining its availability to *on* in the first place (chapter 5.2). It also does not carry the presupposition that the inalienable possessum is unique; (102) is perfectly good of people with two hands.

The other candidate for immunity to the constraint on *son* is *soi*. It does indeed seem to be immune in (103). The example considerably strengthens the point that there is nothing endemic to arbitrary *on* that resists *s*-pronoun anaphora.

(103)   Hier **on** m'a enfin parlé de **soi / ??ses** sentiments:
Yesterday ON$_{\approx\text{someone}}$ has finally talked to me about SOI$_{\approx\text{himself}}$ / ??SON$_{\approx\text{his}}$ feelings.
[Context: I am talking about my therapy sessions to a colleague, both if I am counselling one individual whose identity is unknown to the colleague and irrelevant for my purposes, and if I am counselling several individuals in group therapy and only one of them spoke about themselves.]

We think that there is promise to deriving *on*'s resistance to *s*-possessors from its interaction with indefinites. However, we have only sketched how the idea might be pursued. The lion's share of the work lies ahead.[160]

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[160] There is much empirical work to do. To take one important example, Creissels (2008) points to the contrast *On$_i$ célèbre son$_i$ anniversaire en famille* 'ON celebrates SON birthday with family' with *En France, on$_i$ célèbre la$_i$/*sa$_i$ fête nationale le 14 juillet* 'In France, ON celebrates the/*SON national holiday on the fourteenth of July', concluding that *on* in a generic context can only bind *son* with "a distributive interpretation of the possessive relation" rather than a collective one, unlike "arbitrary" *they* and indefinite *a citizen*, which can antecede a possessive pronoun in the last example. While these judgments are sharp, *s*-possessor is more available if national celebrations of different groups are relevant, *En Pourgandie, on a sept fêtes nationales; en France, au moins, on$_i$ célèbre sa$_i$/la$_i$ fête nationale le 14 juillet et puis c'est fini* 'In Pourgandy, ON has seven national holidays: en France, at least, ON celebrates SON/the national holiday on the fourteenth of July and then it's over'.

*5.4.3 Derived subjects*

The resistance of *on* to *s*-possessors has close similarities to its resistance to derived subjects. It has been viewed as a fundamental property of *on* and similar impersonals that in episodic contexts, they are restricted to non-derived subjects or the like (Cinque 1988 to non-derived arguments, Egerland 2003b to external arguments, Koenig 1999 to agents, contrasting PRO$_{arb}$ and generic impersonals; cf. Cabredo-Hofherr 2003 for arbitrary 3PL).[161] There is such resistance. However, it has exceptions that fall into the same categories as for resistance to *s*-pronouns.

(105a) is an extension of Cinque's (1988) classic contrast. In the restrictor of an A-quantifier (105a), *on* can have any thematic role, but in its nucleus or in an arbitrary context (105b), it cannot be a derived subject, here the subject of a passive. However, if salience falls on other information, that use of *on* is vastly improved, in (105c).

(105a)  A Beyrouth, quand **on** est tué, les médias le passent souvent sous silence.
In Beyrout, when ON$_{\approx people}$ is killed, the medias often pass it over in silence.

(105b)  *Aujourd'hui a Beyrouth, **on** a été tué sans raison.
Today in Beyrout, ON has been killed without reason.

(105c)  ?Aujourd'hui à Beyrouth, **on** a encore été tué pour rien; il faut que ça s'arrête.
Today in Beyrout, ON$_{\approx (?)1+ persons}$ has again been killed for nothing: it must stop.

Here are sample examples showing a variety of derived subjects made good by manipulating salience:

(106)  *Passive*
[Context: Wiretap report.]
A seize heures, **on** a été appelé d'une cabine téléphonique non-référencée par nos services.
At sixteen hundred, a call was made from a phone booth that was not listed by our services.

[Context: A new principal speaking of a high school she is assigned to.]
Ce collège, c'est n'importe quoi. Rien que cette semaine, **on** m'a été envoyé trois fois pour une faute d'orthographe.
This high school, it's ridiculous. Just this week, ON has been sent me three times for a spelling error.

*Unaccusative*
Hier **on** est encore mort à Beyrouth sous les bombes.
Yesterday ON has again died in Beyrouth under the bombs.

*Raising*

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[161] Cinque (1988) includes examples of raised external arguments being banned, but the raising data have been nuanced in Delfitto (1990) cited in Mendikoetxea (1992).

[Little bear looks at his bowl of porridge Goldilocks has eaten out of:]
**On** me semble avoir mangé dans mon bol.
ON seems to me to have eaten in my bowl.

Anaphoricity likewise makes a derived subject *on* fine:

(107)  *Copula*
Il est dur de survivre à ce que nous ressentons comme une trahison, l'âme en souffre. Il vaut mieux essayer de comprendre pourquoi cela se passe ainsi. Si la cause est en nous-mêmes: **on** nous a trahi, **on** nous a été infidèle – pourrions-nous, en fin de comptes, exiger cette fidélité et juger celui dont il est question?
It is difficult to survive what we feel as treason, the soul suffers for it. It is better to try to understand why it occurs. If the cause is in ourselves: ON has betrayed us, ON has been unfaithful – could we, in the end, require this fidelity and judge him who is concerned? (G/L)

There are also examples of "maximal" *on* as derived subject:

(108)  *Unaccusative*
Nous avons vu que, même si la ville a survécu sept ou huit siècles, la vie a brusquement été interrompue par un tremblement de terre. La petite fortune enterrée en est une preuve. Cette statuette retrouvée dans un four de potier en est une autre. **On** est mort sous les décombres, ou **on** a fui sans retour...
We have seen that, even if the city survived seven or eight centuries, life was suddenly interrupted by an earthquake. The small burried treasure is a proof of it. This statue found in a potter's oven is another. ON died under the rubble, or ON fled without returning… (G/L)

*Copula*
Pendant ma vie **on** m'a été fidèle; après ma mort **on** me pleure, et **on** craint de ne retrouver jamais un aussi bon roi.
During my life ON was faithful to me; after my death ON weeps for me, and ON fairs to never find again so good a king. (G/L)

Thus to a first approximation, the pattern of unavailability of derived subjects matches that of the unavailability of *s*-possessors.[162]

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[162] We would include under Cinque's observation examples that Creissels (2008) discusses in somewhat different terms: *On a tué le président; *on était du Berry; On t'a appelé au téléphone; {on parlait avec un accent allemand, *on avait un accent allemand}* (both * clauses remain * without the first clause and become good with *quelqu'un* 'someone'). The *be*-copular clause is clearly a derived subject, and the *have*-clause may be too. Their problem disappears in A-quantification restrictor: *Quand on est du Berry, ...* or *Quand on a un accent allemand, ...*. It also disappears in the nucleus if *on* is anaphoric to the nucleus *on, Quand on a un accent allemand, on n'est pas du Berry*. Even in arbitrary contexts, anaphoricity can make them good: *On t'a apellé au téléphone, on n'a pas laissé de coordonnées, mais {on avait un accent allemand, on était clairement du Sud}* – *On m'a abordée en sortant du métro; je n'ai reconnu personne, {mais on avait un accent allemand, on était clairement du Sud}*.

Proposals in the literature like Cinque's (1988) are designed to bar derived subject *on* categorically, and thus do not seem adapted to the malleability of the restriction. We have little to offer ourselves, but again there may be potential in looking at the restriction from the perspective of competition between *on* and richer indefinites. The idea is clearest for the derived subject of a passive: use of the passive usually puts a certain prominence on its derived subject, while *on* is used when properties of the subject are unknown and irrelevant, so there will usually be little motivation to combine them and passives will prefer indefinites. Generalisation of this idea to all derived subjects would rely on a tension between the poor content of *on* and the motivations for derived subjecthood along the lines explored by Ruwet (1983, 1991) for limits on the raising of idiom chunks. More generally, we should like the derived subject restriction to come down somehow to the poor content of *on*, with Egerland (2003b: 90).

## 5.5   Appendix: Anaphoric *on*

The anaphoricity of impersonal *on* to itself has received limited attention in the literature.

There is a traditional prescriptive rule requiring "constancy of reference" for *on*'s within a sentence: "One must avoid in a sentence that *on* relates to different persons" (Littré), claimed to regulate not just combinations of impersonal *on*'s but even their combination with 1PL *on*. The rule is not quite conformed to even in literary usage, and prescriptive grammars like Grevisse (2008: 754d) review counterexamples, e.g. *Quand on est pauvre, on vous méprise* 'When $ON_{\approx one}$ is poor, $ON_{\approx people}$ despises you'; and certainly not it, e.g. Jones (1996: 6.7.9), *Quand $on_i$ tue, $on_k$ vous met en prison* 'When $ON_{\approx you}$ kills, $ON_{\approx one}$ puts you in prison'. Safir (2004) adverts to the rule in discussing such constancy for English generic *one/you* in contrast to $PRO_{arb}$, but the comparison is rather striking by its contrast. Even $PRO_{arb}$ needs to be more constant than *on*: *Qu'$on_i$ m'ait attaqué ne peut pas justifier qu'$on_k$ déclare la loi martiale* 'That ON has attacked me does not justify that ON declare martial law' ≈ *My having been attacked cannot justify martial law being declared* versus the constancy of *PRO attacking me does not justify PRO declaring martial law* (cf. Landau 2013: 45) and the required one of *That one attack me does not justify that one declare martial law*. We do not know what is behind the prescriptive rule.

The most detailed study of the anaphoricity of impersonal *on*, that of Creissels (2008), reaches a conclusion nearly inverse to the prescriptive rule: Creissels contrasts "perfectly normal" contraindexing with "not perfect" though grammatical coindexing in *$On_i$ m'a volé ma voiture, mais {$on_i$ l'a abandonnée, $on_k$ l'a retrouvée} peu après* 'My car was stolen$_{Ag=i}$ but shortly afterwards it was abandoned$_{Ag=i}$/found$_{Ag=k}$'. However, any oddity of the second sentence seems to vanish with *juste après* 'right after' for *peu après*. Yet it is not the case that any combination of *on*'s is easily read anaphoric, no more than any combination of indefinites/definites and pronouns. A factor for *on* is a division of labour between *on* and indefinites, whereby use of *on* implicates lack of knowledge or relevance of the NP content of an indefinite, and anaphoric chains may interfere with this (chapter 5). The logic of the underlying difficulty is as in *$John_i$ opened the door and (?$he_i$) entered, $John_i$ pushed Bill and (?$he_i$) fell*.

Anaphoricity can be mimicked to some extent by contextual restrictions discussed in chapter 2.3. Examples are (G1a) for arbitrary *on* and (G2a) for generic *on* seek to control

for this by contrasting *on* with the implicit agent. The anaphoricity of *on* here is then not to be attributed to general mechanisms of contextual restriction but to the anaphoric mechanisms specific to DPs like the resource situation or individual index.

(G1a) Quand je suis arrivé, on$_i$ m'a promis devant tout le monde qu'on$_{i/j}$ ne m'enregistrerait pas pendant le casting, et autant que je sache {on$_{i/k}$ ne m'a pas enregistré, je n'ai pas été enregistré}.
When I arrived, ON promised me in front of everyone that ON' would not record me during the casting, and as far as I know {ON" did not record me, I was not recorded}.

*on$_i$...on'$_i$...on''$_i$*: ...<u>someone/people</u> promised in front of everyone me <u>they</u> would not record me during the casting, and as far as I know <u>they</u> did not record me.

*on$_i$...on'$_j$...on''$_k$*: When I arrived, <u>someone/people</u> promised in front of everyone me that <u>no one</u> would record me, and as far as I know <u>no one</u> recorded me.

*passive*: I was <u>promised</u> in front of everyone that I would not be <u>recorded</u>, and as far as I know I was not <u>recorded</u>. [= *on$_i$...on'$_k$...on''$_k$* ≠ *on$_i$...on$_i$...on$_i$*]

(G2) Quand on$_i$ m'invite pour parler aux enfants, {on$_{i/k}$ ne m'interrompe jamais (soi-même$_i$), je ne suis jamais interrompu$_{Ag=*i/k}$ (*soi-même$_i$)}.
When ON$_{≈1+ persons}$ invites me to talk to children, {ON$_{≈they/≈people}$ never interrupts me (SOI$_{≈them}$-self), I am never interrupted (*SOI-self)}.

We give below further examples of the the novel-anaphoric duality of *on* in various configurations, in addition to those given throughout the chapter and in chapter 2.4.

*ON ... ON + NEG*

(X1) Après ma communication, on$_i$ m'a critiqué, mais après on$_{i/k}$ ne m'a pas parlé du tout.
After my talk, ON$_{people}$ criticised me, but after
*on$_i$*: ON$_{≈they}$ did not talk to me at all.
*on$_k$*: ON$_{≈people}$ did not talk to me at all = nobody talked to me at all

cf. After my talk, I was criticised but I was not talked to at all. [≈ *on$_k$ version*]

(X2) A la fin de mon cours, on$_i$ s'est levé brusquement devant tout le monde, et on$_i$ est parti en claquant la porte. On$_{i/k}$ n'a pas fourni la moindre explication. Le reste des élèves semblait aussi surpris que moi.
At the end of my course, ON$_{≈1+ persons}$ suddenly got up in front of everyone, and ON$_{≈they}$ left slamming the door. {[*on$_i$*:] ON$_{≈they}$ did not provide, [*on$_k$*:] ON$_{≈nobody}$ provided} the least explanation. The rest of the students seemed as surprised as me.

*ON ... A-quantified ON* (contrast Chierchia's 1995b: 136 for Italian *si*)

(Y1)  A la maison de retraite, tu entends vraiment de tout. Ce matin on$_i$ m'a dit que si on$_{i/k}$ meurt, j'hériterai d'une maison.
At the retirement home, you really hear all sort of things. This morning ON$_{\approx someone}$ told me that if ON$_{\approx they}$ / ON$_{\approx anyone}$ dies, I will inherit a house.

(Y2)  Quand je suis arrivé ici, on m'a parlé des conditions de travail. Je ne me rappelle plus bien qui, on avait toujours une pipe au lèvres.
When I came here, ON$_{\approx 1+ \text{ persons}}$ spoke to me about work conditions. I don't remember well anymore who, ON$_{\approx they}$ always had a pipe at the lips.

(Y3)  Hier, on$_i$ a pour la première fois atteint le niveau quatre. Désormais, quand on$_i$ avance, on$_i$ avance deux fois plus vite que nous.
Yesterday, ON$_{\approx 1+ \text{ persons}}$ has for the first time reached level four. From now on, when ON$_{\approx they}$ advances, ON$_{\approx they}$ advances twice as fast as us.
[Jeopardy-like game context; the identity of *on* may be completely unknown.]

(Y4)  Hier, on$_i$ a laissé des indices pour la première fois. Désormais, quand on$_i$ tue une victime, on$_i$ nous offrira des points de comparaisons.
Yesterday, ON$_{\approx \text{the murderer}}$ has left traces for the first time. From now on, when ON$_{\approx they}$ kills a victim, ON$_{\approx they}$ will leave points of comparison.
[Detective context: there is not a good indefinite for the first *on*, but *the murderer* is too descriptive, *Traces have been left* would be best, but *on* anaphoric to it can be so far more clearly than *When a victim is killed*...]

# 6 Minimal Pronouns and *on*

## 6.1 Anaphora to impersonal *on*

The anaphoric behavior of impersonal *on* is one of its most intringuing properties: it antecedes the same dependent elements as other DPs rather than the implicit agent of the passive, save that instead of anteceding personal pronoun anaphora, it antecedes another *on*. In chapter 5, we derives this from the poor content of *on*: it does not satisfy the presuppositions of definites and license the silent NP of personal pronouns. In this chapter, we take up the one exception, *s*-pronouns. We approach them as the minimal pronouns of Kratzer (2009), essentially contentless definites. In Kratzer's proposal, minimal pronouns model local anaphora, and their poor content derives their locality by forcing them into a syntactic dependency with their binder to get phi-features. For us, the same poor content makes minimal pronouns available as anaphora to *on*, because their presupposition is trivial and there is no lexical N to license. The poor content is also responsible for the distinctive *s*-form of minimal pronoun anaphora to, because they do not get person and number from *on*. Together, the poor content analyses of *on* and of minimal pronouns predict the existence of DPs that can antecede local anaphora but not other personal pronouns. These are the themes of this chapter, along with matters met on the way, notably the need of DPs for phi-features and the relationship between local anaphoric and logophoric uses of *s*-pronouns.

In the rest of this section, we introduce *s*-anaphora to *on* and sketch the course of the chapter. (1) recalls the anaphoric behaviour of impersonal *on* set out in chapter 3.5. In (1a), anaphoric $on_i$ cannot be replaced by any personal pronoun, but $on_i$ does itself have an anaphoric reading, truth-conditionally distinct from its novel reading. In nonsubject positions, (1b), where *on* is unavailable, no anaphor is available and ineffability results. Except for this matter of personal pronouns, *on* goes with other DPs against the implicit agent of the passive in anteceding dependents like the reciprocal in (1a).

(1a)   $On_i$ doit nous parler des problèmes qu'$on_{i/j}$ n'a pas résolu quand $on_{i/k}$ ne se fie pas les uns aux autres.
ON$_{\approx people}$ must talk to us about problems that ON$_{\approx they/\approx people}$ have not resolved when ON$_{\approx they/\approx people}$ do not trust each other.

(1b)   $On_i$ doit nous faire confiance quand notre groupe __$_{*i}$ représente.
ON$_{\approx one}$ must trust us when our group represents him/them/SE/α$_{*\approx one}$.

The *s*-pronouns are the sole personal pronouns anaphoric to impersonal *on*. In (1c), the possessor *son* is anaphoric to *on*. The relationship may span an arbitrary distance, as indicated by the embedding in (1c), so it has nothing to do with coargumenthood.

(1c)   En thérapie, $on_i$ me parle (des traumas) de $son_i$ enfance les uns devant les autres$_i$ sans se PRO connaître.
In therapy, ON$_{\approx people}$ speaks to me about (traumas of) SON$_{\approx their}$ / the childhood in front of each other without PRO knowing each other.

Traditionally, *s*-pronouns are viewed part of the personal pronoun system of French in Table X. Reasons include their morphology (e.g. *soi : moi, son : mon*), their deployment as clear personal pronouns (notably *son* as the 3SG possessor fully parallel to 3PL *leur*), their deployment like other personal pronouns as local anaphora either generally (e.g. *se*) or with certain DPs like *on* (*soi*), and as logophora (*soi*).

Table X: French personal pronouns

| | Strong | Possessor clitic | Subject clitic | Object clitic (ACC | DAT | reflexive) | | |
|---|---|---|---|---|---|---|
| 1SG | moi | mon (ma, mes) | je | me | | |
| 2SG | toi | ton (ta, tes) | tu | te | | |
| 1PL | nous | notre (nos) | †nous ⇒ *on* | nous | | |
| 2PL | vous | votre (vos) | vous | vous | | |
| 3SGM | lui | ⇒ *son* | il | le | lui | ⇒ *se* |
| 3SGF | elle | ⇒ *son* | elle | | | |
| 3PLM | eux | leur (leurs) | ils | les | leur | ⇒ *se* |
| 3PLM | elles | leur (leurs) | elles | | | |
| *s-* | **soi** | **son (sa, ses)** | - | - | - | **se** |
| *on* | - | - | **on** | - | | |

> Notes: strong pronouns are clitic doublees, objects of prepositions, predicates, dislocated; object clitics are verbal proclitics, subject clitics are weak pronouns (Cardinaletti and Starke 1999); possessor clitics are NP phrasal clitics (Miller 1992); object enclitics to the imperative are omitted (Morin 1978ab). Possessors concord with head noun ((FSG,) PL). †*nous* is missing or restricted (chapter 7).

However, when anaphoric to impersonal *on*, *s*-pronouns sometimes have properties that require them to be studied separately of other uses of *s*-pronouns. *Se* is the local anaphor of all 3rd person antecedents, but *soi* can be anaphoric essentially only to *on* (but see section 4), and *son* anaphoric to *on* is not the 3SG personal pronoun *son* because it can be number-neutral, as in (1c) where the reciprocal ensures that *on, son* are used for pluralities (section 3). In light of this, *s*-pronouns anaphoric to *on* might not be personal pronouns at all, but rather *on*-like impersonals, so that *son* in (1c) is the possessive counterpart of anaphoric *on* in (1a), like *one's* is of *one*. The idea is also attractive in light of the complementary distribution of *s*-pronouns and *on* in Table X.[163]

Yet it *s*-anaphora to *on* are demonstrably not *on*-like impersonals. They only have an impersonal use when anaphoric to *on*, and not otherwise. This restriction on the impersonal use of *s*-pronouns comes out clearly in comparison to the English generic impersonal *one, one's*, which does have an autonomous impersonal use whether subject or no. French has no counterpart of it, including *s*-pronouns. In (2a) *son* cannot mean *one's*, and *one's* in (2b) is a translator's connundrum: *one's life* can be replaced by *life* (*la vie* 'the life') but *one's expectations* needs whosesale rephrasing.[164]

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[163] There is to our knowledge no analysis along these lines, but cf. Ruwet (1990: n22).

[164] The actual translation resorts to relative clauses with *on*: *Dans la plûpart des sociétés cela exerce une*

(2a)     Ils ne peuvent pas prendre sa fierté: sa fierté reste toujours.
         They cannot take SON$_{*\approx one's/his}$ pride: SON$_{*\approx one's/his}$ pride always remains.

(2b)     I suppose the most important thing, the heaviest single factor in one's life, is whether one's born male or female. In most societies it determines one's expectations, activities, outlook, ethics, manners - almost everything.

Indeed, even as anaphora to impersonal *on*, *s*-pronouns are restricted in a way unexpected on an impersonal analysis: by local c-command. In (3a), local *son* can be anaphoric to *on* but remote *son* has only the 3SG reading; in (3b), local *soi* is likewise anaphoric to *on* while remote *soi* has no use at all here.

(3a)     On$_i$ peut s'échapper de son$_i$ quotidien quand toi et moi gardons ses$_{*i/k}$ enfants.
         ON$_{\approx one}$ can escape SON$_{\approx one's}$ daily routine when you and I guard SON$_{*\approx one's/\approx his}$ children.
         [Context: a couple discussing babysitting service they provide.]

(3b)     On$_i$ peut s'échapper de soi-même$_i$ quand toi et moi jouons une sonate pour soi$_{*i/*k}$.
         ON$_{\approx one}$ can escape SOI$_{\approx one}$-self when you and I play a sonatta for SOI$_{*\approx one/*k}$.

These restrictions fit the analysis of *soi* as local anaphor (Morin 1978, Ronat 1982), and the generalisation of Prince (2006) that impersonal *on* is restricted to local anaphora. We take some time to establish Prince's generalisation, as it is based only on the impossibility of intersentential anaphoricity and because apparent counterexamples are

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*influence déterminante sur ce qu'on peut attendre de l'existence, sur les activités qu'on exerce, sur la conception que l'on a des choses, sur le sens moral, sur les moeurs – sur tout où prèsque.* (La main gauche de la nuit, tr. Jean Bailhache, Paris: Robert Laffont, 1971). The same goes for case after case of English nonanaphoric nonsubject *one*, like (i) (English *one* does have its own restrictions, but of a different order having to do with prosodic weakness, Zribi-Hertz 1995). The point that *s*-pronouns are not impersonal is most evident for *son*, but some of the examples also show for *soi*, though it has been suggested that *soi* is indeed the nonnominative allomorph of *on* in some varities (Zribi-Hertz 2008: 613 with references). We return below to *soi* rather as a phi-less logophor, roughly *oneself*.

(i)      The road was posted frequently […] with directions to prepare to stop at the Inspection-Station of such-and-such Commensal Area or Region; at these internal customs-houses **one's** identification must be shown and **one's** passage recorded. (U.K. Le Guin, *The left hand of darkness*)
         A bit of sunlight makes a real difference to **one's** health. (C.S. Lewis, *That hideous strength*)
         Sure you can have any money you like by asking the Steward. – You mean it's then deducted from **one's** next cheque? (C.S. Lewis, *That hideous strength*)
         Something that made **one** feel like an outsider-comfortable and naked in the quiet whisper of its walls. (Clifford D. Simak, *City*)
         …the leisurely academic routine that gave **one** time to live. (Clifford D. Simak, *Goblin Reservation*)
         The unfiltered tropical light was hard on **one** physically. (G/L)
         What we can say, however, is that ideophones seem to be just right for the language in which one finds them, for that particularly linguistic, or perhaps one should say phonetic, system. Here I cannot take the reader fully with me for I am unable to convey in print the impression made on **one** when a Zande speaks them- tones, stress, gestures, etc. (JStor)

easy to find, but it does hold up: *s*-anaphora to *on* are limited to local c-command. This is a remarkable state of affairs: we end up with a DP that can antecede local but not remote personal pronouns, a behaviour for which English has no counterpart, even with *one*. We will extend the generalisation to include other deficient DPs, including inanimate ones. Treating *s*-pronouns as impersonals is of no help in understanding them.

With Kratzer's theory of local anaphora as minimal pronouns, our analysis of impersonal *on* derives this behaviour. Kratzer posits minimal pronouns without phi-features and lexical N to derive their locality from an interface need to get phi-features in syntax. The same poverty of content likewise predicts their availability as anaphora to *on*. It also proves to derive their restriction to exhaustive antecedence, and their realisation by *s*-pronouns when the binder is phi-deficient. The upshot is that the one DP that is demonstrably more deficient in phi-features and lexical N can antecede no personal pronouns save those whose restrictions and form reflect the same deficiency.

The plan for this chapter is as follows. In section 2, we present Kratzer's theory of local anaphora as minimal pronouns and derive their locality and exhaustive antecedence. In section 3, *s*-pronouns are shown to have these properties when anaphoric to impersonal *on* once disentangled from logophoricity. We develop an analysis where *s*-pronouns are the default exponents of personal pronouns and realise minimal pronoun anaphora to *on* because *on* fails to transmit person and number to them, unlike other antecedents. In section 4, the idea is extended to other candidates for the analysis: PRO, generic implicit objects, and certain "generalising" DPs available to some speakers. Section 5 concludes by reviewing our recasting of Kratzer's proposal in the general approach to DP architecture in chapter 2 and applying the results of this chapter to clarify why minimal pronouns need to get phi-features.

## 6.2   Minimal pronouns

This section sketches the minimal pronoun proposal of Kratzer (2009), and what we take from it. The "classical" theory of personal pronouns analyses them as individual variables valued by the context or bound by a linguistic expression scoping over them. Natural language pronouns differ from that expectation in two different ways. Most can covary with an antecedent without scope, as in donkey contexts; this has motivated the SD analysis of pronouns as situation-relativised definites. The rest do need an antecedent that scopes over them, but moreover one that is syntactically local to them. These are local anaphora like *iself* in (5).

(5a)    Every line (*was drawn in such a way that two other lines) crossed itself.
(5a)    Every line *(was drawn in such a way that two other lines) crossed it.

The theory of minimal pronouns aims to explain local anaphora, chiefly the absence of an independent meaning for them and the structural limits on the antecedent. As we will adopt it, the minimal pronoun hypothesis conjugates three elements:

(6)     The minimal pronoun hypothesis (adapted):
(i)     Pronouns can be born *minimal*, with an individual index, but not further NP content such as phi-features or lexical N.

(ii)   Phi-features are needed to license a minimal pronoun and are obtained by a syntactic dependency with its binder. This requires *syntactic locality*.

(iii)  Minimal pronouns lack content for readings other than the denotation of their index, in particular *functional readings* that map the index to something else. This limits them to *exhaustive antecedence*.

The actual proposal of Kratzer (2009) focuses on (i) and (ii). It may be illustrated through (7), with the understanding that *my* is a local anaphor, as it is overtly in languages where possessors do mark that distinction (e.g. Czech, Toman 1991).[165]

(7)    (Only) I take care of my children.
       $[_{vP}$ [(only) $DP_{[1^{st}]}$] $[_{v'}$ $v_{[n],[1^{st}]}$ [take care of $[DP'_{[n],[1^{st}]}$ children]]]]
(c)    $\|[_{DP}\,[_{NP}\,[n]]]\|^{c,g} = g(n)$
(d)    $\|[_{DP}\,[_{NP}\,[1^{st}]]]\|^{c,g}$ = the speaker of c
(e)    $\|[_{\alpha}\,[_{v}\,\dots\,[n]\,\dots]\,VP]\|^{g,c} = \lambda x.\|\alpha\|^{g(n\to x)}(x)$
(f)    $\|v'\|^{c,g} = \lambda x$ . x takes care of x's children
(f')   $\lambda x$ . x takes care of my children

The possessor of *children* is a minimal pronoun: a DP' base-generated with the index feature [n] on N as its only content and interpreted as in (c). The italicised feature [1st] will come along later by syntactic agreement, and is not interpreted. The external argument in Spec,*v* is a regular pronoun, with [1st] interpreted as in (d). *v* can be base-generated with the index [n] like pronouns, as here, but on a clausal head the index is interpreted as a λ-binder, (e). Therefore, *v'* denotes the set in (f). This set is different from the set in (f'), which is what *v'* would denote if the possessor of *children* were base-generated with interpretable [1st] rather than [n]. When (f) and (f') are combined with *I* Spec,*v*, they give the same meaning, namely that I take care of my children. However, when combined with *only I*, (f) and (f') differ: *only* presupposes that nobody else satisfies the *v'* property, so with (f) *only* presupposes that nobody else raises their children, whereas with (f') *only* presupposes that nobody else raises the my children.[166]

Syntactic phi-dependencies in (7) relate the phi-features of Spec,*v*, *v*, and the possessor of *children*. "Predication" unifies the phi-features of *v* and Spec,*v*, ensuring they share [n] and [1st]. "Feature transmission under binding" unifies the phi-features of *v* with those of a DP sharing *v*'s index feature under local c-command, here the possessor of *children*. The transmitted feature [1st] is needed to spell out a minimal pronoun, since there is no spellout for a DP with just the index.[167] Minimal pronouns beyond the reach of

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[165] We keep to a minimum, eschewing e.g. number or the details of (e) (cf. Kratzer 2004b).

[166] The uninterpretability of phi-features brought by feature transmission plays a role in Kratzer's (1998) proposal for minimal pronouns as phi-less, and it follows because the transmission occurred at PF. In Kratzer (2009), transmission takes place in syntax, so it is not clear why its outcome is not interpreted. Moreover, the system independently provides means to derive the apparent uninterpretability of phi-features on bound pronouns since they turned out behave identically even beyond the locality domain of minimal pronouns (Cable 2005), as do other approaches to the strict-sloppy puzzle here (Schlenker 2002, Jacobson 2012, Sudo 2012). We take no stance on the interpretability of transmitted phi-features, but in this section we set out Kratzer's analysis as is.

[167] Other features on *v* may be shared with the minimal pronoun and affect spell-out; Kratzer attributes *self*-marking in English to the transmission of [reflexive] from *v*, but in light of its absence on certain local

"feature transmission under binding" cannot be spelled out. Hence minimal pronouns are restricted to contexts c-commanded by and local to their binder. This underpins Kratzer's analysis of local anaphora as minimal pronouns. Beyond the $v$P in (7), T engages in a third phi-dependency with Spec,$v$, Agree, unifying their features.

This example sketches how the (i) lack of and (ii) need for phi-features derive the locality of local anaphora qua minimal pronouns. They are born phi-less, must get phi-features, and the only source is a syntactic dependency with their binder. This is the focus of Kratzer's discussion. We will closely follow her proposal, though adapting it below to our framework: minimal pronouns will be definites with just the index as content. We have added exhaustive antecedence (iii) to Kratzer's proposal, because the system is in a good position to derive this key property of local anaphora (q.v. Safir 2004: 4.2.3). Pronouns can have multiple antecedents, *their* in (9), but local anaphora cannot, *themselves*.

(9)     Every woman$_i$ described every man$_k$ to {him$_k$/her$_i$-self$_k$, *them$_{i+k}$-selves, their$_{i+k}$ children}.

(9a)    NP of their = [$_{NP}$ [$_{NP}$ woman [3SG] [i]] & [$_{NP}$ man [3SG] [k]] [3PL]]]
(9b)    NP of themselves = [$_{NP}$ [$_{NP}$ [i]] & [$_{NP}$ [k]]]

We can derive this from the hypothesis that the *self*-form is a minimal pronoun. Approaches to partial antecedence usually posit silent content in the anaphor that does the work of overt *and*; let us call it &. One view of & is as a function that maps two individuals to their sum, which is also a common analysis of *and* in *Gwen and Bill are going to describe each other* (Kratzer 2009). Another as predicate summation, like *and* in *Every man and woman are going to describe each other* (Elbourne 2005, 2008; Heycock and Zamparelli 2005). Let us suppose the latter analysis for *their* in (9a): & sums NPs and yields an NP whose phi-features are a function of the phi-features of the conjuncts, as with *every man$_{SG}$ and woman$_{SG}$ are$_{PL}$*. We want to rule out analogues of (9a) that would have the signature of minimal pronouns, that is philessness that forces them to enter into a syntactic dependency with their binder(s). The closest to this is (9b), where the arguments of & are minimal pronouns. However, in (9b), the bare index NPs are inside a coordinate structure, an island for syntactic dependencies, so they remain philess, so does their &-conjunction, and the whole is illegitimate just as philess minimal pronouns.[168]

This is the core of the minimal pronoun proposal. In Kratzer (2009), it is part of a larger system with other devices.[169] It also needs extension in many ways, for instance to

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reflexives in section 3, approaches cited there may be prefereable. In remains to be seen how to best understand the distinctive morphology of local anaphora in general, e.g. Germanic *s*-forms, for instance by relying in the transmitted character of phi-features or the absence of lexical N.

[168] If the whole has its own index *n*, it will be exhaustively anteced by the binder of *n* and get that binder's phi-features; in our adaptation of minimal pronouns below, that is possible, and semantically coherent if $n = i+k$.

[169] For instance, Kratzer (2009) adopts Cable's (2005) context shifters neutralising the contribution of person independently of local anaphora; excludes number from phi-features while attributing its apparent uninterpretability to Rullmann's (2003) construal of plural pronouns as number-neutral; and supposes D-type pronouns to be available, which give rise to similar appearance of uninterpretability (Sudo 2014). It is not entirely clear how to restrict these devices so that Kratzer's (2009) flagship argument from different

deal with anaphora bound in virtue of raising the antecedent. We do not undertake this here comprehensively, although section 5 and the Appendix turns to some issues in the theory. Here we develop a different line of evidence for minimal pronouns. In impersonal *on* we have a DP that cannot antecede most definites because its NP content is poorer than that of any ordinary definite, including in absence of person and number. Our derivation of this impossibility in chapter 5 predicts that *on* should antecede equally poor or poorer definites. These are *s*-pronouns qua minimal pronouns.

## 6.3    Impersonal *on* and *s*-pronouns

### 6.3.1    The theory

We take as background our findings about impersonal *on* in the previous chapters. It is an indefinite with a lexicalised poor NP, (10). The individual index *[i]* may be added to the NP as to any other NP (chapter 2.3 and section 5 below on index-free alternatives).

(10)    *impersonal on*: $[_{DP} s_n [\exists [_{NP} [human] ([i])]]]$

The NP content of impersonal *on* is poorer than the NP of any definite available in French outside minimal pronouns, as they all have a lexical N and both person and number. In chapter 5.2 we argued that the poverty bars personal pronoun anaphora to *on* for two reasons. One, the uniqueness presupposition of pronouns as definites cannot be met. Two, the lexical N(s) of pronouns does not meet the Formal Licensing Condition (FLC), which usually requires an overt NP antecedent for a silent NP.

Minimal pronouns are predicted to be an exception, because they too have poor content. In (11a) we give one way to adapt Kratzer's hypothesis to the general D-type analyses of personal pronouns of chapter 2. Minimal pronouns are definites, but their NP is not built on a lexical N but just the freely available individual index N.

(11a)    *minimal pronoun: impersonal on*: $[_{DP} s_n [the_{pron} [_{NP} [i]]]]$
        $\|s_n\|^{c,g} = g(n)$
        $\|the_{pron}\|^{c,g} = \|the\|^{c,g} = \lambda p.\lambda s° : p \in D_{est}$  and $s° \in D_s$ and there is exactly one x
        such that $x \in D_e$ and $p(x)(s°) = 1$ . $\iota x[p(x)(s°)]$.
        $\|i\|^g = \lambda x.\lambda s . x = g(i)$

(11b)    $\|[_{DP} s_n [the_{pron} [_{NP} [i]]]]\|^{c,g}$
        $= \iota x[x = g(i)]$ if there is exactly one x such that $x \in D_e$ and $x = g(i)$, else undefined
        $= g(i)$

With this NP, the definite presupposes that there is a unique individual identical to the index, which is necessarily met. The FLC is satisfied because there is no lexical N, only the N brought by the universally available index. Following Kratzer, a philess DP needs to get phi-features by a syntactic dependency from its binder, so minimal pronouns are restricted to contexts with a locally c-commanding DP. Impersonal *on* binds indices in

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readings of German *deinen* 'your' according to locality goes through.

the same manner as all other DPs (movement or, in Kratzer's approach sketched for (7), by a chain of syntactic agreements). All other definites in French have lexical N and phi-features, so they cannot be anaphoric to *on*. This is something we want to understand better; we return to it, as well as alternatives to and consequences of (11), in section 5.

Minimal pronouns bound by phi-complete DPs end up with a complete set of phi-features, and so are realised by the same exponents that realise personal pronouns born phi-complete. Minimal pronouns bound by impersonal *on* end up with just [human]. In French, there are no independent person-, number-neutral, human-restricted personal pronouns, so no exponent for minimal pronouns for just [human]. However, *s*-pronouns realise them because *s*-pronouns are default, phi-neutral exponents for personal pronoun.

Table Y indicates the place of *s*-pronouns among 3$^{rd}$ person pronouns beginning with *l*- or *l*-pronouns, and 1$^{st}$/2$^{nd}$ person pronouns of which only 1SG is given.

Table Y: *s*- and *l*-pronouns

| | Strong | Possessor clitic | Subject clitic | Object clitic (ACC | DAT | reflexive) | | |
|---|---|---|---|---|---|---|
| 1SG | moi | mon (ma, mes) | je | | me | |
| 3SGM/F | lui/elle | ⇒ *son* | il/elle | le | lui | ⇒ *se* |
| 3PLM | eux/elles | leur (leurs) | ils/elles | les | leur | ⇒ *se* |
| *s*- | **soi** | **son (sa, ses)** | **-** | **-** | **-** | **se** |

*S*-pronouns have the following uses, setting aside logophoricity taken up below, and DPs that behave like *on* in section 4. The object clitic *se* is the local reflexive clitic to *on* and 3SG/PL subjects. It fills a gap in the distribution of clitic *l*-pronouns, for these have no reflexive clitic.[170] The possessor clitic *son* is anaphoric to impersonal *on*, but also fills the 3SG gap in *l*-pronouns.[171] The strong pronoun *soi* is only anaphoric to impersonal *on*, and there is no gap in *l*-pronouns. There is no subject clitic *s*-pronoun, and again *l*-pronouns have no gap. This distribution suggests that *s*-pronons are either anaphora to impersonal *on*, or else show up wherever personal pronouns have a gap.

This stopgap distribution of *s*-pronouns is evidence for the hypothesis that they are phi-less (cf. Sportiche 2014: 114; in section 4, we add *s*-pronouns as local anaphora to inanimate DPs). (11c) gives a Distributed Morphology way of stating this in the D-type approach to personal pronouns of chapter 2.5. The exponents of personal pronouns other than those in *s*- spell out definites with the pronominal version of *the*, *the$_{pron}$*, which requires a silent NP and agrees with it in phi-features. The exponents are specified for person and number, sometimes for gender, e.g. the 3PL possessor clitic *leur*. The *s*-exponents are like them but have no phi-specification. They realise *the$_{pron}$* definites whenever there is no more phi-specified exponent. That includes gaps in *l*-pronouns, e.g. the 3SG possessor, and minimal pronouns anaphoric to *on*, which have only [human].[172]

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[170] *Se* is a subject-oriented reflexive-reciprocal direct and indirect object clitic for 3$^{rd}$ person antecedents, with various other uses that may or may not be related, like mediopassive formant: see Sportiche (2014).
[171] Possessive personal pronouns with overt NPs correspond to possessive adjectives with silent NPs, as in English: *mon* 'my' - *mien* 'mine', *son* - *sien*.
[172] Cf. the distribution of possessors in Danish (Safir 2004).

(11c) /leur/ ↔ the$_{pron,[3rd],[plural],[genitive]}$
/son/ ↔ the$_{pron,[genitive]}$

This theory of *s*-pronoun anaphora to *on* as minimal pronouns predicts that they should be person- and number-neutral, exhaustively anteceded by it, and locally c-commanded by it. They should contrast on this with *s*-exponents that do not realise minimal pronouns. For instance, *son* as the 3SG possessor clitic is predicted to be, and is, 3SG and to have no need of an antecedent. The predictions are confirmed in the following subsections. We focus on the strong pronoun *soi* and the possessor clitic *son*. The reflexive clitic *se* meets the predictions of the minimal pronoun analysis regardless of whether it is anteceded by *on* or not, since it is always a local reflexive; the analysis that it should be given does not bear directly on our story (Sportiche 2014).

### 6.3.2  Phi-features and exhaustive antecedence

*S*-anaphora to *on* should be neutral about person and number, while 3SG *son* should not (to the extent [3$^{rd}$] is not underspecified). This difference has been established in chapter 4. Here we illustrate it through (12).

(12a) Dans le film, il y avait quatres couples, et des gens$_i$ se$_i$ parlait les uns aux autres$_i$ de ses$_{*i/\sqrt{k}}$/leurs$_i$ intérêts communs pendant des heures?
In the film, there were four couples, and (some) people talked to each other about SON$_{\approx*their/\sqrt{his}}$/*their common interests?

(12b) Dans le film, il y avait quatres couples, et on$_i$ se$_i$ parlait les uns aux autres$_i$ de ses$_i$/*leurs$_i$ intérêts communs pendant des heures?
In the film, there were four couples, and ON$_{\approx people}$ talked to each other about SON$_{\approx their}$/*their common interests?

(12c) In the film, there were four couples, and one would speak (*to each other) about one's (*common) interests for hours on end?

In (12a), the indefinite *des gens* '(some) people' must antecede the 3PL possessor pronoun *leur*, and *son* can only be an independently referential 3SG 'his (her, its)'. In (12b), the antecedent is impersonal *on*. *On* can only be satisfied by a speaker and addressee-exclusive plurality, thanks to the phrasal reciprocal and the context. The anaphoric possessor itself must denote a plurality, because of the reciprocal adjective *communs* 'common'. Yet the possessor is and can only be *son*. Clearly, this *son* is not 3SG. Rather, *son* anaphoric to *on* is person- and number-neutral. In number-neutrality, impersonal *on* contrasts also with English generic *one* (12c).

The number-neutrality on *on*-anaphoric *son* lets us show exhaustive antecedence. In (13), *their* allows partial antecedence by each of Gwen and Bill, but the local anaphor *themselves* does not. We have seen in section 2 how exhaustive antecedence follows on the view of local anaphora as minimal pronouns.

(13)  Gwen$_i$ explained them$_{??i+k}$ / *themselves$_{i+k}$ / their$_{i+k}$ situation to Bill$_k$.

*On*-anaphoric *son* cannot be partially anteceded. In (14a), 3PL *leur* can be partially anteceded by *quelqu'un* and partly by Gwen. In (14b), *son* must denote a plurality, it can be anteceded by *on* alone, but not partly by *on* and partly by Gwen: it behaves as a local anaphor. The same is true if multiple *on*'s try to antecede *son*, (14c).[173]

(14a)   Quand Gwen$_k$ est présente, quelqu'un$_i$ me parle toujours de ses$_{*i+k}$ / leurs$_{i+k}$ intérêts communs.
When Gwen$_k$ is around, someone$_i$ always talks to me about his$_{*i+k}$ / their$_{i+k}$ common interests.

(14b)   Quand Gwen$_k$ est présente, on$_i$ me parle toujours de ses$_{i/*i+k}$ / *leurs$_{i+k}$ intérêts communs.
When Gwen is around, ON$_{\approx one}$ always talks to me about SON$_{*\approx one's+Gwen}$ / *their$_{one's+Gwen's}$ common interests.

(14c)   *On$_i$ espère souvent qu'on$_k$ me parlera de ses$_{i+k}$ intérêts communs.
ON$_{\approx people}$ often expect that ON$_{\approx people}$ will talk to me about SON$_{\approx their}$ common interests.

The exhaustive antecedence of *s*-anaphora to *on* follows if they are local anaphora qua minimal pronouns.[174]

### 6.3.3 Local c-command

The restriction of *on*-anteceded *s*-pronouns to local c-command is perhaps their most striking property, because it is easily accessible to judgments and without an obvious

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[173] The point can be replicated with e.g. *leurs/ses rélations* 'their relationship'.

[174] Exhaustive antecedence is expected for local anaphora as minimal pronouns because partial antecedence relies on NP content that maps the index to something else. Natural language pronouns allow a variety of "proxies" like author for work (*I don't sell well*), person for statue (*Gwen posed next to herself*) or place for inhabitants (*London is celebrating*). There is much debate on how they arise, and do not necessarily imply silent NP content like *statue of* (see e.g. Jackendoff 1992, Nunberg 1993, 2004, Chomsky 2000). Those that are missing on minimal pronouns should be missing for *on*-bound *soi*. It has been observed that whereas *self/même*-type reflexives can get the proxy use, *Gwen lifted herself* (Safir 2004), *se*-type reflexive clitic have difficulty, *Gwen s'est soulevée ??(elle-même)* 'Gwen SE lifted ??(her-MEME)' (Reuland 2008, 2011; cf. Rooryck and vanden Wyngaerd 1999, 2011). If statue proxies need *self/même*, they might be unavailable for *son* anaphoric to impersonal *on*, and indeed we get a contrast, *Gwen / (#)On me reproche souvent sa finission* 'Gwen / ON$_{\approx one}$ often reproaches me SA$_{her/*\approx one's}$ finish'. However, the matter is complex: even *se* has easier time of a proxy use than no reflexive element, so that whatever the status of *Gwen s'est lavé* 'Gwen SE washed', it is more possible for Gwen washing her statue than *Gwen washed*, and indeed one can construct good examples, both when the *même*-form is available and when it is not, as well as examples that for some reason do not work, all shown in (i). We must shelve the issue.

(i)   Dès qu'elle s'est vu, elle s'est {collée une claque (à elle-même), sautée dessus (*à elle-même), *tombée dessus (*à elle-même)}
As soon as she SE saw, she SE {gave a slap (to her-SELF), jumped onto (*to her-SELF), fell onto (*to her-SELF} [SE = her statue]

parallel among other DPs. We establish it in this subsection, while the next subsection controls for confounding factors, chiefly logophoricity.[175]

Impersonal *on* can antecede *s*-pronoun anaphora at an arbitrary distance. In (15a,b), the anaphor is embedded deeply within a coargument of *on*. In (15c), it is the possessor of an ECM subject, which is not a coargument of *on* (cf. Felser 1999: 2.2.1).

(15a)   En thérapie, on$_i$ me parle des traumas de son$_i$ enfance devant tout le monde.
In therapy, ON$_{\approx people}$ speaks to me about traumas of SON$_{\approx their}$ childhood in front of everyone.

(15b)   Dans ce pays, on$_i$ m'invite souvent à dormir dans la grange de la ferme de sa$_i$ famille.
In this country, ON$_{\approx people}$ often invite me to sleep in the barn of the farm of SON$_{\approx their}$ family.

(15c)   Si on$_i$ voit sa$_{i/k}$ temperature monter malgré une prise d'aspirin, il faut consulter.
If ON$_{\approx people}$ sees SON$_{\approx their}$ temperature rise despite taking aspiring, it is necessary to see a doctor.

Yet there are very sharp structural limits on the anaphoric relationship. In (16a,b), an indefinite antecedes the *s*-possessor *son* under c-command, but also without c-command in a donkey context. With impersonal *on* in (16c), *son* needs c-command. The implicit agent of the passive cannot relate to *son* at all, (16d). Throughout, *son* may be understood as an independently referential 3SG 'his (her, its)', but only when locally c-commanded by *on* does it have an impersonal meaning.

(16a)   Ici quand une personne$_i$ m'invite dans sa$_i$ maison, je rencontre ses$_i$ amis.
Here when a person invites me into his house, I meet his friends.

(16b)   Ici quand des gens$_i$ m'invitent dans leur$_i$/sa$_{*i}$ maison, je rencontre leurs$_i$/ses$_{*i}$ amis.
Here when people invite me into their/*his house, I meet their/*his friends.

[175] The observation and proposal that impersonal *on* is limited to local anaphora is Prince's (2006: 300-1): Prince claims that *on* antecedes *soi* "a reflexive pronoun, necessarily in the same clause", and affirms that *on* antecedes *son* "just in case it is in the same clause, i.e. in a reflexive enviroment" from intraclausal *On$_i$ doit penser à son$_{i/k}$ travail* 'One must think of one's/his work' versus intersententual *On$_i$ doit penser à beaucoup de choses. La chose la plus importante, c'est son$_{*i/j}$ travail,* 'One must think of many things' (cf. Cabredo-Hofherr 2010 for a weaker condition, where *on* antecedes bound pronouns only). The analysis of *soi* as local anaphor for the limited range of antecedent it has like *on* originates with Morin (1978), Ronat (1982), but needs establishing in light of Pica's (1984) discovery that *soi* can also be a remote logophor. Beyond Prince's intra/intersentential contrast, identification of locality constraint on *son* rather than *soi* anaphoric to *on* is to our knowledge only indirectly made by Ruwet (1990n20), noting *On se met à douter de soi quand le malheur frappe sans cesse à notre/votre/*sa porte* 'ON$_{\approx one}$ starts to doubt SOI$_{\approx oneself}$ when misfortune knocks without pause on our/your/*SON$_{*\approx one's}$ door' (our translation), where he identifies *on* as impersonal rather than 1PL and judges neither *notre/votre* bound by it. Apparent counterexamples are common, of the type *On crois toujours que l'herbe du voisin est plus verte que son propre herbe* 'ON$_{\approx one}$ believes always that the neighbour's grass is greener than SON$_{\approx one's}$ own grass', and one of our aims is to clarify the picture, particularly from the interference of logophoricity.

(16c)  Ici quand on$_i$ m'invite dans sa$_i$/leur$_{*i}$ maison, je rencontre ses$_{*i}$/leur$_{*i}$/#les amis.
Here when ON$_{\approx one}$ invites me into SON$_{\approx one's}$/*their house, I meet SON$_{*\approx one's}$ / their$_{*\approx one}$ / #the friends.

(16d)  Ici quand je suis invité$_{Ag=i}$ dans sa$_{*i}$/leur$_{*i}$ maison, je rencontre ses$_{*i}$/leur$_{*i}$/#les amis.
Here when I am invited$_{Ag=i}$ into his$_{*i}$/their$_i$ house, I meet his$_{*i}$/their$_i$/#the friends.

(17) shows that even under c-command, there are locality restrictions on the distance between *on* and *son*, again unlike with an indefinite.

(17a)  Sous ma garde, personne$_i$ n'est jamais viré de son$_i$ poste quand ses$_i$ projets échouent.
On my watch no one is ever fired from his post when his projects fail.

(17b)  Sous ma garde, on$_i$ n'est jamais viré de son$_i$ poste quand ses$_{*i}$ projets échouent.
On my watch ON$_{\approx one}$ is never fired from SON$_{\approx one's}$ post when SON$_{\approx one's}$ projects fail.

(18a,b) replicate these conclusions, this time focusing on *on* alone and bringing out the striking limits due to the local c-command requirement.

(18)  Quand on$_i$ me laisse un message, …
When ON$_{\approx one}$ leaves me a message,

on$_i$ me laisse automatiquement son$_i$ numéro sur le répondeur.
ON$_{\approx one}$ leaves me automatically SON$_{\approx one's}$ number one the answering machine.

son$_{*i}$ numéro s'affiche automatiquement sur le répondeur.
SON$_{*\approx one's}$ number is automatically displayed on the answering machine.

ce répondeur affiche automatiquement son$_{*i}$ numéro.
this answering machine displays automatically SON$_{*\approx one's}$ number.

on$_i$ racroche avant que son$_{*i}$ numéro ne s'affiche.
ON$_{\approx one}$ hangs up before SON$_{*\approx one's}$ number is displayed.

(18b)  Chaque photo qu'on$_i$ prend de moi {on$_i$ montre à ses$_i$ enfants, est montré à ses$_{*i}$ enfants, fait sa$_{*i/k}$ fortune, ses$_{*i}$ enfants voient}.
Every photo that ON$_{\approx one}$ takes of me {ON$_{\approx one}$ shows SON$_{\approx one's}$ children, is shown SON$_{*\approx one's}$ children, makes SON$_{*\approx one's}$ fortune, SON$_{*\approx one's}$ children see}.

The locality restrictions under c-command converge with those familiar from theories of local anaphora, insofar as we have been able to probe them. (19) shows that *on* cannot be separated from *son* by a clausal complement, adjunct, or relative clause boundary.

(19a)  Par un lapsus quelconque, on$_i$ finit toujours par nous révéler que le cuisinier s'occupe de ses$_{*i}$ messages.
Through some Freudian slip or another, ON$_{\approx one}$ always ends up revealing to us that the cook takes care of SON$_{*\approx one's}$ messages. [Context: interviews of prisoners to see how their messages are being transmitted to the outside.]

(19b)  On$_i$ nous élit pour que notre gouvernement gère les / *ses$_i$ affaires.
ON$_{\approx one}$ elects us so that our government handle matters / SON$_{*\approx one's}$ affairs.

(19b')  On$_i$ peut s'occuper de ses$_i$ problèmes quand notre syndicat représente ses$_{*i}$ intérêts.
ON$_{\approx one}$ can deal with SON$_{\approx one's}$ problems when our union represents SON$_{\approx one's}$ interests.

(19c)  On$_i$ ne nous envoie toujours que des documents que son$_{*i}$ employeur juge inutiles.
ON$_{\approx one}$ only sends us documents that SON$_{*\approx one's}$ employer deems useless.

DP boundaries in themselves do not block the *on-son* relationship, either indefinite (15a) above or definite (20a). However, a possessor does block it, (20b), unless it is itself *son* anaphoric to *on* and antecedes the remoter *son*. This result converges with the findings of Charnavel and Sportiche about *picture* NPs with inanimate antecedents.

(20a)  On$_i$ nous envoie le travail de son$_i$ équipe au plus tard une semaine avant la deadline.
ON$_{\approx one}$ sends us the work of SON$_{\approx one's}$ team at the latest a week before the deadline.

(20b)  On$_i$ nous envoie l' / son$_i$ / *votre évaluation de son$_i$ équipe au plus tard une semaine avant la deadline.
ON$_{\approx one}$ sends us the / SON$_{\approx one's}$ / *your evaluation of SON$_{\approx one's}$ team at the latest a week before the deadline.

The boundaries of infinitives with a distinct subject are rather touchier, and we have not reached clear conclusions. Cross-linguistically, such boundaries sometimes cannot and sometimes can be crossed by anaphora that are otherwise subject to local c-command;  the latter are known as "medium distance" anaphora (Reinhart and Reuland 1991 on the term; Reuland 2005c, Thráinsson 2007, Lundquist 2014b on Germanic; Toman 1991, Dotlačil 2004 on Czech). At first sight, *son* anaphoric to *on* seems a medium distance anaphor in (21).

(21a)  On$_i$ ne nous fait jamais rencontrer ses$_i$ amis.
ON$_{\approx one}$ never has us meet SON$_{\approx one's}$ friends.

(21b)  On$_i$ nous élit pour PRO$_{nous}$ gerer ses$_i$ affaires.
ON$_{\approx one}$ elects us to handle SON$_{\approx one's}$ affairs.

However, there are two confounds in studying this configuration. One is logophoricity. We will see below that under certain circumstances, *son* can be a logophor. So far, we have been able to ignore this, because we have picked examples that disfavour it, where *on* is not the subject of an attitude predicate and another individual like *nous* is a natural logophoric centre. However, infinitives are more permeable to logophoricity than finite clauses, and that may play a role in (21).

The second confound is "restructuring". Some medium distance anaphora seem to be simply local anaphora into infinitives that are structurally poor. The *faire*-causative infinitive in (21a) is structurally poor, and this shows up in its transparency to phenomenon that are blocked by richer infinitives, like clitic climbing (Guasti 2005).[176] The object control infinitive in (22a) is richer, but it too may show restructuring (and must on some approaches, Cinque 2006: 1.4). Dotlačil (2004) shows for Czech that apparent medium distance anaphora in object control infinitives are possible only if the infinitive lacks subject PRO.[177] One of his tests is replicated in (22): the floating quantifier needs PRO, and indeed including it degrades *son* anaphoric to *on*.[178]

(22a)   On nous oblige toujours à PRO$_{nous}$ tous raconter une histoire aux enfants.
ON$_{≈one}$ always forces us to all tell a story to the children.

(22b)   On$_i$ nous oblige toujours à ?(??tous) raconter une histoire à ses$_i$ enfants.
ON$_{≈one}$ always forces us to ?(??all) tell a story to SON$_{≈one's}$ children.

It may be that *son* is always a local anaphor to *on*, and medium distance cases involve infinitives without subjects that are subjects in the relevant sense for locality, or else logophoricity. It would be a nice analysis for medium distance anaphora generally.

The strong *s*-pronoun *soi* is subject to the same locality conditions as *son*. In (25b) the *on-soi* relationship requires local c-command, unlike indefinite-*elle* (25a) (also (3b)).

(25a)   Une personne$_i$ travaille sur elle$_{i/k}$ même quand notre coach se charge d'elle$_{i/k}$.
A person works for herself even when our coach takes charge of her.

(25b)   Dans mon équipe, on$_i$ travaille sur soi$_{i/*k}$-même (*quand je me charge de soi$_{i/k}$).
In my team, ON$_{≈one}$ works for SOI$_{≈oneself}$ even (*when I take charge of SOI$_{≈one}$).

However, *soi* as a strong pronoun has a far greater facility with logophoric uses than *son*, roughly comparable to logophoric *oneself*. This creates contrasts of the sort in (26). We return to it in the next subsection.

(26)   {Quand on$_i$ descend du col, Depuis le col}, un grand espace s'ouvre devant $^{\%}$soi$_i$ / ses$_{*i}$ yeux.

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[176] For instance, *On nous parle toujours de ses amis mais on ne **nous les** fait jamais rencontrer* 'ON always speaks to us of one's friends but ON never makes **us** meet **them** [lit. ON us them makes never meet]'.
[177] Cf. Lundquist (2014b) on medium-distance anaphora in Danish. Danish and Czech permit binding past the subject possessor of DPs, unlike French, which Toman (1991) attributes to optional subjecthood.
[178] This might not seem extensible to the apparent adjunct in (21b), but see Truswell (2011).

{When ON$_{\approx one}$ descends from the pass, From the pass}, a great space opens before {SOI$_{\approx oneself}$, SON$_{*\approx one's/\approx his}$ eyes}.

Strong pronoun local anaphora in French are often strengthened by *-même* '-self'. *On*-anaphoric *soi* may be too, as in (25b). French *-même* and English *-self* may or must appear under certain conditions, which differ in English and French (Zribi-Hertz 1995, 2008). There are configurations like (27) where the anaphor is local, in the sense that it must be exhaustively bound by the local subject, yet where *-même* is impossible or restricted; *on* antecedes bare *soi*.[179]

(27)    En randonnée on doit toujours amener avec soi(*-même) des allumettes.
        On a hiking trip ON$_{\approx one}$ must always have matches on SOI$_{\approx one}$(*-self).

Within the theory of minimal pronouns, we can think of *même* 'self' as an element that combines with a minimal pronoun in a way that does not make the combination opaque for syntactic phi-feature transmission, for instance as a modifier (Zribi-Hertz 2008). In a similar way can be viewed whatever syntactic content makes for the difference between X° clitic *se*, phrasal clitic *son*, and strong pronoun *soi* (Cardinaletti and Starke 1999, Zribi-Hertz and Mbolatianavalona 1999; see further the Excursus). The minimal pronoun remains accessible to a syntactic dependency with its binder within these structures, and the extra content has whatever independent effects it has, like allowing focus marking.[180]

Thus *s*-anaphora to *on* are subject to the locality restrictions of local anaphora, or perhaps medium distance ones if these are distinct. The domain corresponds well to the domain of French *-même*, English *-self* forms as local anaphora (Charnavel and Sportiche 2016). The parallelism breaks down in possessors, where there are no *-même/-self* forms, and in environments like (27). In both cases *s*-anaphora to *on* are a better guide to the domain of local anaphora than *-même/-self* forms.

Impersonal *on* must c-command its *s*-anaphor, and they may not be separated by syntactic locality barriers, notably CPs/DPs with distinct subjects, but there can be between them an arbitrary phrasal distance and an arbitrary number of argument-predicate relationships. This is what we have been calling local c-command. It is not a restriction on the possible anaphoric relationships of impersonal *on*, which has been seen in chapter 3 to antecede another *on* in all the environments as indefinites antecede pronouns like donkey contexts, nor a restriction on bound pronouns, which need c-command but not locality. It follows from *on* anteceding only minimal pronouns among definites due to its deficient content, and the need of minimal pronoun to establish a syntactic dependency with their binder. The result is a DP that can antecede local but not other pronominal anaphora.

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[179] *Self* forms here are not always impossible, especially *oneself* (see Zribi-Hertz 1995 for why *one* might be special). Language with nonlogophoric local anaphora in this type of obligatorily subject-bound PP include German *sich* and Czech *sebou*.

[180] Much the same goes for *soi(-même)* in a function we do not discuss, as an intensifier like English *-self* forms, *...on aurait eu peur soi(-même)* '...ON$_{\approx one}$ would have been afraid SOI$_{\approx oneself}$(-self) (Grevisse 2008: §664a), whether or not they are to be analysed as originating in a "big DP" with their antecedent.

## 6.3.4 Accommodation and Logophoricity

The restrictions of *s*-anaphora to *on* to local c-command is crisp in our examples. Here we turn to apparent exceptions through accommodation and logophoricity.

Accommodation of the sort in (29) has been seen to lead to apparent anaphoricity between impersonal *on* and personal pronouns in chapter 5.2.

(29)    {$On_i$ m'appele, J'ai un appel} de Bø et $ils_i$ demandent une réponse immédiate.
        {I am being called, I have a call} from Bø and they are asking for an immediate answer.

Here we want to call on accommodation for a very restricted class of examples like (30), where *son* is anaphoric to *on* in a donkey context.

(30)    Ici, quand $on_i$ m'invite chez soi, {?$son_i$/le mari est, *$ses_i$/*les amis sont } toujours à la maison.
        Here, when $ON_{\approx one}$ invites me home, {?$SON_{\approx one's}$/the husband is, *$SON_{\approx one's}$/the friends are} always at home.

In *son* anaphor in (30) seems limited to NPs that can also easily appear in accommodated (bridged, inferred) definites to *on*, like *mari* but not *amis*. Even then, *son mari* is not perfect, *ses grandparents* 'SON grandparents' is worse, and *sa voiture* 'SON car' worse still. We suspect that just as there is accommodation of a unique husband, so one may accommodate enough about the spouse of the husband to license 3SG *son* as anaphor to *on* (cf. *He is married, but I haven't met her*). However, we cannot say more at this point; judgments here are difficult and unstable.

Logophoricity underlies other exceptions to the local c-command requirement on *s*-anapora to *on*. The term logophor is used for anaphora to "logophoric centers", individuals from whose perspective something is evaluated (Sells 1987, Zribi-Hertz 1989, Cole, Hermon and Lee 2001, Reuland 2005a, Cole, Hermon and Huang 2005, Anagnostopoulou and Everaert 2013). The strong pronoun *soi* is known to be a logophor, and the possessor clitic *son* also turns out to have logophoric uses, albeit far more limited ones. This makes logophoricity a systematic confound in studying *s*-anaphora to *on*, and we need to look at it in a bit of detail.

The strong *s*-pronoun *soi* has been argued to behave in the manner of Icelandic *sig*, namely as a local anaphor when there is a local antecedent, but otherwise available as a logophor (Pica 1984, Pica and Rooryck 1998). (31) illustrates prototypical logophoric behavior: matrix *souhaiter* 'wish' allows linking its attitude holder as logophoric centre to *soi* in a subjunctive clause, while the indicative under *dire* 'say' blocks logophoricity.

(31a)    L'$on_i$ souhaite / *dit toujours que les gens disent du bien de $soi_i$.
         $ON_{\approx one}$ wishes/*says always that people speak well of $SOI_{\approx one}$.

<div align="right">(Pica and Rooryck 1998)</div>

However, logophoric *sig* can with more difficulty be found in indicative clauses and without a c-commanding or even any apparent antecedent (Reuland 2005b, Thráinsson 2007, with variation, Strahan 2009, Lundquist 2014a; cf. elsewhere Pollard and Sag

1992). French *soi* likewise has these possibilities: in (31b) it is inside an indicative without an apparent antecedent (we turn to *ses* in this example presently).[181]

(31b)   Tout dépend de {soi, ses propres envies, ses envies, leurs (propres) envies}.
        All depends on {SOI$_{≈oneself}$, SON$_{(\%)≈one's/≈his}$ own desires, SON$_{*≈one's/≈his}$ desires, their (own) desires}.

As logophor, *soi* is limited to logophoric centres that do not have fixed person and number. In (32a), nonlocal *soi* can pick up impersonal *on* but not DPs with a full phi-set. The latter link in (32b) either to ordinary pronouns, or to *-même* forms similar to English *-self* logophora (Zribi-Hertz 1989, Pollard and Sag 1992, Baker 1995).[182]

(32a)   {On$_k$, Aucun d'eux$_j$, Ils$_n$, Je$_m$} ne souhaite pas que les gens dise du mal de soi$_{k/*j/*n/*m}$.
        {ON$_{≈one}$, *None of them, *They, *I} do not wish that people speak ill of SOI$_{≈one}$.

(32b)   Azenor$_i$ y pensa toute la journée. Elle$_i$ considéra que Fañch resterait fier d'{elle$_i$, ?elle-même$_i$, *soi$_i$} quels que soient ses choix.
        Azenor$_i$ thought about it all day. She$_i$ supposed that Fañch would remain proud of her$_i$(?-self) / *SOI$_i$ whatever her choices.

This makes sense if *s*-exponents are beaten by other personal pronoun exponents unless they realise a phi-deficient DP, whether minimal pronoun or logophor.

The phrasal clitic *s*-pronoun *son* (*sa, ses*) does not seem to have been studied for logophoricity. (31b) shows that under certain circumstances, it too can be logophoric. By itself, *ses* can only be the 3SG possessor 'his, her' (cf. (2a,b). However, with *propre* 'own', it can be marginally logophoric, like 'one's own' though less easily. This is not a property of its 3SG use; 3PL *leur (propre)* can only be the 3PL possessor 'their (own)'. Rather, it seems that *son* like *soi* can realise a logophor, but that in a context like (31b) it needs to

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[181] Zribi-Hertz (1990, 1995) gives other examples with *soi* in indicative complements c-commanded by its antecedent and without antecedent, as challeng to Pica's (1984) logophoric analysis, but they seem to fit the reported range of logophoric *sig*. In the grammars we have studied, local *s*-anaphora to impersonal *on* are immediately accessible, but logophoric *s*-pronouns are most finnicky, often accessible in a particular only when one "gets the trick of it" though leaving a special "flavour"; we use ! for the most marked ones. Ruwet (1990) is an enlightening discussion of the nature of such judgments. Indeed, Morin (1978: 352) deems *soi* ungrammatical in the easiest non-local context, an object-control infinitive, while noting much variation. We do not know what underlies the variation, but compare known variation on English *self*-logophora (Pollard and Sag 1992, Baker 1995) and on Scandinavian *sig* (Strahan 2009, Lundquist 2014a).

[182] In section 4 we argue that some DPs like *personne* can be underspecified in phi for some speakers, and these can then antecede both local and logophoric *soi*. The English logophor *oneself* works very luch like *soi*, to a first approximation, arguably as personless. There is much to say, as in (i): there is coordination of *work on oneself*, where generic *one* in the logophor includes humans in *partners*, and *work on their projections*, where *their* is cataphoric to *partners*.

(i)   Dans tous les cas, un travail sur soi$_{arb}$ et sur leurs$_i$ projections peuvent aider les partenaires$_i$ à renouer avec leur$_i$ désir […]
      In any case, work on SOI$_{≈oneself∈i}$ and on their$_i$ projections can help partners$_i$ reconnect with their desire […] (G/J)

be "strengthened" by *propre*. Indeed, linking to logophoric centres is known to be abetted by focus-related content like *-self* or *own* (Zribi-Hertz 1995). Such content is present in the strong, focusable pronoun *soi*, but must be brought to the phrasal clitic *son* by *propre* 'own'. The $X^0$ clitic *se* has no detectable logophoric uses whatsover. We sketch one way of approaching this correlation of "strength" and logophoricity in the Excursus.[183]

In contexts that particularly favour the subject as logophoric centre like (31a), we can find *on* that antecedes remote though c-commanded *son*, as in (33, 36, 34).[184]

(33a)  Même en Pourgandie, on$_i$ souhaite que son$_i$ pays ait une bonne réputation touristique.
Even in Purgandy, ON$_{\approx one,their}$ wishes that SON$_{\approx one's,their}$ country have a good tourist reputation.

(33b)  Vu la beauté de la Pourgandie, moi je dis qu'on$_i$ mérite que son$_{*i}$ pays ait une bonne réputation touristique.
Given the beauty of Purgandy, I say that ON$_{\approx one,they}$ deserves that SON$_{*\approx one's,their}$ country have a good tourist reputation.

(36a)  On$_i$ se$_i$ surprend toujours ?(soi-même$_i$) quand ses$_i$ projets de loi passent.
ON$_{\approx one}$ always surprises SE$_{\approx oneself}$ ?(SOI$_{\approx one}$-self) when SON$_{\approx one's}$ bills pass.

(36b)  On$_i$ nous surprend toujours (nous-mêmes) quand ses$_{*i}$ projets de loi passent.
ON$_{\approx one}$ always surprises us (ourselves) when SON$_{\approx one's}$ bills pass.

(34a)  ?On$_i$ ne va pas s'offusquer si tu n'invite pas ses$_i$ parents.
ON$_{\approx people}$ is not going to take offence if you do not invite SON$_{\approx their}$ parents.

(34b)  On$_i$ ne va pas venir si tu n'invite pas ses$_i$ parents.
ON$_{\approx people}$ is not going come if you do not invite SON$_{\approx their}$ parents.

The good examples depend on logophoricity, because they are only possible if the *on* antecedent of *son* is a natural logophoric centre: experiencer of attitude predicates like *wish*, not themes of verbs like *deserve* (cf. Ruwet 1990, Dubinsky and Hamilton 1998, Landau 2013: 7.3). Even as subject of a verb of saying, *on* has difficulty linking to remote *son* if there is a $1^{st}/2^{nd}$ person pronoun around, because the speech act participant is a natural logophoric centre, and logophora seem to need a single logophoric centre (Pollard

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[183] Direct and indirect pronominal objects must be clitics or clitic-doubled, and *soi* can only be doubled by *se* (cf. chapter 7 for the nature of doubling). This has the consequence that direct and indirect object *soi* must be doubled by *se*, which is always only a local anaphor, and so must be doubled *soi* (Kayne 2000: 9.12). Only prepositional object *soi* can be so (for subject *soi*, see chapter 7).

(i)  Quand on$_i$ dit aux gens {de parler de soi$_i$, *de (se$_i$) photographier (soi$_{*i}$)}
When ON$_{\approx one}$ tells people {to speak of SOI$_{\approx oneself}$, to (SE) photograph (SOI$_{*\approx oneself}$)}
(cf. Kayne 1975: 172n23, 2000: 9.12)

[184] All judgments are on ordinary impersonal *on*, not pseudospecific *on*, which is discussed below.

and Sag 1992: 274-5).[185] Thus in (37), there is usually a sharp contrast perceived at first between a version without and with *nous* 'we'.

(37)     On$_i$ ne (*nous) parle jamais franchement quand son$_i$ patron écoute.
          ON$_{\approx one}$ never talks (*to us) frankly when SON$_{\approx one's}$ boss is listening.
          [Context: reporter talking about workers, not intending to include herself.]

However, similar examples are less deviant, and can be further ameliorated once one gets used to them. In (35a), the attitude predicate favours linking the *s*-pronouns to *on*. In (35b), *nous* is a competing perspective holder. Reactions to the example can involve initial rejection followed by acceptance with insistence that *soi* needs more emphasis than in (35b), as does *son* (*ses*), whose availability moreover remains variable. (35c) with an infinitival complement evokes similar reactions but is better. Judgments vary widely, perhaps like judgments on English -*self* logophora (Pollard and Sag 1992: section 5).

(35a)    On$_i$ espère/pense toujours que les autres voteront pour {soi$_i$, ses$_i$ amis, !ses$_i$ projets de loi, !son$_i$ image}.
          ON$_{\approx one}$ hopes/thinks always that others will vote for {SOI$_{\approx oneself}$, SON$_{\approx one's}$ friends, !SON$_{\approx one's}$ bills, !SON$_{\approx one's}$ image}.

(35b)    $^{(\%)}$On$_i$ nous dit toujours que les autres voteront pour {soi$_i$, ses$_i$ amis, !ses$_i$ projets de loi, (*)son$_i$ image}.
          ON$_{\approx one}$ always tells us that others will vote for {SOI$_{\approx oneself}$, SON$_{\approx one's}$ friends, !SON$_{\approx one's}$ bills, (*)SON$_{\approx one's}$ image}.

(35c)    On$_i$ nous$_k$ dit toujours PRO$_k$ de voter pour {soi$_i$, ses$_i$ amis, !ses$_i$ projets de loi}.
          ON$_{\approx one}$ always tells us to vote for {SOI$_{\approx oneself}$, SON$_{\approx one's}$ friends, !SON$_{\approx one's}$ bills}.

There is much about logophoric *s*-pronouns we do not understand at the basic empirical level. In the Excursus, we sketch one way of looking at them that has a couple of further consequences: *son* can be logophoric to *on* only under c-command or if *on* is used pseudospecifically. However, for the study of constraints on *s*-pronouns to ordinary impersonal *on*, it has sufficed to use examples that disfavour logophoricity. In them, *s*-pronoun anaphora to *on* are out save under local c-command.

## 6.4   Local *s*-anaphora beyond *on*

Impersonal *on* is not quite the only DP to which the *s*-pronouns *soi, son* are local anaphora. In chapter 7, we will see local *s*-anaphora to 1PL *on* as well, and argue that 1PL *on* is really impersonal *on* at heart. Four other DP types allow *s*-anaphora: NOC PRO, OC PRO controlled by an independent antecedent of *s*-anaphora, Romance-style generic implicit objects, and for some speakers certain "generalising" DPs like *tout* 'all'. In this section, we look at them in turn in light of our proposal, focusing on generalising

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[185] Bylinina, McCready and Sudo (2014) find that there can be only a single perspective holder in a given domain for a variety of phenomena, including logophora; very preliminarily, their other perspective-sensitive items like *left, taste, might* are indeed linked to *on* when it antecedes remote *s*-anaphora.

DPs. They are a difficult domain to study, but they lead to a confirmation of the hypothesis that *soi* can be a local anaphor, and we suggest phi-deficient analysis for them.

In English, NOC PRO has approximately the behaviour of the generic impersonal *one* or of any personal pronoun, save that it is constrained by additional requirements like logophoricity (Landau 2013: 7.3). French NOC PRO has the same behaviour, with *on* in the place of *one*. In (40a) NOC PRO may be anaphoric to *on* or arbitrary, just as an *on* in its place could be, or refer to a salient individual like the speaker, as a personal pronoun could. In (40b), the addressee is the logophoric centre as the experiencer of *déranger* 'bother', and NOC PRO must be 2SG.

(40a)  On$_i$ me$_k$ dit que c'est triste d'PRO ne pas être fier de soi$_{i/arb}$/moi$_k$-même.
  *soi$_i$*  ON$_{\approx one}$ tells me that it is sad PRO not to be proud oneself.
  *soi$_{arb}$* ON$_{\approx people}$ tells me that it is sad PRO not to be proud oneself.
  *soi$_k$*  ON$_{\approx one}$ tells me that it is sad PRO not to be proud myself.

(40b)  On$_i$ me$_k$ dit que ça te$_j$ dérangerait de PRO ne pas être fier de toi$_j$/moi$_{*k}$/soi$_{*i/??arb}$-même.
  ON$_{\approx one}$ tells me that it would bother you to [PRO not to be proud of your-/*my/??one-self].

NOC PRO has been analysed as an *on*-like impersonal, though there is a number of particular differences (Cinque 1988). It can also be analysed as a logophor like *soi* and other personal pronouns on their logophoric use (close to Landau 2001). In either case, we expect *s*-anaphora when NOC PRO is used for an individual of unknown person and number, as in (40a), and not otherwise, (40b). It is difficult to show that *s*-anaphora to NOC PRO are local anaphora, since it is a logophor and so can be *s*-anaphora to it.

OC PRO can be controlled by impersonal *on*. It can then behaves like an anaphoric *on* in interpretation and syntax. (Ba) shows it controlling singular concord while anteceding a reciprocal, a behavior unique to *on*. However, it can also mismatch its controller *on*. In (Bb), it controls plural concord, which *on* never can. This capacity for mismatch has nothing to do with *on*; it is availabe for other controllers like group nouns, cf. (Bc).

(Ba)  On$_i$/*Le groupe$_i$ nous promet toujours d' PRO$_i$ être amical les uns avec les autres et avec son$_i$ professeur.
  ON$_{\approx people}$ / The group always promisses us to be friendly.SG with each other.PL and with SON$_{\approx their}$ professor.

(Bb)  On$_i$/(?)Le groupe$_i$ nous promet toujours d' PRO$_i$ être amicaux les uns avec les autres et avec leur$_i$ professeur.
  ON$_{\approx people}$ / (?)The group always promisses us to be friendly.PL with each other.PL and with SON$_{\approx their}$ professor.

(Bc)  Le groupe$_i$ est toujours amical/*amicaux (*les uns avec les autres et) avec son$_i$/*leur$_i$ professeur.
  The group is always friendly.SG/*PL with each other.PL and with SON$_{\approx its}$/*their professor.

The analysis of OC PRO is much contested, but all major positions are compatible with our analysis of *s*-anaphora to *on*. OC PRO has been viewed as a minimal pronoun bound by the controller (Kratzer 1998, and with a somewhat different take on minimal pronouns, Landau 2014). At first sight, there should be exhaustive antecedence and phi-identity between controller and PRO, and so *on*-anteceded PRO should control singular concord and antecede *s*-pronouns as in (Ba). The same expectation arises on movement analysis of control, where OC PRO is the trace of *on* (Boeckx, Hornstein and Nunes 2010). Both types of analyses may be called syntactic, since syntax ensures control. Syntactic analyses do have ways of approaching mismatches like silent comitatives. OC also continues to be analysed without any syntactic relationship between controller and PRO (Chierchia 1990, Stephenson 2010, Pearson 2016; Schlenker 2003, 2004, 2011b, Anand and Nevins 2004). On such interpretive analyses, OC PRO is or has an index λ-bound at the top of the control clause, and the resulting property predicated of the controller by the semantics of the control verb. Such theories as well have addressed possible and impossible interpretive mismatches. They must allow OC PRO to be phi-deficient, in order to explain why it can behave like *on* when controlled by *on*.

The last sort of silent argument that allows *s*-anapora is Romance-type generic implicit objects (Landau 2010 with literature; Rizzi 1986, for French Authier 1989). They can antecede *s*-pronouns in stark contrast to implicit agents, as in (A).

(Aa)    Un bon thérapeute reconcilie $e_i$ avec soi-même$_i$ / sa$_i$ famille.
          A good therapist reconciles $e_{≈one}$ with SOI$_{≈one}$-self / SON$_{≈one's}$ family.
                                                                                    (adapted from Authier 1989: 47-8)
(Ab)    Un bon thérapeute fait $e_i$ parler de ses$_i$ intêrets communs.
          A good therapist makes $e_{≈people}$ talk about SON$_{≈their}$ common interest.
                                                                                    (adapted from Authier 1989: 47-8)
(Ac)    Dans une thérapie tu es d'abord reconcilié$_{Ag=i}$ avec toi-même/*soi$_i$(-même).
          In a therapy, you are first reconciled$_{Ag=i}$ with yourself/*oneself$_i$

By their meaning, generic implicit arguments seem neutral about person and number. (Aa) and (Ab) confirm number-neutrality with an implicit object anteceding plurality-denoting *ses*/SON in (Ab), like *on* above. This predicts that personal pronoun anaphora to imlplicit objects should use *s*-exponents. We leave open further analysis.

Beyond *on* and these silent arguments, some speakers allow *soi* as anaphor with certain apparently 3SG DPs, though generally 3SG DPs require 3SG *lui, elle*.[186] The facts are complicated due to history and register. In classical French, *soi* was available for 3SG antecedents alongside *lui, elle*. In current French at nonliterary, everyday registers, some speakers have only *on* and silent arguments as nonlogohoric antecedents of *soi*. Others add certain apparently 3SG DPs with a "generalising" character, like *personne* 'no one', *l'égoiste* 'the egoist' (kind use). Variation appears to be vast, and judgments are often difficult (cf. Zribi-Hertz 1990, 2008, Legendre 1990, 1997, Jones 1996: 6.7.10 more briefly Kayne 1975: 5.1, 2000: 8.2.3, Morin 1978; studies based on literary usage include Nyrop 1925: §213-5, Brandt 1944, Grevisse 2008: §664, CNRTL s.v. *soi*).[187]

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[186] Here *son* is irrelevant, since it is both phi-deficient and 3SG.
[187] In certain phrases *soi* is idiomatic and needs no antecedent, e.g. *chez soi* 'at home'.

In order to study these generalising DPs with *s*-anaphora, we need to exclude logophoric *soi*. This is easiest done with inanimate antecedents (Charnavel and Sportiche 2016).[188] (41) gives examples of generalising DPs for liberal speakers: certain universal quantifiers (a), but not others like *aucun objet* 'no object'; kind but no other definites (b); *ce que* "that which, whatever" relatives, (c). All are 3SG; their 3PL counterparts cannot antecede *soi* (see esp. Waltereit 2012). Generally, 3SG *lui, elle* anaphora are available, but sometimes odd. In (41a), for instance, *lui* is not easy, or decreases the generalising character of the sentence.[189]

(41a)   {Tout$_i$, Rien$_i$ ne} se$_i$ suffit à soi$_i$/?lui$_i$-même.
        {All, Nothing} suffices unto SOI$_{≈it}$/?him$_{≈it}$-self. (G/L)

(41b)   Cette collection célèbre la pierre$_i$ pour soi$_i$/elle$_i$-même, sans artifices.[190]
        This collection celebrates the.F stone for SOI$_{≈it}$/her$_{≈it}$-self, without artifices.

(41c)   Ce qui$_i$ revient sur soi$_i$/?lui$_i$-même ne s'épuise pas.
        That which comes back to SOI$_{≈it}$/?him$_{≈it}$-self is not used up. (G/L)

It has been hypothesised that *soi* with non-*on* antecedents is a local anaphor (Morin 1978, Ronat 1982), independently of its availability as logophor (Pica 1984). Inanimate antecedents confirm the proposal: remote *soi* is sharply ungrammatical with them, (42a,b), save in medium distance environments, (42c).[191]

(42a)   Rien$_i$ ne se suffit à soi$_i$-même quand tu fixes ton attention sur lui$_i$/*soi$_i$.
        Nothing suffices unto SOI$_{≈it}$-self when you fix your attention on him$_{≈it}$/*SOI$_{≈it}$.
                                    (also good with *lui-même* 'it-self')

(42b)   Ce$_i$ qui$_i$ se suffit à soi$_i$/lui$_i$-même attirera vers soi$_i$/lui$_i$-même toute chose qui est differente de *soi$_i$/lui$_i$.
        That which suffices unto SOI$_{≈it}$/him$_{≈it}$-self will attrct toward SOI$_{≈it}$/him$_{≈it}$-self all things that are different from *SOI$_{≈it}$/him$_{≈it}$.

(42c)   Rien$_i$ ne justifiait *pro*$_{arb}$ de fixer son$_{arb}$ attention sur soi$_i$/??lui$_i$, et elle ne savait où regarder.[192]

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[188] We exclude examples like (i) where *soi* is perceived as logophoric with a personification.

(i)   Parfois [l'éducation à la citoyenneté]$_i$ devient le but fondamental de l'école et attire vers soi$_i$/elle$_i$ et absorbe toutes les autres disciplines, notamment l'histoire (G/L).
      Sometimes [citizenship education] becomes the fundamental goal of scool and attracts toward SOI/it and absorbs all other disciplines, notably history.

[189] In the examples, the *l*-pronouns need *-même* when this is indicated, while *soi* only allows it, but when bare is perceived to have a distinctive prosodic prominence; cf. Zribi-Hertz (1995, 2008).
[190] Here local-anaphoric *soi* is apparently not subject-oriented (contrast Morin 1978: 3.2.2, Legendre 1990, 1997), but perhaps we have a small clause (Toman 1991).
[191] We would expect that *s*-pronouns as local anaphora require exhaustive antecedence; that seems right, though we do not pursue it in detail here, noting only that replacing *on* with *chacun* in our earlier demonstration of the ban on split-binding keeps the restriction.
[192] Note that *son* here need not be anaphoric to OC PRO but directly to the implicit object of *permit*.

> Nothing justified fixing one's attention on $SOI_{\approx it}$/?*$him_{\approx it}$, and she did not know where to look.

The use of *soi* as local anaphor to generalising DPs presents a puzzle independent of our proposal, isnce *lui, elle* are the local anaphora to all other 3SGM/F DPs and optionally to generalising DPs as well. We cannot escape this problem by treating *soi* as logophor or impersonal, since inanimate antecedents show it to be a local anaphor.

Our analysis of *s*-pronouns predicts that DPs anteceding *soi* fail to transmit those phi-features to a minimal pronoun that would permit it to be realised as 3SGM/F *lui/elle*. If the exponents *lui/elle* are fully specified for person, number, and gender, then failure to transmit any and all results in *soi*; if they are partly underspecified, say *lui* for gender, then one of the remaining phi-features must fail to be transmitted. The transmission failure should be related to the generalising character of DPs that can antecede *soi*, and to the absence of 3PL antecedents.

We have at this point only a suggestion: generalising DPs are optionally deficient for number.[193] Lack of number derives their apparent limitation to 3SG rather than 3PL, since 3SG can reflect the absence of number (chapter 4.6). With further assumptions, it would also be relatable to their generalising meaning. The DPs that permit *soi* are well-defined kinds, certain universals, and free relatives of similar meaning. Perhaps these are DPs for which number would make no difference. *La pierre* 'the.F stone' might have no plural counterpart when denoting the "well-defined" mass kind *stone*, and free relatives that antecede *soi* seem to have this kind use.[194] The quantifiers *tout* 'all', *rien* 'nothing' have no plural counterparts; *tous* means 'everyone' and there is no *rien-s*. In their case the absence of number might be mandatory: in (43) *tout* resist 3SG *l*-pronoun anaphora even when these are the only option and not just when *s*-pronouns are available as in (41a).

(43a)  $Tout_i$ indique quand ?$il_i$/*$ça_i$/*$on_i$/*soi peut être consommé
       All indicates when ?$he_{\approx it}$/*$that_{\approx it}$/*$ON_{\approx it}$/*$SOI_{\approx it}$ may be consumed.

(43b)  $Tout_i$ indique quand on doit ?$lui_i$/*$se_i$ passer une couche de peinture.
       All indicates when one must ?$him_{\approx it}$/*$SE_{\approx it}$ give it a coat of paint.

A prima facie obstacle to the view that *soi*-antecedents are numberless is the mixing of local *soi* and remote *lui* anaphora in examples like (42a,b). However, when *soi* is available, as in the two local contexts of (44), there is a sense of mismatch with mixed anaphora. It may be then that remote *lui* in (42a,b) involve accommodation of numerosity as smooth as that from group to plurality in *The team is carrying their coach.*

(44)   $Tout_i$ part de $soi_i$ et revient sur $soi_i$/??$lui_i$-même.
       All proceeds from $SOI_{\approx it}$ and returns to SOI/*$him_{\approx it}$-self.

Much work is needed to spell out and shore up this idea. There are alternatives within our analysis of *s*-pronouns, notably a view of generalising DPs as those DPs that are

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[193] Cf. Kayne (2000: 8.2.3) who suggests *soi*-antecedents are not full DPs; we do not put it quite this way, since DPs at least as complete as *la pierre* 'the.F stone', *l'égoiste* 'the.M egoist' are available antecedents.
[194] This depends on the right analysis of *les pierres* 'the stones' as "taxonomic" 'stone kinds'.

genderless (*tout*) or have a special neuter gender (*la pierre* despite apparent feminine gender, cf. Fernández-Ordóñez 2009).[195] Even without a full analysis, the emergence of *soi* as local anaphor with generalising DPs confirms the existence of *soi* as a local anaphor distinct from its remote uses. Generalising DPs permit us to control for logophoricity in the simplest possible way, inanimacy. When we do so, as in (41-42), the local character of *soi* clearly emerges.

## 6.5    The theory of minimal pronouns

The minimal pronouns of Kratzer (2009) derive local anaphoricity from contentlessness by the need for a syntactic phi-dependency. Impersonal *on* brings novel support for the idea. Its poor content prevents anaphoric relationships with personal pronouns, save if these are themselves poor enough in content. Minimal pronoun are such, and *s*-anaphora to *on* have precisely their properties: local c-command, exhaustive antecedence, and lack person and number. The analysis makes sense of a strange creature among DPs, impersonal *on* and others like it, that can antecede only local anaphora and moreover under a distinctive shape, the *s*-pronouns. The one DP that is demonstrably more phi-deficient than others in person and number can antecede no personal pronouns save those whose locality restrictions have been argued to reflect phi-deficiency.

In this section, we take a second look at the theory of minimal pronouns, and draw out a consequence that *on* has for their need to get phi-features. We have cast Kratzer's proposal the theory of DPs set out in chapter 2. In Kratzer (2009), minimal pronouns are DPs with a semantically inert D and an individual index *i* as the sole content of the NP.[196] The index *i* and thus the whole DP denotes *g(i)*. We have taken NPs denote properties and Ds to be *the* or quantifiers. Thus our minimal pronouns in (11), repeated here, are definites whose sole NP is the index. The index is a property available to any NP and may constitute an NP by itself. Our adaptation keeps contentlessness and denotation.

(11a)    *minimal pronoun: impersonal on*: $[_{DP}\ s_n\ [\text{the}_{pron}\ [_{NP}\ [i]]]]$
$\|s_n\|^{c,g} = g(n)$
$\|\text{the}_{pron}\|^{c,g} = \|\text{the}\|^{c,g} = \lambda p.\lambda s° : p \in D_{est}$ and $s° \in D_s$ and there is exactly one x such that $x \in D_e$ and $p(x)(s°) = 1$ . $\iota x[p(x)(s°)]$.
$\|i\|^g = \lambda x.\lambda s\ .\ x=g(i)$

(11b)    $\|[_{DP}\ s_n\ [\text{the}_{pron}\ [_{NP}\ [i]]]]\|^{c,g}$
$= \iota x[x=g(i)]$ if there is exactly one x such that $x \in D_e$ and $x=g(i)$, else undefined
$= g(i)$

---

The poor content of minimal pronouns makes them immune to the problems that richer definites have as anaphora to impersonal *on*: undefinedness by the uniqueness presupposition and failure to meet the Formal Licensing Condition (FLC) on silent NPs. The presupposition of a minimal pronoun is that there is exactly one individual identical to *g(i)*, which is necessarily satisfied.[197] The FLC is a condition on lexical Ns, and minimal pronouns have none, only the index, which is never in need of licensing.

The particular view we have taken of DP structure in chapters 2.5, 4 predicts these minimal pronouns. DPs are build on NPs and NPs are built on lexical Ns, phi-features, and indices. Lexical Ns are subject to the FLC. Phi-features are functions from NP meanings, so they need lexical Ns, and so NPs with phi-features are always subject to the FLC. A possible exception is $[1^{st}]/[2^{nd}]$ features that may be NP meanings themselves and are immune to the FLC. The index is special: lexical Ns and phi-features can affect form and be lexicalised, as with *scissors*, but not so the index, for if it could, we would expect to get DPs that cannot or must be bound (at any distance). We have taken the index to be a universally and freely available NP meaning, and so it is unique in being able to build an NP by itself. These are minimal pronouns. Under other views, notably if indices are dispensed with in favour of situation binding, some NP is still needed for a minimal pronoun to be interpretable, like our $N_\varnothing$ ⌜$\lambda x.\lambda s . x \leq s$⌝ (chapter 2).[198]

Minimal pronouns must be locally c-commanded by a binder because they need to get phi-features through a syntactic dependency. Kratzer derives the need from absence of exponents for philess pronouns. However, *s*-pronouns spell out pronominal definites with no person and number but only [human] (*son, soi* anaphoric to *on*) and without [human] (*soi* anaphoric to inanimate generalising DPs). They seem to be philess exponents. On Kratzer's proposal, philess exponents could spell out phi-less minimal pronouns and so occur without locality constraints (Kratzer 2009: 216). This is not so for *s*-pronouns, nor do we know elsewhere of candidates for minimal pronouns immune to local c-command.[199]

Rather, we suggest that DPs need phi-features as an interface condition, an aspect of Full Interpretation (FI). The condition is suggested independently by the observation that all DPs other than minimal pronouns do have phi-features in languages like French, detectable both in agreement and in interpretive restrictions. The need of DPs for phi-features recalls their need for Case, and it would be nice to relate them.

We will sketch one way to forge the relationship in the framework of Chomsky (2000, 2001 et seq.), using (51a) under the analysis (51b) as example. The broad idea is as DPs, minimal pronouns need Case, and so Agree with phi-probes, and these phi-probes fail FI as unvalued unless minimal pronouns obtain phi-features from their binders. We assume that Agree involves a relationship between features:value pairs (the value

[197] If phi-features transmitted to minimal pronouns are interpreted on them on the general view that the phi-features of bound pronouns are interpreted (Sudo 2014, see chapter 7), they too introduce presuppositions that are necessarily satisfied in virtue of binding.

[198] We omit contextual restrictions, which also must not produce FLC-immune pronouns; like phi-features, they could be viewed as functions from NP meanings. We must stipulate that the index is added "after" phi-features in order not to supply the NP they need.

[199] To take an example, Czech has phi-invariant pronouns very much like *soi* and *son*, but compatible with antecedent of any phi-features, and they are local anaphora, with even middle-distance properties demonstrably due to non-subject behavior of interveners (Toman 1991, Dotlacil 2004).

possibly absent) and that it results in feature sharing or "unification" (Frampton et al. 2004, Pesetsky and Torrego 2007, Kratzer 2009).[200]

(51a)  (lorsqu') on a son portable sur soi …
   when ON$_{\approx one}$ has SON$_{\approx one's}$ cell on SOI$_{\approx one}$

(51b)  [$_{vP}$ on$_{[\varphi:human],i}$ $v_{i,[\varphi:-]}$ [$_{VP}$ have [$_{DP}$ ~~the~~$_{[\varphi:-]}$ $\alpha_i$ cell$_{[\varphi:3SG]}$] [$_{PP}$ on$_{[\varphi:-]}$ $\beta_i$]]]]
   *where α, β are minimal pronouns and φ- phi-probes.*

(51c)  α = [$_{DP}$ s$_k$ the$_{pron}$ [n$_{(\varphi:-)}$ [i]]]

Let us begin with the ordinary relationship between *v* and the direct object in (51b): the phi-probe of *v*, unvalued [φ:-], Agrees with the 3SG DP built on *cell*. Agree as unification gives a single [φ:3SG] shared between *v* and the object. The goal gets Case through this Agree in some way that we need not dwell on. The P *on* and the D *the* likewise assign Case to their minimal pronoun complements *α, β*, and we view it too as Agree by phi-probes (Rezac 2008). Minimal pronouns have no interpretable phi-features, but they must still be visible to phi-dependencies in order to eventually get phi-features from their binder. On usual assumptions about featural dependencies, there must be unvalued phi-features, [φ:-], on minimal pronouns. We make them the phi-probe of the nominaliser *n* in (51c). All NPs, built as we have assumed so far, combine with *n* in order to become part of DPs, and *n* has a phi-probe. In minimal pronouns, the phi-probe of *n* finds no features to Agree with. Agree by the phi-probes of P, D unifies them with the unvalued phi-features of *n* in *α, β* respectively, and gives *α, β* Case. At this point, the [φ:-] shared by *n* and *P/D* would fail FI. However, Kratzer's "feature transmission under binding" unifies [φ:human] that *v* has from *on* with [φ:-] on *n* in *α, β* and so also with [φ:-] on P, D because it is shared with *n*. These are all thus valued to [φ:human]. A valued probe satisfies FI, on the standard analysis because valuation allows spell-out of an uninterpretable phi-set to PF and concommittant stripping from the input to LF.[201]

In the foregoing derivation and throughout, we have assumed Kratzer's mechanics for phi-dependencies, like "feature transmission under binding". There arise various empirical and conceptual questions about it, and other approaches to local anaphora through the system of syntactic phi-agreement, Case assigment, and/or A-movement (Reuland 2011, Drummond, Kush and Hornstein 2011, Rooryck and vanden Wyngaerd 2011; see Charnavel and Sportiche 2016 for a critique). For instance, it would be nice to reduce Kratzer's three phi-dependencies to one, Agree, and address the existence of both antecedents and local anaphora in positions apparently inaccessible to agreement or

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[200] We rely on feature-sharing to avoid counter-cyclicity (Frampton et al. 2004), though there would also be no countercyclicity at all if cycles are given by phases of a certain size rather than Merge: all syntactic dependencies involving *α, β* in (51) would be unordered with respect to each other and convergence would only permit the order where *α, β* get phi-features before Agree with their probes.

[201] Once we posit a phi-probe on *n*, we could make use of it instead of those of P, D. We pass through the Case assigners because whether a phi-probe on *n* is needed depends precisely on how we work out feature-transmission under binding on the one hand (does there need to be an unvalued phi-set on the minimal pronoun?) and how we work out matching by phi-probes on Case assigners (might they match a goal simply because it is of the category N/D and yet cause an FI crash?), as well as on how we analyse DP-internal concord (a phi-probe on *n* might be part of it, but then in French it must be obligatory).

passivisation, as in (53). We sketch of a system that addresses some of these issues in the Appendix. However, *on* and its *s*-anaphora bring nothing new to these questions.

(53)    From each node two arcs go back to itself.

Taking a step back from the mechanics, the centerpieces of our analysis is the poor content of *on*, the limits that it puts on personal pronoun anaphora, and the view of local reflexives as dependent in content on their antecedent. Kratzer's minimal pronoun proposal supplies this latter element in our story, which might also be reconstruable in similar ways of making local anaphora content-dependent on their antecedent such as those cited above.

### 6.6    Excursus: Logophoricity and PRO

The logophoric use of *s*-pronouns corelates with their morphosyntactic "strength":

Table Z: Strength and logophoricity

| *s*-pronoun | morphosyntax | logophoricity |
|---|---|---|
| *se* (dir., indir. object) | X° clitic to finite verb | none |
| *son* (possessor) | phrasal clitic to NP | difficult |
| *son + propre* 'own' | focus-sensitive AP | easier |
| *soi* (general) | strong pronoun | easiest |

In this Excursus, we suggest an analysis of logophoric *s*-pronouns within our overall proposal. We want *s*-logophora to be underspecified in phi-features, in order to explain why they cannot be used if the person and number of the logophoric centre are known, shown in section 3 (ex. (31)). Yet we also want them to have a phi-specification if the locality of non-logophoric *s*-pronouns derives from the phi-lessness of minimal pronouns. We model logophora as minimal pronouns enriched with a $[0^{th}]$ person phi-specification, $\sigma$ in (71).

(71)    $\sigma = [s_n \, the_{pron} \, [_{NP} \, [0^{th}] \, ([i]) \, (N_\varnothing)]]$
$\|[0^{th}]\|^{g,c} = \lambda x : x$ is the logophoric centre of c . 1
$\|i\|^g = \ulcorner \lambda x . x=g(i) \urcorner$

$\sigma$ is a D-type pronoun with only the phi-feature $[0^{th}]$ as its nontrivial content, beside the individual index available to all NPs. $[0^{th}]$ person restricts a pronoun to a logophoric centre; we return at the end to what this might mean. Like $1^{st}/2^{nd}$ person pronouns, $0^{th}$-person $\sigma$ is immune to the FLC as a person feature (chapter 4). $\sigma$ can only be spelled out by phi-less *s*-exponents, since other personal pronoun exponents are specified for person and number (section 3). By Maximise Presuppositions (MP), $\sigma$ is blocked by fully phi-specified definites if the person and number of the logophoric centre are common ground.

The value of $\sigma$ may be determined in three distinct ways: it may denote the unique logophoric centre in virtue of $[0^{th}]$; it may denote the contextually salient individual *g(i)* if

*g(i)* is the logophoric centre; and it may denote *g(i)* valued by a higher expression if *i* is λ-bound, again if *g(i)* is the logophoric centre. We take up these options in reverse order.

Both *son* and *soi* have been seen in section 3 bound by nonlocal c-commanding *on*, provided that it does not have both person and number and denotes or ranges over logophoric centres.[202] Independently, *son* and *soi* can be bound by a local c-commanding *on* regardless of logophoricity when they realise minimal pronouns. Moreover, *son* can also realise the regular 3SG personal pronoun. Certain generalising expressions like *personne* 'no one' behave like *on* for the binding of *son, soi* (section 4).

Context-valuation requires a highly salient individual *a*, so that all contextually available assignments *g* map *i* to it, $g(i) = a$ (chapter 2.2). Salience usually goes with knowledge of person and number. However, an exception is expected for the pseudospecific use of impersonal *on* on our approach (chapter 5.3). Examples like (73) involves a highly-salient individual, Gwen, where the use of *on* escapes blocking by *tu* 'you' under MP because the context changes so that it is not common ground that Gwen is the addressee or atomic. Indeed, pseudospecific *on* in (73) allows anaphoric *son* with no structural limits, in sharp contrast to ordinary uses of impersonal *on*.

(73a)  Enfin Gwen$_i$, tu me diras, **on$_{i/k}$** m'invite enfin et **son$_{*i/k}$** magasin est fermé comme par hasard!
C'm on Gwen, you tell me, ON finally inviites me and SON shop is closed as if by chance! [*on* pseudospecific for salient non-speaker/addressee, e.g. *Mael*]

(73b)  Enfin Gwen$_i$, c'est quoi cette histoire, quand **on$_{i/k}$** m'invite, **ses$_{i/*k}$** amis viennent toujours juste de partir.
C'm on Gwen, what this, when ON invites me, SON friends have always just left. [*on* pseudospecific for Gwen]

If σ does not have an index, it should be defined only if there is exactly one logophoric centre and its person and number are not common ground. Empirically, bare *son* as logophor is limited to being an anaphor c-commanding albeit potentially remote logophoric *on*, or to a pseudospecific logophoric *on* in any configuration. Apparently then, it cannot denote a logophoric centre without having an index.

However, the use of *son* for the logophoric centre without antecedent or salience without person and number is found marginally for *son* with *propre* 'own', and regularly for *soi*, as in (74). This is the expected use of indexless σ.[203]

(74a)  Tout dépend de {ses envies, ses propres envies, soi}.
All depends on {SON$_{\approx his/*\approx one's}$ desires, SON$_{\approx his/\approx one's}$ own desires, SOI$_{\approx oneself}$}

(74b)  Il est évident que soi$_i$-même et sa$_i$ voix sont une seule personne.

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[202] Logophoric centres can covary through quantification, whether though a D-quantifier, *Each student$_i$ was confident that the teacher would criticize everyone but himself$_i$* (Zribi-Hertz 1989: 705n12), an A-quantifier, *The Ring of Sauron is only one of the various mythical treatments of the placing of one's$_i$ life, or power, in some external object, which is thus exposed to capture or destruction with disastrous results to oneself$_i$.* (J.R.R. Tolkien, *Letters*, cf. Zribi-Hertz 1989: 709 ex. 45b). Cf. generally Bylinina, McCready and Sudo (2014) on perspective-sensitive items.

[203] (74b) shows that when *soi* is used for a logophoric centre, *son* sometimes can pick it up.

It is clear that SOI-SELF$_{\approx oneself}$ and SON$_{\approx one's}$ voice are the same person. (G/L)

Reference of σ to the logophoric centre seems to require something "extra". In (74a), it is *propre* 'own', a focus-sensitive item that contrasts the actual with alternative possessors (Zribi-Hertz 1995, Charnavel 2011). It is known that focus helps logophoricity in "focus logophora" like English *self*-forms (Zribi-Hertz 1995, Baker 1995, Gast 2006). Accordingly, the strong pronoun *soi* in (74) may be analysed as σ plus focus-related content *X*. *X* cannot be present in *son* but may be so in *soi* for a principled reason: *son* as a phrasal clitic cannot bear stress and focus, but *soi* as a strong pronoun can (Cardinaletti and Starke 1999). *X* is not reducible to *propre*, insofar as *soi* prefers it when logophoricity is more evident, in comparison with *son*, (76) (see also Pica and Rooryck 1998 on subtleties in *soi*-logophoricity).[204]

(76)    On$_i$ dit toujours que les gens diront du mal de ??soi$_i$ / ses$_i$ enfants.
ON$_{\approx one}$ says always that people will.speak badly of SOI$_{??\approx oneself}$ / SON$_{\approx one's}$ children.

On$_i$ espère toujours que les gens diront du bien de soi$_i$ / ses$_i$ enfants.
ON$_{\approx one}$ hopes always that people will.speak well of SOI$_{\approx oneself}$ / SON$_{\approx one's}$ children.

On$_i$ souhaite toujours que les gens disent du bien de soi$_i$ / ses$_i$ enfants.
ON$_{\approx one}$ hopes always that people speak.SUBJ well of SOI$_{\approx oneself}$ / SON$_{\approx one's}$ children.

Apparemment on$_i$ mérite que les gens disent du bien de *soi$_i$ / ??ses$_i$ enfants.
Apparently ON$_{\approx one}$ deserves that people speak.SUBJ well of SOI$_{*\approx oneself}$ / SON$_{??\approx one's}$ children. [worse still with *notre rapport dise* 'our repport says']

The extra content of *soi* is distinct from the element *-même* 'self'. Like English *-self*, *-même* marks a sub-class of local reflexives as well as focus logophora as in (32), though the distribution of *-même* is more restricted than that of *-self* (Zribi-Hertz 1995, 2008). Logophoric *soi* can be fortified by *même*, (77).

(77)    à partir du moment où on$_i$ se sent bien dans sa$_i$ peau ça regarde que soi$_i$-même
from the moment when ON$_{\approx one}$ feels well in SON$_{\approx one's}$ skin it concerns only SOI$_{\approx one}$-self

(Boutet 1986: 38, given as corpus occurrence; marked for us)

The [0$^{th}$] person we have proposed need not be limited to σ. A clear candidate is NOC PRO, including arbitrary PRO. Arbitrary PRO has often been related to *on* and similar impersonals (Jaeggli 1986, Cinque 1988). The two show striking similarities. In French, that includes restriction of PRO on its arbitrary reading to anaphora available to impersonal *on* – namely *on* and *s*-pronouns (see Burzio 1986:80-1n46 for arbitrary PRO

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[204] *Soi* is also a local anaphor, with no logophoricity at all as seen in C-MIN with inanimate antecedents. However, it may still be analysable as containing *X* to the extent that *X* is analysable like *-self,* marking both focus logophora and not necessrily focused local anaphora (Zribi-Hertz 1995, Gast 2006).

in Italian and its impersonal *si*). However, arbitrary PRO along with all NOC PRO is restricted to logophoric centres (Landau 2013).[205] In (78) the presence of experiencer *te* limits it to that experiencer, while *on* is not (chapter 4.4).

(78)    Il est étrange PRO$_{arb}$ d'être content (quand on$_{arb}$ tombe par terre).
        It is strange PRO to be happey (when ON$_{≈one}$ falls to the ground).

        Il est étrange PRO$_{i/*arb}$ d'être content quand les gens te$_i$ derrangent.
        It is strange PRO$_{i/*arb}$ to be happy when people bother you$_i$.

As a logophor, arbitrary PRO makes a better antecedent for remote and so logophoric *son, soi* than *on*, (80).[206]

(80)    {C'est normal **PRO$_{arb}$** de réaliser, ?**On** se sent moins seul quand **on** réalise}
        {It is normal PRO$_{arb}$ to realise, ON$_{≈one}$ feels less alone when ON$_{≈one}$ realises}
   +    {que d'autres que **soi** sont touchés, que d'autres ont **son** handicap}
        {that others than SOI$_{≈oneself}$ are affected, that others have SON$_{≈one's}$ handicap}

It is also immune to the the resistance of the arbitrary use of impersonal *on* to s-anaphora, discussed in chapter 5.3.[207]

(79)    PRO avoir garé sa/une voiture devant ma porte était gênant.
        To have parked SON$_{≈one's}$/a car in front of my dore was bothersome.

It is not necessary to give [0$^{th}$] to *on* for it to antecede σ, semantically, yet there might be an *on* with [0$^{th}$], though *on* certainly need have [0$^{th}$] insofar as it need not be logophoric in any sense that *soi, son*, NOC PRO are (chapter 4.4). We do not know of good evidence. Something might be concluded from the focus doulbing of *soi* by *on*, as in (83). Strong pronouns in subject positions must be doubled by subject clitics if they are 1$^{st}$/2$^{nd}$ person, though not if 3$^{rd}$ (Kayne 2000: chapter 9). *Soi* occasionally occurs in subject positions both alone and doubled by *on*, (83). Subject *soi* is always felt as strongly logophoric. However, even the status of the examples is poorly understood (see Nyrop 1925: §213.6°, Grevisse 2008: §664a.3°, CNRTL s.v. *soi*, Kayne 1975: 350n4).[208]

(83)    C'est personnel... on croit que soi on pourrait... on devrait y arriver... et puis non...

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[205] Arbitrary PRO also shows constancy effects that characterise *one* but not *on* (Safir 2004; chapter 3.5).

[206] We have not specifically studied the question of whether OC PRO controlled by *on* also is immune to the locality constraints on *on…s*-pronoun relations; if it is, it favours theories of the obligatory *de se* of OC where the attitude verb shifts the context parameter to the author or origo (Schlenker 2003, 2004, 2011b, Anand and Nevins 2004).

[207] This could also be if arbitrary PRO does not "compete" with indefinites in the relevant way. See Cinque (1988) for a discussion of the resistance of arbitrary PRO to being a derived subject in episodic contexts, but this needs further study: perfect is for instance *PRO avoir été aussi gentil avec moi a été bien charitable* 'PRO$_{arb}$ to have been so kind with me was very charitable'.

[208] Speakers hesitate, and alternative analyses need to be considered, e.g. *soi* lexicalised as 'the self, one's self'. The logophor *soi* would be [0$^{th}$] person both for Kayne's and ours use of the feature, but curiously patterns with 3$^{rd}$ persons in not needing a doubling subject clitic: see discussion of doubling below.

It's personal … ON$_{\approx one}$ believes that SOI$_{\approx oneself}$ ON$_{\approx one}$ could … ON$_{\approx one}$ should succeed … and then no… (G/L)

We have said nothing about the object clitic *se* in our discussion here (see Sportiche 2014 for overview and analysis). It is limited to being a local reflexive with no logophoric use. It therefore does not seem to be σ. Indeed, it contrasts sharply with *soi* in being anaphor too all 3$^{rd}$ person subjects and by being doubled not just by *soi* (if the subject is *on*) but by any 3$^{rd}$ person *l*-pronoun (otherwise).[209] Direct and indirect objects must ordinarily be doubled by clitics, whatever their person (Kayne 2000: chapter 9, Zribi-Hertz 2008). In these positions, *soi* can and must be doubled by *se*, and so is restricted to the local reflexive use. In exceptions to the doubling constraint, object *soi* can be logophoric, as in (84).

(84)   [O]n ne "doit" rien aux autres concernant notre apparence. [O]n se doit éventuellement des choses à soi même, mais c'est soi que ça regarde.
ON$_{\approx one/we}$ does not "owe" anything to others cocerning our appearance. ON$_{\approx one}$ may owe things to SOI$_{\approx one}$ self, but it's SOI$_{oneself}$ that that looks [sc. it's one's own affair]. (G)

Finally, let us return to [0$^{th}$]. There is much work on what determines logophoric centres for different purposes (Sells 1987, Pollard and Sag 1992 and much subsequent literature). One possibility is that [0$^{th}$] on its own is sufficiently weak that the speaker and addressee are necessarily [0$^{th}$] as well as being [1$^{st}$], [2$^{nd}$]. In that case, [0$^{th}$] might be simply Speech Act Participant (SAP), extended to encompas beyond the speaker and addressee(s) any perspective-takers. Among the SAPs however, only one can be sufficiently prominent to be denoted by σ if it is a definite, like personal pronouns. It is possibly here that the focus content of *soi, son propre* is key, by contrasting one SAP with others.[210]

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[209] Historically, *soi* descends from Latin *sē* that was a *soi*-like logophor, but lost logophoricity in its other line of development, to the clitic *se* (on Latin *sē*, see Benedicto 1991, Pieroni 2010, Solberg 2014).

[210] We have borrowed the term [0$^{th}$] person from Kayne (2000: chapter 7, 8), as a person "less strong than a 'positively numbered' person" (p. 119) but still person-like with with 1$^{st}$/2$^{nd}$ against 3rd (Kayne 2000: 119). It something of a cooption, as Kayne proposes [0$^{th}$] for *s*-pronouns on strictly morphosyntactic grounds for all *s*-pronouns, like absence of an overt gender distinction shared by 1$^{st}$/2$^{nd}$ person pronouns, whereas we only give it to them when logophoric, and not for instance with inanimate antecedents (section 4). Kayne proposes no interpretive correlate for [0$^{th}$], and notes mismatches in personhood when *s*-pronouns are used as reflexives to *l*-pronouns, to impersonals, and to 1PL pronouns (Kayne 2000: 128n41, 2010: 135-6). Our choice to use [0$^{th}$] is also influenced by Ruwet (1990: 52 and n20), who proposes that *on* is always logophoric, while suggesting that in some way *s*-pronouns and *on* are the object and subject forms of a single pronominal paradigm. We have seen that neither impersonal nor 1PL *on* need be logophoric, though logophoric *on* might have [0$^{th}$] as discussed below, and *s*-anaphora to inanimate antecedents cannot be logophoric. We could think of morphosyntactically and logophorically justified [0$^{th}$] as related, in the way for instance morphosyntactic 3PL on pronouns in deferential usage for the atomic addressee is related to 3PL as speaker/addressee-exclusive plurality: one common position is to posit multiple phi-sets, only one of which is visible for a particular phenomenon like concord or interpretation, ideally in a way that is derivable (for overviews and recent work, see Wechsler 2015, Hahm 2010, Collins and Postal 2010, Taylor 2009).

## 6.7  Appendix: A mechanics for minimal pronouns

Here we provide an sketch of a reconstrual of Kratzer (2009) through phi-Agree in the place of "feature transmission under binding".

- In the relevant scenarios, clausal heads like $v$, T are born with unvalued phi-features (probes), DPs host valued ones (goals).
- In Agree, a phi-probe may relate to any goal up to and possibly including the next lower "subject". Which goal a probe Agrees with in this domain is free, up to convergence. Among interface conditions for convergence is the need of DPs to have phi-features, or at least those bearing an index, as well as to have Case.
- The result of phi-Agree is (i) unification of matching phi-features (Pesetsky and Torrego 2007); (ii) adjunction of a occurrence of the probe to the goal, satisfying the Case Filter (Rezac 2003, cf. Pesetsky and Torrego 2001, 2004, Pesetsky 2013).
- Merge (internal or external) of $\alpha$ in Spec,$\beta$ entails unification of phi-features between $\alpha$ and $\beta$ (Kratzer 2009, Rezac 2011; ideally, derivable by extending Agree to external Merge and generalising to it the role of unvalued Case in allowing movement).
- The index is transmitted by phi-Agree as a "free rider". The index is optionally base-generated on DPs, interpreted as NP meaning ensuring identity to $g(i)$, and transmitted to clausal functional heads by phi-Agree, where it is interpreted as the corresponding $\lambda$-binder $\lambda_i$ if there is a specifier (Kratzer 2009, Rezac 2011).
- Operations apply as early as possible (Pesetsky and Torrego 2001), so H must Agree with any goals in its complement prior to the Merge of its specifier (Rezac 2003). Possibly, there is an preference for minimal pronouns if phi-specified pronouns would give the same interpretation (cf. Cardinaletti and Starke 1999).[211]

We illustrate the system at work through (60), with (61) the structure prior to phi-Agree; $\pi$ is person, # number, $\zeta$ index phi-features, DO is the direct object, Poss its possessor, EA the external argument, and resource situations are omitted.

(60)  A woman$_i$ sent her$_i$ book about her$_i$ grandmother before she$_i$ left

(61)  $T_{\pi=,\#=,\zeta=}$ [$_{vP}$ [$_{DP}$ the woman$_{\pi=3,\#=s,\zeta=n}$] $v_{\pi=,\#=,\zeta=}$ Voice$_{\pi=,\#=,\zeta=}$ finished [$_{DP}$ [$_{DP}$ the$_{pron}$ n$_{\pi=,\#=,\zeta=n}$ N$_{\zeta=n}$] 's book$_{\pi=3,\#=s}$ [$_{PP}$ about [$_{DP}$ the$_{pron}$ n$_{\pi=3,\#=s,\zeta=n}$ ~~woman~~$_{\pi=3,\#=s,\zeta=n}$] 's grandmother N$_{\pi=3,\#=s}$ $_{PP}$] $_{DP}$] $_{vP}$]

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[211] We include a preference for minimal pronouns very tentatively. It is characteristic of current theories of local anaphora, meant to explain why a reflexive form beats a non-reflexive when available. However, the theory of minimal pronouns in fact needs to add something in order for minimal pronouns to have a spell-out distinct from others, since by spell-out they have gotten their phi-features; e.g. Kratzer's [reflexive] feature. Moreover, it is not clear how the competition is supposed to work. To take a familiar conundrum, *Gwen$_i$ said that Mael$_k$ washed themselves$_{i+k}$ is impossible with a reflexive, but so it is (less strongly but clearly) with them$_{i+k}$. It seems like Condition B cannot in these cases be derived to preference for reflexives or minimal pronouns. The same has been concluded from *We each picked me/myself. So if there is competition, it remains to be grounded and its conditions specified, and our "same interpretation" is approximative. We make no assumptions that phi-features obtained by minimal pronouns are uninterpretable; that depends on the theory of distributive pronouns, discussed in chapter 7.

The phi-probe of Voice Agrees with the DO, valuing its own phi-features and adjoining a occurrence of itself to the DO whereby the DO satisfies the Case Filter. If the object has an index, the probe gets it as well. An index allows the interpretation of movement on the copy theory: the DO's index Agree-valued on Voice is interpreted as $\lambda$-binder of the index on the lower occurrence of the DO and combines with the re-Merged DO in Spec,Voice (Fox 2002, Rezac 2011).

Next, the phi-probe of $v$ Agrees with the minimal pronoun Poss. The index on $v$ gets $\lambda$-binds Poss's index, as well as any occurrences of that index in $v$'s scope; here it is $her_{\zeta=n}$, which is beyond the reach of phi-Agree across the intervening Poss as subject of the DO. The EA Merges in Spec,$v$, unifying its phi-features with those of $v$, and thus with those on the occurrence of $v$ adjoined to Poss. These phi-features satisfy the minimal pronoun's need for phi-feature. The EA is the argument of $v$'s $\lambda$-abstract.

It is not stipulated which probe Agrees with which goal. The DO must Agree with some probe to get Case. The minimal pronoun must also Agree with some probe to get phi-features, and as it only has an index, that is what it Agrees for, and thus the probe necessarily becomes its $\lambda$-binder. Certain options are possible but non-sensical, such as *the woman* $\lambda$-binding *the book*. If the DO had been a minimal pronoun, both $v_{Voice}$ and $v_{Ag}$ could Agree with its index, resulting in *the woman sent herself....* On the next cycle, Phi-Agree of T proceeds in the same manner with the EA in Spec,$v$ as the closest goal, allowing its movement (and capturing say *the$_{pron}$ $n_{\pi=3,\#=s,\zeta=n}$* ~~*woman*~~$_{\pi=3,\#=s,\zeta=n}$ in an adjunct like *before she left*).

## 7 1PL *on*

### 7.1 Introduction

This chapter is dedicated to 1PL *on*, illustrated in (1).

(1a) Nous on est tous amicaux avec notre épouse.
(US) ON$_{\approx we}$ is all.PL friendly.PL with our spouse
≈ WE are all friendly with our spouse.

(1b) (Nous) on {leur/se/*me} décrira tous notre épouse.
(US) ON$_{\approx we}$ them/SE/*me will.describe.3SG all.PL our spouse
≈ (WE) we will all describe our spouse to them / ourselves / *me.

(1c) (Nous) nous {leur/nous/*me} decrirons tous notre époux.
(WE) we them/us/me will.describe.1PL all.PL our spouse
≈ (WE) we will all describe our spouse to them / ourselves / *me.

The distinctive property of the 1PL use is 1PL form and meaning. 1PL *on* is focus-doubled by the 1PL strong pronoun *nous* in (1a,b) just as *nous* 'we' is in (1c). It antecedes 1PL personal pronouns, in (1a,b) on the distributive reading, again like *nous* in (1c). It controls plural concord on predicate adjectives and on the floating quantifier *tous*, like *nous*. With any of these 1PL properties, *on* in (1) appears to mean just 'we', and the speaker cannot be excluded by a disjoint 1SG object clitic, again as with *nous*. (1a) with speaker exclusion loses its 1PL properties, as in (1d) (chapter 4).[212]

(1d) Dans les locaux du Parti, on est (chacun/??tous) amic-al/*aux avec moi.
At the precincts of the Party, ON$_{\approx people/*we}$ are (eall/??all.PL) friendly-SG/*PL with me.

The only immediately clear way that 1PL *on* differs from *nous* is 3SG or default finite veb agreement and the form *se* of the reflexive clitic in (1a,b). We will henceforth speak of these two phenomena as *agreement*, because reflexive clitic form will be shown in section 5 to depend on finite verb agreement, and use the term *concord* for the agreement of predicate adjectives and floating quantifiers.

1PL is unique among person-number combinations in combining with *on*. In (2a), the example favours the pseudospecific use of *on* for *I* and *them*, and (2b) forces the pseudospecific use for *you* by vocatives, yet it is still impossible for *on* to relate to personal pronoun of these phi-features (chapter 5.3).

(2a) (*Moi$_i$/*Eux$_i$/Nous$_i$) on$_i$ a ses$_i$/nos$_i$/*mes$_i$/*leurs$_i$ propres idées.
(*ME/*THEM/*US) ON has SES/our/*my/*their own ideas. (cf. Oukada 1982)

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[212] Focus doubling differs from less restrictive dislocations (section 5); for corpus examples we give judgments on focus-doubling. Plural concord on predicate adjectives is a stronger diagnostic than the floating quantifier *tous* 'all.PL' (chapter 4.6).

(2b)    Alors, {jeune homme$_i$, vous deux$_i$}, on$_i$ ne pense qu'à soi$_i$/*vous$_i$?
        So, {young man, you two}, ON only thinks about SOI/*you? (cf. Morin 1978)

Similarly in (3), *on* needs to antecede an anaphor for the indicated reading. Impersonal *on* is limited to *s*-anaphora, and there is none available in this context (chapter 6). 1PL *on* can antecede 1PL *nous*. No other personal pronoun can serve as anaphor, so there is nothing like a 2PL *on*.

(3a)    On$_i$ demande toujours pourquoi tu nous$_i$ prends en photo.
        ON$_{\approx we}$ always asks why you take pictures of us.

(3b)    On$_i$ demande toujours pourquoi je vous$_{*i}$/les$_{*i}$/*se$_i$ prends en photo.
        ON$_{\approx you/they/one}$ always asks why I take pictures of you/them/oneself.
 (ok:   ON$_{\approx one}$ always asks why I take pictures of you/them/*SE.)

Save for agreement, 1PL *on* at first looks simply like a 1PL personal pronoun: on the D-type analysis of personal pronouns a 1PL definite. The subject clitic system of older French used *nous* for as its 1PL personal pronoun, beside 2PL *vous*, 3PLM *ils*, 3PLF *elles*. However, current French has either lost or specialised *nous* as subject clitic, which we indicate by writing †*nous*, though it keeps other 1PL personal pronouns (strong *nous*, object clitic *nous*, possessor clitic *notre/nos*). *On* has stepped into the place of †*nous* in use and in all properties save agreement. It is common for agreement to mismatch phi-features revealed by other diagnostics (Hahm 2010, with literature). On one or another approach to such mismatches, *on* could be basically as 1PL personal pronoun (Rezac 2011: 6.4). In the grammars studied in this chapter, that will turn out not to be the analysis of 1PL *on*, or at least not its the sole analysis. In other grammars, 1PL *on* might be just a 1PL personal pronoun.

This reanalysis view of 1PL *on* as a 1PL personal pronoun disconnects it from impersonal *on*. There is another possibility consistent with its 1PL behavior, which would link it closely to impersonal *on*: add 1PL phi-features to impersonal *on*. Plain impersonal *on* is satisfiable by any atom, group or plurality that is [human] (roughly 'person'). Impersonal *on* with 1PL would be satisfiable by any speaker-inclusive plurality of persons. Ordinarily, definites block indefinites if equivalent under Maximise Presuppositions (MP), so impersonal *on* cannot be used as equivalent to personal pronouns (chapter 5). However, to the extent that †*nous* is gone, impersonal *on* with or without 1PL phi-features can be satisfied by a speaker-inclusive plurality and so be equivalent to 'we'. This is indeed so. In (4), plain impersonal *on* with singular *amical* can be used unmarkedly both for 'people' and for 'we', though there is a preference for plural *amicaux* in the latter case. The use for 'we' even with *amical* is neutral, while use for any other pronoun 'you' is indirect, with *amical* as described for impersonal *on* in chapter 5.3, with *amicaux* as described for displaced uses of 1PL here in the Excursus. Thus absence of †*nous* has the expected consequence on the use of *on*.

(4)     On n'a pas été amicaux/amical avec Gwen.
        ON$_{\approx we}$ has not been friendly.PL/SG with Gwen.

However, 1PL properties of 1PL *on* require 1PL phi-features in (1): concord (chapter 4.6), likely focus doubling (section 5), though probably not 1PL anaphora (section 4). We might therefore suppose that impersonal *on* can freely have person and number, but this is ordinarily impossible because the result is blocked by a personal pronoun under MP. Again, 1PL is the expected exception thanks to the retreat of †*nous*.

This hypothesis fails in two interesting ways, which bring us to our proposal. The expected meaning of 1PL *on* would not always make it equivalent to old †*nous* or English *we*, because definites resist covariation under quantifiers and indefinites do not (chapter 2.3). Insofar as this is so, 2PL and 3PL *on* should also sometimes not be equivalent to 2PL and 3PL personal pronouns and so not blocked by them under MP. Yet there is never any *on* with 2PL or 3PL properties. As for 1PL *on*, we will find that it is indeed not quite equivalent to †*nous/we*, but the difference is larger than expected from giving impersonal *on* 1PL, roughly *I and one or more persons*. Rather, 1PL *on* behaves as if impersonal *on* restricted by a partitive 1PL personal pronoun, roughly *one or more of us*. In       reaching these conclusions, we draw much on a virtually unstudied construction in (5). Here *on* has both 1PL and impersonal properties: 1PL focus doubling, plural concord, but antecedence of *s-* rather than or alongside 1PL anaphora.

(5a)    **Nous**, quand **on** perd **notre/**$^{\%}$**son** chemin, **on** finit par le retrouver.
        WE, when **ON**$_{≈we}$ loses **our/SON** way, **ON**$_{≈we}$ ends up finding it again
                                        (Morin 1982: 25n9, explicitly for *on* 'we')

(5b)    Bref, **on** fait **tous** de **son** mieux pour éduquer **nos** enfants avec plus ou moins de sévérité, ce qui est certain c'est que l'**on** fait de **notre** mieux!
        In short, **ON** has **all.PL** done **SON** best to educate **our** children with greater or lesser severity, what's for sure is that **ON** does our **best**. (G)

(5c)    Ils disent: "**nous on** a crevé toute **sa** vie, on touche une petite pension, ou un petit salaire et eux ils touchent sans rien faire".
        They say: "WE **ON** has slaved all **SON** life, **ON** earn a small pension, or a small salary and THEY they earn without doing anything." (G)

The *on* of (5) is 1PL, so *s*-pronoun anaphora are unexpected, since all other 1/2/3+SG/PL antecedents require anaphora of corresponding phi-features in French as well English, *We each raised our/*his/*their head*. 1PL *on* is unique in having a specified person and number and yet allowing *s*-naphora. The contrast (7)-(8) shows that there is no 2PL *on*, and no combining *s*-anaphora with 1PL/2PL antecedents.

(7a)    En Finlande **on** est **égal** à **ses** concitoyens.
        In Finland ON$_{≈one}$ is equal.SG to SES$_{≈one's}$ fellow.citizens
        In Finland people are equal to their fellow citizens.

(7b)    En Finlande **nous on** est **tous égaux** à **nos/ses** concitoyens
        In Finland WE ON is.3SG all.PL equal.PL to our/SES fellow.citizens
  *nos*   In Finland we are all equal to our fellow citizens.
  *ses*   In Finland we are all the sort of people who are equal to their fellow citizens.

(7c)    †En Finlande **nous nous** sommes **tous égaux** à **nos/*ses** concitoyens.
        In Finland WE we are.1PL all.PL equal.PL to our/*SON fellow.citizens
        In Finland we are all equal to our fellow citizens.

(8a)    *En Finlande **vous on** est **tous égaux** à **vos/ses** concitoyens.
        In Finland YOU ON is.3SG all.PL equal.PL to your/*SON fellow.citizens
        Intended: analogous to (7a).

(8b)    En Finlande **vous vous** êtes **tous égaux** à **vos/*ses** concitoyens.
        In Finland YOU you are.2PL all.PL equal.PL to your/*SON fellow.citizens
        In Finland you are all equal to your fellow citizens.

The mixed 1PL + *s*-anaphor construction in (5, 7) is key to our study of 1PL *on*, since *s*-anaphora bring out a meaning for 1PL *on* where it is not in equivalent to †*nous/we* as indicated in (7b). Establishing the meaning of 1PL *on* and giving an analysis of its syntax and semantics are the aims of this chapter. In brief, our proposal is that 1PL *on* is impersonal *on* restricted by a silent 1PL personal pronoun, henceforth *NOUS*, in a doubling relationship, and this combination is lexicalised. We will call this *NOUS*-restricted *on*. The hypothesis combines two seminal proposals for specific impersonals. One is Cinque's (1988), specific *on* is simply a use of impersonal *on*. The other is Kayne's (2010), that the 1PL properties of *on* derive from a silent *NOUS*. Our way of combining them is inspired by and has analogues in quantifier-clitic doubling constructions known as "unagreement". Much of the meaning and syntax of 1PL *on* follow from this proposal without further ado.

Section 2 sketches how impersonal *on* gave rise to the specific use 'we' historically. Section 3 studies the meaning of 1PL *on* in light of its analysis as *NOUS*-restricted *on*. Section 4 gives a semantic account of its anaphoric potential, and section 5 analyses the syntax of its internal structure and external agreement, concord, and doubling. We add an Excursus on "displaced" uses of 1PL pronouns and the light they shed on 1PL *on*.

## 7.2    History and present

The current usage of *on* as 'we' and its relationship to †*nous* needs a historical sketch (see esp. Coveney 2000, Lodge 2004, Ayres-Bennett 2004: 2.5.2, King, Martineau and Mougeon 2011). In earlier French, *on* was only impersonal, incapable of personal pronoun doubling and anaphora, including 1PL. At this point, subject clitics had no gap. In one (upper class) grammar, the 1PL subject clitic was *nous*; in another (lower class), the 1PL subject clitic was syncretic with 1SG *je*, but it combined with 1PL agreement, reflexives, and anaphora (Lodge 2004). The first traces of *on* with clear 1PL properties appear at the end of the eighteenth century, (10a) (Coveney 2000).[213]

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[213] Plural concord has not been studied, to our knowledge. A quick look at Google Book Search for *on* + BE + *tous* 'all.PL' finds that it becomes common in the second half of the eighteenth century, and all seem speaker-inclusive. However, it occurs as early as 1642 *On n'a tous deux qu'un cœur qui sent mêmes traverses* 'ON have all.PL two [sc. both] but one heart that feels same traverses' (Polyeucte, Corneille, cit. Littré), ranging over husband-wife pairs restricted by *nous* in the immediately preceding sentence. Two

(10a)  Le premier prairial, une menace long-temps répétée s'exécute: **on** ne reçoit plus **nos** dînés; **nous** sommes réduits au pain, à l'eau […] **Nous**, pour les prendre, **on** mettait le feu dans leurs villages.

The first of Prairial, a treat long repeated was carried out: **ON** receives no longer **our** diners; **we** are reduced to pain, to water […] **we**, to take them, **ON** put fire to their villages.

(Corinne Townley and Christian Sorrel, *La Savoie, la France 1789 & 1799*, 1989: 153; author a Maurienne (Savoie) farmer in own orthography.)

Even before and without there are 1PL indicators, during the nineteenth century *on* becomes more common than earlier in use for salient speaker-inclusive groups, such as such as one's family or friends. By the end of the nineteenth century, *on* replaces 1PL *je*. During the twentieth century, it partly or wholly replaces 1PL *nous*. 1PL pronouns other than subject clitics remain unaffected in all grammars. 1PL agreement also remains available even in grammars that have lost the subject clitic *nous*, particularly in relatives to 1PL strong pronouns like the cleft (12) (Coveney 2000).[214]

(12)  C'est **nous qui allons** le faire.
It is us who are.going.1PL to do it.

There where grammars where 1PL *on* and *nous* seem to mix freely, as in (10).

(10)  A farmer will say without difference *nous partons* [we leave.1PL] and *on part* [ON leave.3SG]. In autumn of 1914, I received a certified copy of a letter by a farmer from Loir-et-Cher […] In the first sentences of the letter, he uses the pronoun *nous*, then abandons it little by little to use *on*. After writing ***nous arrivons à un autre petit pays*** [**we** arrive.1PL to another small country], he adds ***on n'attaque pas, comme on était en réserve*** [**ON** does not attack, as **ON** was held in reserve]; sometimes the two pronouns alternate: *Nous avons battu en retraite de 15 km. **On** ne tenait plus debout, **on** couche au bord d'un champ, le lendemain **on** creuse des tranchées pour tirer à genoux. Vers le soir **nous** fûmes attaqués et*

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centuries later Voltaire comments on Corneille: "This expression does not at first seem French, yet it is. *Est on allé-là? on y est allé deux* [is ON gone-there? ON there is gone two$_{\approx both}$]; but it is a Gallicism that is not used save in a very familiar style" (*Commentaires sur Corneille*, "Remarques sur Polyeucte").

[214] See Coveney (2000) for the availability of 1PL agreement in clefts and certain other contexts. The finding is worth all the emphasis Coveney gives it, for it is natural to link the loss of *on* to that of 1PL agreement, diachronically and synchronically (see Coveney for references; recently Kayne 2010: 134-5). Agreement in relatives is a well-know point of variation across French. The most common alternative seems to be resumptivity, *C'est **nous qu'on** va le faire* 'It's **us** that **ON** is going to.do it': Coveney (2000: 459) gives it as a marginal, likewise Rowlett (2007: 185n49), it is reported as part of a full paradigm for all personal pronoun in Bauche (1920: 102-3), Frei (1929: 189-190), Ball (2000: 45, 54, 99), and Lambrecht (1981: 30), Schwegler (1990: 232-3n70) discuss it as part of their Swiss French varieties, the latter qualifying *nous qu'on* as the most frequent member of the paradigm. The other widely cited strategy is complete or partial non-agreement, *C'est nous qui va/vont le faire* 'It's us that is.3SG / are.3PL going to do it', Bauche (1920: 102-3), Ball (2010). For MJ, for whom †*nous* is usable in certain non-literary interactions but distinctively marginal, the 1PL agreement in (12) is the sole option and unmarked across all registers, resumptivity is familiar from registers not her own, and any non-agreement is sharply ungrammatical.

*l'on reçut l'ordre de battre en retraite ... **Éreintés** de fatigue, mais **on** ne put pas se coucher de la nuit, car les Allemands étaient très près de **nous**; mais **on se** faisait pas de bile, **on** avait du coeur à l'ouvrage. Le lendemain **nous** partions à 3 h ... Alors **on** s'est dit: il faut mourir; mais **tuons** tout ce qu'**on** pourra avant de mourir.* [**We** retreated for 15 km. **ON** wasn't able to stay on our feet any more, **ON** sleeps on the edge of a field, the next day **ON** digs ditches in order to fire while kneeling. Towards the evening **we** were attacked and **ON** received the order to retreat … **Worn.out.PL** by fatigue, but **ON** could not go to sleep during the night, because the Germans were very close to **us**; but **ON** did not fret, **ON** had the heart for the work. The next day **we** left at 3 h … then **ON** said to SE$_{\approx\text{ourselves}}$: it is necessary to die; but **let's.kill.1PL** all that **ON** can before dying.]

(Nyrop 1925: §381)

The status of the subject clitic †*nous* in current French varies. †*nous* is part of passive competence instilled by primary education, and favoured by prescriptive pressure (see esp. Peeters 2006 for reactions of grammarians to the rise of 1PL *on*, but also Grevisse 2008: §753-4, the standard "good usage" guide based on literature, for acceptance). Beyond that, many speakers do not use †*nous* in any social context, outside formal written expression. Others use it occasionally even in casual contexts. In all the grammars we have access to, in nonliterary registers †*nous* is absent, marginal, or marked in some way with respect to *on*. This we signal with †.

In grammars where both *on* and †*nous* are available, the difference is not easy to characterise. Among the most influential views, Pohl (1967) describes *on* as tending to include the speaker more than *nous*, and Blanche-Benveniste (1985) *on* as used for a group 'seen from within' and *nous* 'from the outside'. Coveney (2000) fails to find corpus support for these and other proposals. In our experience, the proposals do fit distinctions speakers perceive, but only two among many. Pohl's distinction is found his (14a) and other examples like (14b).

(14a)  One prefers to say (two couples fix a meeting by telephone, with eye a trip): *Nous vous préviendrons si **nous** passons par chez vous; éventuellement on pourrait se rencontrer devant votre maison* [**We** will let you know if **we** come over; maybe **ON** could meet in front of your house] and not *on vous préviendra si **on** passe par chez vous; éventuellement **nous** pourrions...* [**ON** will let you know if **ON** comes by; maybe **we** could…].

(CNRTL s.v. *on*)

(14b)  Chaque parent est libre de faire ses choix, **on** veut **tous** le meilleur pour **son/ses** enfants. Si **nous** avions eu les moyens a l'époque biensur [sic] que **nous** aurions baptisés [sic] nos enfants.
Each parent is free to make his choice, **ON**$_{\approx\text{we}}$ wants **all.PL** the best for **SON** child/children. If **we** had had the means at the time of course **we** would have baptised our children. (G/F)

In (14c), *nous* is used for a smaller speaker-inclusive group than *on*, say *on* for *we people*, *nous* for *we the police*.

(14c)  D'accord, **on** pense tous que **nous** connaissons la rue et ses dangers.

Alright, **ON**$_{\approx we}$ think all.PL that **we** know the street and its dangers.
Alright, everybody thinks that we the police know the street and its dangers.
(G/B)

In (14d), there is no interpretive difference, but *on a décidé* is at a diferent level of language than *nous avons décidé* would be (stylistically higher), *nous allions* is available at both levels, and *on va* in its place would be at a different level still (stylistically lower). It is common for *nous* to be associated with particular verbal forms in this manner.

(14d)   Avec mon mari, **on** a décidé que **nous** allions utiliser les préservatifs.
   With my husband, **ON**$_{\approx we}$ has decided that **we** would use preservatives. (G/F)

These factors are familiar from other pronouns on their way out of a language (e.g. *thou*, Lass 1999 and articles in Taavitsainen and Jucker ed. 2003).

The historical trajectory of the specific use of *on* as 'we' is familiar from the study of morphosyntactic developments, such as the replacement of *thou* by *you* or of raising by nonraising INFL in English (Kroch 1989, Pintzuk 2003, Culicover 2008). At some point, a new expression (form-interpretation pair) becomes available; its deployment or "actuation" may differ according to factors that include morphology, syntax, style; it spreads until it wins out over an older expression, which yet may long remain in restricted environments. As far as we can tell, we cannot draw direct conclusions for what is known of the spread of 1PL *on* for or against a particular analysis. We would expect impersonal *on* to be usable as 'we' precisely to the extent that †*nous* is unavailable, while whether 1PL *on* as impersonal *on* doubled by *NOUS* should be blocked by †*nous* depends on the precise formulation of Maximise Presuppositions. Currently, at any rate, †*nous* is never simply equivalent to *on* used as 'we'.[215]

For our study, we keep to registers where †*nous* is absent. We will be particularly interested in anaphora to 1PL *on*, since it is *s*-anaphora to *on* with otherwise 1PL properties that guide our theory. Explicit discussions in normative or descriptive works are scant: 1PL is noted to allow 1PL anaphora beside its proper *s*-anaphora (Grevisse 2008: §753-4), to take 1PL anaphora unlike impersonal *on* that takes *s*-anaphora (Harris 1988: 221), to use 1PL anaphora for clarity in use as 'we' (Batchelor et al. 2011: 445). More detailed is Ball (2000: 65) on colloquial French in (15).

(16)   [discussing *nous, on prend notre/sa voiture* 'WE, ON takes our/SON car':]
   It is possible for *son/sa/ses* to serve as equivalents of 'our': *on prend sa voiture*.
   But there is an obvious potential for ambiguity here, in the absence of a clarifying context: 'we're taking our car' as against 'we're taking his/her car'. Perhaps as a consequence, *notre/nos* tends to be preferred. (Ball 2000: 65)

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[215] The situation may be compared to the loss of 2SG *thou* in English (Lass 1999), or current English varieties with a 2SG-2PL distinction like *thee-ye* or *you-you'uns*: the number-specific form like *thee* does not block the number-neutral *you* at registers or in environments where it is unavailable. It would be nice to know how changes due to the unblocking of a construction under MP proceed, for instance in the loss of the definite article with masses like *the headache* (Denison 1998: 3.2.4.2).

Among modern theoretical studies of 1PL *on*, overviews are in Jones (1996: 6.7.9), Rowlett (2007: 4.3.4), while we have drawn particularly on Kayne (2010), Oukada (1982), Morin (1978). However, discussion of 1PL versus *s*-anaphora is scant. Morin (1982: 25 note 9) reports variation on *son* in (5a) above among twenty speakers from Paris and Montréal, and Morin (1996: 256) offers more detail in (17).

(17)    some dialects of modern French regularly allow … idiomatically [*On a perdu notre chemin* 'ON has lost our way'] conversely some speakers of French (those I observed were from Liège, Lyon and St. Étienne) can still use [*On a perdu son chemin* 'ON has lost SON way'] and sometimes even prefer to do so, to mean 'we$_i$ lost our$_i$ way', which other speakers can accept only with an indefinite meaning.

Bouchard (1995: 3.3.2.4) is a rare explicit refusal of *soi* to *on* as 'we': for him *soi* is unavailable in (18) because plural concord on *tous* 'all' requires *on* 'we'.

(18)    C'est vrai, on$_i$ ne pense tous qu'à nous$_i$/soi$_{*i}$/lui$_{*i}$/eux$_{*i}$.
        It is true, ON only thinks about us/SOI/him/them.
                                        (Bouchard (1995: 3.3.2.4; ok with *soi* for MJ)
We have no reason to doubt the existence of the variation described by Morin and implied by Bouchard on *s*-anaphora to *on* used as 'we', though we have not found it ourselves. Rather, we have met with preferences, though the semantic nuance has sometimes needed to be brought out to gain access to the combination. In the context of the development of *on*, variation is expected. At one historical endpoint, *on* had no 1PL behavior. At the other, there have been and perhaps are varieties of French where *on* has gone as far as controlling 1PL agreement, as in (19), or else 3PL agreement (Grevisse 2008: §438H3, Nyrop 1925: §61, §378-9, CNRTL-*on*; for 3PL doubling, cf. Frei 1929: 146, Boutet 1988: 62).

(19)    La belle, si nous étions dedans sur au bois, **ons** i **mangerions** fort bien des noix
        My fair one, if we were in the wood, ON would.eat.1PL there nuts very well
                                                                (Nyrop 1925: §378-9)
The development from one endpoint to the other has been documented for Portuguese *a gente* 'the people > *on* > we', and it goes through stages where it retains its older 3SG agreement yet combines with only *s*-anaphora, or only with 1PL ones, or with both.

7.3    The nature of 1PL *on*

*7.3.1    NOUS-restricted impersonal on*

We analyse 1PL *on* as impersonal *on* restricted by a silent 1PL personal pronoun *NOUS*, combining the proposals of Cinque (1988) and Kayne (2010). Impersonal *on* is an indefinite, summarised in (25a). It is close to person-, number-neutral version of *a person, people*, and we often use the paraphrase *one or more (up to all) persons* or in gloss *1+ persons* (with the understanding that it fails to capture differences between *on* and indefinites like compatibility with floating quantifiers).

(25a)  *impersonal on*: [$_{DP}$ s$_n$ [∃ [$_{NP}$ [human]]]]

∃ = *a*, $\|s_n\|^{c,g}$ = g(n), $\|[human]\|^c$ = λx.λs . x is PERSON in c . x ≤ s

$\|on\|^{c,g}$ = λg.λs . there is an *x* and a minimal situation $s'_{\leq g(n)\ s}$ where *x* is PERSON$_c$, such that *g(x)(s)(s')*.
≈ *one or more (up to all) persons*

The meaning of *NOUS* is the same as that of *us*, (25b). It denotes the maximal individual in its resource situation provided that that it is common ground of the situation that the individual is a speaker-inclusive plurality.

(25b)  *NOUS*: [$_{DP}$ s$_n$ [the$_{pron}$ [$_{NP}$ [human] [1$^{st}$] [plural]]]]
$\|NOUS\|^{c,g}$ is defined iff there is *x* such that *x* is 1PL, and for all *y*, if *y* is 1PL, $y \leq x$.
$\|NOUS\|^{c,g}$ if defined = ιx[x is 1PL and for all *y*, if *y* is 1PL, $y \leq x$]
*where* ⌜*z* is 1PL⌝ ↔ ⌜*z* is a plurality and the speaker of *c* ≤ *z* and *z* is PERSON in *c* and $z \leq g(n)$⌝

We intend the combination of *on* and *NOUS* to work so that *NOUS* restricts the domain of *on*, in the way partitive *of us* does for quantifiers. Section 6 works out how *on* and *NOUS* combine syntactically to give this meaning. We write the syntax *on + NOUS*, paraphrasing as *one or more (up to all) of us*, and call it a *NOUS*-restricted *on*, (25c).

(25c)  $\|on + NOUS\|^{c,g}$ = λg.λs : $\|NOUS\|^{c,g}$ is defined . there is an *x* and a minimal situation $s'_{\leq g(n),s}$ where *x* is PERSON$_c$ **and** $x \leq \|NOUS\|^{c,g}$, such that *g(x)(s)(s')*.
≈ *one or more (up to all) of us*

On this analysis, the referential meaning *we* should be available for 1PL *on* as a subcase of its partitive meaning provided it is not blocked by a definite under Maximise Presuppositions (MP). We assume from chapter 5.1 that alternatives in MP are characterised structurally, so that an indefinite essentially competes with definites of the same structure or one reduced by deletion: for instance, D *[$_{NP}$ N]* competes with D *[$_{NP}$ N]* but not D *[$_{NP}$ N and N]*. On this view, *on + NOUS* should be blocked by *nous* for use as *we*, while it should not itself block impersonal *on*. This seems correct, modulo uncertainties about historical development and restricted usage of †*nous* discussed in section 2: in the grammars we study †*nous* is not available on plain *we* meanings but both impersonal and more neutrally 1PL *on* are. To study 1PL *on* rather than impersonal *on*, we use focus doubling by 1PL *nous* 'we' and/or plural concord.

In section 1, we started out with examples where 1PL *on* seems to have the referential meaning *we*, and then introduced examples where there a broader meaning is available. In this section, we go looking for the broader meaning. Our tools are *s*- and 1PL anaphor to *on* identified as 1PL by focus doubling or concord. Speaker judgments in this domain are difficult. In certain contexts, there is systematically perceived a broader meaning for 1PL *on* than just 'we' when *s*-anaphora are used, while 1PL anaphora give the meaning 'we'. In this section we set out the evidence from these contexts for our meaning of 1PL *on* on these contexts, and in the next section derive the effect of anaphora from their

independent meaning. Section 5 works out the way *on* and *NOUS* combine to get its meaning and syntax.

### 7.3.2  1PL vs s-anaphora

Our interest for the rest of this section is examples like (27), where 1PL *on* antecedes 1PL and *s*-anaphora. Here *on* is identified as 1PL by focus doubling and/or concord, and it is accordingly incompatible with exclusion of the speaker by the disjoint object clitic *me*. 1PL and *s*-anaphora to 1PL *on* give somewhat different meanings that we turn to in the following subsections. Here we only aim to show that *s*-anaphora to 1PL *on* behave as if it were impersonal *on*, so we translated 1PL *on* by 'we'.

(27a)   Nous on$_i$ (\*m')a chacun$_i$/tous$_i$ donné notre$_i$/son$_i$ aval.
         WE ON$_{\approx we}$ (\*me) has (each/all.PL) give our/SON$_{\approx our}$ accord.

(27b)   Ici nous on$_i$ est tous$_i$ fiers de soi$_i$/nous$_i$.
         Here WE ON$_{\approx we}$ is all.PL proud.PL of SOI$_{\approx ourselves}$/us$_{\approx ourselves}$.

1PL anaphora to 1PL *on* behave just like 2PL anaphora to 2PL *vous*. For instance, they may be distributive in bound or donkey contexts and collective in general, (28a), and they allow "transfered" reference, (28b). They are 1PL personal pronouns in their own right even when not anaphoric to anything.

(28a)   Nous on$_i$ a chacun$_i$ rougi quand notre$_i$ épouse nous$_i$ a vus nous$_i$ embrasser sur scène. Mais notre$_i$ #épouse / metteuse-en-scene n'a fait que sourire.
         WE ON$_{\approx we}$ each turned red when our [distributive] spouse saw us [collective] kissing on stage. But our #spouse [\*distributive] / stage director [collective] only smiled.

(28b)   Nous$_i$ on$_i$ a passé notre$_i$ réunion en parlant de notre$_i$ classement.
         WE ON$_{\approx we}$ [e.g. you and I] have spent our [e.g. the fan club] meeting talking about our [e.g. the team the club are fans of] ranking.

The *s*-anaphora we are concerned with are *son* (possessor phrasal clitic) and *soi* (strong pronoun). They have been studied in chapter 6. By themselves, they do not have an impersonal or 1PL meaning: *son* is 3SG 'his, her, its', *soi* is logophoric 'oneself'. When anaphoric to 1PL *on*, they prove to have the distinctive properties established in chapter 6 for *s*-anaphora to impersonal *on*. Their availability with these properties as anaphora to 1PL *on* is a clear give-way that 1PL *on* is not just a 1PL personal pronoun, since they are never available with other personal pronouns, including 2PL *vous* or 1PL †*nous*. We go through the properties below.

*Numerosity and number*: S-anaphora to impersonal *on* can denote not only atoms but also pluralities, in contrast to 3SG *son* 'his, her'. The same goes for 1PL *on* in (29). The use of *s*-anaphora with 1PL *on* does affect its plural number concord, as in (7), (27).[216]

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[216] More precisely, there is complex variation on concord discussed in chapter 4.6, and on this variation the

(29a)  Nous on$_i$ parle souvent de sa$_i$ relation l'un à l'autre$_i$, de ses$_i$ intérêts en commun, de son$_i$ chat ou de son$_i$ poisson.
ᴡᴇ ON talks often of SON relationship to each other, of SON interests in common, of SON cat or SON fish.

(29b)  Parfois les personnes interrogées signalaient qu'elles n'avaient pas d'amis ("nous, on$_i$ veut rester entre soi$_i$, parce que les amis c'est la désunion" […])
Sometimes, the persons questioned indicated that they did not have friends ("ᴡᴇ ON wants to stay among SOI$_{≈ourselves}$, because friends, that's disunity" […]) (G/J)[217]

*Exhaustive antecedence*: As with impersonal *on*, *s*-anaphora to 1PL *on* must be exhaustively anteceded by it, and so the split-binding in (30) is impossible.

(30)  Nous on$_i$ doit chacun parler à son$_i$ partenaire$_k$ de ses$_{*i+k}$ intérêts communs.
ᴡᴇ ON must each talk to SON partner about SON common interests.

*Local c-command*: *S*-anaphora to impersonal *on* must be both c-commanded by it and local to it. In chapter 6, we established this by controlling for logophoric uses of the *s*-pronouns, which is easiest for *son*. Even on logophoric uses, *son* proved mostly to need c-commanding impersonal *on* as antecedent, and the same is true 1PL *on* (31).

(31a)  Quand nous on$_i$ rencontre ses$_i$ amis ici, la police enregistre parfois nos$_i$/ses$_{*i}$ conversations.
When ᴡᴇ ON meets SON friends here, the police sometimes records our/SON$_{≈his/*≈our}$ conversations.

(31b)  Ici, quand on$_i$ invite ses$_i$ amis à la maison, ses$_{*i}$ voisins font des remarques.
Here, when ON$_{≈one/we}$ invites SON$_{≈one's/our}$ friends home, SON$_{≈his/*one's/*our}$ neighbours make comments.

Under c-command, *son* anaphoric to 1PL *on* is at first sight unrestricted by locality:

(32a)  Nous on$_i$ veut tous passer sa$_i$ vie à entendre son$_i$ partenaire nous$_i$ parler d'amour.
ᴡᴇ ON wants all.PL spend SON life to hear SON partner talk to.us of love

(32b)  Dans ce jeu, nous on$_i$ doit tous encercler son$_i$ ennemi quand sa$_i$ couleur est appelée.
In this game ᴡᴇ ON must all.PL surround SON enemy when SON colour is called.out.

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choice of 1PL or *s*-anaphora has no incidence, as far as we can tell.
[217] Malamud (2006) gives the very similar *Dans ma famille, on se parle entre soi* 'In my family, we talk to each other'; for some reason, it is sharply * for MJ.

To go by the results of chapter 6, remote *son* in (32) should be logophoric, while local *son* can be a plain local anaphor. It is considerably more difficult to show this for 1PL *on* than for impersonal *on*, since 1PL *on* includes the speaker, and the speech-act participants are good logophoric centres. Nevertheless, we can make another individual the (most prominent) logophoric centre as in (32-3): by making *on* a theme and by making salient the perspective of another individual through devices like evidentials. When that is done, a robust contrast appears: in (32a) 1PL *on* is naturally the logophoric centre and antecedes remote *son*, in (32b) it is not and does not. Local *son* in (32c) is unaffected.

(32a)   Nous on croit tous que l'herbe du voisin est plus belle que celle qui pousse dans notre/son propre jardin.
WE ON believes all.PL that the grass of the neighbour is more green than that which grows in SON/our own garden.

(32b)   Apparement nous on mérite tous que l'herbe du voisin soit plus belle que celle qui pousse dans notre/(*)son propre jardin.
Apparently WE ON deserves all.PL that the grass of the neighbour is more green than that which groes in SON/our own garden.

(32c)   Apparement, en Grèce nous on$_i$ mérite tous notre$_i$/son$_i$ petit coin au purgatoire.
Apparently, in Grece WE ON deserves all.PL our/SON little corner in Purgatory.

(33) repeats the contrast between bad remote and good local *son* anaphor.

(33a)   En France, on$_i$ est tous censés être êgaux devant les lois qui s'appliquent à nos$_i$/ses$_{*i}$ concitoyens.
In France, ON$_{\approx we}$ is all.PL supposed to.be equal.PL before the laws that apply to our/SES$_{\approx*our/his}$ fellow.citizens.

(33b)   En France, on$_i$ est tous censés être êgaux à ses$_i$ concitoyens.
In France, ON$_{\approx we}$ is all.PL supposed to.be equal.PL to SES fellow.citizens. (G)

Thus *s*-anaphora to 1PL prove to have the same properties as *s*-anaphora to impersonal *on*: number-neutrality, exhaustive antecedence, and the need for local c-command modulo logophoricity. In chapter 6, these properties of *s*-anaphora to impersonal *on* followed from their being minimal pronouns bound by a phi-deficient antecedent. We should conclude that even with 1PL *on*, *s*-anaphora can be bound by a phi-deficient antecedent, despite the 1PL phi-features seen in focus doubling and concord. This is expected on our analysis of 1PL *on* as *NOUS*-restricted impersonal *on*, since the binder is impersonal *on*. To see how this *on* can antecede both phi-deficient *s*-anaphora and 1PL anaphora, we now need to learn more about their interpretion.

### 7.3.3   *Quantificational variability*

*S*-anaphora to 1PL *on* differ in meaning and pragmatics from 1PL anaphora, but the nature of the difference is often unclear. The best probe we have found is *quantificational*

*variability* (QV). It indicates that 1PL *on* is impersonal *on* satisfiable by parts of *NOUS*, not a 1PL impersonal satisfiable by speaker-inclusive pluralities, still less a 1PL personal pronoun denoting the maximal speaker-inclusive plurality. We take up quantificational variability in this subsection, and other differences in the next.

QV is covariation of an indefinite with a higher quantifier. In (35) with a universal A-quantifier *always*, it gives rise to an entailment to the universal D-quantifier.

(35)    The street cam recorded a month's worth of police harassment.

(35a)   When a woman passes by, the police always harass her.
        →$_{QV}$ Every woman that passed by was harassed by the police.

(35b)   When women meet up, the police always harass them.
        →$_{QV}$ All women that met up are harassed by the police.

(35c)   Quand on passe, on se fait toujours harceler par la police.
        When ON$_{≈people}$ passes by, ON$_{≈they}$ always gets harassed by the police.

Definites covary when anaphoric to a covarying indefinite, *her, them* in (35). Otherwise, they resist QV: when *a woman, women* in (35) are replaced by *the woman, the women* or by *she, they*, there is no covariation. The singulars are infelicitous. The plurals are fixed to all the women wearing in the topic situation; the resulting non-QV reading of is has been called *temporal*. The resistance to covariation comes form the uniqueness presupposition of definites (chapter 2.3). Impersonal *on* (35c) behaves like an indefinite, and is close to *people* or *one or more persons* (chapter 3.4).

The resistance of definites to QV extends to 1PL personal pronouns. In (35), *we* in the place of *women* and †*nous* in the place of *on* denote an invariant speaker-inclusive plurality. (36) illustrates the possibilities for pronouns more fully.

(36a)   Dans ce département, {on a, #ils ont, #nous avons} rarement plus de soixante ans.
        In this department, {people, #they, #we} are rarely over sixty.
        *≈ …few people/of them/of us are over sixty.
                                          (for *they*, cf. Malamud 2013: ex. 28)

(36b)   Dans ce département, quand les gens ajoutent leur age {à celui du directeur, au mien}, {ils ont, nous avons} rarement plus de soixante ans.
        In this department, when people add their age to {the chair's, mine}, {they, we} have rarely over sixty.
        ≈ …few people who add their age to {that of the chair, mine} are such that {they, we} are over sixty.

(36c)   Nous les professeurs avons rarement plus de soixante ans.
        We the professors [= We professors] are rarely over sixty.
        ≈ Few of us professors are over sixty.

In (36a), *they/ils* resists the covariation that *people/on* allows, which should give the meaning ≈ *few of them*. The resulting temporal reading makes no sense, since one is or is

not over sixty. *We/†nous* also resists covariation, which should give quantification over speaker-inclusive pluralities, ≈ *I and few others*. This covariation is found in (36b), because *we* is partially anteceded by an indefinite. It is also found in (36c), when plural personal pronouns are used as kind definites (Malamud 2012a: ex. 56).[218]

(37) repeats the contrast between *we/†nous*, resisting covariation, and *people/on*, with a different adverb and predicate. Here the temporal reading makes sense.

(37)    Quand Lewis donne un cours, {on va, nous allons} d'habitude le voir.
        When Lewis lectures, {ON$_{\approx people}$, we} usually go see him.
*temp:*  When Lewis lectures, people/we go see him most of the time.
*QV:*    When Lewis lectures, most people/??of us go see him.

QV is a key difference between 1PL and *s*-anaphora to 1PL *on*: with 1PL anaphora, *on* resists QV, with *s*-anaphora, QV is similar to plain *on*. The difference is introduced in (40). (40a) with *†nous* resists QV like *we*, though in both cases the resistance can be overcome somewhat, possibly through the kind reading. (40b) has 1PL *on* with 1PL anaphor and the same judgments.

(40)    [Context: Finistère is a district with numerous towns, each with a mayor.]

(40a)  En Finistère, (**nous**) **nous** sommes d'habitude amicaux avec **notre** maire.
       In Finistère, (WE) we are usually friendly.PL with our mayor.
*temp:*  √…most of the time we are friendly with our mayor.
*QV:*    ?(?)…most of us are friendly with our mayor.

(40b)  En Finistère, **nous on** est d'habitude amicaux avec **notre** maire.
       In Finistère, WE ON is usually friendly.PL with our mayor.

(40c) has plain impersonal *on*, as seen by singular concord. QV is perfectly fine, as with *people* in the place of *on*. The temporal reading is more also available but less accessible. It arises by infering a salient situation with just the plurality of the inhabitants of Finistère it it and making it *on*'s resource situation (chapter 3.4, 5.2).

(40c)  En Finistère, **on** est d'habitude amical avec **son** maire.
       In Finistère, ON$_{\approx people}$ is usually friendly.SG with SON$_{\approx their}$ mayor.
*temp:*  (?)…most of the time the people are friendly with their mayor.
*QV:*    √…most people are friendly with their mayor.
       [Temporal reading easiest with focus on *d'habitude*.]

Now comes the crucial datum, (40d), like (40b) with 1PL *on*, but an *s*-anaphor.

(40d)  En Finistère, **nous on** est d'habitude amicaux avec **son** maire.
       In Finistère, WE ON is usually friendly with SON mayor.
*temp:*  ??…most of the time we are friendly with our mayor.

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[218] We should note that many cases are unclear, e.g. *Dans ce departement, nous sommes rarement marié à notre travail* 'In this department, we are rarely married to our work'.

*QV:*   √…most of us are friendly with our mayor.

With respect to QV, (40d) is like (40c) with in allowing QV, but the domain of QV is individuals in *NOUS* 'we', a speaker-inclusive plurality. (40c) is naturally paraphrased as *people* or by QV as *most people*, save that these paraphrases tend to exclude the speech-act participants, whereas *on* does not (chapter 4). (40d) is almost the same, save that the individuals over which *people* varies must include the speaker, giving by QV *most of us*. In neither (40c,d) does *on* need to be satisfied by the speaker, unlike in (40a,b). With respect to the temporal reading, (40d) seems to have considerable resistance to the same temporal reading as (40a), though judgments are not easy.

The same contrasts obtain for the variant (41), with a different context and adverb. Here covariation very natural reading and the temporal reading odder.

(41a)   Dans ce département, **nous on** est rarement amicaux avec **notre** directeur de thèse.
  In this department, WE ON is rarely friendly.PL with our supervisor.
*temp:*   …few times are we friendly with our supervisor.
*QV:*   ?(?)…few of us are friendly with our supervisor.

(41b)   Dans ce département, **nous on** est rarement amicaux avec **son** directeur de thèse.
  In this department, WE on is rarely friendly.PL with our supervisor.
*temp:*   ??…few times are we friendly with our supervisor.
*QV:*   …few of us are friendly with our supervisor.

The QV of 1PL *on* with *s*-anaphora follow on our approach to 1PL *on* as *NOUS*-restricted impersonal *on*. Impersonal *on* an indefinite satisfiable by any atom, group or plurality of persons, inclusive or exclusive of the speaker. As an indefinite, it has no resistance to covariation. The *NOUS* restriction merely requires that these individuals be drawn from the individuals in a speaker-inclusive plurality. Indeed, it has the same effect as using a resource situations whose only individuals are drawn from a speaker-inclusive plurality. When such a situation is established, little difference percieved between impersonal and 1PL *on*. When a Finisterian utters (40c) and (40d) without focus doubling *nous*, (40d) simply conveys emphasis on being one of the Finisterians concerned.

However, 1PL *on* does differ from impersonal *on* in conveying relevance of the speaker-inclusive plurality to the speaker's communicative purposes. It is expected pragmatically (chapter 5.1). It may underlie an important property of 1PL *on*, the unavailability of explicit speaker-exclusion. A weak version of this effect is found with the indefinite restricted by *nous* 'we' in (42a). Thanks to *moi*, the speaker has to be excluded from the individuals that satisfy the indefinite. However, *nous* 'us' invites the inference that the indefinite can potentially be satisfied by anyone among us, and so by me, so *moi* is degraded. The degradation is considerably stronger with 1PL *on* in (42b). It may be stronger simply because of pragmatic difference between impersonal *on* and indefinites; we return to it in the next subjection.

(42a)   Quand un de vous/?nous est amical avec moi, je le remarque.
  When one of you/?us is friendly.SG with me, I notice.

(42b)　Quand on est amicaux avec toi/*moi, je le remarque.
　　　　When ON≈one or more of us is friendly you/*me, I notice. [ok with *amical* SG]

Our theory does not expect that QV of 1PL *on* needs *s*-anaphora, and indeed QV is accessible in (40d, 41d) when *son* is replaced by *le* 'the'. Focus doubling as well may be omitted without affecting QV. What the theory does not explain is the restriction of 1PL anaphor in (40b) to the temporal reading 'we', and its unavailability for the *s*-anaphor. Deriving these observations is the aim of section 4.

### 7.3.4　*More on quantificational variability*

The basic QV contrast in (40, 41) has been clear in our study of *s*-anaphora. This subsection expands on it. (43) gives further examples, with different A-quantifiers. The 1PL anaphor makes for a use identical to *we/†nous*, while the *s*-anaphor is not identical and allows QV. This difference is clearest with once-only predicates like (43b), but is perceived throughout.

(43a)　**Nous on** trompe rarement **notre/son** mari.
　　　　WE ON rarely cheat.on our/SON husband.
*son*　People like us rarely cheat on their husband ≈QV Few of us cheat on their husband.

(43b)　Dans ma famille, **nous on** meurt rarement dans **notre/son** lit.
　　　　In my family, we ON rarely dies in our/SON bed.
*son*　In my family, people rarely die in their bed ≈QV Few in my family die in their bed.

(43c)　Ici **nous on** est souvent beaucoup à faire **notre/son** devoir de citoyen sans conviction.
　　　　Here WE ON is often many to do our/SON civic duty without conviction.
*son*　≈QV Here there are often many among us to do their civic duty without conviction.

The examples in (43) illustrate local anaphora in different configurations. In (44), *son* should be logophoric *son*, as it is remote from *on*. It too allows QV.

(44)　**Nous aussi on** aimerait parfois que **notre/son** mari s'interesse à **notre/son** travail!
　　　　WE too ON would.like sometimes that our/SON husband takes interest in our/SON work!
*notre…notre*: We too would sometimes like that our husband takes interest in our work!
*son…son*: People like us too would sometimes like that their husband takes interest in their work! ≈QV Some of us too would like that their huband takes interest in their work!

Universal quantifiers like *toujours* 'always' or the silent generic quantifier QV ≈ *all of us*, which is essentially *we*. However, a difference remains clearly perceived. In (45a) *on*

is well translated by plain *we*. For (45b) an acknowledgedly approximative paraphrase is *people like us*, which has also been given for other A-quantifiers above.

(45a) Si lui il bosse **nous**$_i$ **on**$_i$ a crevé toute **notre**$_i$ vie et à **notre**$_i$ pension on$_k$ ne tient même pas compte de toutes **nos**$_i$ années de travail
If HE he bosses **WE ON** has slaved.away away all **our** life and for **our** pension ON$_{\approx they}$ does not even count all **our**$_i$ years of work (G)

(45b) Ils disent: "**nous**$_i$ **on**$_i$ a crevé toute **sa**$_i$ vie, **on**$_i$ touche une petite pension, ou un petit salaire et eux ils touchent sans rien faire"
They say: "WE ON has slaved.away all SON life, ON gets a small pension, or a small salary and THEY they get money without doing anything" (G)[219]

The same paraphrase *people like us* is offered for the *s*-anaphor in (46). These examples add a reciprocal, that needs *on* to range over pluralities, or a floating quantifier, that needs *on* to range over maximal pluralities in a situation (chapter 4.6).

(46a) C'est bien gentil à vous d'amener une noix de beurre pour la table, mais **nous on** prend **CHACUN** du beurre pour **son** petit dejeuner.
It's kind of you to bring a bit of butter for the table, but WE ON takes EACH butter with SON breakfast.

(46c) A l'UMP **on** donne **tous son** avis.
At the UMP ON gives all.PL SON opinion. (G)

(46c) A l'époque **nous on** parlait **tous les uns avec les autres** sans peur de **sa** réputation.
Back then WE ON talked all.PL with each other without fear of our/SON reputation.

With the 1PL anaphor, the examples have the temporal reading with an invariant speaker-inclusive plurality. With the *s*-anaphor, we expect *on* to range over possibly different and not necessarily speaker-inclusive pluralities drawn from *NOUS*. In (46a) for instance, *on* should range by QV over whoever of *NOUS* is at a given breakfast, and *chacun…son* distribute over them. This description sees to be a good match for *s*-anaphor versions, save that they specifically resist the temporal reading, though it is entailed by the covarying reading that gives rise to QV. It seems that the paraphrase *people like us* is chosen to reflect this: QV with exclusion of the temporal reading.

When the domain of *on* is independently fixed to be a speaker-inclusive plurality like *my family* in (47), the paraphrase seems to reduce to just *people* plus the effect of focus-doubling, which here may be conveyed by focus on *my*. However, when the domain is only *you and I* in (47), there remains only an interpretation where *you and I* are salient members of the domain for *on*, which is necessarily enlarged to some larger speaker-inclusive plurality. The enlargement may be due to the need of the *s*-anaphor to have a reading sufficiently distinct from the temporal reading 'we'.

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[219] *Crever* 'slave away' is not in MJ's dialect, but the examples are perfect with synonyms like *trimer*.

(47)   {Dans ma famille, Toi et moi}, nous on prend son croissant avec du beurre.
       {In my family, You and I} WE ON$_{\approx people}$ takes SON$_{\approx their}$ croissant with butter.
       In MY family, people take their croissant with butter.
       You and I, people like us take their croissant with butter.

Finally, we need to add the caveat. There is a sharp contrast between the QV of (40d), paraphraseable as *most of us*, and absence in (40b), paraphraseable by *we*. However, it is harder to be shure that (40b), and for that matter (40a), do not allow QV over speaker-inclusive pluralities, $\approx$ *I and most people*. Such QV might be hidden by "maximisation" (chapter 2.3, cf. Schwarz 2009). In (42), *we* allows QV over speaker-inclusive pluralities because it is partially anteceded by *people*. However, *we* ranges over me and all visitors on what counts as a given visit, and not over me and visitors in any situation whatsover. Accordingly, it lacks the full QV paraphrase $\approx$ *I and most people end up playing cards*. Such maximisation might hide quantification over speaker-inclusive pluralities in (40a,b).

(42)   When people visit me, we usually end up playing cards.

### 7.3.5   Invariant contexts

*S*-anaphora to 1PL *on* are not restricted to contexts where covariation gives rise to QV; they are available also when the resource situation of *on* does not covary with a quantifier. We have found basic intuitions about such examples very difficult to access. The clearest finding is that *s*-anaphora seem only distributive, while 1PL can be both distributive and collective. Distributivity has not so far been a characteristic of *s*-anaphora, when QV is available. In (29), *s*-anaphora are collective over covarying pluralities, and in examples like (46c) they can be. A more general but unclear finding is that *s*-anaphora are reported as not equivalent to 1PL anaphora, even when it is not quite clear how.

(50) introduces *s*-anaphora in an episodic context.

(50)   [Context: a member of a couple talking:]
(50a)  Hier soir **nous on** a (**chacun**) promené **son**/**notre** chien.
       Yesterday night WE ON$_{\approx we}$ has (each) walked SON$_{dist \approx our}$ / our dog.
(50b)  **Nous on** est libre ce soir. **On** a promené **son** chien ce matin.
       WE ON is free this evening. ON$_{\approx we}$ has walked SON$_{dist \approx our}$ dog this morning.
(50c)  Tu veux sortir ce soir? **On** est libre. **On** a promené **son** chien ce matin.
       You want to go out this evening? ON is free. ON$_{\approx we}$ has walked SON$_{dist \approx our}$ dog this morning.

The 1PL anaphor is the only option for the collective reading of a shared dog, but it may also be distributive. The *s*-anaphor can only be distributive. Beyond this, there is variation. The distributive *s*-anaphor is natural for some always, for others only with *chacun* 'each'. Conversely the distributive 1PL is disprefered for some with *chacun*, and usually it is fine otherwise. In order for the *s*-anaphor to distribute over *on* as 'we', it is

best that there be a clear indication that *on* is 1PL, as in (50a,b). However, ultimately *on* as 'we' is possible in (50c), so this seems to be a parsing effect.[220]

(51) is a more contextualised illustration of the distributivity of *s*-anaphora. In (51a), each person's separate 'bit of road', *son*, contrasts with all their roads, *nos*.

(51a)  Et pour ceux qui m'ont connu à un moment de leur vie et ben **je** tiens à **vous** dire que je n'ai pas changé malgré les années qui ont passé. Je suis toujours un peu zinizin sans l'être dans l'excès. **On** a **tous** fait **son** bout de chemin, évolué dans **son** sens et à **son** rythme et aujourd'hui je serai bien heureuse que **nos** chemins se recroisent à nouveau.
And for those that have known me at some point of their life well I must tell you that I have not changed despite the years that have passed. I am still a little crazy without being too much. **ON**$_{\approx we}$ has **all**.PL done **SON**$_{\approx our}$ bit of road, developed in **SON**$_{\approx our}$ direction and at **SON**$_{\approx our}$ rhythm and today I would be happy that **our** roads cross again. (G)

In (51c), *son* replaced by *notre* 'ours' would require a single dish made by the group.

(51c)  [Context: Describing organised activity on a group trip:]
**On** a **tous** fait **son** assiette avec la décoration, avant d'aller se promener dans les vieilles rues de Kanazawa avec une guide […]
**ON**$_{\approx we}$ **all**.PL made **SON**$_{\approx our}$ dish with decoration, before going for a walk in the old strets of Kanazawa with a guide […] (G)

In (53), the VP is atom-distributive, so there should be no truth-conditional difference between the 1PL and the *s*-anaphor (with or without a floating quantifier).

(53a)  je$_i$ le$_k$ vois avec un regard nouveau, on$_{i+k}$ a **chacun** fait **sa** vie de **son** côté
I see him from time to time, ON$_{I+him}$ have each made SON$_{\approx our}$ life on SON$_{\approx our}$ side. (G)

(53b)  Tien ça me rappelle moi$_i$ avec une nana$_k$ y'a quelques années […] **On** a {**chacun, tous les deux**} fait **notre** vie de **notre** côté et on ne s'est pas adressé la parole depuis
Here that reminds me myself with a girl some years ago […] ON$_{me+girl}$ have each made our life on our side and ON$_{\approx we}$ has not spoken to SE$_{\approx each\ other}$ since (G)

With the distributive FQ *chacun*, there is sometimes a preference for the *s*-anaphora over 1PL. If *chacun* is replaced by *tous les deux* 'all the two', sc. 'both', in itself distributive or collective, the preference disappears.[221] If the floating quantifier is omitted, *on* with *s*-anaphora is strongly biased towards a pseudospecific use for the individual index *k* in (53). However, if the 'we' meaning of *on* is made clear, as by focus

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[220] The FQ *chacun* 'each' in these examples is the middle-field FQ of chapter 4.6, which has no effect on anaphora, but as in English there is the contrast *We **∅/**all/*each shrugged her shoulders*.
[221] The alternative FQ 'both', *tous deux* 'all two', is more marked for MJ, and does not allow the *s*-anaphora for some reason.

doubling with *nous*, both anaphor types remain available. Throughout, a difference is perceived between them, but we have not been able to characterise it.[222]

Combinations of *s-* and 1PL anaphora confirm the distributive character of the former. DPs that allow different distributive anaphora disallow mixing them, like *her* and *our* in (55). The only possible reading of *our* in (55c,d) is the odd collective ine.

(55a)   Each of us brought her$_{distr}$ husband to her$_{distr}$ birthday.
(55b)   Each of us brought our$_{distr}$ husband to our$_{distr}$ birthday.
(55c)   Each of us brought her$_{distr}$ husband to our$_{*distr}$ birthday.
(55d)   Each of us brought our$_{*distr}$ husband to her$_{distr}$ birthday.

Combinations of 1PL and *s-*anaphora have the same restriction, as in (56). If *son* is distributive, *notre* can only be collective. We are not sure why the combination *notre…son* is more difficult than *son…notre* even with collective *notre*. However, the inverse is sharply impossible, as expected if *son* can only be distributive.

(56a)   **Nous on** va **chacun** promener **son** chien dans **son** jardin.
        WE ON goes each walk SON dog in SON garden [diff. dogs, gardens]
(56b)   **Nous on** va **chacun** promener **notre** chien dans **notre** jardin.
        WE ON goes each walk our dog in our garden [same/diff. dogs, gardens]
(56c)   ?**Nous on** va **chacun** promener **son** chien dans **notre** jardin.
        WE ON goes each walk SON dog in our garden [diff. dogs, same/diff. gardens]
(56d)   (*)**Nous on** va **chacun** promener **notre** chien dans **son** jardin.
        WE ON goes each walk our dog in SON garden
All:    WE each go walk our dog in our garden. (generic, QV)
*or*    WE are each going to walk our dog in our garden. (future, episodic)[223]

This pattern is general when both 1PL and *s-*anaphora are available. (57a) with *notre* requires a common group for everyone, while in (57b) *nos* is degraded even then.

(57a)   **Nous on** est égaux à **ses** collègues dans **son/notre** groupe.
        WE ON is equal.PL to SON collegauges in SON/our group.

(57b)   A écouter le FMI, en Grèce **nous on** mérite **tous son** coin au purgatoire (??pour **nos** péchés collectifs).
        To listen to the IMF, in Greece WE ON deserves all SON corner in the purgatory (??for our collective sins).

Judgments are sharpest when collective possession is unavailable or odd, (58).

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[222] This unclarity of differences between distributive 1PL and *s-*pronouns recalls (54). All three of $\varnothing$, *each*, and *both* should be truth-conditionally equivalent, yet some difference is perceived. Perhaps it is a matter of pragmatics, say relevance, but we are not clear about it.

(i)   A plane passed overhead, and Gwen and I $\varnothing$/each/both raised our head at the same time.

[223] The verb *va* 'goes' is ambiguous between these two readings here.

(58a)  **Nous on** plonge **sa$_i$** main dans **son$_i$/*notre$_i$** gant et **on** est prêts.
 WE ON plunges SON hand into SON/*our glove and ON is ready.
 [Episodic (present for future)]

(58b)  **Nous on** relit chacun **son** article dans **son/(*)notre** coin.
 WE ON rereads each SON article in SON/(*)our corner.
 [Generic.]

It environments where *s*-anaphora are unavailable, 1PL can perhaps be distributive even if combined with other distributive *s*-anaphora. In (60), there is no *s*-anaphor for the remote object clitic (see chapter 6). The 1PL anaphor is fine, but it is not clear that it must be understood distributively. We have not studied such cases further.[224]

(60a)  Je confirme: GiedRé [sic], **on** veut **tous** l'épouser pour passer **sa** vie à l'entendre **nous** chanter "On va tous mourir" au petit déjeuner.
 I confirm: GiedRé, ON wants all.PL marry her to spend SON life hearing her sing us "On va tous mourir" at breakfast. (G)

(60b)  **Nous on** demande **toutes** parfois à **son** mari s'il **nous** trompe.
 WE ON asks all.PL sometimes SON husband if he cheats.on us.

The mixing of distinct distributive *s*- and collective 1PL anaphora allows 1PL *on* to express certain meanings with greater clarity and brevity than pronouns that have only a single anaphor. In (59), the English translations are adequate but ambiguous without the clumsy bracketed material, while the French versions are not.

(59a)  En analyse, nous on parle de ses émotions (à chacun) et de nos projets (communs).
 In psychoanalysis, WE ON$_{\approx we}$ speaks of SON$_{distr \approx our}$ emotions (to each) and of our$_{coll}$ projects (common).
 In psychoanalysis, we each speak about (each of) our emotions and about our projects (in common).

(59b)  En analyse, toi et moi on a chacun parlé de soi(-même) et de nous.
 In psychoanalysis, you and I ON$_{\approx we}$ has each talked about SOI(-self)$_{distr \approx ourselves}$ and about us$_{coll \approx our\ couple}$.

We do not so far have anything tha predicts *s*-anaphora to be distributive, nor the occasional resistance of 1PL anaphora to this reading; we turn to it in section 4.

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[224] In examples like (i), switch to *nos* from *son* might be due to passage by OC PRO, comparable to the passage from *s*-anaphor *on* in the first sentence to 1PL anaphor *on* in the second (cf. chapter 6.4).

(i)  Bref, **on** fait **tous** de **son** mieux pour éduquer **nos** enfants avec plus ou moins de sévérité, ce qui est certain c'est que l'**on** fait de **notre** mieux! (G)
 In.short, ON does all.PL SON best to bring.up our children with more or less severity, what is sure is that ON does our best!

Apart from anaphora, episodic examples raise an issue for our analysis of 1PL *on* as *NOUS*-restricted *on*. Semantically, in an episodic context it should be satisfiable by any atom or plurality in *NOUS*, not necessarily inclusive of the speaker. However, 1PL *on* in the foregoing examples is interpreted essentially as *we*, and not as *one or more of us*. This is derivable in our examples because of the anaphora (see section 4 on 1PL, and chapter 5.4 on *s*-anaphora). However, even when there is no anaphor to 1PL *on* in an episodic context, as in (60a), *on* means 'we', not 'one or more of us'.

(60a)   (Nous) on a été amicaux avec l'invité/*moi.
        (WE) ON were friendly.PL with the guest/me

We suspect that 1PL *on* ends up meaning 'we' in an episodic context pragmatically, though we can only be tentative.[225] Consider Gricean inferences that would accompany the use of 1PL *on* in (60a), in a grammar where there is no 1PL personal pronoun, but there is plain *on* as well as indefinites restricted by overt 1PL partitives like *un où plusieurs de nous* 'one or more of us'. Using *on* restricted to *NOUS* rather than an indefinite with an overt partitive should be motivated by irrelevance of the extra information conveyed by the latter, as for chosing impersonal *on* rather than an indefinite in chapter 5.4. One of these properties is the nonmaximality implicature of indefinites, which *on* lacks. So when it is known and relevant that the plurality that satisfies *on* is not all of *NOUS*, an indefinite would be prefered, other things being equal. Using a *NOUS*-restricted rather than a bare *on* should be motivated by the extra information and the relevance of *NOUS*. Interestingly, even with indefinites like *one or more of us*, adding a partitive *us* make speaker-exclusion difficult, (60b). If *NOUS* has the same effect in (60b), all pluralities that satisfy *on* include the speaker and so can be paraphrased as 'we'.

(60b)   One or more (of them/??us) were friendly with me.

*7.3.6   Resume*

We now have the motivations for the 1PL *on* as *NOUS*-restricted impersonal *on*. One is antecedence of *s*-pronouns with the same properties as impersonal *on*, since their antecedent must be phi-deficient rather than 1PL. Another is quantificational variability over individuals that are part of a speaker-inclusive plurality but need not each include the speaker. This is available to impersonal *on* as an indefinite, not to a definite, nor expected for a 1PL indefinite. Last is usability as 'we', that is, use for the speaker-inclusive plurality in a situation. Impersonal *on* cannot be equivalent to a felicitous definite, but insofar as †*nous* is unavailable, it can be equivalent to 'we'.

These motivations would allow an analysis of 1PL *on* simply as impersonal *on*. However, 1PL *on* has 1PL properties in focus doubling and concord, and these cannot be derived from absence of blocking by 1PL †*nous*, since there is no 2PL or 3PL *on* even with for quantificational variability where it would not be blocked by 2PL *vous* 'you', 3PL

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[225] We have been inspired by Rullmann (2010), who analyses distributed 1PL pronouns by proposing that [1st] does not require speaker inclusion, but is strengthened to do so pragmatically when free. Compare also the variety of uses to which versions of the "Strongest Meaning Hypothesis" have been put, e.g. Farkas and de Swart (2010), Buccola (2016).

*eux, elles* 'they.M, F'. We attribute the 1PL properties to Kayne's (2010) *NOUS* 'we' in a roughly partitive relationship to *on*. Interpretively, *NOUS* is the source of the inference in QV that variation is over individuals in a speaker-inclusive plurality. Outside QV *NOUS* is key to the pragmatic restriction of 1PL *on* to satisfaction by a speaker-inclusive plurality. Impersonal *on* and *NOUS* are put together in this relationship in section 5.

Given the two elements in 1PL *on*, impersonal *on* and *NOUS*, it is unsurprising that both *s*- and 1PL anaphora are available, but we have not explained how they work. In QV contexts, *s*-anaphora are expected to allow QV just like *s*-anaphora to impersonal *on*, but it must be explained why 1PL anaphora only have the temporal reading and why *s*-anaphora resist it. Outside QV, *s*-anaphora are limited to distributive readings, while 1PL anaphora may need not, with the restriction that the two types cannot be mixed as distributive. In the next section, we turn to an account of these observations.

## 7.4   Anaphora to 1PL *on*

### 7.4.1   *The basic case*

1PL *on* antecedes two types of anaphora: 1PL personal pronouns and *s*-pronouns as minimal pronouns.[226] The anaphora come with different meanings. We should like to derive the meaning difference from the difference between the anaphor types. Our 1PL *on* is impersonal *on*, an indefinite, restricted to the domain of individuals that are part of *NOUS*, a 1PL personal pronoun. The guiding intuition of our proposal is simple. 1PL anaphora with 1PL *on* resist quantificational variability because 1PL personal pronouns do so. Otherwise, 1PL anaphora block equivalent *s*-anaphora under Maximise Presuppositions (MP). Our account derives much of the behavior of 1PL *on* with no additional postulates.

Antecedent and anaphor usually match in phi-features, as in (70). We assume the view in chapter 6 that this phi-matching is due to the interpretation of phi-features in personal pronouns as definites. In (70), the phi-feature [feminine] on *elle$_i$* contributes to the presupposition that there is a unique individual identical to *g(i)* whose is a *female* actor. This presupposition is met if *i* is λ-bound by *une actrice* 'an actress' in (70a). It is not met by *un acteur* an actor' in (70b), so *elle$_i$* is infelicitous. [feminine] also makes *elle* presuppositionally stronger than gender-neutral *il*. Under Maximise Presuppositions (MP), *elle* blocks *ill* as presuppositionally stronger if felicitous and equivalent, which is so in (70a). In (70b), *elle$_i$* is infelicitous, so *il$_i$* is available.

(70a)   Une actrice λ$_i$ est contente parce qu'elle$_i$/il$_{*i}$ a joué bien.
         An actress is happy.F because she/*he has played well

(70b)   Une acteur λ$_i$ est content(*e) parce qu'elle$_{*i}$/il$_i$ a joué bien.
         An actor is happy(*F) because *she/he has played well

(70c)   elle = [s$_n$ the$_{pron}$ [$_{NP}$ actor [feminine] [i]]]
         il = [s$_n$ the$_{pron}$ [$_{NP}$ actor [i]]]
         ||feminine|| = λx.λs : x is female in s . 1

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[226] We set aside logophora; our analysis extends to them under the view of them developed in chapter 6.

Let us look at how this works for a 1PL anaphor, excluding for now distributive readings. 1PL *on* is satisfied by a individual $x$ in its resource situation $s_n$, provided that $x$ is part of the speaker-inclusive plurality of persons denoted by *NOUS*. A 1PL personal pronoun is anaphoric to 1PL *on* if it is valued to $x$, by binding, donkey, or discourse anaphoricity set out in chapter 2. Under all these mechanisms, the 1PL phi-features contribute to the presuppositions of the anaphor so as to give rise to the following requirement: it is common ground of $s_n$ that every individual that satisfies 1PL *on* (every $x$) is a speaker-inclusive plurality of persons. Thus $s_n$ cannot have nonspeaker person atoms, nor can it have pluralities of persons exclusive of the speaker.[227]

From this requirement, it follows that 1PL *on* resists quantificational variability with 1PL anaphora. 1PL *on* with a 1PL anaphor must have only speaker-inclusive pluralities as person individuals in its resource situation, and so cannot range over other individuals in *NOUS*. This would allow QV over speaker-inclusive pluralities, perhaps innocuously. Yet even this may be pragmatical limited. It is not clear how to set up a situation with several speaker-inclusive pluralities and no other individuals. If we could set one up, we would expect that any indefinite with this resource situation could antecede 1PL pronouns (and likewise for 2PL, 3PL). Rullmann (2010) gives examples like (71), which lend themselves to this analysis. However, they are rare and marked.

(71)   **Linguists** have now hammered many generations of American students with **our** contrary opinions about normal people's linguistic beliefs […]

(Rullmann 2010)

Unlike 1PL pronouns, minimal pronouns have no nontrivial presuppositions (chapter 6). Thus an *s*-anaphor as minimal pronoun imposes no constraints on its antecedent, and 1PL *on*, like impersonal *on*, is free to covary over individuals to give QV.[228]

Thus 1PL *on* with a 1PL anaphor is essentially limited to cases where the resource situation of *on* has only one speaker-inclusive plurality. It is then equivalent to †*nous/we*, and is permitted to be so because †*nous* is not available to block *on* under Maximise Presuppositions. Conversely, whenever the resource situation of *on* has only a speaker-inclusive plurality, a 1PL personal pronoun as anaphor should block a philess minimal pronoun under Maximise Presuppositions. Hence we derive also the blocking of *s*-anaphora to 1PL on the non-QV, temporal reading.

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[227] If *on* λ-binds the 1PL pronoun through an individual index $i$ in it, the 1PL pronoun presupposes that $g(i)$ is a speaker-inclusive plurality (s.-i.p.), so every individual that satisfies *on* must be s.-i.p. If *on* introduces an individual to the restrictor situation of a donkey configuration, the 1PL pronoun presupposes that there is a maximal s.-i.p. in the restrictor situation, so every individual that satisfies *on* must be s.-i.p. in order for the presupposition to be discharged in the local context. If *on* makes pragmatically salient a situation with an individual satisfying it, the 1PL pronoun presupposes that there is a maximal s.-i.p. in the salient situation, so every counterpart of that situation must have a maximal s.-i.p. to satisfy the presupposition in the global context, so *on* can only be satisifed by s.-i.p.s. It is expected that a 1PL *on* on the QV reading can combine with a 1PL pronoun that is not an anaphor to it but denotes an independent speaker-inclusive plurality, possibly identical to the *NOUS*-partitive of *on*; that may well be possible.

[228] We can allow the phi-features that a minimal pronoun gets from its binderto be interpreted on it. The presuppositions that they give rise to are trivially satisfied since they are satisfied on the binder.

*7.4.2   Distributive anaphora*

Distributive anaphora are a challenge for semantic approaches to phi-features. (72a) has a sensible reading where the [1$^{st}$], [plural] phi-features of *our* do not lead to the inference that a speaker-inclusive plurality shares a head and a spouse. Yet that is the expected interpretation of [1$^{st}$], [plural] on *our*, and it is found in (72b). The difference is that in (72a) *our* has an antecedent *we*. Phi-features that seem to go uninterpreted in virtue of an antecedent are *dependent* phi-features.

(72a)   We$_i$ (each, all) turned our$_i$ head when our$_i$ spouse entered.
(72b)   #Therefore, our head turned when our spouse entered.

Dependent phi-features have been analysed as uninterpreted and obtained through a syntactic dependency with the antecedent (Heim 2008, Kratzer 2009, and references there). A combination of two observations suggests this cannot be a general solution. On the one hand, the dependency would have to ignore islands for other syntactic dependencies. In (72a), it would have to cross *when*-clause boundary in (72a) (op.cit.), and even occur without c-command for donkey anaphora (Cable 2005; Sudo 2014; building on Dimitriadis 2000; Johnson 2014).[229] On the other hand, the dependency would still have to be constrained by structure. In (72a), *we* licenses dependent 1PL on *our*, but it would not license it in (72b) as a following sentence. Yet phi-matching that does span islands, like that of lexical number in *scissors*, also crosses sentences, and syntactic theories of it allow for this.

We therefore take a semantic view of dependent phi-features, along with phi-matching in general. Sudo (2014) develops an approach to distributive anaphora that lets the 1PL of *our* in (72a) be interpreted exactly as in (72b). Both free and distributive 1PL pronouns denote speaker-inclusive pluralities. However, distributive pronouns are arguments of silent choice functions that an pick atom, *f$_i$* in (74a), and these functions are quantified over by distributors, *all$_i$* in (74a), to give the distributive meaning.

(74a)   We are all$_i$ proud of f$_i$(our) spouse

(74b)   <9,e>$^{1PL}$ λ$_8$ are [$_{vP}$ t$_{<8,e>}$$^{1PL}$ [all$_5$ [$_{VP<est>}$ proud of [[<5,ee>(<8,e>$^{1PL}$)] spouse]]]]

We set out relevant aspects of Sudo's proposal with reference to the LF (74b) of (74a). Pronouns and traces are variables of type *e*, here <9,e> for *we*, t$_{<8,e>}$ for its trace, and <8,e> for *our*. Suppose that the LF (74b) is evaluated under an assignment g such that g(<9,e>) = **w**. The variables *t$_{<8,e>}$* and <8,e> also denote **w**, because they are captured by λ$_8$ left by the movement of *we* <9,e>. Phi-features work in the usual way: by 1PL, g(<9,e>) and g(<8,e>) are only defined **w** is a speaker-inclusive plurality, and by Maximise Presuppositions, if **w** is a speaker-inclusive plurality it must be 1PL. Without *all$_5$* and <5,ee>, the meaning of (74b) would be the collective reading: we are collectively proud of our collective spouse.

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[229] This point is particularly forceful when set against Kratzer's (2009) proposal to derive local anaphora from minimal pronouns; these are specifically impossible in the likes of (72) or Johnson's (2014: 36) *Every mother's son should bring her [*herself] to a meeting and every father's son should too.*

The distributive reading arises through the choice function variable $\langle 5,ee\rangle$ applied to *our* $\langle 8,e\rangle$ and by its binder *all$_5$*. This semantics of *all$_i$* is in (75). *All$_i$* attaches to a VP below its subject *X*, and for every function *f* that is defined only on *X* (the underlined part of (75b)) and picks an atom out of *X* (doubly underlined), *all$_i$* supplies the atom *a* picked by *f* to the VP as its subject, and at the same time evaluates the VP with any variable $\langle i,ee\rangle$ mapped to *f*. The index of *all$_5$* is 5, so for every *f*, the atom *a* that *f* picks out of **w** is fed to the VP as its subject, and *a* is also denoted by $\langle 5,ee\rangle(\langle 8,e\rangle)$, because as $\langle 5,ee\rangle$ is mapped to *f* which picks *a* out of $g(\langle 8,e\rangle)$ provided $g(\langle 8,e\rangle) = \mathbf{w}$.

(75a)   $\|\text{all}_i\ VP\|^g(X) = 1$ iff $\forall f_{\langle e,e\rangle} \in RelCF(X)\ [\|VP\|^{g(\langle i,ee\rangle \to f)}(f(X))]$

(75b)   $RelCF(X) =_{def} \{f_{\langle e,e\rangle}:$ <u>f(X) is an atomic part of X</u> and <u>f(Y) is undefined for all Y $\neq$ X</u>$\}$,

(75c)   Economy: An index with a choice function component is anti-licensed if a structurally simpler index can be used to derive the same reading.

The economy condition (75c) ensures that a choice function variable cannot be present if a bare pronoun could have the same meaning. It bars *We are proud* from meaning *I am proud*, since *we* cannot be the argument of a silet choice function that would pick the speaker out of it. In (74b), the economy condition allows $\langle 5,ee\rangle(\langle 8,e\rangle)$, because $\langle 8,e\rangle$ has a distinct reading, collective, nor since there another simple index equivlanet to $\langle 5,ee\rangle(\langle 8,e\rangle)$ bound by *all$_5$*.

Thus using a choice function with a pronoun is only legitimate if the function is bound by a distributor, by (75c), and the distributor is only defined for a pronoun covalued with its subject, by (75b). It remains to mention that nothing needs the dependent pronoun to be $\lambda$-bound by the subject. In (74b), *our* $\langle 8,e\rangle$ is $\lambda$-bound through the movement of $\langle 9,e\rangle$, but everything works the same if $\langle 8,e\rangle$ is replaced by $\langle 9,e\rangle$ or any other index mapped to **w**.

Sudo's proposal is compatible with the D-type analysis of personal pronouns as definites. The individual part of *our* in (74b) can be viewed as a 1PL D-type pronoun, the inner DP of (77). It denotes a speaker-inclusive plurality of persons. The choice-functional component could be Sudo's variable that takes this DP as an argument. However (77) gives a slight alternative, where the choice-function too is a DP, with an NP analogous to a relational noun  (cf. Heim and Kratzer 1998 on complex *E*-type pronouns). In either case, it picks an individual out of the 1PL personal pronoun.[230]

(77)   [$_{DP}$ the$_{pron}$ [$_{NP}$ [$_N$ $\langle 5,ee\rangle$] [$_{DP'}$ the$_{pron}$ [$_{NP}$ [1$^{st}$] [plural] [human] [$\langle 8,e\rangle$]]]]]
       $\|\langle 8,e\rangle\|^g = \lambda x.\lambda s.\ x=g(8)$

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[230] Sudo discusses paycheck pronouns as situation-varying definites in his system, and while he does not treat donkey pronouns in the same way as the SD system does, the reasons seem independent of the rest of his proposal and our use thereof. Given the ready extensibility of Sudo's account to D-type pronouns in any configuration, it should work for overt definites, so long as Condition C and pragmatic infelicity can be controlled for (Schlenker 2005a, Elbourne 2005, 2013). This seems right to us in cases like *The students$_i$ have (each$_i$/all$_i$) been nominated by a teacher who is certain that the little wonders$_i$ are going to win, but there can be only one winner*, with each professor nominating one student (and its French counterpart).

$$\|<5,ee>\|^g = \lambda y.\lambda x.\lambda s \; . \; x=[g(5)](y)$$

There are certain issues that need more work in Sudo's the account, but they are not specific to our adaptation of it: notably, extending it to internal and derived subjects.

In Sudo's approach, 1PL anaphora to 1PL *on* are 1PL pronouns even when distributive, and have the same consequences. The anaphor forces *on* to have a resource situation with only speaker-inclusive pluralities as person individuals and so to be essentially equivalent to 'we'. When a 1PL anaphor is available, and *s*-anaphor should not be equivalent under Maximise Presuppositions. That is in part what we have found in episodic contexts. 1PL *on* in our examples always meant 'we', so licensed 1PL anaphora as distributive or collective. However, we have also seen that *s*-anaphora were available, with the restriction that they be distributive.

We do not have a solution to this problem. One area to look at is the pragmatic reasoning that we gave for why 1PL *on* means 'we' in our examples. Semantically, we would expect *s*-anaphora to be available when it is not common ground of the resource situation of *on* that there are only speaker inclusive pluralities in it. We have mentioned that speakers keep on perceiving a difference between *s*- and 1PL anaphora even when they seem equivalent, but we have not been able to characterise it.

### 7.4.3 *Impersonal* on *and 1PL anaphora*

We have focused on anaphora to 1PL *on*. We have also seen that plain impersonal *on* can be used for speaker-inclusive pluralities, as in (78a). Singular (default) *amical* of impersonal *on* is somewhat less natural than plural *amicaux* of 1PL *on*, but perfectly grammatical as a neutral use, whereas *on* for any other personal pronoun is indirect with either concord. Plain impersonal *on* is expected to be so usable for 'we', so long as not blocked by †*nous* under MP.[231]

(78a)   On n'a pas été amicaux/amical avec Gwen.
       ON$_{\approx we}$ has not been friendly.PL/SG with Gwen.

(78b)   Nous on n'a pas été amicaux/*amical Gwen.
       WE ON$_{\approx we}$ has not been friendly.PL/SG with Gwen

(78c)   On$_i$ n'a pas été amical {?avec nos$_i$ amis, *les uns avec les autres}.
       ON$_{\approx we}$ has not been friendly. SG {with our friends, (*)with each other.PL}

However, as soon as 1PL elements are added, (78b,c), impersonal *on* cannot be used with them, save to some extent 1PL anaphora. This incompatibility is not expected from the semantics alone. The point is clearest for the reciprocal *les uns les autres* in (78c), whose plurality is interpretable. Impersonal *on*, anteceding singular-concording *amical*, can combine with it on the meaning 'people' (chapter 4.6). Since impersonal *on* in (78a) can also be used as 'we', it is not clear what prevents the combination in (78c). Evidence

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[231] Inquiries both for this work and for Rezac (2011) suggest considerable variation in preferences for plural concord when *on* is used as *we*, even between friends and family members.

of the focus-doubling pronoun in (78c) is less clear, since focus doubling may rely specifically on the syntax of 1PL *on*, as discussed in section 5.

We suspect that the degradation of (78c) is not to be sought in semantics or syntax, but belongs with cases where grammatical agreement is degraded when phi-features are not homogeneous in certain configurations (see Bever, Carroll and Hurtig 1976 on (*)*One of my children's birthday is today*, Rezac 2011: 55-6 on Napoli's 1974 interaction in the phi-features of quantifier float across clitics).

### 7.4.4    Note on a syntactic approach

In a syntactic approach to phi-matching, correlating different anaphora with different interpretations can be done by ambiguity of the antecedent, following Pollard and Sag (1994) on group nouns. Suppose that *on* in our 1PL *on* is either person- and number-less, like impersonal *on*, or 1PL, like *NOUS*. When *on* lacks person and number, phi-matching restricts it to *s*-anaphora. Interpretively, such *on* should be is satisfied by any individual in *NOUS*, and allow QV. When *on* is 1PL, phi-matching restricts it to 1PL anaphora. Interpretively, it should be satisfied by any speaker-inclusive plurality in *NOUS*, and so resists full QV, though it allow QV over speaker-inclusive pluralities. Mixes of anaphora can only arise by the former *on* with *s*-anaphora combined with independent 1PL personal pronouns. A preference is needed for 1PL if the person- and number-less interpretation is equivalent.

The ambiguity in 1PL *on* as person- and number-less versus 1PL need not be lexical. A natural way to get it is to combine impersonal *on* and *NOUS* in a big-DP, and phi-features of one or the other so that the projected phi-features are interpreted as constraining the restrictor of the impersonal as an indefinite quantifier. Thinking of 1PL essentiall as *one or more [$_{NP}$ N̶ of us]*, the *s*-anaphor version arises if the phi-features of *us* remain on *us*, and the 1PL anaphor version arises if the phi-features of *us* project to those of the NP.

It is more difficult to differentiate anaphora by anteceding them directly by either impersonal *on* or *NOUS*, since we have to get this to correlate with a difference in how the subject is interpreted. Such an alternative would be more along the lines developed for "impostors" in Collins and Postal (2010), including the type *one or more of us*, but with interpretive consequences. We will look at only one environment, local anaphora in the sense of chapter 6, as in (A).

(A)    Nous on est chacun fier de notre/sa travail
        WE ON is each proud of our/SON work

(B)    NOUS $\lambda_x$ [$_{TP}$ [$_{big\text{-}DP}$ ON $t_x$] $\lambda_y$ is$_T$ [$t_y$ [$_{FQ}$ each *pro*$_{x/y}$] $\lambda_z$ [$_{VP}$ $t_z$ proud of *pron*$_z$'s work]]]

(C)    $\|each\| = \lambda x_e.\lambda p_{est}.\lambda y_e.\lambda s$ . for all z, if z≤x and z is an atom, p(z)(s).

Consider the distributive interpretation first on the view that it needs a clausal distributor like the FQ *each*. FQs have been proposed to distribute not directly over the subject, but over a silent pronoun inside them bound by the subject (Fitzpatrick 2006; cf. for FQ concord, Kayne 2010: 181, and topicalised object antecedents, Kayne 2010: 132). Then (A) might have the analysis in (B) with the meaning in (C) for *each*. The silent

pronoun *pro* in the FQ is a local anaphor, so its antecedent must be local. *pron$_z$* distributes over *on* through *pro$_x$* or over *NOUS* through *pro$_y$*. *pron$_z$* gets the desired phi-features if λ-binding a locally c-commanded pronouns entails phi-matching between the sister of the abstract and the bound pronoun, and if the phi-feature of *pro* project to those of the FQ. When *pron* is 1PL, the distributed antecedent of both *pron* and the subject is *NOUS*, which resists QV; when *pron* is an *s*-anaphor, the antecedent is *on*, which allows QV. For the collective einterpretation, we can proceed in the same fashion, only with *each* replaced by an FQ that allows collective readings like *all*.[232]

Our reason for this sketch is the existence among local anaphora of "inherent" reflexives, as in (D). As far as we can tell, here too *s*- but not 1PL anaphora allow QV.

(D)     Nous on est à son/notre/*votre aise.
        WE ON is at SON/our/*your ease

Collins and Postal (2010) propose that the phi-features of inherent reflexives are uninterpreted: "Since these [inherent reflexives] have no denotations, the relation between antecedent and reflexive in such cases is exclusively syntactic". They conclude that both 3PL and 1PL must come from the antecedent in *Daddy and Mommy will behave them-/our-selves in the Bahamas*: If so, we too need a syntactic mechanism to get phi-features of to the reflexive according to the interpretation of 1PL, as above.

However, we are not sure why inherent reflexives "have no denotation". One plausible reason is noncomutativity with nonreflexives, *votre* in (D). However, this is also true of pronouns that do seem to contribute their pronominal denotation: *Gwen hasn't a penny on her/*you ; Gwen felt herself/*you a stranger ; At last Gwen felt herself/*you again ; Gwen was beside herself/*you with joy ; Gwen has taken too much on herself/*you*. Another reason is the idiomatic meaning of the reflexive combination, but Nunberg, Wasow and Sag (1994) have shown that idiom chunk DPs like *(pull) strings* are sufficiently interpretively autonomous to be questioned and topicalised. We argue in section 5 that the local reflexive *se* does have uninterpreted phi-features obtained in syntax, but then the argument is quite different, and the local reflexive is not 1PL even with 1PL *on*. At this point, then, there is no need to suppose that 1PL *notre* in (D) is not interpretable and comes syntactically from *on*.

## 7.5     1p *on* as *NOUS*-restricted impersonal *on*

### 7.5.1   *Introduction to doubling*

Kayne (2010) proposes that *on* 'we' differs from arbitrary and generic *on* by the presence of a 1PL personal pronoun, silent *NOUS*. He attributes to *NOUS* the meaning 'we', the licensing of the plural floating quantifier *tous* 'all', focus doubling by overt *nous*. We have adopted *NOUS* and combined it with impersonal *on* in *NOUS*-restricted *on*. We have not yet given details of how *on* combines with *NOUS* in this manner, nor how it is parametrised to combine only with *NOUS*. We have also not accounted for the "external"

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[232] We should also be able to omit the FQs unless they are necessary part of clausal architecture, in which case the subject is always bound by the big-DP containing *on* but *pron* can be bound by it or *NOUS*, giving readings that it may be necessary to bar; we set this aside.

syntax of the combination, notably the tension between 3SG agreement, plural concord, and 1PL focus doubling. These are the aims of this section.

We approach the combination of *on* and *NOUS* through a particular theory of DP combinations, the *big-DP* approach. The rest of this subsection introduces reasons for the big-DP hypothesis. It is then applied to the meaning of 1PL *on*, and to its syntax.

The central puzzle of doubling structures is how two DPs are interpreted and formally licensed in a clausal structure that seems to have place for one only. One way of solving the puzzle is through putting only one of the DPs in the overt clause and treating the other as wholly independently in syntax and semantics. It has been advocated for a type of doubling in French that we have not been using, *peripheral doubling*, see in (80a).

(80a) **Les vieux**$_i$, j'aime bien **tes parents**$_{j \subset i}$, mais **la plupart**$_{k \subset i}$, je ne **leur**$_k$ fais pas confiance.
**the old**, I like well **your parents**, but **the majority**, I don't trust them.D
As for old people, I like your parents, but the majority, I don't trust them.

(80b) **Moi**, **l'Espagne**, **la route c**'est un peu trop lent.
me, Spain, the road.F that's a bit too slow.M.
As for me, Spain, the road is a bit too slow.

The best-explored hypothesis of peripheral doubling base-generates *la plupart* in (80a) independently of *leur* and its CP and relates them pragmatically, like *les vieux* and *tes parents* or *moi, l'Espagne, la route* and the following clause (De Cat 2007, Rowlett 2007: 5.3.1, 4.3.4). Evidence has included the clause-external position and coma prosody of the doublee, its topic-comment relationship to the clause, and anticonnectivity in matters like scope, phi-features, case marking. Separate base-generation solves the puzzle of doubling by leaving the doublee out of the overt clause. It is interpreted and licensed in the manner of appositive, hanging topic, or *as-for* DP; one well-developed theory sees it specifically as the ellipsis remnant of a clause (Ott 2014).[233]

Not all doublings lend themselves well to separate base-generation. In French, peripheral doubling contrasts with the *focus doubling* (cf. Kayne 2000: chapter 9, Zribi-Hertz 2008: 599-601). It involves strong pronouns doubling clitics subjects and objects under narrow focus. Strong pronouns cannot occur as subject or object bare, unlike nonpronominal DPs. However, they can double subject and object clitics without dislocation and prosodic break, even in a clause-internal position, under a narrow focus interpretation. In (81a), the clitics *je, l'* are focus doubled by the strong pronouns *moi, elle*. The clitics cannot be doubled by other DPs in the same position, with the same prosody, or with the same contrastive focus interpretation. The focus-doubling strong-clitic pronoun group may be further peripherally doubled.[234]

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[233] Rowlett (2007: 4.3.4) contrasts subject doubling in French varieties that differ on connectivity criteria, strengthening their force. However, we need commit to no analysis of peripheral doubling here.

[234] 3rd person strong pronoun subjects superficially do not need a subject clitic, but Kayne (2000: chapter 9) argues this to involve silent subject clitics. If that is right, then strong evidence for the clause-internal character of focus doubling comes from subjects of nonfinite structures like *Pierre / Lui / *Moi ayant résolu le problème…* 'Pierre / HIM / *ME having resolved the problem…', also discussed by Kayne. Here *Pierre* is a regular subject, but 3s strong pronoun *lui* needs doubling by a silent clitic, which is available only to 3rd persons, barring the 1s strong pronoun *moi*. Nonfinite structures tolerate neither movement

(81a)   Moi, **moi** *j'*espère *l'*entendre **elle**/*****Gwen** vous en parler!
        me **me** *I* hope only *her* hear **her** you about.it talk
        As for me, I hope to only hear HER talk to you about it!
        [contrastive focus on *moi, elle*]

In (81b), the clitic *il* is doubled by the strong pronoun *lui*, which allows it to associate with the focus particle *seulement*. A bare clitic cannot associate with *seulement*, and while a bare DP can, a DP doubling a clitic cannot. The focus-doubling relationship between the clitic and strong pronoun is special.

(81b)   *Il* t'a seulement vu **lui**/*****Mael**, et pas les autres.
        he you has only seen him/*Mael, and not the others.
        Only he/*Gwen saw you, and not the others.

The clitic-strong pronoun pairs in focus doubling are identical in phi-features, save that *nous* can focus-double 1PL *on*. There is no difference on matters such as prosody between *nous on* and other focus doubling (cf. Coveney 2000, King et al. 2011: 5.2). When we have spoken of focus-doubling of *on* by *nous* so far, we had in mind contrastive focus interpretations as that in (5c) repeated here. Association with focus provides even more robust evidence, as in (82).

(5c)    Ils disent: "**nous on** a crevé toute sa vie, on touche une petite pension, ou un petit salaire et eux ils touchent sans rien faire".
        They say: "WE ON has slaved all SON life, ON earn a small pension, or a small salary and THEY they earn without doing anything." (G)

(82b)   **On** t'a seulement vu {**nous**, *Jacques et moi}, et pas les autres.
        ON you has only seen {us, *Jacques and me}, and not the others.
        Only {we, *Jacques and I} saw you, and not the others.

Literary registers of French also have another doubling construction that is not amenable to spearate base-generation, complex inversion (83a) (Kayne 1983, Kayne and Pollock 2010). About 1PL *on*, it gives the same evidence for 1PL as focus doubling, since the only doublees of 1PL *on* are those of †*nous*: 1PL DPs, (83b). However, there is complex interaction between the literary registers of complex inversion and the registers at which *on* supplants †*nous*, and we make little use of it (cf. Morin 1982).

(83a)   Pourquoi **aucune fille** n'est-**elle** venue à la soirée?
        Why no girl is-she come.F to the party?
                                                                    (Kayne 1983: 128)
(83b)   Pourquoi **Jean et moi** ne {devrions-**nous**, devrait-$^{\%}$**on**} pas partir tout de suite?
        Why Jean and I should-{we, $^{\%}$ON$_{\approx we}$} not leave right away?
                                                                    (Kayne 1983: 116n9 for *on*)

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above the subject to the left periphery, nor the general type of doubling: there is no *****[Le problème Pierre (l')ayant resolu]…* '[the problem Pierre (it) having resolved]…'.

Separate base-generation does not obviously help understand the properties of focus doubling: limitation of the doublee to strong pronouns in configurations where they cannot occur bare, the doublee's clause-internal position, and narrow focus interpretation.

To address the puzzle of doubling for similar phenomena in Romance, the big-DP hypothesis has been developed (Uriagereka 1995, Belletti 2005, Cecchetto 2000). The pronoun and its doublee are base-generated in the same DP. The big-DP is the sole argument of the clause, solving a part of the interpretive conundrum. The big-DP must must dissolve by movement for principled reasons, typically formal licensing, and this also explains limits on doubling. In the case of focus doubling, it is natural to limit it to subjects and objects, because only these can be cliticised, licensing the pronoun component of the big DP. The doublee or remnant of the big DP is perhaps licensed by low focus movement (Belletti 2005). It remains unclear why doublee is limited to strong pronouns: there are parallels in *wh*-movement (Westergard and Vangsnes 2005), but it might also follow from the nature of the big-DP (see below on the 1PL element as D).[235]

The big-DP hypothesis faces an unclarity of its own: how pronoun and doublee relate in the big-DP, formally and interpretively (van Craenenbroeck and van Koppen 2008). Big-DP analyses started with the pronoun as an extra determiner (Uriagereka 1995), but expanded to combine pronoun and doublee as separate DPs with mediating structures like prepositions (Belletti 2005). Aspects of the relationship of pronoun and doublee remain unclear, particularly when the doublee is not referential. We address them as they come up. Our intention with big-DP hypothesis is to have a concrete way to relate *on* and *NOUS*, so as to work out the interpretation and syntax of the combination. The analysis for the most part leads us to proposals that do not dependent on the big-DP hypothesis itself, and at the end of the section we return to a broader perspective.

### 7.5.2 The interpretation of doubling

We want *on* + *NOUS* to restrict the individual satisfying *on* to be part of *NOUS*. This relationship is found in a well-known doubling structure: the doubling of subjects and indirect objects by *pro* and clitics in Spanish, illustrated in (85) (Ormazabal and Romero 2013, Ackema and Neeleman 2013, Höhn 2015).[236]

(85a)   {Vosotros, quienes, quantos, ninguno, cada (uno (de vosotros))} lo hab-*eis* visto?
        {you(PL), Who.PL how.many.PL, no.one.SG, each.SG (one.SG (of you(PL)))} it have-2PL seen
        {You, which of you, how many of you, none of you, each (one (of you))} has/have seen it?

(85b)   *Nos* han visto a {nosotros, algunos, muchos, los niños, cada niño}.
        us[clitic] have.3PL seen ACC {us, some, many, the children, each child}

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[235] This is an imperfect parallel, insofar as Object Shift is limited to pronouns as weak elements (cf. Cardinaletti and Starke 1999). It is not quite clear why doublings are often limited to pronouns. Cf. perhaps A'-movements limited to "short, monosyllabic" elements, Vangsnes (2005).

[236] This type of doubling is restricted to subjects and "dative" or *a*-marked objects, which includes all indirect object and 1st/2nd and certain 3rd person direct objects; remaining 3rd person accusative objects add the constraint that a quantified doublee denote a generalised quantifier generated by the clitic (that is: by the set of individuals part of the individual denoted by the clitic) (Gutierrez-Rexach 2000).

They have seen {us, some of us, many of us, us children, each child}.

When the doublee is referential, *vosotros* 'you', it must match clitic/*pro* in phi-features, and the doubling is interpreted referentially. The doubling of quantifiers is known as *unagreement*, because quantifiers do not overtly have person, and because singular quantifiers like *cada* 'each', *ninguno* 'no one' can be doubled by 1/2/3PL clitic/*pro*. The doubling clitic/*pro* is interpreted as a partitive restriction for the quantifier, *some of us*. Singular quantifiers can also be doubled by 3SG clitic/*pro*, in which case the clitic/*pro* is interpreted as a bound pronoun (Suñer 1988).[237]

The interpretive relationship between clitic/*pro* and the quantifier is what we want for *NOUS* and *on*. We adopt the big-DP view of the Spanish doubling in (85) (Höhn 2015 with literature). As far as we can tell, there has been no detailed proposal made for how the right interpretation arises: how the clitic/*pro* provides the partitive restriction of a quantifier but not a definite, that is why (85b) with *los niños* mean 'us children' and not partitive 'the children among us' or why (85b) with *algunos* means 'some of us' and not 1PL indefinite 'I and some people'. We will look here at two concrete possibilities.

A standard patitive relationship looks like (87a,b), where $P_{part}$ can be *of*, and PPs are of type *est* like NPs (Heim and Kratzer 1998: 8.5; Barker 1992 for *of*-partitives). The big DP of doubling could be given an analogous structure, with $DP_{def}$ a pronoun moved out of as clitic/*pro*. In the case of *on*, the NP of impersonal *on* is lexicalised, so in 1PL the NP of *on* would be lexicalised with partitive *NOUS* (87c). Lexicalisation can limit the partitive 1PL, properly barring 2PL, 3PL *on*.

(87a)    $[_{DP} s_n$ quantifier$_D$ $[_{NP} \dots [_{PP} P_{part} DP_{def}]]]$
(87b)    $\|P_{part}\| = \lambda y.\lambda x.\lambda s . x \leq y$
(87c)    1PL *on*: lexicalised $[_{DP} s_n \exists x [_{NP} [\text{human}] [_{PP} P_{part} \text{NOUS}]]]$

This analysis of doubling gets the partitive meaning for quantifiers with plural clitics/*pro*. It seems extensible to bound variable meanings with 3SG clitics/*pro*. However, it allows a partitive rather than identity meaning between a definite doublee and clitic/*pro*. It seems necessary to suppose syntactic constraints to the big-DP that bar possibilities like a 1PL doublee and a 2PL partitive pronoun.[238]

A partitive structure like (87) does not fit some versions of the big DP hypothesis, where the pronoun is outside the doublee DP. In that case, the situation variable of the doublee can be used to provide a partitive relationship. The strategy is similar to (84), where the adjunct sets up the person's in *on*'s resource situation.

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[237] 1/2SG clitic/*pro* doubling quantifiers are possibly excluded since the meaning would be trivial, as in *each of me*, *Everyone$_i$ read my$_i$ report*.

[238] For 1st/2nd person pronouns, it is difficult to get even an overt partitive relationship for the same phi-features, though fine for different ones, cf. *We linguists among you/?us* or *We$_i$ each$_{k \leq i}$ thought {we$_k$ won, we won$_i$, \*we$_i$ and we$_k$ won, we$_i$ understood our$_k$ common interests}*. If this doubling structure is available for 3rd persons, the partitive interpretation would be limited if the silent NP of clitic/*pro* must be identical to that of the doublee (pragmatically or syntactically). Evidence for such identity comes from lexicalised phi-features, e.g. *une ~~lecture~~ de ses lectures* 'one.F ~~reading~~(F) of his readings(F)' and not *\*un ~~article~~ de ses lectures* 'an.M article of his readings(F)'. A nontrivial partitive relation would then require different resource situations for the two definites.

(84)    {Chez nous/vous/eux, Quant à nous/vous/?eux}, on fait toujours son devoir.
       {At our/your/their place, As for us/you/?them}, ON$_{\approx one}$ always does SON$_{\approx one's}$
       duty.

In a big-DP, the situation of the doublee can be restricted by the pronoun as in (88). It relates the DPs in the big DP by a "linker" R (cf. den Dikken 2005, and for P in big DP, Belletti 2005). R ensures that individuals in the resource situation of the doublee are parts of the individual denoted by the pronoun. The combination of *on* and *NOUS* would then have the analysis (88c). In (88c), an additional postulate is needed to ensure that *on* cannot combine with 2PL, 3PL analogues of *NOUS*; we return to it in the next section.

(88a)   [$_{DP}$ pronoun [[$_{s_n}$ R] [$\lambda_s$ DP$_{quant/def}$]]]]
       where $\lambda_s$ is due to Agree of R with the closest situation variable.
(88b)   $\|R\| = \lambda s.\lambda q_{s\alpha}.\lambda x_e$ : for all y, if y ≤ s, y ≤ x . q(s)
       where α is the type of arguments, referential *<e>* or quantifier *<est,<est,t>>*.
(88c)   1PL *on*: [$_{DP}$ NOUS [[s R] $\lambda_n$ [$s_n$ ∃x [$_{NP}$ [human]]]]]

The analysis faces the same issues as the partitive one. However, because R takes the doublee as well as the pronoun as arguments, R with quantifier complements can be given a different meaning from R with definite complements. R is also a natural locus for formal constraints like phi-matching between the elements of a big-DP, by selection.

The two foregoing analysis assume that clitic/*pro* in Spanish doubling is a personal pronoun, and it has indeed been viewed as such. However, it has also been viewed as a phi-set: notably, as the phi-set of a D (or D's) in the extended DP of the doublee (Höhn 2015; cf. Laenzlinger 2015 for elaborated DPs). In order for a phi-set like 1PL to be interpreted partitively with a quantifier, the phi-set must be used to infer a speaker-inclusive plurality, that is given a pronominal meaning. Assuming a way to do so, both of the foregoing types of analyses can be extended to this view of the clitic/*pro*.

We have given these analyses to show how a big-DP analysis of unagreement might work, and how it can be extended to 1PL *on* while excluding 2PL, 3PL *on*. Specifics aside, unagreement provides a parallel for our findings about 1PL *on* by combining a quantifier and a pronoun in a partitive interpretation. The syntax of 1PL *on*, however, is unlike that of Spanish unagreement in (85), because in 1PL *on* the quantificational doublee is a subject clitic, namely impersonal *on*, while the pronoun is the silent *NOUS*. We turn now to the internal and external syntax of *on-NOUS* doubling.

*7.5.3   The syntax of 1PL NOUS*

1PL *on* has a unique syntax in French. It controls the agreement as impersonal *on*, 3SG or default; plural concord, like plural subjects but not impersonal *on*; and it can be focus-doubled only by 1PL elements. We turn here to how the components of 1PL *on* participate come together in syntax and participate in external syntactic dependencies.

1PL *on* contains impersonal *on* and *NOUS*. By the Full Interpretation requirement, syntactic structures are licensed by having a realisation at PF as well as an interpretation at LF. Impersonal *on* is realised by the subject clitic *on*. We suppose that *on* is the sole realisation of our impersonal; there is, for instance, no strong pronoun and no object

clitic. The *NOUS* component must be licensed by realisation as well. One possibility is that *NOUS* is realised by a dedicated silent exponent, and it is the availability of this exponent for *NOUS* that allow 1PL but not 2PL, 3PL *on* in the doubling structures like (88). We will assume so. There are various other possibilities, such as realising *NOUS* by *on* as part of the impersonal in the structure (87).

It seems possible to derive the 3SG agreement of 1PL *on* from its realisability. It is realised by a subject clitic, and subject clitics are special among the DPs of French in needing licensing by finite verb agreement. In (91a), the finite, agreeing clause licenses all DPs as subjects, but 1st/2nd person strong pronouns need overt clitic doubling. Nonfinite clauses bar precisely subject clitics and the pronouns that need them, (91b). *On* and *nous on* pattern with other subject clitics and strong pronouns, (91c).

(91a)   {Jean a, Lui (*il*) a, Moi *(*j'*)ai} résolu le problème.
        Jean has.3s, HE (he) has.3s, ME *(I) have.1s} solved the problem.

(91b)   {Jean, Lui (*il*), *Moi (*j'*), *J'*} ayant résolu le problème…
        {Jean, HE (*he), ME *(*I), *I} having solved the problem…

(91c)   {Gwen et moi, *nous (*on/nous*), *on/nous*} ayant résolu le problème…
        Gwen and me, *WE (ON/we), *ON/we} having solved the problem…

The nature of this licensing requirement on subject clitics is unsettled. The paradigm in (91a,b) is set out in Kayne (2000: chapter 9), who interprets it as reflecting the need of subject clitics for Case licensing. It also looks very much like the conditions on Italian-style *pro*, and indeed Dobrovie-Sorin (1998: 415) reaches precisely the generalisation that "Nominative clitics must be identified by overt subject agreement morphemes". The nature of such licensing requirements remains under debate (see Biberauer et al. 2010 on *pro*). For our purposes, we need but assume, uncontroversially, that only a single subject clitic can be licensed by a single agreement. It follows that 1PL *on* must combine with the same verbal agreement as impersonal *on*, in order for its impersonal component to be realisable, namely by the subject clitic *on*. There is no need to suppose that the *NOUS*-component of 1PL *on* is invisible to verbal agreement; however, if it controls verbal agreement, the impersonal component of 1PL *on* is not realisable and so the structure fails Full Interpretation. The same considerations bar versions of *on + NOUS* where *NOUS* is replaced by a pronoun that would be realised as a subject clitic, e.g. *on + vous*.

As for the 3SG agreement itself, impersonal *on* lacks person and number. Agree between impersonal *on* should unify the phi-probe of the finite verb and *on* (chapter 6). This would leave the phi-probe unvalued for person and number, or else valued for [human] if [human] is a value of person (chapter 4.2). The unified phi-probe is spelled out by the same morphology as agreement with 3SG subject, plausibly default morphology. This mechanics is paralleled by gender concord in French, where masculine is default. The gender probe can be valued to feminine, but if its sole goal is masculine, that is default, it does not cause a crash but is realised with default "masculine" morphology (cf. Preminger 2009 on probes that fail to be valued).

The impersonal *on* component of 1PL *on* controls two other aspects of morphosyntax: the reflexive clitic *se* locally and through OC PRO in (92). This form of the reflexive

clitic is otherwise found for 3$^{rd}$ person subjects, while 1$^{st}$/2$^{nd}$ person subjects take the same clitic as disjoint and reflexive, such as 1PL *nous*. 1PL *on* can take 1PL anaphora in general, but as a reflexive clitic only *se*, not *nous*.

(92)  Nous on **s'est** tous donnés nos numéros avant de **PRO se/*nous** casser.
      WE ON SE is.3SG all.PL given our numbers before PRO SE/*us break
      WE all gave each other our numbers before splitting.
      [No other finite agreement or reflexive clitic is possible for *s'est*]

The form of the reflexive clitic can be shown to depend on and so reduce to finite verb agreement. 1$^{st}$/2$^{nd}$ person subjects control 1$^{st}$/2$^{nd}$ person agreement when preverbal, (93a), but 3$^{rd}$/default person agreement under inversion, (93b). The reflexive follows agreement, changing from 1$^{st}$/2$^{nd}$ person to *se* (Fauconnier 1974, Bonami et al. 1999). In terms of analysis, we might suppose that T Agrees both with the subject and with the reflexive, unifying all their phi-features (Rezac 2010, cf. Chomsky 2008).

(93a)  Marie et moi **nous** trouv**ions** près de l'église.
       Marie and I us$_{\approx ourselves}$ found.1p near the church.

(93b)  Près de l'église **se** trouv**aient** Marie et moi.
       Near the church SE found.3p Marie and I

(Bonami et al. 1999)

The reflexive clitic takes the form *se* not only locally, but also when locally anteceded by OC PRO in (92). This follows if the phi-features of OC PRO or T reflect Agree with the controllers's T (Landau 2001, 2008; cf. the Appendix).[239]

Finite verb agreement, reflexive clitic form locally, and through OC PRO, are thus controlled by the impersonal component of 1PL *on*, because the impersonal component of 1PL needs to be realised by the subject clitic *on*, and the subject clitic needs to control finite verb agreement. This reasoning does not make the 1PL *NOUS* component inert to agreement relations, and indeed it controls the concord of nonfinite elements. Nonfinite concord can diverge from finite agreement, as in singular concord of 1PL *nous* for the single author, (93) (chapter 4.6).

(93)  Nous serons loyal à notre directeur de thèse.
      We will.be.1PL loyal.SG to our thesis supervisor
      [Context: editorial *we*]

It is a matter of current debate just how divergences between finite and nonfinite agreement are to be modelled formally. However, for 1PL *on*, there is a simple

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[239] Phi-features of concord or anaphoric pronouns are not influenced by inversion. One consequence is that approaches that assimilate the phi-features of OC PRO (local) anaphora (Landau 2014) make the wrong predictions for French. The clitic phenomenon extends to infinitives, *On a fait {mon frère et moi nous lever tôt, se lever tôt mon frère et moi}* 'ON$_{\approx they}$ made my brother and me SE/us get up early' (Bonami et al. 1999). It fits the T-agreement approach quite well, either by covert T-agreement in both variants, or in reduced or absent T in the postverbal subject causative which is known to be structurally poorer than the preverbal subject causative. Many speakers do not accept this sort of inversion with 1$^{st}$/2$^{nd}$ person expressions, but for those that do the agreement-clitic correlation is absolutely clear (Rezac 2010).

mechanics. Its dual behavior recalls T- versus C-agreement with complex DPs in Germanic dialects studied in van Koppen (2008), Haegeman and van Koppen (2012) (cf. also Bhatt and Walkow 2013). T Agrees with the whole of a coordinated or possessed DP, because the DP as a whole needs T-Agree for licensing and moves to Spec,T. C is not needed to license the DP, so it can Agree with either the whole DP, or with the left conjunct or possessor. In our case, the impersonal component must Agree with T for the subject clitic *on* to be licensed, but *NOUS* is free to participate in other relations. We need to stipulate that *NOUS* beats impersonal *on* for control of concord, presumably because it has number while impersonal *on* does not.[240]

It remains to address the relationship of *on+NOUS* to the focus doubling of the subject clitic *on* by the strong pronoun *nous*. On this point we have less to say, because an account depends on specific assumptions about the big DPs of 1PL *on* and of focus doubling both (cf. Kayne 2010: 132). A simple possibility is that the *NOUS* component can be generated in different sizes: one realised by a silent element, one realised by a subject clitic and barred because *on* is realised by a subject clitic, and one that contains focus and must therefore move to a focus position and is realised by a strong pronoun. A variant is that rather than generating *NOUS* in different sizes, it is differentiating by where it moves, say to a topic position when null and to a focus position when strong pronoun. On either view, the strong pronoun in focus doubling can only be *nous*, since the impersonal *on* component has only the subject clitic *on* as its spell-out. From the perspective of Spanish unagreement, an odd aspect is that the subject clitic realises the quantifier and not the partitive pronoun alone. However, that oddity reflects the independent quantificational character of the impersonal realised by *on*.

To a considerable extent then, the external syntax of 1PL *on* follows from its combining impersonal *on* and 1PL *NOUS* with their particular properties. We have adopted the big-DP view of the *on-NOUS* combination in developing the analysis. However, each of our proposals depends chiefly on combining impersonal *on* and *NOUS* in a clause, rather than on their combining in a big-DP. The big DP analysis offers one concrete way in which *on* and *NOUS* combine.

There might be evidence in the syntax of 1PL *on* that could bespeak a big-DP specifically, but it is unclear at present. A big DP containing *on* and *NOUS* might have different configurational properties than the impersonal *on* DP alone. One line of evidence for this is inversion, where subjects appear as enclitics rather than proclitics on the verb (Kayne 1983, Jones 1996, Rowlett 2007). Morin (1982: 24-5) reports that 1p *on* resists clitic inversion while impersonal *on* does not. This could be explored in terms of different-size structures realised by *on* when plain impersonal and when combined with *NOUS*. However, we have not ourselves found a difference between clitic inversion for the two *on*'s once register is controlled for. Another line of evidence is subject sharing in I' (T') coordination. Impersonal *on* resist it, like expletive and quasi-argumental *il*, and

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[240] There are cases where finite verb influences concord in systems where the two are distinct, best studied for variation in the plurality of 2PL for the atomic addresse in Slavic (Corbett 2004: 6.4, 2010: 7.7, Wechsler and Hahm 2011). In English, a similar phenomenon may be found in *selves* available or required in *Are we taking good care of ourself/ourselves today?* to an atomic addressee (Collins and Postal 2010); in French, similar cases of plural concord for singular author (Grevisse 2008: §438). Tentatively, for some speakers, *Nous on est amicaux/(*)amical avec nos/ses amis* 'WE ON$_i$ is friendly.PL/(*)SG with our$_i$/SON$_i$ friends' might exclude the singular less robustly than *Eux ils sont amicaux avec leurs amis* 'THEY they are friendly with their friends', and *son* less than *nos*. However, we are by no means certain of this.

unlike argumental subject clitics including argumental *il* 'he, it' (Blanche-Benveniste 1975: 73, Kayne 1975: 97 note 37, 99 note 40, Rowlett 2007: 4.3.4; the constraint is often ignored in literary registers, Grevisse 2008: §754c, while nonliterary registers dislike subject clitic sharing in I' coordination but more so for *on*, Miller 1992: 4.4.5.1). Again however, we have not found a difference between impersonal and 1PL *on*.

## 7.6    The nature of 1PL *on*

The most explanatory theory of 1PL *on* would reduce it to impersonal *on*. Cinque (1988) does so in the case of Italian *si*, which has a similar duality of use. In Italian, the unification is natural on formal and interpretive grounds. Formally, impersonal and 1PL uses both control the same plural concord, "as expected under a unitary analysis of *si*" (p. 536-7). Interpretively, the impersonal and 1PL interpretations are in complementary distribution: for derived arguments outside generic contexts, the impersonal interpretation is unavailable and *si* "acquires a new interpretation … 'we'" (p. 542; but see D'Alessandro 2007, Salvi 2008, Giacalone Ramat and Sansò 2011). In light of this, Cinque proposes that the 1PL use emerges as a pragmatic specialisation of the impersonal use because 1PL is the most inclusive phi-set:

> Why is it the case that impersonal *si* loses its pure *arb* interpretation and acquires a 1st pers. pl. interpretation in [temporally] specific contexts with ergative, psych-movement, copulative, passive, and raising verbs? … I tentatively interpret this as a strategy to reconcile the requirement that specific sentences have a referential subject with the requirement imposed by the impersonal, *arb*, meaning of *si*. In a sense, 1st pers. pl. pro represents the best approximation of a specific, referential pronoun to an arb pronoun. This appears to be due to the fact, as Paola Beninca (personal communication) points out, that *we* is the only combination of person and number features that may encompass all the other feature combinations. In its inclusive reading, we may comprise 1st, 2nd, and 3rd persons, whereas all the others exclude some. In other words, it is the most general (and generic) of all personal referential pronouns.
>
> (Cinque 1988: 551)

French 1PL is not in complementary distribution with impersonal *on*, and it is distinct from impersonal formally in allowing and requiring plural concord. Yet we might assay a somewhat different reduction of impersonal and 1PL *on* to the same syntactic structure. Basically, we would need to suppose that: (i) impersonal *on* can have person and number added to it; (ii) that the added phi-features are interpreted as a partitive-like restrictor; and (iii) that the only phi-features that end up being added legitimately are 1PL. This last element is the most stipulative, so it is striking that in French it could almost be explained. It is very tempting to suppose that any person and number is freely added to impersonal *on*, but all such additions are blocked by personal pronouns under Maximise Presuppositions, save 1PL because of the retreat of †*nous*. Indeed, the meaning of 1PL *on* properly includes that of the 1PL personal pronoun, and it is mostly used as equivalent. However, 1PL *on* does have a meaning broader than a 1PL personal pronoun, seen in quantificational variability, and that meaning should not be blocked by MP for 2/3PL *on* as well. We concluded from this that 1PL needs to be lexicalised with impersonal *on*.

It is worth mentioning that there is another possibility: that MP simply does not distinguish 1/2/3PL *on* from 1/2/3PL personal pronouns, that is, even though the covarying reading of 1/2/3PL personal pronouns is not available to contextually felicitous personal pronouns, MP does not see this. There is still much debate about the proper characterisation of MP (chapter 5.1). However, even if MP always blocked 1/2PL *on*, an indefinite satisfiable by speaker/addresse-inclusive pluralities, by 1/PL personal pronouns, definites denoting these pluralities, nothing should block a 3PL or just PL *on*. After all, the existence of *the people* does not block *(some) people*, save when the latter is equivalent to the former; so we should find (3)PL *on* with plural concord. However, there is no such (3)PL *on*, only 1PL *on*. So it seems that *on* simply cannot bear person and number freely. Cross-linguistic evidence surveyed in chapter 8 likewise suggests that specific uses of impersonals can be lexicalised.

In light of this, we have combined *on* with Kayne's silent 1PL pronoun *NOUS* and lexicalised the combination. The strategy allows for parametric variation, like the availability of genderless 3rd person singular pronouns across varieties of English. Parametric variation resides in the properties of the lexicon, possibly wholly in PF properties (Berwick and Chomsky 2011). In the case of 1PL *on*, it may devolve simply to the realisability of *NOUS* in a doubling structure with impersonal *on*.

From an I-language perspective then, the existence of 1PL *on* in a system is independent of the existence of the 1PL personal pronoun subject clitic *nous*. From an E-language perspective, *nous* will block 1PL *on* as equivalent save in particular contexts. Inversely, the latitude of meaning of impersonal allows it to take over every 'we' meaning that †*nous* leaves behind as it specialises or disappears, but adding a partitive *NOUS* brings the meaning closer to 'we' semantically and makes a speaker-inclusive plurality relevant pragmatically. Thus there remains a "functional" relationship between the retreat of †*nous* and the emergence of 1PL *on*.

From the two components of 1PL *on*, impersonal and 1PL, the external syntax of 1PL *on* mostly follows. It is then no accident that 1PL *on* behaves as it does. To move historically from impersonal *on* to 1PL *on*, a 1PL element has to be combined with it, *NOUS*. This *on* + *NOUS* combination cannot help but have 3SG/default finite agreement and plural concord, on independent assumptions about realisation, subject clitic licensing, and concord. In order for *on* to further develop 1PL or 3PL agreement, found in varieties of French, the *on-NOUS* combination has to change, for instance by making *on* plural. Ideally, it should likewise follow that *on* and *NOUS* combine interpretively as the do and that the result can only be focus-doubled by *nous*. The details depend on better understanding the possibilities of the structures underlying doubling.

This aim to derive the syntactic and interpretive properties may be overambitious. Diachrony frequently gives DPs that have one phi-set for finite verb agreement and another for concord. Analyses typically posit two phi-sets, and stipulate which phi-set is visible for which phenomenon (seminally Wechsler and Zlatic 2001, 2003, Wechsler 2015). The stipulations can be seen as a diachronic "residue", for 1PL *on* the residue of its origin in impersonal *on* and so in the bare and definite singular *(l') hom* '(the) person' (Rezac 2011: 6.3). However, in the case of *on* + *NOUS*, stipulations do not seem necessary. It is not clear how far that is extensible, for instance, to Italian the impersonal *si* with 3SG/default agreement but plural concord (Cinque 1988: 536-7, D'Alessandro

2007: chapter 4), or to the Brazilian portuguese *a gente* differing in varieties independently in both 3SG/1PL agreement and 3SG/1PL reflexive clitics (Taylor 2009).

## 7.7   Excursus: Core and displaced uses of 1p *on*

On their "ordinary" uses, 1PL personal pronouns are used for speaker-inclusive pluralities (or distributed over them). These pluralities are usually contextually salient or perhaps must be so. As ordinary are perceived cases like (Aa), where *we* is used for different speaker-inclusive pluralities, though the sloppy reading of *only* and the ellipsis indicates that the *we*'s stand in a binding relationship. Also as ordinary are perceived the *we*'s in (Ab), which intuitively need not include the speaker. These uses are not special to 1PL pronouns; other plural pronouns and nonpronominal definites have them too. They may involve group atoms mapped from speaker-inclusive pluralities, whether semantically or by silent syntactic structure (cf. Landman 1989ab, Barker 1992, Kwon and Zribi-Hertz 2006).[241] 1PL *on* has the same possibilites as *we* and older *nous*.

(Aa)   As kids, only we four all grew up thinking that we$_{\approx\text{Basques}}$ have lived in the same part of the world since we$_{\approx\text{humans}}$ first entered Europe. Aranya didn't.

(Ab)   Only we can be disappointed that we won a silver; any other team's fans would not be. Well, I am proud of us.

The uses in (B), on the other hand, are perceived as extraordinary or "displaced" in the sense of Zwicky (1977) (chapter 3.6, 5.3). (Ba) has editorial 1PL for the atomic speaker, (Bb) empathic 1PL for the addressee(s). Both were introduced in chapter 3.6 (for other displaced uses, see Hahm 2010 with literature).[242] Displaced uses can be limited specifically to 1PL. It is not possible, for instance, to report (Ba) by *ils* 'they'.[243]

(Ba)   **Nous** sommes reconnaissant à **notre** ami H. Wild qui […]
       **We** are grateful.SG to our **our** friend H. Wild who […]. (G/L)
       [Context: book preface.]

(Bb)   **Nous** sommes donc toujours **triste**, **pauvre ange**!
       So **we** are still **sad.SG**, **poor angel**!

(Grevisse 2008)

Despite the 1PL of *we*, the speaker may clearly be excluded, (Ca). Concord track semantic number typically but not always in French, (Ba,b) (Grevisse 2008: §655, §438), less commonly so does English *-self*, (Cb) (Collins and Postal 2010).

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[241] These are both "vague" and "impersonal" uses of 1PL in the terminology of Kitagawa and Lehrer (1990), accepting Malamud's (2012a) identification of impersonal uses with kind uses.

[242] The term editorial *we* by a single author is standard, and distinct from authorial *we* that seeks to include the reader (Quirk et al. 1985: 6.18). Empathic *we* goes by a diversity of terms, like *phoney inclusive we* in Zwicky (1977), *nurse(ly) we* in Joseph (1979), Collins and Postal (2010), and without special term in Quirk et al. (1985: 6.18), Huddleston and Pullum (2002: 1467). Creissels (2008) gives a number of examples of emphatic *on*; we do not know whether, in French or English, there are grammatical distinctions between, say, doctor to patient *Are we doing better?*, teacher to student *I see we have been reading Layamon*, or about a third party *We are in a bad mood today*.

[243] In English, the singular or epicene *they* (Newman 1997, Balhorn 2004) is possible for some here.

(Ca)   Just swallow it, shall **we**, Mr. Tauber – Just for **me**?

(Denison 1998)

(Cb)   **We** seem a bit displeased with $^{\%}$**ourself** / $^{\%}$**ourselves** don't **we**?
       [Context: to an atomic addressee]

(Collins and Postal 2010)

Displaced uses are still poorly understood and theoretical approaches differ considerably (e.g. Rullmann 2010, Collins and Postal 2010). We are interested in what they can tell us about 1PL *on*.

(D) look at the empathic use of 1PL *on*. A remarkable effect emerges: *s*-anaphora are considerably less resistant to exclusion of the speaker from 1PL *on* than 1PL anaphora. In (Da), speaker exclusion is tested by an interpretive difference, in (Db-d) by Condition B. In (Dc,d), *on* with *s*-anaphora might be pseudospecific *on*, but in (Da,b) it is 1PL *on* by doubling or concord (see chapter 5.3 on pseudospecific *on* and its concord).[244]

(Da)   [Context: teacher on a field-trip to class, contrasting it with another class; *ses* excludes and *nos* includes the teacher in the exchange]
       J'espère que **nous on**$_i$ s'est bien **tous** donnés **ses**$_i$/**nos**$_i$ coordonnées l'un à l'autre!
       I hope that WE ON SE has well all.PL given SON/our addresses to each other!

(Db)   Et **vous**$_i$, pas d'histoires! **On**$_i$ me donne **toutes**$_i$ tout de suite **sa**$_i$ / *****votre**$_i$ / *****notre**$_i$ rédaction, et que ça saute!
       And you, no more stories! ON me gives [≈ let's give me] right away all.PL SON / *your / *our essay, and no more delays!

(Dc)   Alors les filles, hier **on**$_i$ m'a **chacune** promis une rédaction sur {**sa**$_i$/**notre**∗$_i$ mère, **son**$_i$/**notre**$_i$ excursion}.
       Now girls, yesterday ON me has each promised an essay about {SON/our mother, SON/our trip}.

(Dd)   [Context: to or about a plurality of female friends]
       C'est un peu contradictoire, non? A la soirée **on**$_i$ m'a **chacune** accordé **son**$_i$/**notre**∗$_i$ soutien, et maintenant **on** refuse de me voir?
       It's a bit contradictory, isn't it? At the meeting **ON** has **each** given me **SON**/**our** support, and now **ON** refuses to see me?

It is tempting to look at the effect of anaphora in light of our analysis in section 4. The 1PL anaphor requires *on* to be satisfied by a speaker-inclusive plurality, while the *s*-anaphor lets *on* be satisfied by any individual in *nous*. In that case, 1PL *on* in (D) might not actually be displaced: *on* could be satisfied by a plurality in *NOUS* that excludes the speaker, fine with *s*-anaphora, but not with 1PL anaphora. However, it is unclear why

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[244] The judgments are contrastive. The "good" baseline varies greatly with speakers. The French *on* examples seem basically as acceptable with *s*-anaphora as basic empathic uses. The English *we* examples vary too much from speaker to speaker for us to be sure of anything, save that the 1PL anaphor is consistently worse. It is not clear where speaker exclusion by Condition B stands in basic *we me* partial overlap in English, and even in French where partial overlap is more strongly barred (chapter 4).

such a plurality would not be equivalent to a 2PL personal pronoun. Moreover, even with English *we*, 1PL anaphora seem to worsen exclusion of the speaker even with English displaced *we* in (E). We leave this matter unresolved.

(E)     What happened girls? Only yesterday we were each ready to {help me, *give me our help}

Editorial use of 1PL *on* seems to be unavailable. *On* is indeed frequently used by an author "for" themselves, but Creissels (2008) points out that it fails to license *s*-pronoun anaphor, (Fa). This is a characteristic of arbitrary impersonal *on*, in contrast to pseudispecific *on* and 1PL *on* (chapter 5.4). (Fa) is then like the use of the passive in the English translation of (Fa), deployed with the same depersonalising function. A true displaced use of 1p *on* would be given away if (Fa) could have *notre* 'our' as anaphor when employed by a single author. We do not know whether this is possible, by speakers who actively use editorial 1PL in the first place. Register interferes here, since the registers of editorial *we* is largely that where †*nous* remains alive and well.

(Fa)    **On** présentera plus loin {***ma** / ***sa** propre, une} analyse.
        ON will.present later {my / SON propre, an} analysis.
        An analysis will be presented later.
                                        (Creissels 2008 for *ma, sa*; our translation)
    cf. **Nous** présenterons plus loin **notre** propre analyse.
        We will present later our own analysis.
                                        (Creissels 2008)
        It is thus not clear at present that 1PL *on* differs on extant displaced uses from *we*/†*nous*, save that *s*-anaphora give it greater leeway.

## 7.8    Appendix: *se*-reflexives and 1PL

1PL *on* always strictly controls 3SG/default finite verb agreement, and 3SG agreement always goes with *se* as the reflexive clitic. Reflexives to OC PRO controlled by 1PL *on* are *se* as well in the unmarked case. However, Kayne (2010: 136) observes that *nous* can also occur under certain conditions: "the sharp deviance of [Aa] as reflexive sentences diminishes if the reflexive clitic *nous* is more deeply embedded relative to *on* [Ab]." Against (Ab) must however be set sharp degradation in cases like (Ac, Ad).

(Aa)    (**Nous**,) on se/*nous lave
        WE, ON SE/*us washes

(Ab)    ?**On** a essayé de faire semblant de **nous** laver
        **ON** has tried to pretend to **us** wash. (Kayne 2010: 136)

(Ac)    **Nous on s'**est **tous** donnés **nos** numéros avant de **PRO se/*nous** casser.
        WE ON SE/*us is.3s/*1p all.PL given our numbers before PRO SE/*us break
        WE all gave each other our numbers before splitting.
                                        [*se/nous* ok with *séparer* 'separate' for *casser* 'break']

(Ad)   **Nous on** s'est **tous** décidés de **s'/??nous** attaquer à notre problème ensemble.
       ᴡᴇ ON SE is all.PL decided to SE/??us attack at our problem together.
       We have all decided to attack our problem together.


   We have found judgments on this matter extremely labile. The boundary conditions on an analysis of the *se/nous* alternation are: the alternation depends on 1PL *on*, being unavailable for e.g. 1PL †*nous*, 2PL *vous*; the alternation is available for control verbs of various propensities for restructuring, from *vouloir* 'want' to *décider* 'decide' (Ba) (q.v. Cinque 2002); it is available for apparent raising verbs like *faillir* 'almost do' (q.v. Jones 1996: 9.2); it is available for argumental *se* of any meaning, namely reflexive and reciprocal (more marked) (Ba), reflexive as self-directed and other-directed (more marked), collective and distributive. However, these are idealisations over difficult judgments. (Bb) at first strongly resist the reciprocal reading with *nous*, but contextualised (Bc) is much better.

(Ba)   ?**On** a tous (rien voulu, voulu rien, décidé de rien} **nous** promettre.
        ON$_{\approx we}$ has all.PL {nothing wanted$_{restructuring}$, wanted$_{non\text{-}restructuring}$ nothing, decided to nothing} us$_{\approx ourselves/?each\ other}$ promis

(Bb)   **On** a décidé de **se** / (??)**nous** suivre à la maison.
       ON$_{\approx}$ has decided to SE / us follow.
       We decided to follow each other to the house.

(Bc)   Pour éviter de **nous** perdre, **on** a décidé de **nous** suivre **les uns les autres** à la maison.
       To avoid us lose, ON$_{\approx we}$ has decided to us follow each other to the house.
       To avoid losing one another, we decided to follow each other to the house.


   We have two hints about the nature of *nous*. One is that *nous* seems to resist quantificational variability, like other 1PL anaphora to *on*, (C).

(C)    **Nous on** faisait rarement semblant de **se**/(?)**nous** laver les mains avant de manger
       ᴡᴇ ON prented rarely to SE/?us wash the hands before eating.
       SE/NOUS: We rarely pretended to wash our hands before eating.
       SE/*NOUS: Few of us pretended to wash our hands before eating.


   The other hint is that inherent reflexives resist *nous*, and the more so the less autonomous they seem in meaning (Rezac 2011: 290n11). The reflexives in (Ac), (Ad) are inherent: *se casser* 'break oneself ≈ take off, split' and *s'attaquer à* 'attack oneself to ≈ have a go at, sink one's teeth into, get cracking on'. Also bad with *nous* are *s'imaginer* 'imagine', *s'évanouir* 'faint', *s'en tapper* 'not give a hoot', *se moquer de* 'make fun of', *s'arrache* 'fight over'. There are inherent reflexives that are better, like *se sentir admiré* 'feel oneself admired'. Though we have no way to show it, they seem to be those that are interpretively more autonomous, though they do not commute with non-reflexives (cf. Nunberg, Sag and Wasow 1994, Ruwet 1983, 1991 on variable autonomy in idiom

chunks). In cases as *se rendre* 'render oneself ≈ go' in (D), there is variation, and they can be unacceptable even when some cases above are accepted.[245]

(D)    $^{\%}$Le temps était tellement mauvais qu'on a décidé de nous rendre au centre commercial.
       The weather was so bad that ON$_{≈we}$ has decided to us render to the mall. (G)

We do not have a satisfactory solution, but some avenues of exploration suggest themselves. Anaphora to 1PL *on* can be *s*- or 1p-anaphora, so a priori we would expect the same of the reflexive clitic, giving *se* versus *nous*. Yet with a reflexive clitic local to any *on* can only be *se*, because it depends on finite verb agreement, which is always 3SG (section 5). It may thus be important that *nous* becomes available as alternative in nonfinite complements, where there is no overt agreement. Unconstrained by overt agreement, the reflexive might have the option of 1PL phi-features precisely when these are interpreted, so when the reflexive is not inherent. Even then, there is preference for 3SG, which is plausibly transmitted to PRO and/or infinitival T by OC (section 5).

We end on mention of a phenomenon that bespeaks a connection between 1PL and *s*-pronouns distinct from *on*: the occasional, variable, but wide-spread possibility of *se* reflexives with 1PL *nous* object controllers, in contrast to 2PL *vous* in (E).

(Ea)    Cela **vous** {fera, permettra de} **vous/*se** rencontrer(, Julie et toi).
        That you {will.make, will.permit} you/*SE meet(, Julie and you)

(Eb)    Cela **nous** {fera, permettra de} **nous/?(?)se** rencontrer(, Julie et moi).
        That you {will.make, will.permit} us/*SE meet(, Julie and me)

There does not seem to be any direct relationship between the *se*-reflexive to OC PRO with *nous* controller and the *se*-reflexive to 1PL *on*. for our speakers, the former phenomenon, in (E), is very restricted in register and grammaticality, and has no discernible effect on the meaning of *nous*, and does not seem to be resisted by inherent reflexives. The phenomenon in (E) is also to be sharply distinguished from the extension of *se* as reflexive clitic for antecedents of all persons (Bauche 1928: 111, cited in Kayne 2010: 135 for *nous...se*, but given in Bauche generally for 1p/2p against 1s/2s with "some verbs", and sometimes even of 1s/2s, Frei 1929: 146 noting less common for singular than plural, Nyrop 1925: 210n, Tesnière 166: 251n2). It is also distinct from the extension of *se* as reflexive clitic to OC PRO for all persons of controller (Grevisse 2008: §655c3°, Nyrop 1925: 210, also ex. in Frei 1929: 146). Neither need be unavailable in grammars with (E).

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[245] Pertinent may be Wood and Sigurðsson's (2014) findings about "impostors" like *the undersigned (and John)* in Icelandic: reflexives are usually 3$^{rd}$ person, but may be 1$^{st}$ person, in order of preference ease: simplex *sig*-reflexives (used with self-directed predicates) > inherent *sig*-reflexives > complex *sig + SELF* reflexives (used with other-directed predicates).

# 8    Beyond *on*: ρ-impersonals

In this chapter, we study the typology and diachrony of impersonals in terms of our approach to impersonal *on* as an indefinite DP with poor NP content. Our study comprises different *on*-type impersonals across Germanic, Romance, Slavic, Celtic, Finnic, and Basque. They are systematically compared and contrasted with generic impersonals, arbitrary impersonals, and bare nouns.

## 8.1 Introduction to the landscape of argument coding

In this section, we sketch the parameter space that our theory of the impersonal *on* makes available. Let us begin by situating the theory of *on* within a central debate about the nature of impersonals among other argument expressions: the manner in which they saturate an argument and its consequence.

A verb takes an individual argument if either the root or associated functional architecture denotes a function from individuals. Individual arguments can be *saturated* in different ways (Chierchia 2004, Reihart and Siloni 2005, Bhatt and Pancheva 2005, Schäfer 2008, Harley 2011, Bruening 2013). Consider the verb *break* in (1).

(1a)     Arthur broke Excalibur.
(1b)     Excalibur was broken.

In (1a), the external argument of *break* is saturated by *projection*, (2), through a DP that combines with *break* by Functional Application. In (1b), the external argument is saturated by bare *closure*, implemented in (3) as a morpheme (Bruening 2013; cf. Chierchia 2004, Reinhart and Siloni 2005 as a lexical operation).

(2)     $\|v_{Ag} [\sqrt{break}\ Excalibur]\| = \lambda x.\lambda s . x\ breaks\ Excalibur\ in\ s$
        $\|Arthur [v_{Ag} [\sqrt{break}\ Excalibur]]\| = \lambda s . Arthur\ breaks\ Excalibur\ in\ s$

(3)     $\|Voice_{pass}\| = \lambda p_{est}.\lambda s . \exists x.p(x)(s)$
        $\|[_{VoiceP}\ Voice_{pass}\ [_{vP}\ v_{Ag} [\sqrt{break}\ Excalibur]]]\| = \lambda s . \exists x[x\ breaks\ Excalibur\ in\ s]$

The different ways to saturate an argument lead to constructions with very different behavior. In projection, the saturating DP has content like phi-features that restrict interpretation, and its movement allows variable binding and flexible scope, while closure has none of these properties, under common assumptions.[246] Saturation by closure makes good predictions for the implicit agent of the English passive (cf. Bruening 2013). Among the characteristics that distinguish the implicit agent from indefinites is failure to bind pronominal anaphora (and in French the definite article of inalienable possession), to antecede floating quantifiers (which float off a DP or have a pronominal anaphor, chapter 8), to antecede obligatory control PRO save under attitude verbs where it does not rely on binding (Chierchia 1990, Stephenson 2010, Pearson

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[246] Relevant assumptions include the failure of clausal heads to QR and formulation of closure as "bare" without binding of designated variables, see below on *si*.

2016). Typical is failure of the implicit agent to antecede pronominal anaphora or the definite article of inalienable possession (4a), because of its binding inability. On both scores, the implicit agent of a passive contrasts with indefinites and with impersonal *on* (4b) (chapter 3).[247]

(4a)    A la fin du jeu, mon pied est pris$_{Ag=i}$ dans {une, *la$_i$, *sa$_i$} main.
         At the end of the game, my foot is seized in {a, the, his/her/their} hand.
         (*sa* ok for established and salient discourse referents)

(4b)    A la fin du jeu, {quelqu'un$_i$, on$_i$} prend mon pied dans {une, la$_i$, sa$_i$} main.
         At the end of the game, {someone, ON} seizes my foot in {a, the, his/her/their} hand.

Among other properties of the implicit agent that fit a treatment by closure and differ from indefinites and impersonal *on* are failure to antecede floating quantifiers in (5a) (chapter 3, 8), failure to be antianaphoric in (5b) (chapter 5), and failure to antecede PRO save when it does not involve variable binding in (5c) (in attitude complements, Chierchia 1990, Stephenson 2009, Pearson 2016; Schlenker 2011b, or in rationale clauses, Fellbaum and will Zribi-Hertz 1989, Landau 2000, 2013).

(5a)    *When a book is all$_i$ cowritten$_{Ag=i}$ …
(5b)    John$_i$ conceived of the book on vacation, and it was written$_{Ag=i}$ (*by someone$_i$) in his$_i$ spare time.
(5c)    It was [decided$_{Ag=i}$ [PRO$_i$ to release the prisoners]] (*after PRO$_i$ being sanctioned by the UN) / (√in order PRO$_i$ to secure a better negotiating position) [1] [1]

Impersonal *on* and its kin have usually been analysed through simple closure, which is essentially the analysis of Koenig and Mauner (2000) for arbitrary *on*, or distinctive closures, like Chierchia's (1995b) analysis of Italian *si* through closure plus binding of a designated variable (with crosslinguistic extensions, e.g. Rivero and Sheppard 2004):

(6)      $\|si_{arb} VP\|^g = \lambda s \, . \, \exists x. \|VP\|^{g(arb \to x)}(x)(s)$

We have argued from chapter 3 on that impersonal *on* suggests a different approach by pervasive parallelism with indefinites on behavior characteristic of saturation by projection. In general, impersonal *on* has properties that are absent with expressions analyzed as a special manner of saturation (Koenig and Mauner 2000, Chierchia 1995b on pronoun antencedence and lowest scope of impersonals) or through the absence of a DP layer (Pereltsvaig 2006 on Russian "small nominals" where absence of a full DP underlies absence of wide scope, control and binding of reflexives and reciprocals). So we have implemented impersonal *on* as an indefinite DP with poor NP content, [human]. The distinctive behavior of *on* – its *referential deficiency* – derives from the uniqueness of its NP content with respect to other DPs of French.

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[247] Logophora are possible but these are not bound, in English *one(self), one's (own)*, in French *soi, son *(propre)*: see chapter 6.

In this chapter, we extend this approach crosslinguistically to impersonals similar to *on*, or ρ-impersonals. These differ in their properties or degree of referential deficiency, sometimes approaching the implicit agent of the passive on behavior like resistance to binding, but usually with subtle modulations that reveal *on*-like behavior after all. In our approach, there is a natural locus for most of this variation: NP content. In the rest of this section, we review the structure of *on* and points of parametric variation in it, and in the following section we apply them to impersonals going roughly from the most to the least DP-like, including Czech *člověk*, Germanic *man*, Romance and Slavic reflexive impersonals, the Celtic autonomous form, and the Finnish impersonal-passive.

## 8.2  The landscape of DPs

DPs consists of an NP, denoting a property, D, that turns the property into a referential term or a generalised quantifier, and a resource situation with respect to which the property is evaluated. [248]

(1a)    General DP structure: $[_s [ D_{Q/the} \text{ NP}]]$

(1b)    Impersonal *on*:          $[_s [_\alpha \quad \exists \text{ NP}]]$
        where $\exists$ is like *a* without any restriction to singular/atomic NPs, NPs is poor, and $\alpha$ is lexicalised

In *on*, the unique combination of DPhood and singlularly poor NP content makes for its distinctive referential deficiency. *On* is syntactically active in the manner of DPs, unlike the implicit agent of the passive. However unlike an ordinary DP, it does not commit to content like numerosity or a particular lexical N. Moreover, it has no definite counterpart, which gives it some definite-like behavior by lack of competition from definites, notably anaphoric and maximal uses. As a consequence, a system with *on* allows the expression of meanings difficult to express otherwise. In (2), the closest English translations are *people*, which commits to plurality, and the implicit agent of the passive, which cannot control into the adjunct, and neither of which can be anaphoric.

(2)    On$_i$ a mangé une pizza entière sans m'en proposer, et on$_{i/k}$ ne m'a pas demandé de payer.
        ON$_{\approx one\ or\ more\ people}$ ate a whole pizza without offering me any, and ON$_{\approx one\ or\ more\ people/\approx they}$ did not ask me to pay.

In this manner, *on* and its kin have unique functional role, and differ from their chief diachronic sources, bare NPs and implicit agents (cf. Egerland 2003a).

Impersonals like *on* are points in the parametric landscape of indefinite DPs. The parameters that define *on* within French may in other systems define a general class DPs like DPs without number or DPs with both novel and anaphoric uses, which from these

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[248] We set aside the possibility that arguments may also be projected as NPs, along with a corresponding mechanism to let V combine with an NP (Chung and Ladusaw 2004; cf. Dechaine and Wiltschko 2002 on pronounsfs). Impersonal *on* does not have the properties characteristic of arguments for which this analysis has been principally advanced, e.g. the restrictions on pseudoincorporation.

points resemble impersonals. Let us consider this parametric landscape through lexical N content, phi features, and uniqueness within a system due to lexicalisation (chapter 4).

**Lexical N content**: In French, 3$^{rd}$ person DPs generally have a lexical N, including quantificational pronouns like *quelqu'un*, 'someone' where the N is close to 'person'. 1$^{st}$/2$^{nd}$ person allow but do not require a free lexical N. Impersonal *on* is lexicalized without a lexical N. Absence of lexical N entails pronominal status for Condition C (understood as preference for limiting restrictors, Schlenker 2005b).

**Phi-features**: In impersonal *on*, the sole content is the phi-feature [human] and referential gender. [human] is a person feature, possibly in an implicational relation to other person features (cf. Harley and Ritter 2002). DPs with a (non-3$^{rd}$ person) person feature do not need any lexical N content, unlike those that do ("3$^{rd}$ person" DPs).

(3)     $\|[\text{human}]\|^{c,g} = \lambda x.\lambda s : x \text{ is PERSON in } c . x \leq 1$
        human > 0$^{th}$, 1$^{st}$, 2$^{nd}$ (where 0$^{th}$ is the person feature of logophora)

Referential gender with *on* is found under the same conditions as on quantificational pronouns like *qui* 'who': they are masculine unless it is common ground and relevant that the domain of quantification (i.e. individuals in the resource situation) consists only of females. We have left it open whether [feminine] is lexicalized in the NP, giving two variants of *qui, on*, or whether [feminine] is the external argument of D, restricting its domain (resource situation), and so freely available outside the lexicalized component D+NP of *qui, on*. At any rate, the availability of [feminine] on indefinite pronouns is a point of parametric variation:

Je sais   qui sera     pris(e).
I   know who will.be selected.M/F                              *French*


Vím      kdo bude   vybrán(*a).
I.know who  will.be selected.M/*F                            *Czech*

Number is generally present on DPs in French, including 1$^{st}$/2$^{nd}$/3$^{rd}$ person personal pronouns and quantificational pronouns. Impersonal *on* is lexicalized without number. Absence of number is a known point of parametric variation, resulting in systems with numberless or general-number DPs (Corbett 2000; Rullmann and You 2006, Wilhelm 2008, Paul 2012, 2016, Bale and Khanjian 2014).[249]

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[249] We understand number-neutral DPs as DPs with number-neutral roots but no functional architecture to portion it out into atoms like [singular] (chapter 3; Borer 2005, Kratzer 2008). General number has been correlated with lowest scope (Rullmann and You 2006) and worked out in the manner of NP-analyses of English bare plurals (Chierchia 1998b, but see Le Bruyn, Min Que and Swart 2013 for high scope). Recent work reveals that the correlation does not hold up (Paul 2012, 2016). Impersonal *on* is not scopeless (chapter 3). General number is simetimes found only with bare NPs (and even more widely for NPs with numerals) and not when determiners, possessors, or demonstratives, are added, but this is not general (Gil 2003, Wilhelm 2008). Sometimes but again not always, it is restricted to "governed" positions.

**Lexicalisation**: D may be lexicalised with a particular NP; examples in English include the sole bare singular *man* as name of kind, and singular-only *wh*-pronouns like *who*. Classically, such lexicalisation is implemented through c-selection, more recently through realizability (Berwick and Chomsky 2011). Some of the parameters that define *on* in French are available to DPs generally in other systems, like absence of number. Because French *on* is the unique DP with its particular NP content, it alone has no competing definite and so is the sole indefinite with anaphoric and maximal uses. It is expected that other systems should have such novel-anaphoric indefinites without definite counterparts generally. This is the analysis of bare noun systems in Czech pursued in Rezac (in prep.). In (y), the bare noun *žena* 'woman' is used as a novel indefinite in the first sentence and an anaphoric definite in the second, like *on* but no other DP in French.

*Czech*

(y)     V     kavárně sedí **žena**.     Pred     **ženou** stojí     **servírka**.
        In [the] café     sits [a] **woman**. In.front.of [the] **woman** stands [a] waitress.

Our proposal designs a space of parametric variation for *on*-like impersonals. It is not a priori clear what points in this parameter space are actually permitted by UG; for instance, an indefinite with no NP content might not be representable or acquirable. In this chapter we study microparametric variation through a survey of *on*-like impersonals.

8.3 The landscape of ρ-impersonals

Work on impersonals relates *on* to a number of impersonal constructions that make good candidates for parametric variants of it. We will call these ρ-impersonals. The following properties distinguish them from full indefinites, the implicit agent of the passive, as well as from generic-only impersonals like *one* and arbitrary 3PL (Malamud 2012b, 2013):[250]

(1)     ρ-impersonals
(i)     Both generic and arbitrary uses, with resistance of the latter to derived subjects; some pseudospecific and/or specific uses are usually found as well.
(ii)    Reduced referentiality, that is, some semantic reason to distinguish it from ordinary indefinites like number-neutrality and nonmaximality. That includes special anaphoric behaviour but not complete inertness to anaphoric dependencies.
(iii)   Pronominal status for Condition C.
(iv)    Restriction to humans.
(v)     Restriction to syntactic subjects (including promoted internal arguments).

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[250] The class of ρ-impersonals along with phi-deficiency/variability is seminally identified in Egerland (2003a), distinguished from generic and arbitrary impersonals, and used in subsequent works both to study classes of impersonals (e.g. Cabredo-Hofherr 2003, Malamud 2012b) and to identify new ρ-impersonals (e.g. McCloskey 2007). The term ρ-impersonals is coopted from "reduced referentiality" R-impersonals of the typological literature, particularly with its use in Siewierska (2011) where it excludes (quasi-)expletives included in Malchukov and Ogawa (2011); but it is not identical, as we follow Egerland in excluding generic-only and arbitrary-only impersonals.

ρ-impersonals with these properties have been identified as a class in Egerland (2003a). As summerized below, they have different origins, specific uses, and degrees of referential deficiency:

Germanic/Romance *man/homo* impersonals (Creissels 2008, Malamud 2012b; history Giacalone Ramat and Sansò 2007): These are subject clitics deriving from Latin *homō* and Germanic *\*mannaz* meaning 'person, human'. In Germanic no cognate of *\*mann-* seems to have a specific use, in contrast with Romance French *on* 1PL plain specific use. Anaphoricity is otherwise like that of *on* (studied chiefly in sections 4-6.)

Romance and Slavic reflexive *se*-clitic impersonals (On Romance, Cinque 1988, Mendikoetxea 2008; history Kaufmann 2004, Muller 2007, Giacalone Ramat and Sansò 2011; on Slavic, Rivero and Sheppard 2004; history Meyer 2010): These are syncretic with the $3^{rd}$ person reflexive form of the verb. The developmental path goes from reflexives formed with *se*, to anticausatives (of the type French *se fermer* and its English translation 'close itself'), to passives of some sort (gain of an implicit agent), to ρ-impersonals with their anaphoric potential. Examples are Italian *si*, with 1PL specific use, beside Spanish *se* with none. Anaphoricity includes local anaphora. (Chiefly sections 5-7).

Basque detransitivisation impersonal (Albizu 1998, 2001; history Mounole 2011): In form, it is a detransitivisation, i.e. anticausative 3SG and impersonal *break* are syncretic. Possibly the impersonal has its origin in the anticausative, as for *se*, but a reflexive use of the same form developed later than the impersonal. There is no specific use. Anaphoricity is more limited than *on*: reciprocals but not local anaphora. (Chiefly section 6).

Finnic impersonal-passives (Helasvuo and Vilkuna 2008; history Lehtinen 2004, Mahieu 2012b): In form, a special subject agreement inflection. The likely origin is the reflexive of a causative, cf. French *Elle s'est fait gronder* 'She made $\varnothing_{arb}$ chide herself' evolving to 'She was chided' (Bellec 2014). Specific uses vary from 1PL in Finnish to 3PL in some dialects and neighbouring Karelian. Anaphoricity includes reciprocals and local anaphora. (Chiefly section 9).

Celtic automous forms (Borsley et al. 2006: 8.3, McCloskey 2007, Rezac and Jouitteau 2015; history Cowghill 1983, Clackson 2007): A special subject agreement inflection. It goes back to a passive, save with $1^{st}/2^{nd}$ objects where it originates in a transitive whose subject goes back to older 3PL or ρ-impersonal inflection. No specific uses. Anaphoricity includes reciprocals and sometimes local anaphora. (Chiefly section 6).[251]

Some of these ρ-impersonals pattern very much like *on* on evidence that has led us to the DP analysis, including extensive patterns of anaphoricity, while others are more inert and at first sight fit better alternatives like saturation by closure. There is no reason to eschew heterogenous analyses of ρ-impersonals, insofar as the employed UG devices are

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[251] Among other possible candidates that need better study before being included in this group, Old Egyptian merits mentioning because of its possible ρ-impersonal is due to reanalysis of the regular passive inflection to an *on*-like subject pronoun (Stauder 2014).

independently motivated. However, our exploration suggests that ρ-impersonals may be generally construed as parametric variants of impersonal *on* on its indefinite DP analysis.

On this view, ρ-impersonals are indefinite DPs with poor NP content, in particular no lexical N but the phi-feature [human].[252] Parametric variation among ρ-impersonals is expected to consist of three factors:

(i)     Degree of NP impoverishment: An example is presence or absence of number (Italian versus Spanish) or of gender (absent in Czech). All ρ-impersonals lack lexical N and so are pronouns for condition C.

(ii)    Parameters that interact with an ρ-impersonal syntacticosemantically. An example is the availability of phi-defective minimal pronouns: a system like that of French but without *s*-exponents would not allow pronominal anaphora to *on* (Irish, Basque).

(iii)   Parameters with pragmatic consequences: for instance, the coexistence of constructions with uses similar to the passive (Myhill 1987, Sansò 2006, Siewierska 2011, Siewierska and Papastathi 2011, Zribi-Hertz 2008), or surface syncretism with other constructions, like reflexive, anticausative, and passive *se*-constructions (anticausatives, and reflexive in Romance *se*-constructions (Zribi-Hertz 1982, 2008).

Outside the traditional domain of parametrization are currently irreducible preferences of *use* among constructions across languages, varieties or historical stages (e.g. Lekakou 2005: 1.3, Sansò 2006, Giacalone Ramat and Sansò 2011). An aspect of this variation has been analysed for *on* as conventional implicatures in chaper 5.3.

In the rest of this chapter, we explore points of pamateric variation, from the bare singular sources of certain ρ-impersonals (section 4), going through parametric variants of *on* in phi features (section 5) and anaphora (section 6), and ending with maximally reduced ρ-impersonal that lacks even gender and is close to the implicit agent (section 7). Specific uses are discussed separately (section 8). We also consider the relationship between ρ-impersonals and arbitrary and generic impersonals (section 9). Two aspects of ρ-impersonals are left for the conclusion (section 10): their universal restriction to humans and to subjects.

## 8.4 <u>One starting point: Czech bare singular *člověk* and *on/man*-impersonals</u>

On our approach, ρ-impersonals are novelty-immune indefinite pronouns whose NP content is the person feature [human] and parametrically varying specification in number and gender. This recalls immediately one diachronic source of ρ-impersonal: bare

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[252] For Egerland (2003b: see esp. sec. 3.1), ρ-impersonals are defined by absence of content save for the feature [human] in morphemes, but are inserted into syntactic structures where other content is present, specifically number in the case of *on*, whereas our findings indicate that impersonal *on* cannot have number in morphology, syntax, and interpretation (chapter 4). On this we are closer to Cinque (1988) for person and Rivero and Sheppard (2004) or McCloskey (2007) for person and number, as far as we understand these proposals to claim that the impersonal argument itself lacks these phi-features.

singulars with the meanings 'person, human' behind Romance *on* and Germanic *man* impersonals. A study of this source reveals how ρ-impersonals differ and the changes bare singulars need to undergo.

Giacalone Ramat and Sansò (2007) posit the developmental path to *man/on* as (1):

(1)     'human' kind-term → generic → existential (nonreferential indefinite) → specific

However, bare singular sources of *man/on*-impersonals seem to have this range of uses independently, save for the specific use. Both Latin *homō* and Germanic *\*mannaz* (e.g. Gothic *manna*) as nouns meant 'person' as well as 'human', and both were found in generic and episodic contexts with nonkind as well as kind predicates, as novel and familiar.[253] Once impersonals developed, these bare singulars remained, and the resulting systems raise the question of what differentiates impersonals from such bare singulars.

Lets us illustrate this situation through Old English. Germanic *\*mannaz* had developed into an impersonal subject pronoun *man* in Old English, while also remaining in parallel a bare singular noun 'person, human' (van Bergen 2003; see also Mitchell 1985, Traugott 1992, Ackles 1997, van Gelderen 1997, Ringe and Taylor 2014). Here are examples of man as an ρ-impersonal: arbitrary and generic, and anaphoric to itself:

(2)     7 on þam geare **man** gerædde þæt **man** geald ærest gafol Deniscum mannum …
and in that year **MAN** decided that **MAN** payed [it was decided to pay] first tribute to Danes …

*Old English (Maldon)*

And þurh þæt þe **man** swa deð þæt **man** eal hyrweð þæt **man** scolde heregian 7 to forð laðet þæt **man** scolde lufian, þurh þæt **man** gebringeð ealles to manege on yfelan þance 7 on undæde, swa…

And because **MAN**≈one does so that **MAN**≈one despises all that **MAN**≈one should praise, and too continually loathes what **MAN**≈one should love, **MAN**≈one brings all too many to evil thought and to crime, so…

*Old English* (Wulfstan, *Sermo*)

In parallel, bare singulars like *mann* 'person, human' or *wer* 'man' have kind, generic, and nonreferential indefinite uses, as well as the definite use.[254]   (3) illustrates the "referential indefinite" of (1).

(3)     **Mann** wæs fram gode asended. þæs nama wæs iohannes.
A person was sent by God. His name was John.

*Old English (*cited in van Bergen 2003: 18)

Lareow, ne ofþingð hit ðe gif ic þus **wer** geceos
Teacher, it does not displease you if I thus choose [a] **man**.

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[253] Morphology shows that one of the sources for French *on* is a definite singular, *l'on < le homme* 'the man', for which the existential use does reflect the development to an ρ-impersonal.

[254] Old English is transitioning from a bare noun system, found in Gothic and still robust in Old English alliterative verse, to a system with marked indefinites and definites. Bare singulars and plurals are still available even in prose in all the same uses as Modern English bare plurals: kind, generic or covariant, and existential. However, indefinite articles *an* and *sum* are being grammaticalised, and in some texts they are needed for specific readings (Crisma 2015). Bare singulars can also be found in uses corresponding to English definites, though familiarity is already usually marked by demonstratives.

and Alfwold cyning sænde **man** æfter pallium to Rome.
and King Alfwold sent a person to Rome for a pallium.

The distinction between impersonal *man* and bare singular *mann* in Old English is clear on grounds like word order and anaphoric behavior, but both have generic 'people' and episodic 'person' readings. This situation also seems to characterise late Latin from which *on* grammaticalised in Old French: the late Latin bare noun *homo* 'person, human' had kind, generic (covarying), and existential (referential indefinite), though the particulars of usage changed over time (Welton-Lair 1999).

In Czech, one can study such bare noun system in detail. Bare nouns resemble and differ from impersonals, and it shows how a system on the point of developing an impersonal might look. Czech has bare singular and plural NPs. Bare plurals correspond closely to English bare *plus* definite plurals, while bare singulars are parallel modulo number. DPs may also have overt determiners like *nějaký* 'some', but none corresponding to weak *a* or to *the*. Our interest is bare singulars headed by *člověk* 'human, person', often mentioned as a *man/on*-type impersonal (e.g. Zubatý 1907, Mazon 1931 cited in Giacalone Ramat and Sansò 2007b, Grepl 1962, Dušková 1973, Panevová 1976, Grepl and Karlík 1983, 1986).

The meaning of *člověk* as a noun is roughly the union of *human* and *person*; its plural is suppletive, *lidé*, and likewise corresponds to *humans, people*. There is a distinct word for 'person', *osoba*; the difference with *člověk* is like that of *people* vs. *persons*. The meanings of *člověk* can be examined when the noun is determined, modified, or kind-level.[255]

(1)  Nikde nikdy nikomu na **nějakým nevinným člověku** nezáleželo.
     No one ever anywhere cared about **some innocent person**.

*Czech* (Hašek, *Švejk*)

Naštěstí se později našel **člověk**, kterého to napadlo.
Luckily there was later found [a] **person**, to whom it did occur.

*Czech* (Smoljak/Svěrák, *Cimrman*)

V době, kdy byla vědeckotechnická revoluce ještě v plenkách, už Cimrman tušil možnost zneužití technického pokroku proti **člověku**.

In an epoch when the scientific-technological revolution was still in its infancy, Cimrman already guessed at the possibility of misuse of technological progress against **Man**.

*Czech* (Smoljak/Svěrák, *Cimrman*)

In generic environments *člověk* is well translated by *one*, giving the impression of an impersonal. But usually, *a person* is just as good a translation, even in cases where *one* is used to speak about oneself.

(2)  A: Nevadí ti to? B: **Člověk** is na to zvykne (p. 103)
     A: It doesn't bother you? B: [A] **person**(I)/**one** gets used to it.

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[255] Pronunciation may be idiosyncratically reduced from [človjek] to [č(o)ek] in certain prosodic contexts, independently of various uses, e.g. *(Ten) clověk rád pije* 'The/A person likes to drink.'

The same is true for *člověk* in episodic contexts:

(3) Za prvé jsem při té návštěvě u Zúzany omylem otevřel dveře u jednoho z pokojů. Na posteli tam spal **člověk**. Muž.
First, during that visit at Zuzan's I accidentally opened the door of one of the rooms. On the bed slept [a] **person**. [A] man. (G/L)

There are heavy restrictions on such invariant *člověk*. However they are shared with other bare nouns of comparable content, like *osoba* 'person', and obviated by enrichment of content, like *neznámá osoba* 'unknown person' (Rezac in prep):

(4) Vešli jsme do lesa, a na Janu z ničeho nic zaútočila **veverka**. Pak veverka zaútočila i na mne.
We entered the forest, and suddenly [a] **squirrel** attacked Jane. Then [a] **squirrel** attacked me as well.

Vešli jsme do lesa, a na Janu z ničeho nic zaútočila **\*(neznámá) osoba**. Pak **\*(neznámá) osoba** zaútočila i na mne.
We entered the forest, and suddenly [an] **\*(unknown) person** attacked Jane. Then [an] **\*(unknown) person** attacked me as well.

Vešli jsme do lesa, a na Janu z ničeho nic zaútočila **\*(neznámá) osoba**. Pak **\*(neznámá) osoba** zaútočila i na mne.
We entered the forest, and suddenly [an] **\*(unknown) person** attacked Jane. Then [an] **\*(unknown) person** attacked me as well.

Vešli jsme do lesa, a na Janu z ničeho nic zaútočil **\*(neznámý) člověk**. Pak **\*(neznámý) člověk** zaútočil i na mne.
We entered the forest, and suddenly [an] **\*(unknown) person** attacked Jane. Then [an] **\*(unknown) person** attacked me as well. [bare *clovek* ok as '[a] human']
(Rezac in prep.)

Other cases are perfect:

(5) Sodomka měl švagra, za nímž přišel **člověk** s tím, že má povoleno udělat si nábytek z odpadového dřeva.
Sodomka had a brother-in-law, to whom came [a] **person** with the words that he has permission to make himself furniture from firewood. (G with *člověk*)

The limitations on *člověk* seen in (4) would be surprising if *člověk* were an impersonal as well as a noun, since impersonals like *on* are good in this context. In fact, the Czech reflexive impersonal is good where *člověk* is impossible:

(6) Vešli jsme do lesa, a na Janu z ničeho nic zaútočil **neznámý člověk**. Pak **se zaútočilo** i na mne.

We entered the forest, and suddenly [an] **unknown person** attacked Jane. Then **SE**≈someone-people **attacked** me as well.

Consequently, many examples of ρ-impersonals are not translatable by *člověk*. An examples is Old English (X) with its ρ-impersonal *man*.[256] It is perfectly translatable with French *on*. However it cannot be rendered with Czech *člověk*, and the latter shares its restriction here with other bare nouns.

(X)      No þæt læsest wæs hondgemota þær **mon** Hygelac sloh (Beowulf 2354-5)
It was not the least of combats, where ***mon*** slew Hygelac (= where Hygelac was slain).                           *Old English*

Ce n'était pas le moindre des combats où **on** a tué Hygelac.      *French*
It was not the least of combats where ***on*** slew Hygelac

                                                 *Czech*
Nebyl to ten nejmenší ze zápasů kde \***člověk**/\***muž**/\***bojovník** zabil Hygelaca.
It was not the least of combats where \****člověk***/\***man**/\***warrior** slew Hygelac.

The restriction on bare singulars in the foregoing examples is clearly a restriction on bare singular nouns that depends on their lexical N content. *Člověk* behaves as an ordinary bare singular noun, and not as an impersonal pronoun.

In other cases, an impersonal-looking *člověk* is clearly a bare noun. In (7a), it is picked up by *takovej člověk* 'that person', while in (7b), it is modified.

(7a)    "Jestli vede někoho policejní strážník," odpověděl Švejk, "je to těžký moment v životě lidským. Ale jestli **člověk** ani v takovej těžkej moment nezapomíná, co se patří dělat, když je vojna, myslím, že **takovej člověk** není tak špatnej."
"If someone is being led by a constable", answered Švejk, "it is a difficult moment in human life. But if [a] **person** even in such a difficult moment does not forget, what ought to be done, when there is a war, I think that **such [a] person** is not so bad."

                                                *Czech* (Hašek, *Švejk*)

(7b)    Radu, že jsem se mohl kdykoliv během té doby postavit mimo skluzavku, mohl by mi dát jen **člověk**, který neví, co to je zápasit zoufale o poslední zlomek rovnováhy, který **člověk** má.
The advice, that at any time during that period I could have stepped out of the sledpath, could have been given to me only by **[a] person / one** who does not know, what it's like to fight desperately for the last shred of equilibrium, that **[a] person / one** has. (G)                *Czech*

Moreover, like all bare singulars, *člověk* is always 3SG for concord, takes 3SG personal pronouns as anaphora, can never be an anaphor under c-command, is restricted to atoms, and is available in any case and grammatical function:

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[256] This is an example where the rules of alliterative verse ensure that *mon* is a pronoun rather than a bare noun.

(8)    **Člověk_i** ví, že se *pro/\*člověk_i* nevyzná sám v **sobě_i**, natož aby se v **něm_i** vyznali jiní.
       [A] **person** knows, then **he** does not fully know **himself**, let alone that others know **him**.

       Když **člověku** {na sobě, \*jeden na druhém} záleží…
       When a person cares about himself…

       Když **lidem** {na sobě, jeden na druhém} záleží…
       When people care about each other…

       Když je **člověk** těhotn-ý/\*-á, myslí na své dítě.
       When [a] **person** is pregnant-SGM/\*SGF, *pro* thinks about her child' (G)

Even in the most impersonal-like uses, *člověk* is restricted to more or less the same individuals as *person*. It cannot be used for, say, pathogens or mice in the manner of impersonals, like the Czech reflexive impersonal. This indicates that it has lexical N content, rather than the feature [human] (chapter 4.2).

(9)    [Context: pointing at a mouse poking its nose out the hole.]

       Když {(#)člověk žije, se žije, žiješ} ve strachu z kočky, tak {nevyjde, se nevyjde, nevyjdeš} z díry ani za kus sýra.
       If {(#)[a] person, one, you} live(s) in fear of the cat, {he does, one does, you do} not leave the hole even for a piece of cheese.

There is one distinctive aspect of *člověk*. In generic contexts, it is frequently used indirectly for a salient individual, often the speaker (Dušková 1973, Panevová 1976, Grepl and Karlík 1983: 5.144n).[257] Sometimes, *a person* or *someone* can be so used, but sometimes they are odd, and *one* is better.

(10)   Řekl jsem si, že **člověk** by do toho neměl strkat nos.
       I told myself that **one_I** shouldn't poke one's nose in it.

       Nech mě/ho být! **Člověk_i** to dělá s takovou radostí a ty mu_i to skazíš.
       Leave me/him alone! **One_me/him** takes such pleasure doing it, and you spoil it for them.
                                                               (adapted from Panevová 1976: 103)
       Jednou se to určitě vidět dalo a **člověka** to potěšilo a docela naplnilo optimismem, ale přeci jen mi přišlo, že se ten film tváří na víc, než čím ve skutečnosti je.

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[257] It has been said that *člověk* is speaker-inclusive (Panevova 1976). That seems usual, but it is perfectly natural and common to exclude the speaker, as in (i). The situation is analogous to *one* (Moltmann 2006).

(i)  Tyvole úplně miluju když mě **člověk** skoro nezná a říká mi kámo za každým slovem! (G)
     Man I really love it when [a] **person**/**one** almost doesn't know me and calls me bud after every word.

It was certainly fine to see it once, and it pleased CLOVEK and rather filled with optimism [and it gave **one**ₘₑ pleasure and rather filled one with optimism…], but I nevertheless had the impression that the film pretends to be more than what it really is. (G/B)

A: Jeden bad poločas na Euru rozhodl o všem. […]
B: **Člověka** to mrzelo hlavně proto, že jsme na to měli.
A: One unsuccessful half-time during the Euro decided everything.
B: **One**ᵢ was sorry mainly because we could have made it. (G/J)

It is not clear whether this difference between *člověk* and *person* is due to a subtle difference in lexical N meaning or to the availability of generic impersonal *one* in English.[258]

Czech *člověk* lets us observe a 'person, human' bare singular minimally different from an impersonal, and shows that not all impersonal-like elements are to be analyzed as impersonals, including *on/man* nominals before they became impersonal (cf. e.g. Malamud 2012b: n. 9). It also reveals the changes needed to transform a bare noun to an impersonal: loss of lexical N content and acquisition of the feature [human], loss of phi-features like number, immunity to condition C, restriction to subjects. In the case of *člověk*, the consequences would be dramatic: for example, generalized availability in episodic contexts, usability for mice, compatibility with plural predicates, inability to generally antecede personal pronoun anaphora, and availability as an anaphor to itself under c-command. Inversely, when an ρ-impersonal develops from the implicit agent of the passive, it gains content: DPhood, [human].

## 8.5 Variation in phi

Clear ρ-impersonals seem to show variation in phi-features. In this section, we discuss variation that has been noted in the literature. We have seen that impersonal *on* lacks number, gender, and person, for the phi feature [human]. Other impersonal have all also generally been viewed as deficient in phi features, but the degree of deficiency varies.[259]

Impersonal *on* lacks number both by morphosyntactic criteria, controlling only default/singular concord even when satisfied only by pluralities, and by interpretive criteria, being satisfiable by atoms, groups, pluralities. Egerland (2003b: 77-8, 87) shows that Swedish *man* "usually"controls singular, but also allows plural "where context

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[258] There is much to understand about fine-grained variation in meanings translated roughly as 'person, people; human(s)' (e.g. Welton-Lair 1999 on classical vs. late Latin usage of *homo*, or the distinction between Czech *člověk*, *osoba*, French *gens, personnes*, English *people, persons*).

[259] Sometimes, evidence for phi-deficiency has come only from incompatibility with pronominal anaphora. In the case of German *man*, it can be attributed to the absence of any of person, number, gender (see Beneš 1967, Kratzer 1997, Cabredo-Hofherr 2010, Malamud 2012b for different views of the phi-content of *man*); while in the case of Italian *si*, concord shows the presence of M/F gender and PL number, so only person deficiency is left (Burzio 1986:80-1n46, 1988: 536-7). However, on Elbourne's (2005) view of all pronouns as D-type, pronouns may be unavailable simply because of the lack of lexical N content in impersonals, so for us incompatibility with pronominal anaphora is weak evidence (see chapter 5).

strongly favours a plural reading", on both arbitrary and generic uses. Swedish *man* therefore seems to allow specification for [singular] and [plural].[260]

> Trots bevisföringen var man inte helt övertygad(e) om hans skuld.
> In spite of the evidence was MAN [people/they] not completely convinced.SG/PL about his guilt.

> Om man inte är gift(a) måste man ha skilda rum på detta hotell.
> If MAN is not married.SG/PL must MAN have separate rooms in this hotel.
> *Swedish (*Egerland 2003b: 78)

The Italian ρ-impersonal *si* is [plural] formally for all but finite verb agreement:[261]

> Si   è stati      abbandonati    a  se stessi.
> SI$_{one}$ is been.PLM abandoned.PLM to SE self.PLM
> One has been abandoned to oneself.          *Italian* (Cinque 1988: 537)

Cinque (1988) gives *si* a [plural] feature in syntax, along with other arbitrary elements in Italian like arbitrary 3PL *pro*. Chierchia (1995b), who focuses on interpretation, is explicit in restricting *si* to being satisfiable only by pluralities of humans (p. 139-140), also along with arbitrary 3PL *pro* (p. 126). The plural agreement and interpretation of *si* have also generally been connected to the availability of the 1PL specific use for it (Cinque 1988; Ordóñez 2003 in contrast Spanish *se*; diachronically Salvi 2008, Giacalone Ramat and Sansò 2011).

> Amici! Un minuto, **si** è stati abbandonati a **noi**/*?**se** stessi!
> My friends! One minute ago *si* was ("we were") abandoned to ourselves.
> *Italian* (Cinque 1988)

So in *si* we seem to have an ρ-impersonal like *on* but specified for [plural] and interpreted in the expected way.[262]

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[260] The description recalls the conditions on [feminine] *on* – namely, that it must be common ground that the domain of quantification (resource situation) contains only females/pluralities. This is not the ordinary condition on phi features on indefinites like *people*. We have discussed various options in chapter 4, such as the availability of a restrictor combined with the impersonal in the manner of chapter 7.

[261] We keep the so-called nominative *si*, licensed only in finite clauses (where *si* or the object if any control participle agreement). In (nominative-licensing) nonfinite clauses, passive *si* is available, but it is not an ρ-impersonal, since it only corresponds to the external argument EA (where the object if any controls participle agreement, and [plural] on *si* never does). Passive *si* has been analysed as an implicit argument (see Dobrovie-Sorin forthc for an overview); problematically, it antecedes (plural) reflexives, though not reciprocals or floating quantifier like nominative *si* (Cinque 1988: 540). Historically, passive *si* is earlier, later acquiring plural concord and extension to non-EA roles (Giacalone Ramat and Sansò 2011).

[262] Finite verb agreement is 3SG and must be treated differently; see our chapter 7 for 1PL *on* and cf. work on DPs with multiple/complex/deficient phi-sets (for *si*, Cinque 1988, D'Alessandro 2007; other impersonals, Taylor 2009, Collins and Postal 2010, Rezac 2011; lexical Ns, Wechsler and Zlatic 2000, 2003, 2012; Alsina and Arsenijevic 2012; English impostors, Collins and Postal 2010). Relevant to a fuller analysis of *si* is the existence not only of the type *se vendono* '(they) SI sell.3PL' and *le si vende* 'them SI sell.3SG', but also of the mixed type *le se vendono* (Maiden and Robustelli 2000, Lepschy and Lepschy 1988), not discussed to our knowledge in generative work (but see D'Alessandro 2007 on related participle agreement facts, and Kayne and Pollock 2010 on French hypercomplex inversion).

There are some difficulties with the idea that formally [plural] *si* must be interpretively plural. Impersonal *si* can be predicated of both singular and plural DPs (cf. Maiden and Robustelli 2000: 6.3.3, Lepschy and Lepschy 1988: 224):

Quando si è il presidente degli Stati Uniti, ...
When SI is the president of the United States…

<div align="right">*Italian (*Egerland 2003b: 79)</div>

Predicate DPs allow mismatches of formal number, *when people are the problem* (Hahm 2010), but do not allow distributivity, **when people are the president of the United States* (Dotlačil 2011). Singular predicate DPs have been viewed as evidence that an impersonal need not be [plural], or specifically that it is [singular] (Italian *si*, Egerland 2003b: 79, D'Alessandro 2007: 29; German *man*, Malamud 2012b: ex. 11). Moreover, impersonal *si,* along with arbitrary 3PL *pro,* can be satisfied by atoms as well as pluralities in examples like *SI/pro_{they} phoned: it was your sister* (Cinque 1988: 546-9 on arbitrary 3Pl *pro* with "no commitment to semantic plurality" unlike other plurals, implying that *si* behaves the same; on variation in this existential-singular use of 3PL, Cabredo-Hofherr 2003, Siewierska and Papastathi 2011). One possibility to explore this behavior of *si* is due to its obligatory [plural] specification, with no [singular] counterpart.

Cognate with Italian *si* is the Spanish ρ-impersonal *se*, but it has radically different number-related properties. Ordóñez (2003) contrasts Spanish *se* with Italian *si* on unavailability of plural concord, collective predicates, reciprocals, floating quantifiers, and the 1PL interpretation.

Si è puniti in questo posto.                                    *Italian*
SE was punished.PL in this place.
Se es castigado(*s) en este lugar.                             *Spanish*
SE was punished.*PL in this place.


Si è dispersati dopo la manifestazione.
SE dispersed after the manifestation.
*Se dispersó despuès de la manifestación.


Si era parlato l'uno con l'altro.
SE_{we/they} talked with each other.
*Se habló el uno con el otro.


Si è mangiato il dolce.
SE_{we} ate the desert.
Se comió el postre.
SE_{*we} ate the desert.


Si è stati invitati tutti
SE_{we} were all invited.
*Se fue invitado todos

These properties would fall into place if *se* must be [singular] and be satisfied by pure atoms. But this is an odd combination of properties, since [singular] otherwise allows satisfaction by group atoms and so compatibility with collective predicates; it is in fact not clear that *se* is incompatible with them:

> Quando se está junto, se está completo.          *Spanish*
> When SE is together, SE is complete. (G)

We leave the analysis of Spanish *se* open and return to it at several points.

Descriptions of Romance *se*-reflexives suggest that they control gender concord under the same special conditions as French *on* (e.g. Maiden and Robustelli 2008, Lepschy and Lepschy 1988 on Italian, Mendikoetxea 2008 on Spanish). Variation in gender specification of the impersonals may exist elsewhere; we discussed it for Czech *se*.

## 8.6  Variation in anaphora

All ρ-impersonals resist ordinary personal pronoun anaphora, because they cannot satisfy conditions due to their complete phi-features and silent NP (chapter 5). They can antecede minimal pronouns (local anaphora), because these have no lexical N and get phi-features from their antecedent. The availability of minimal pronouns in a system varies parametrically: they must be constructible (which may be universally possible), and they must be realizable (which depends on the availability of phi deficient exponents). So we should find no variation among ρ-impersonals in the resistance to antecedence of ordinary personal pronouns, but we should find variation in the antecedence of local ones. (We set aside logophora.)

Some impersonals like German *man* pattern with *on*. German *man* antecedes the local reflexive object *sich*, as well as the 3SGM possessor *sein* in local but not nonlocal contexts, just like the conditions on French *on* anteceding *se/soi* and *son*. German *man* also shares with *on* resistance to anaphora on arbitrary uses, which ameliorates if *man* is itself anaphoric or maximal (Kratzer 1997, Cabredo-Hofherr 2010).

> Man erklärte mir, man habe seine Brille vergessen.
> MAN explained to me that MAN has forgotten SEIN glasses.
>
> *German* (Kratzer 1997)

No other personal pronoun can be anteceded by *man*, including 3SGF even in contexts where *man* ranges only over women (Beneš 1967), or 1PL where *man* is satisfied by a salient speaker-inclusive plurality (Malamud 2012b). Thus to a first approximation, impersonal *man* behaves like impersonal *on* in its anaphoric properties, with *sich* mapping to *se/soi* and *sein* to *son* (see Kratzer 1997 on *man*-anteceded *sich* as phi deficient, and Kratzer 2009 on *sein* as a minimal pronoun in local domains).[263]

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[263] Kratzer (1997) finds that *man* needs to be speaker-inclusive for certain phenomena, including *sein* antecedence; Malamud (2012b) finds "dramatic" variation among speakers on inclusiveness in several of these phenomena, while Cabredo-Hofherr (2012) shows that some cases of inclusiveness are independent of *man*. Speaking preliminarily, the variation documented by Malamud (2012: 2.1) suggests variation in pseudospecific uses (chapter 5.3), while the limitation on *sein* antecedenced to inclusive *man* in Kratzer's

Yiddish presents an apparent contrast with German. The Yiddish cognate *men* of *man* cannot antecede the cognate *zayn* of *sein*, though it can antecede the *zikh* cognate of *sich* (Prince 2006). However, Cabredo-Hofherr (2008, 2010) shows that *zayn* independently resists binding, and instead, *eygen-* is used as the possessive anaphor for any antecedent, including *men*. So *eygen-* is a phi-neutral exponent, and expected to realize the phi-deficient minimal anaphoric to *men*.

In both French and German, there is apparent ambiguity in the analysis/acquisition of the 3SG(M) possessors *son, sein* and the $3^{rd}$ person reflexives *se/soi, sich*. They could be could be analysed as exponents specified for 3SG(M), $3^{rd}$ person phi features, or as default exponents. In French and German, these pronouns are default exponents, but otherwise closely similar systems might differ. In German, analysis as default might be due to a general UG preference. Such a difference in phi-specification is familiar from the Scandinavian local reflexive *sin-*, cognate of *sein*, 3SG in Norwegian but $3^{rd}$ person or default in Danish (Pica 1984, Safir 2013: 545-7).

Italian seems to instantiate a minimal variant of French. Its reflexive ρ-impersonal *si* antecedes the local object anaphora *ci* (clitic, phi-default) and *sé stessi* (strong, *sé, stess-* phi-default, *stessi* concording as MPL). However, it fails to antecede any possessor pronouns, though the system is parallel to French: 3SG *suo* like French *son*, or 3PL *loro* like French *leur*. Arbirary PRO behaves the same way (Burzio 1986:80-1n46, Cinque 1988: 536-7, 1995: 193ff.).

> Si     loda    spesso se     stessi.
> SI$_{≈one}$ praises often   SE$_{≈one}$ self.MPL

> *Si     ama   i   suoi/loro eroi.
> SI$_{≈one}$ loves the his/their  heros                    *Italian,* Burzio (1986:81n46)

Italian behaves as if *suo, loro* need person and/or number, i.e. *suo* 3SG or SG or 3, *loro* (3)PL. This is essentially the conclusion of Burzio and Cinque. As we have noted, a system like that of French and Italian presents an inherent ambiguity: the possessor *suo* can be analysed as 3SG or default. French analyses it as default; Italian as 3SG. Evidence for the language learner is binding of *s*-pronouns by *on* and arbitrary PRO in French but not by *si* in Italian. There is a further correlated difference that is available as evidence for the learner and the linguist. In French, phi-deficient logophoric centres antecede as strong object *soi* and possessor *son + propre* 'own' (as in *All depends on oneself*, chapter 5), but in Italian strong object *sé* can not antecede *suo + proprio* and antecedes the group possessor definite article + *proprio* (cf. Giorgi 1983, 1991, 2007). The possessor is evidently phi-deficient, and indeed, it is available as anaphor to impersonal *si*.

> Ci si interroga sul ∅/suo proprio destino.                    *Italian*
> ∅    One wonders about one's fate.
> *suo*    One wonders about his (i.e. someone else's) fate.
>                    (Maiden and Robustelli 2000: 10.11)

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(1997) recalls the need of novel arbitrary *on* to be maximal when anteceding *son* (chapter 5.4). The logophoric properties of *man* (Kratzer 1997), and variation on them (Malamud 2012b), need to be better understood; *on* does not share them (chapter 4.5).

Spanish for some speakers behaves like Italian (Aranovich 2000: 47n7, Rivero 2001: 175).

Siempre se confía en sí mismo. *Spanish*
always SE$_{\approx one}$ has.confidence in SI$_{\approx one}$ self.SG.M

#Se ama a su madre.
SE$_{\approx one}$ loves P SU$_{\approx one's}$ mother (Aranovich 2000: 47n7)

For others, Spanish impersonal *se* cannot even antecede *sí (mismo)*, in contrast to arbitrary PRO, though *se* can control PRO that itself antecedes *sí (mismo)* (Otero 1986, 2002, Saab 2004). Even for these speakers, impersonal *se* is not anaphorically inert, since it antecedes the definite article of inalienable possession (MacDonald 2016). The nature of its resistance to *sí (mismo)* is unclear; we return to this issue for the Czech reflexive impersonal (section 7).

The Irish autonomous form is still more limited than the Italian reflexive impersonal: it can antecede reciprocals, though it cannot antecede local reflexives (Stenson 1989: 396-7, McCloskey 2007: 829-830). McCloskey highlights the contrast to the phi invariance of the reciprocal versus the phi specification of the reflexive, which distinguishes person, number and gender. Our approach leads to the same conclusion; Irish has no default exponents for local anaphora.

Táthar a' strócadh a chéile.
be.PRES.IMPERS tearing each.other
People are tearing each other apart.

*Gortaíodh é féin.
 hurt.PAST.IMPERS him self
People hurt themselves.

*Irish* (McCloskey 2007: 829-30, glosses adapted)

The Irish pattern of impersonals anteceding phi-invariant reciprocals but not phi-differentiated personal pronouns is shared with Basque (Albizu 1998, Ortiz de Urbina 2003). The impersonal can antecede the phi-neutral reciprocal *elkar*, but not *X buru* 'X's head', where *X* varies according to person and number of the antecedent.

elkar / *bere burua engainatzen denean
each.other / *3rd self deceiving is.when
when one or more persons deceive each other / *themselves

*Basque* (Ortiz de Urbina 2003: 588)

The Breton cognate of the Irish autonomous form presents an enlightening variant of the Irish system (Rezac and Jouitteau 2015). The Breton ρ-impersonal antecedes the phi-invariant local reflexive object clitic *en em*.

**En em** zikour a **reer** etre amezeien.

REFL   help    R do.IMP between neighbours
Neighbours help each other.

*Breton* (Rezac and Jouitteau 2015: 270-1, from Fave 1998)

Personal pronoun anaphora in all positions other than the local object distinguish person, number and gender, and cannot be anaphoric to the impersonal, save in dialects that have created defaults, like 3SG on the model of French *son*:[264]

El    léach ma klask**eur**    **hé** c'hounid **hé**-unan, énô  é  kouez ar  garantez.
in.the place as   search.IMP his gain       his-one,   there R  fall.3s the love
Where one looks for one's own interest love vanishes.

*Breton* (Troude 1842, s.v. *cesser*)

Fascinating are other grammars, which have adapted the phi-invariant definite article *an, al, ar* as general anaphor. The choice of the definite article is significant, because it differs from possessor pronouns in lacking phi features, and is thus a natural choice to realise a phi-less personal pronoun.

Muioc'h é kér**er**    **ar**  vugalé **ann**-unan  égét bugalé   ar ré-all.
more    R love.IMP IMP children IMP-one    than children the  ones-other
One loves more one's own children than the children of the others.

*Breton* (Rezac and Jouitteau 2015: 276, from Hingant 1868: 194)

## 8.7  One endpoint: Czech se-impersonals and reflexive impersonals

### 8.7.1  Introduction

The Czech *se*-reflexive reveals a tension: it seems to be an ρ-impersonal, yet it is in certain ways even more referentially deficient than French *on*. Similar tension exists elsewhere, including for Spanish *se* with respect to both Italian *si* and French *on*, and for the Finnish 4th person. Czech give us clues about the sources of this heightened referential deficiency: partly in the phi-content of the impersonal, partly in the system where it exists. In this section we study it in some depth.

The Czech *se* impersonal is close to Romance *se*-impersonals in development and structure. In (A1), the *se*-impersonal is introduced beside other major depersonalisation strategies, the incipient impersonal *člověk* and the passive (Grepl and Karlík 1983).[265] Like the passive, the *se*-impersonal promotes the object of transitives to an agreeing nominative, and it often translates well by the passive. Unlike the passive, it is available with unergatives and unaccusatives (Medová 2009).

(A1)    Kdyz je jednou usnesení              schváleno,   musí      být dodržováno.
        when is once    resolution(N).NOM agreed.NSG, must.3SG be  kept.NSG

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[264] Compare dialectal variation on anaphora to generic *one* in English, as in *It was a sight to make **one** catch **his** breath* (Clifford D. Simak): American English *his* or *their*, British *one's*. It too arguably reflects dialectal differences in whether *his, their* or neither is available as default exponent (cf. Quirk et al. 1985: 6.56, Huddlestone and Pullum 2002: 10.1, Liberman 2013).
[265] There is also 2nd person generic, and more marginally *jeden* lit. 'one' roughly like German *einer*.

When [a] resolution **is approved**, it **must be abided by**.

Kdyz **se** jednou **schválí** usnesení, **musí** **se dodržovat**.
when SE once agree.3SG resolution(N).NOM, must.3SG SE keep.INF
When [a] resolution **is approved**, it **must be abided by**.

Kdyz **člověk** schválí usnesení, musí ho dodržovat.
when person agree.3SG resolution(N).ACC, must.3SG it.ACC keep.INF
When **one** approves [a] resolution, **he** [sc. one] must abide by it.

*Czech* (Grepl and Karlík 1986: 165-6)

(A1*) Za čtvrt hodiny **se jelo** dál na Novou Čabynu.
after quarter hour SE rode on to Nova Cabyna
After a quarter of an hour it was continued on to Nova Cabyna.[266]

*Czech* (Hašek, *Švejk*)

Further examples of a generic use are given in (A2), and of an arbitrary use in (A3). Again, we translate by the passive; but within Czech not all are felicitous as passives, e.g. (A2b) and (A3a) (Štícha 1979).

(A2) Generic

a    Knihy **se** často **překládají**.
     Books **SE** often **translate.3PL** (≈ Books are often translated).

*Czech* (Štícha 1979: 65)

b    Scénário **se dělá** tak, že **se** treatment pečlivě **rozbije** na samé malé kusy, kterým **se říká** záběry.
     [A] scenario **SE construct.3SG** (≈ is constructed) in such a way that [a] treatment **SE break.3SG** (≈ is broken) carefully up into small pieces, which **SE call.3SG** (≈ are called) scenes.

(Štícha 1979: 68)

(A3) Arbitrary (episodic contexts)

a    Kancelář **se** právě **uklízí**.
      [The/A] office **SE clean.3SG** (≈ is being cleaned) right now.

(Štícha 1979: 65)

b    Vagón **se přistavil** o čtvrté odpoledne a v pět **se končilo**. Za hodinu jsme ho naložili.
     [The] wagon **SE drew.3SG** (≈ was drawn up) at four in the afternoon and at five **SE finished.3SG** (≈ people were finishing). In an hour we loaded it up.

(Štícha 1979: 69)

c    U táboráku **se** celou noc **zpívaly** trempské písně.
     Beside the campfire tramp songs **SE sang.3SG** (≈ were being sung) the whole night.

(Štícha 1979: 67)

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[266] This example, a type common with *se*, has no translation with the passive, as *jet* 'ride' does not passivise, nor with *člověk*, which is very restricted in such episodic contexts; see discussion above.

There is no specific use, but an indirect use similar to pseudospecific *on* is common, unlike for the Czech passive (Fried 2006). It is frequent in officialise, like the judge's or the superior officer's *Zamítá se* 'Denied'. It is also perfectly colloquial, (A4).

(A4)   Poté, co jsme stan postavili, najedli jsme se a **šlo se** pít.        *Czech*
       After we set up the tent, we ate and **SE$_{≈we}$ went** drinking. (G/L)

The impersonal argument is restricted to the same range of [human] indivduals as *on*. Unlike the implicit agent of the passive, it cannot be inanimate (Štícha 1979, Fried 2006).

(A5)   *Závej **se odvála**. - Závěj byla odváta větrem.
       Snowdrift SE blew.away.3SG. - Snowdrift was blown.away by.wind.

                                                      (passive Štícha 1979: 60)

For the reader coming from Romance, we end the introduction by briefly situating the Czech *se* impersonal with respect to Romance.

History: Like Romance reflexive impersonals, Czech has followed the diachronic pathway from reflexive to anticausative to impersonal passive of transitives (first in modal environments) to impersonal of all verb classes, and only after this last step has it recently lost the possibility of a *by*-phrases (Meyer 2010).

Form: As in Romance, the Czech reflexive impersonal is signalled by the same clitic *se* that is found in reflexives, anticausatives, and middles (if these are distinct from the impersonal).

Verb classes: Czech *se* is passive-like in obligatorily promoting the object of transitives to an agreeing nominative, being in this like French *se*, while Italian *si* also permits an accusative object according to factors like telicity; the Slavic situation in this respect is seminally discussed in Rivero and Sheppard (2003). All three languages share a restriction against promoting to nominative 1st/2nd persons; in Czech as in French *se*-impersonals of transitives with such objects are ordinarily ineffable, though they are actually used as part of 'officialese' (Grepl and Karlík 1983). However, Czech *se* unlike French *se* is available with transitives, unergatives, and unaccusatives (Medová 2009: 1.1.6).[267]

Nonfinite clauses: In nonfinite control clauses, impersonal *se* is not available. In nonfinite clauses that license a nominative, impersonal *se* is available only with transitives and unergatives, not with unaccusatives (Dotlačil 2004: 2.3, Medová 2009: 2.3.4). In combining with unaccusatives in finite but not nonfinite contexts, Czech *se* is like Italian *si*, and we restrict our attention to finite clauses, where compatibility with unacccusatives

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[267] The Czech *se*-impersonal fails to combine with verbs with reflexive *se*, with raising verbs, and with the copula *be* and passive auxiliary *be* (Medová 2009: 1.1.6, save for the habitual copula, which we discuss below). The ban on *se* with unaccusatives in arbitrary contexts on the meaning 'someone' is far stricter than for *on*: *Na pekingském náměstí se umíralo/*umřelo. Do davu vjelo auto.* (G/J).

as well as anaphoric properties indicate that Czech *se* is an ρ-impersonal like Italian nominative *si* (Dobrovie-Sorin 1998, forthc.).

> **Mluvit se** o zájmenech, všechno by mohlo být ok.
> **to.speak SE** about pronouns, …
> Had it been spoken about pronouns, everything could be ok.
>
> *Czech (*Medová 2009: 2.3.4)
>
> {\***Přijet se**, **Poslat se** to} v čas, všechno by mohlo být ok.
> Had {**SE**$_{\approx one}$ **arrived**, **SE**$_{\approx one}$ **sent** it} on time, everything could have been ok.

### 8.7.2 Anaphoricity

In having both generic and arbitrary uses, the Czech *se*-impersonal looks like an ρ-impersonal. The seminal in-depth discussion of the syntactic activity of Czech *se* is Rivero and Sheppard (2003) in the context of Slavic, on the basis of Růžicka (1992). They conclude that Czech *se* differs from its cognates in being inactive for anaphoric dependencies, on the basis of *s*-pronoun anaphora and reciprocals. We will however show that the same diagnostics they used indicate that Czech *se* is in fact active, though less easily so than *on*.

The simplest evidence for syntactic activity comes from *s*-pronouns. They are minimal pronouns realized by default exponents, that is, local anaphora to any antecedent invariant for its phi features, with no logophoric uses (Toman 1991, Dotlačil 2004).

> Vedle **sebe**/\*něj/\*nich/\*mne mývá-∅/jí/m kozu.                                         *Czech*
> beside **S**/\*him/\*them/\*me usually.have-3SG/3PL/1SG goat.
> He/They/I usually have a goat beside him/them/me. (\* on coreference)

> Vedle \***sebe**/něj/nich/mne bývá koza.
> Beside \***S**$_{\approx oneself}$/him/them/me usually.is goat.
> Beside \*oneself/him/them/me there usually is a goat.

> Na člověka/\***sebe** se toho někdy prostě valí moc.
> Sometimes it is simply too much on [a] person/\***S**$_{\approx oneself}$.

Rivero and Sheppard (2003) conclude that the Czech *se*-impersonal cannot antecede *s*-pronouns from the following example, which is indeed worse than *on*, and this is a typical contrast between the Czech and French impersonals.[268]

> \***Mluvilo se** tam jen o **sobě**.
> **SE**$_{\approx 1+ persons}$ talked.3SG there only about **S**$_{\approx them}$.
>
> *Czech* (Rivero and Sheppard 2003: 108-9 citing Růžička 1992)

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[268] The handful of other examples in the literature involve an *s*-possessor to arbitrary use of the impersonal, resisted even by *on* and its kin (chapter 4.6): *Mluvilo se jen o (\*svých) záměrech* (Fehrmann, Junghans and Lenertová 2010); \**Mluvilo se tam jen o svých příhodách* (Hajíčová, Oliva and Sgall 1987). In contrast, Kateřina Součková (p.c.) tells us that Dotlačil and Součková (2005) have concluded that impersonal *se* can antecede *s*-anaphora. See note below on speaker variation.

cf.  On n'a parlé que de soi.                                             *French*
     ON$_{\approx 1+ \text{ persons}}$ talked.3SG only about **SOI**$_{\approx \text{them}}$.


However, there are clear good examples. Easiest is generic *se* with non-possessor *s*-pronoun anaphor.


    Nosí **se** při **sobě** a ochraňuje.
    **SE**$_{\approx \text{one}}$ wears it [i.e. the sage-plant] on S$_{\approx \text{oneself}}$ and it protects.
                               www.radostnezpravy.cz/salvej-jako-droga/
    Jezdí se tam i na motocyklu, ale po vlastní ose a lodí přes Faerské ostrovy to
    spolkne hodně času a hodně peněz, i když **se** tam bude spát ve volné přírodě a
    všechno jídlo **se** vezme s **sebou**.
    SE$_{\approx \text{people}}$ also drive motorcycles there [in Iceland], but on one's own wheels and by
    boat across Faeroe islands it takes a lot of time and a lot of money, even if **SE**$_{\approx \text{one}}$
    will sleep there in open nature and **SE**$_{\approx \text{one}}$ takes all food with S$_{\approx \text{oneself}}$. (G)


Possessor *s*-pronouns are difficult, but clearly good examples exist.


    Na **své** děti **se** nezapomíná.                                         *Czech*
    **SE**$_{\approx \text{one}}$ does not forget about S$_{\approx \text{one's}}$ children.
    [Context: title of an article on the official site of the police]
                 http://www.policie.cz/clanek/na-sve-deti-se-nezapomina.aspx


    V Li Poových básních je až příliš často používáno zájmena „já" a mluví **se** tu o
    **sobě** více, než je v čin. poezii běžné.
    The pronoun "I" is used rather too often in Li Po's poems, and **SE**$_{\approx \text{one}}$ talks about
    S$_{\approx \text{oneself}}$ more, than is common in Chinese poetry. (G/L)


    Takhle **se** mluví se **svou** pokrevní sestřenicí?
    That's how **SE**$_{\approx \text{one}}$ talks with S$_{\approx \text{one's}}$ cousin german [female]? (G/J)


    „Myslím, že jsou tam adeptky, které se budou zajímat třeba o soutěž SuperStar a
    Andrejka je pro ně příkladem, že když **se** za **svým** snem jde, tak se dá vyhrát,"
    řekla vychovatelka.
    "I think that there are pupils who will be interested in the contest SuperStar and
    Andrejka is an example for them, that if **SE**$_{\approx \text{one}}$ goes after S$_{\approx \text{one's}}$ dream, SE$_{\approx \text{one}}$ can
    win," said the schoolmistress. (G/J)


Anaphora in episodic contexts are difficult, but good examples exist.


    Ráno jsme tam naházeli nějaké cukroví, jednohubky, chlebíčky, vzalo **se sebou**
    pár nealko piv, voda, něco tvrdého a hosté se po obřadu přesunuli k autům, kde
    poklábosili a trochu se zasytili, než jsme skončili s focením.
    In the morning we [the caterers] threw in some sweets, canapes, sandwiches,
    **SE**$_{\approx \text{people}}$ took with with S$_{\approx \text{them}}$ a few nonalcoholic beers, water, something hard,

and after the ceremony the guests moved to the cars, where they chatted and sated themselves a bit, before we finished with the photography. (G/B)

Throughout, the *s*-anaphor must be local to the impersonal antecedent:

*Takhle **se** mluví s lidmi, na kterých **svým** dětem záleží?
This.way **SE$_{\approx one}$** speaks with people, which matter to **S$_{\approx one's}$** children?

Reciprocal 'each other' (wish need an antecedent) and distributive 'one … another' (which does not need an antecedent) are both expressed by *jeden* 'one' ... *druhý* 'second', where both elements have number and gender. It has been given as bad with the *se*-impersonal, and are indeed ordinarily impossible, but rare good examples do occur:

*Mluvilo **se** tam jen **jeden o druhém**.
**SE** spoke there only **one about another**
                *Czech* (Rivero and Sheppard 2003: 108-9 citing Růžička 1992)
cf. **On** a parlé **les uns des autres** pendant cinq minutes, puis **on** s'est tu.    *French*
    **ON$_{\approx people}$** spoke **about each other** for five minutes, then **ON$_{\approx they}$** fell silent.

V ložnicích jsou palandy ve třech řadách nad sebou a spí **se jeden vedle druhého**.
In [the] sleeping rooms there are bunk beds stacked three high and **SE$_{\approx people}$** sleeps **one beside another**. (G)

Vzdálenost byla asi 200 kroků od první skupiny. Kupkův oddíl byl rozmístěn u zástavy číslo 69. Bylo dosti temno. **Šlo se jeden za druhým** asi půl hodiny.
The distance was approximately 200 steps from the first group. Kupka's troop was positioned at guard-position num. 69. It was rather dark. **SE$_{\approx people}$** went **one after another** approximately half an hour. (Krulich, *Válečný deník*[269])

However, the relevance of this evidence is unclear, since *jeden…druhý* does not always need a syntacic antecedent, more like *one ... another* than *each other* (cf. Brasoveanu and Henderson 2009).

Since *s*-pronouns are in Czech local reflexives without any interference of logophoricity, phi invariant *s*-pronoun anaphora to the *se*-impersonal offer strong evidence for its status as an anaphorically active ρ-impersonal . We conclude that the Czech *se*-impersonal is syntactically active in the manner of ρ-impersonals, and not in the manner of existentially or lexically saturated arguments like the English implicit agent. At the same time, it is also clear the Czech *se*-impersonal has a harder time of anteceding anaphora than French impersonal *on*. In the next section, we will look at one difference in its syntax that may underlie this contrast.[270]

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[269] Josef Krulich's 1915-1920 *Válečný deník* 'War diary' is revealing of speaker differences. This particular example is presence in both the original and the 2013 edited version. On the other hand, an *se*-bound *s*-possessor has been expunged in the edited version in *Večer* **se** vycházelo ze ~~svých~~ zemljanek 'In the evening SE$_{\approx people}$ started leaving S$_{\approx their}$ huts' (episodic). Cf. Rivero and Sheppard (2003: 108n2) on variation in Serbo-Croatian.

[270] We do not discuss control. Impersonal *on* differs from the implicit agent by controlling into OC adjuncts, but this is virtually untestable in Czech. The implicit agent of the passive can control into

Impersonals often antecede concording predicates that reveal their phi features. Examples are French *on* and French, Italian, Spanish reflexive impersonals, all of which agree in gender, combined with singular/default number save for plural number in Italian.

> **On**    boit  le  mauvais vin    déjà      saoul/saoul**e**.
> **ON**$_{one}$ drinks the bad        wine  already drunk.SG.M/**F**

> Le mauvais vin    **se**     boit    déjà      saoul/saoul**e**.              *French*
> the bad        wine **SE**$_{one}$ drinks already drunk.SG.M/**F**

> Quando **si**    è donne,  **si**    è sfrutt**ate**.              *Italian*
> When    **SI**$_{≈one}$ is women, **SI**$_{≈one}$ is exploited.**PL.F**
>                                    (Lepschy and Lepschy 1998: 224)
> Cuando **se**    está embaraz**ada**,    hay que comer  bien.       *Spanish*
> When    **SE**$_{one}$ is   pregnant.**SG.F**, one has  to eat  well.
>                                    (Mendikoetxea 2008: 297)

In Czech, concording predicates are excluded in *se*-impersonals, and the culprit seems to be the utter absence of phi features on the impersonal.

Czech adjectives, participles, and floating quantifiers have an "ordinary" adjectival inflection, which richly distinguishes number, gender, case: e.g. 'barefoot', standard M.SG *bosý,* F.SG *bosá,* N.SG *bosé,* M.ANIM.PL *bosí,* M.INAN.PL *bosé,* F.PL *bosé,* N.PL *bosá*; colloquial M/N.SG *bosej,* F.SG *bosá,* N.SG *bosý,* PL *bosý*. Passive participles and a handful of adjectives also have a "short" inflection, which is far more impoverished, being limited to the nominative and to M/F + SG/PL.NOM and to the standard language: M.SG *bos,* F.SG *bosa,* M.INAN.PL and F.PL *bosy,* M.ANIM.PL *bosi* (some adjectives have N.SG/PL, but *bos* does not). A couple of adjectives only have short forms, even in the colloquial, notably *sám* 'alone'. The only form even marginally available with the *se*-impersonal is the M.SG/default short form: *bos, sám*.

> Pokud turista chce při pobytu získat co nejvíce zkušeností z japonského stylu života a zakusit tamní tradiční obyčeje a způsoby, doporučuje se ubytování v ryokanech. Podlaha je pokryta tatamovými slaměnými rohožkami, po kterých **se chodí {?bos, bosý [bosej], *bosá [*bosá], *bosí [*bosý], bez bot}**.
> If a tourist wants to gain as many experiences of the Japanese lifestyle as possible and experience local traditional custums and ways, SE$_{≈one}$ recommends living in ryokans. The floor is covered with tatami straw mats, on which **SE**$_{≈one}$ **walks {barefoot.?MSG$_{short}$, *.MSG, *.FSG, *.MPL, without shoes}**(G/L with *bos*)

> Na AA **se chodí** ?**sám**/***samo za sebe**, dobrovolně, je to rozdíl.
> To AA **SE**$_{≈one}$ **goes alone.**?**MSG**$_{short}$/***NSG**$_{short}$ **by S**$_{≈oneself}$, voluntarily, that's the difference. (G/B)

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complements, and so can the *se*-impersonal (Růžička 1999: 7.1, contra Meyer 2010).

The foregoing examples involve secondary predicates. Primary predicates are more difficult to test, because the *se*-impersonal does not combine with raising predicates, including predicative and passive be (Medová 2009: 1.1.6). However, the habitual form of the copula is an exception:

Nevíte, jak dlouho **se bývá** v porodnici?
Do you know, how long **SE$_{\approx one}$ is.HAB** in the maternity ward? (G)

A po kolika **se bývá** v C.Lípě na pokojích?
And how many **SE$_{\approx one}$ is.HAB** in C.Lípa per room? (G)

The habitual form of the copula can predicate its subject of stage-level adjectives like 'ill'. With the *se*-impersonal, only short forms are available, marginally, if at all.

Já ani nevím jak dlouho **se bývá** {v porodnici, **\*nemocný**} ani co mě zkrátka čeká.
I don't even know how long **SE$_{\approx one}$ is.HAB** {in the maternity ward, **sick.M.SG**} nor what awaits me.

Po pokusu o sebevraždu **se bývá** (**\*zavřený**) v psychiatrické léčebně jen chvíli.
After suicide attempt **SE$_{\approx one}$ is.HAB** (**\*interned.M.SG**) in a psychiatric hospital only for a short time. (G)

All the starred examples are good if *se* is replaced by *člověk* 'person, human', with 3SGM agreement and concord.

We conclude that in Romance but not in Czech, ρ-impersonals can antecede concording predicates. We take the default short form in Czech to reflect the possibility of nonconcord. Romance ρ-impersonals have fixed number but allow different gender specifications, while for Czech there is no evidence of phi-features. Let us then propose the following hypothesis: concording predicates in Romance and Czech need a specification for gender; Romance ρ-impersonals can be specified for gender, either restrictive [F] or unrestricted (default?) [M]; the Czech ρ-impersonal cannot be specified for gender, and so cannot combine with concording predicates, unless they are themselves impoverished.

### 8.7.4 *Referential deficiency*

Ideally, we would like to relate the incompatibility of the Czech impersonal with concording predicates and its relative resistance to anaphora, both in contrast with French *on*. In general, Czech *se*-impersonals feel far "vaguer" than *on*-impersonals, and this impression can be substantiated in examples like (1). In (1a), the French impersonal is natural for an objection raised by a single person, as well as for multiple objections raised by several people, while the Czech impersonal resists the former use.

*French*
(1a)    Après notre présentation on a soulevé {une objection, des objections}, mais on n'a pas rejeté notre explication.

After our presentation, ON raised {an objection, objections}, but ON didn't reject our explanation.

*Czech*

(1b)    Po našem projevu se {??vznesla námitka, vznesly námitky}, ale naše řešní se nezamítlo.
        After our presentation, SE {??raised [an] objection, raised.3PL objections}, but our solution SE not.rejected.3SG.N

In (2a), the French impersonal is again natural for a single writer and an anaphor to him or her, reasonably paraphrased by *someone…he or her*, while the Czech impersonal imposes a sort of collective anonymity best paraphrased in English by the implicit agent passive.

(2a)    On m'a écrit qu'on n'accepte pas ma proposition.            *French*
        ON to.me wrote that ON did not accept my proposal

(2b)    Odepsalo se mi, že se můj návrh nepřijímá.            *Czech*
        SE wrote back.3SG to.me that SE my proposal not.accept.3SG

We suggest that this difference in degree of individualizability is correlated with the capacity to be specified for gender – a property quintessentially of individuals, not of their pluralities or groups. Possibly, variation among Romance reflexive impersonals on resistance to anaphora can also be correlated in this way with markedness of gender concord, notably the difference between Italian *si* and Spanish *se*. In its incapacity to be fully individuated by a gender specification, the Czech impersonal has a point in common with the implicit agent of the passive. It is easy to imagine a diachronic reanalysis of one as the other, which is one of the major diachronic pathways to ρ-impersonals.

Nevertheless, the Czech impersonal remains an ρ-impersonal, and is not the saturation of an argument by closure. The latter is possibly the correct analysis of the implicit agent of the passive in Czech. The implicit agent has been shown to contrast with the *se*-impersonal with a greater degree of nonsalience or invisibility. Štícha (1979: 67) contrasts (among other examples) passive *Dům zchátral, protože nebyl udržován* '[The] house deteriorated, because it was not (being) maintained' and impersonal *Park se udržuje* '[The] park SE maintains, sc. is being maintained', commenting that the passive "refers to the fact of the event, without thinking of those who did not maintain the house", while for the impersonal, "the sense of the enunciation is that there are people, whose duty it is to maintain the park and these people are carrying it out". Formally, anaphora and secondary predicates seems strictly more excluded in the passive than in the impersonal, as in the following examples (cf. Karlík 2004 on anaphora in the Czech passive, and Pylkkänen 2008 on the unavailability of secondary predicates to implicit agents, ruled out in Czech even when possible in English, Safir 1987: 588-9, Bruening 2013: 21)

Tuto píseň **člověk** přece nezpívá **sám**/bez jiných.
This song [a] **person** does not sing **alone.M.SG**<sub>short</sub>/without others.

Tato píseň **se** přece nezpívá ?\***sám**/bez jiných.
This song **SE$_{\approx one}$** does not sing ?\***alone.M.SG$_{short}$**/without others.

Tato píseň přece nebývá zpívána \***sám**/bez jiných.
This song is not sung \***alone.M.SG$_{short}$**/without others.

Šalvěj **člověk** nosí při **sobě**.
The sage-plant [a] **person** carries on **S$_{\approx himself}$**.

?Šalvěj **se** nosí při **sobě**.
The sage-plant **SE$_{\approx one}$** carries on **S$_{\approx oneself}$**.

?\*Šalvěj bývá nošena při **sobě**.
The sage-plant is carried on **S$_{\approx oneself}$**.

There remains a great deal more to say. The Czech *se*-impersonal has restrictions that *on*-impersonals do not but are shared with some Romance reflexive impersonals. They involve factors like genericity; telicity; presence of a theme, including its role in theme-rheme articulation; interpretation of the theme, notably its degree of animacy and affectedness; and a division of labour between *se*-impersonals and other constructions like the passive (on Czech, Štícha 1979, Grepl and Karlík 1983; on Romance, Sansò 2006 generally, and D'Alessandro 2007, Giacalone Ramat and Sansò 2011 for agreeing and nonagreeing Italian *si*, Mendikoetxea 1992, 1999 for agreeing and onnagreeing Spanish *se*). Explanatory accounts are few; a notable one is Zribi-Hertz (1982, 2008) for French in terms of interactions between the *se*-impersonal and other *se*-constructions through a preference for other *se*'s when the subject is in Spec,T (cf. also Cabredo-Hofherr & Dobrovie-Sorin 2010; for another attempt, D'Alessandro 2007 on agreeing and nonagreeing *si*, critiqued in Dobrovie-Sorin forth). As in Romance, there is considerable microdialectal and diachronic variation (e.g. Chloupek 1962, Štícha 1989).

8.8 <u>Specific uses</u>

*8.8.1 Finnish*

In the ordinary uses of impersonals, an argument is projected as an impersonal DP (an indefinite with a poor NP). In specific uses of impersonals, the impersonal DP is only part of the coding of an argument, and so the argument may have detectably different properties like phi features. In the case of *on*, impersonal have no person and number, but the specific use is 1PL because it combines impersonal *on* (indefinite) with a 1PL element (restrictor). The existence of the combination is not entailed by the existence of plain impersonal *on*, so the system with impersonal *on* need not have specific *on*, and the latter need not be 1PL. In this section, we look at specific uses of ρ-impersonals cross-linguistically, and confirm elements of our account: the independence of ordinary from specific uses, the existence of a distinctive syntax in specific uses, and the availability of different phi features in the element that underlies specific uses.

We will begin with a detailed consideration of Finnish, which confirms and complements the conclusions drawn from French.[271] The Finnish finite verb distinguishes inflections for 1ˢᵗ, 2ⁿᵈ, 3ʳᵈ person + singular, plural number. The inflections usually combine with overt subjects. The generic impersonal, called the generic person construction, is 3SG used without a subject. The ρ-impersonal is the seventh inflection, also without an overt subject. A partly parallel system is found on nominals, including nonfinite forms and frozen case forms as agreeing prepositions, doubled by overt possessors under certain conditions. However, this possessive inflection makes no number distinction in the 3ʳᵈ person, cannot use the 3ʳᵈ person as generic, and does not have an ρ-impersonal form. An example of the system is:

Pojat        näke_vät_ heidän/hänen/*Jukan              ystäva_nsä._        *Finnish*
boys.NOM see.3PL 3PL.GEN/3SG.GEN/Jukka.GEN friend[.ACC].3
The boys$_i$ see their$_{*i/k}$/his$_k$/*Jukka's friend[.ACC].3.
                                    (adapted from Toivonen 2000; inflections underlined)

The ρ-impersonal inflection is called the impersonal-passive or the fourth person; there is no distinct passive. Its key properties are illustrated in the following examples.

Niinpä hänen kirjoissaan usein **kuollaan** hukkumalla            *Finnish*
Thus in his books **die.IMP** [one dies] often by drowning. (G)

Englannissa **ajetaan**/***ajaa** tien vasenta laitaa
In England **drive.IMP**/***3SG** [one drives] on the left side of the road.
                                    (Hakulinen and Karttunen 1973)

**Ollaanpas** sitä taas **hienoja(/hieno)**
Well, **is.IMP** [one is] **well-dressed.PL(/SG)** again.
                                    (Kaiser and Vihman 2006: 118)


The impersonal and the generic person inflections both disallow overt controllers, but the impersonal uniquely allows an unmarked V1 order (Holmberg 2005, 2009). The impersonal has both arbitrary and generic uses, although the generic uses are constrained by interaction with the generic person (Hakulinen and Karlsson 1973). The impersonal and the generic person construction are both available with all verbs and both are restricted to humans. The syntax of the generic person construction is identical to that of a transitive, but the syntax of the impersonal partly differs: a 1ˢᵗ/2ⁿᵈ or 3ʳᵈ person animate pronoun object has the same object case as in regular transitives (nonagreeing accusative), but other objects are nominative (agreeing, when possible in compound verbal construction).[272] Nonfinite predicate concord with the impersonal is usually plural, but singular is possible, while the generic person construction requires singular concord.

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[271] On the Finnish impersonal, see Shore (1986, 1988), Blevins (2003), Manninen and Nelson (2004), Helasvuo (2006), Helasvuo and Latinen (2006), Kaiser and Vihman (2006), Helasvuo and Vilkuna (2008), Posio and Vilkuna (2013), and Hakulinen at al (2004: §1324-6). On the generic person construction but comparing the impersonal, Laitinen (2006), Holmberg (2009), Hakulinen and Karlson (1973). On the possessive system, van Steenbergen (1991), Trosterud (1993), Toivonen (2000).
[272] The impersonal consists of two piece, one found alone on nonfinite forms, including in negative and perfect "compound" formations where the auxiliary agrees with nominative 3ʳᵈ person objects, and a second element added to the first in "simplex" finite constructions.

The ρ-impersonal character of the impersonal is revealed by anaphoric activity. Local anaphora are coded by the possessive inflection on argument nouns and on the element *itse* 'self'. The posssessive inflection is usually incompatible with the impersonal, while the generic person construction antecedes it, though it cannot antecede independent personal pronouns (Karlsson 1977, Kaiser and Lyngfeld 2006, Holmberg 2009):

Täällä pidätetään hengitystä(*/?än)                                    *Finnish*
Here hold.IMP [one holds] breath(*/?3).

Jos pidättää hengistyksensä…
if hold.3SG [one holds] breath.3
(* Karlsson 1977, ? Hakulinen et al. 2004: §1324)

However, the impersonal can antecede reciprocals and local anaphoric possessive suffixes on reciprocals. One reciprocal is plural case forms of *toinen* 'second, other', which the impersonal antecedes markedly. The other is nominative *toinen* + singular case-forms of *toinen*, which the impersonal antecedes more naturally. With both reciprocals, the declined *toinen* form takes the possessive suffix as a local anaphor. The generic person construction on the other hand cannot antecede reciprocals, like English *one*.

…ystävyys on sitä, että **tuetaan toinen toistaan**…
…friendship is such, that **support.IMP** [people support] **each other**
(Kaiser and Vihamn 2006: 126)

There are at least two other environments where the impersonal antecedes local-anaphoric reflexive possessive suffixes. One is with nouns in idioms that require the possessive inflection, like the counterpart of *do one's best*, and prepositions or frozen case-forms of nouns that require the possessive inflection, like *along with one*.

*Finnish*
**Mennään** tekemään sitä omaa työtä ja **yritetään parhaansa**, me ei tehdä niin.
**go.IMP** [One goes] to do one's own work and **try.IMP best.3** [one tries one's best], we don't function like this. (see below)

Roskia ei jätetä laavulle, vaan ne **viedään mukanaan**.
Debris not leave.IMP [one does not leave] in the shetler, but **bring.IMP** [one takes] it **along.with.3** [along with one].
retkipaikka.fi/vapaa/syyskalassa-ruunaan-koskilla/

The other is the rationale clause infinitive.[273] It is the sole nonfinite form that requires the possessive inflection, that is, it does not allow an independent genitive subject. The possessive inflection is obligatorily covalued with the matrix subject (Vainikka 1989: 5.4, 2011, Hakulinen et al. 2004: §514). So the rationale clause infinitive looks exactly like its subject is obligatorily a local anaphor to the matrix subject (cf. OC PRO as local anaphor qua minimal pronoun, Kratzer 1998).

*Finnish*

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[273] The relevant rationale clause is the so-called long form of the first infinitive; unlike English or French rationale clauses, it needs a syntactically present controller, since it obligatory has an undoubled possessive suffix that behaves as a local anaphor.

Ikuinen dilemma: **saadakseen** työkokemusta, **tarvitaan** työkokemusta.
Eternal dilemma: **in.order.to.get.3** work-experience, **need.IMP** [one needs] work-experience. (G)

[In a commentary on living expenses]
Eletäänkö pk-seudulla asuakseen vai asutaanko elääkseen vai käydäänkö töissä eleekseen vai pelkästään asuakseen?
**live.IMP** [Does one live] **in.order.to.reside.3** in the capital region or **live.IMP** [does one reside] there in order to **in.order.to.live.3** or **commute.IMP** [does one commute] **in.order.to.live.3** or simply **in.order.to.reside.3**?

<div align="right">http://keskustelu.suomi24.fi/t/1237500/pohdintoja</div>

It seems that the impersonal can antecede the 3$^{rd}$ person possessive suffix when the latter is obligatory as a local anaphor. Possibly, the impersonal can syntactically antecede local anaphora generally, just like *on* can antecede *s*-pronouns, and something blocks the use of this syntax when a local anaphor is not obligatory. A candidate for the blocking is the generic person construction, which independently interacts with the impersonal for generic statements (Hakulinen and Karlsson 1973).

The impersonal also has a specific use as *we* that has developed in the last couple of centuries. It started in imperatives, but now it has displaced 1PL generally in the colloquial language. This specific use is a remarkable parallel to French in mixing properties of the impersonal and 1PL.

(Me)          otetaan   se/*sen.                                          *Finnish*
1PL.NOM take.IMP it.NOM/*ACC

$^{\%}$(Me)       olemme (kaikki) pahoillamme/*an.
1PL.NOM be.1PL   all.PL   in.wrong.1PL/*3

(Me)          ollaan  (kaikki) pahoillamme/an.
1PL.NOM be.IMP  all.PL   in.wrong.1PL/3

…vain  me          täällä, voidaan toisiaan          haavoittaa
…only 1PL.NOM here   can.IMP each.other.PL.3 wound.INF.
…only we here can hurt each other .

<div align="right">(song *Elävät ja luolleet*)</div>

Impersonal properties are the distinctive agreement inflection, syntax of transitives where 3$^{rd}$ person objects are agreeing nominatives, neutral V1 in colloquial registers that do not otherwise allow V1 by *pro*-drop, and the possibility of 3$^{rd}$ as well as 1$^{st}$ person possessive suffixes as local anaphora. 1PL properties are overt 1PL nominative subjects, 1PL possessive suffixes as anaphora, plural floating quantifiers. As in French, these properties can be mixed (*nous on* + *son*, chapter 7).

Here is an extract showing alternation between the ordinary use impersonal, the old 1PL agreement, and the new specific use of the impersonal as 1PL combined with a 1PL subject pronoun and impersonal morphology (negation is a finite verb glossed *not*, and independently at this register sometimes uses default 3SG agreement):

[Q: Clearly defeats have not entirely driven humour from the group and the spirit is still brisk, isn't?]

A: Suomalainen on perusluonteeltaan nöyrä, **me e-mme** [we.NOM not-1p]. **Men-nään tekemään sitä omaa työtä** [go-IMP to.do the own work] ja **yrite-tään parhaa-nsa** [try-IMP best-3.POSS], **me ei tehdä niin** [we.NOM not.3s do-INF]. **Me ol-laan** [we.NOM be-IMP] edelleen ainoa porukka tässä maassa joka tuli pohjilta laakista huipulle ja edelleenkään **me e-mme nöyristele** [we not-1p humble] kenenkään edessä. … **Ole-mme valmi-i-ta** [be-1p ready-PL] vaihtamaan kaikki ne päivät, kun **e-mme taistele** [not-1p win] siihen yhteen päivään, jolloin **taistelemme** [win-1p] itsenäisyytemme puolesta.

"The Finn is fundamentally humble, **we aren't. One goes to do one's own work** and **one tries one's best**, **we don't function like this**. **We are** still the only gang in this country which came completely from the bottom to the top and **we** still **do not humble ourselves** before anyone. … **We are ready** to exchange all those days, when **we do not win**, for that one day, when **we win** on behalf of our independence.]"

(http://sheriffit.net/paikalliskamppailun-ennakko-sheriffit-derbyyn-haastajina)

The specific use of the impersonal is limited to 1PL in most Finnish dialects. However, in eastern dialects, and in Karelian, the same development occurs not to 1PL but to 3PL. It seems that there are even dialects where both 1PL and 3PL use the impersonal (Helasvuo and Laitinen 2006).

ne jouvuthiin [they.NOM arrived.IMP] toiselle puolej järviä.
They had to go to the other side of the lake.

(Helasvuo and Laitinen 2006 citing Pertilä 2000: 133)

met menthin [we.NOM went.IMP] talhon, isäntä ja emäntä syöthin [host and hostess.NOM ate.IMP], tyttäret ja pijat tiskathin [daughters and maids washed.up.IMP]

We went to the house, the host and hostess ate, the daughters and maids washed the dishes.

(Helasvuo and Laitinen 2006)

Finnish contributes three points to our study of French. One is support for a mixed syntax in the specific use, combining an impersonal, whose syntax is largely kept, and a 1PL/3PL element, which permits doubling of the impersonal by a nominative 1PL personal pronoun in regular sujbect position. A second point is the possibility of 3PL as well as 1PL specific use. Cinque (1988: 550) has seminally proposed that the use of Italian *si* for 1PL in certain contexts is automatic, because 1PL is the nearest counterpart of the impersonal.[274] Finnish and Karelian suggest that there is nothing privileged about 1PL. The third point is that the extension of the impersonal to 1PL seems to coincide with the loss of the 1PL pronoun, which is not evident in other systems discussed next.

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[274] Cinque (1988: 550) interprets the 1PL properties "as a strategy to reconcile the requirement that specific sentences have a referential subject with the requirement imposed by the impersonal, arb, meaning of si.", because 1PL is closest to *arb* by not excluding any person, and so "it is the most general (and generic) of all personal referential pronouns."

*8.8.2 Romance*

Romance reflexive impersonals add important evidence about specific uses: their independence of ordinary uses, their distinctive syntax, variation in their phi features, and their (non)relationship to loss of corresponding pronominal coding.

Cinque (1988) seminally identifies the specific use of impersonal *si* as 'we' and that it has 1PL properties: it cannot exclude the speaker, it may be doubled by 1PL pronouns, and it antecedes 1PL anaphora. 1PL is the only phi-set available for specific *si*.

> Amici! Un minuto, **si** è stati abbandonati a **noi**/*?**se** stessi!          *Italian*
> My friends! One minute ago *si* was ("we were") abandoned to ourselves.
>
> **Si** è stati invitati **tutti**.
> SI has been invited all ("we were all invited").
>
> **Si** è stati invitati anche **noi/*voi/*loro**.
> SI was invited we/*you/*they too.
>
> **Non si** poteva ubriacar**ci** ogni matina.
> SI could not get ourselves drunk every morning
> (Cinque 1988: 550-1, *\*voi/\*loro* Kayne 2010: 137)

Additional evidence comes from clitic placement. Impersonal *si* follows object clitics, reflexive *si* precedes them. When impersonal or 1PL *si* is combined with the reflexive clitic *si* and an object clitic, the result is *ci* + object clitic + *si*; but for 1PL *si* alone, *ci* + *si* + object clitic is also possible (Lepschy and Lepschy 1988: 228, Maiden and Robustelli 2000: 6.36). This shows that specific *si* has a syntax distinct from impersonal *si*, though just what syntax is revealed by this clitic order difference depends on further assumptions (Cinque 1995, Cardinaletti 2008, Pescarini 2010).

> Ce le si è comprate.                              *Italian*
> SI$_{refl}$→CI them SI$_{impers}$ is bought.MPL
> People bought them for themselves ≈ We bought them for ourselves.
> (Lepschy and Lepschy 1988: 228)
>
> Ci se le è comprate.
> SI→CI SI them is bought.
> We bought them for ourselves.
> (Lepschy and Lepschy 1988: 228)

Broadly, the specific use of Italian *si* has just the same analysis as the specific use of French *on*, as impersonal + 1PL. An important way in which 1PL *si* differs from 1PL *on* is that it coexists in a system with a 1PL personal pronoun (though in some varieties it has replaced the 1PL personal pronoun, Burzio 1986: 81n47):[275]

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[275] Another difference may be distribution: Cinque's (1988: 550) discussion suggests that it emerges just when the impersonal interpretation is unavailable, for non-external arguments in episodic contexts, but the discussion in D'Alessandro' (2007: chapter 4) and Giacalone Ramat and Sansò (2007) indicate a broader availability. The 1PL interpretation of French *on* has no limitations.

Siamo stati invitati anche noi.
be.1PL been.PL invited.PL also we.
Si è stati invitati anche noi.
SI be.3SG been.PL invited.PL also we.
Both: We too have been invited.

*Italian* (Cinque 1988: 551 for *si*)

In chapter 7, we have discussed the question of whether the spread of 1PL *on* depends diachronically or synchronically on the loss the 1PL subject clitic. Italian brings important evidence, but its interpretation needs further work, because it is clear that the syntax of 1PL *pro* and 1PL *si* are radically different (appearance of the reflexive clitic, auxiliary choice, participle agreement, Burzio 1986).

Spanish *se* offers a striking contrast to Italian *si*. Its syntax is close to that of Italian *si*, but it lacks [plural] agreement in environments that call for pluralities (section 5). It also has no specific use. A connection between these two differences has been made both synchronically (Ordóñez 2003) and diachronically (Giacalone Ramat and Sansò 2011 propose that plural concord has arisen in virtue of the specific use). On our approach, if Spanish *se* for some reason cannot be satisfied by pluralities, it certainly cannot be used for the speaker inclusive plurality 'we'.

Specific uses have also arisen for impersonal *se* in European Portuguese varieties studied in Martins (2009). They are interesting in a couple of ways: availability for both 1PL and 3PL, and relationship to plural concord. The starting point is impersonal *se* (with and without object agreement).

Há várias qualidades que ainda não **se conhece(m)**.          *European Portuguese*
There are various qualities that **SE** still **knows-3s(3p)** not

(Martins 2009)

The innovation of certain varieties is adding a subject to double *se*. The subject must be plural, and controls agreement. It may be nominal, pronominal, or pro-dropped. Most commonly it is a 1PL pronoun, or *a gente* 'we' < 'the people' (with 3SG, 3PL, or 1PL agreement), but speaker-exclusive 3PL subjects are also possible.

1PL                                                      *European Portuguese*
Há várias qualidades que até ainda **nós** não **se conhecemos**.
There are so many species of fish that even **we** (fishermen) do not **SE know.1PL** all of them yet.

Sabe às.vezes o.que **se faz**, o.que **se fazíamos**, antigamente?
Do you know what **SE would.do.3SG**, what **SE would.do.1PL**, in older times?

*a gente*
**A gente** não **se come**, mas os de Lisboa diz que comen daquele.
Here **a gente$_{\approx we}$** don't **SE eat.3SG** that fish but we heard that in Lisbon people eat it.

Então, **a gente** deu-**se** o jantar e ficou melhor.

Then **a gente**<sub>≈we=our family</sub> **SE** offered dinner to our neighbours.

3PL
**A minha mãe e os outros todos** tirava**m-se** aquele punhadozinho de coalhada e depois iam espremendo aquilo...
**My mother and everybody else** would.take.**1PL-SE** a portion of curd in their hands and would then go on pressing the curd…

Sei é de real certeza que isto era com o.que **se eles** batia**m** o centeio.
But I am totally sure that this was the thing that **SE they** used.**3PL** (≈ people used) when husking the rye.

(Martins 2009)

Martins argues that the availability of these uses depends on the availability of a personless plural *se*; one line of evidence is plural concord of impersonal *se* in these but not other varieties, *Quand se é novos* 'when SE<sub>one</sub> is young.M.PL'. This corroborates the relevance of plural concord noted for Italian. The development of 1PL and 3PL uses occurs in a system that retains 1PL and 3PL, again as in Italian.

In all these cases, specific uses of impersonals retain aspects of impersonal syntax or interpretation. A further development of impersonal morphology to a purely 1PL personal pronoun may occur in varieties where *on* simply takes 1PL concord, discussed in chapter 7.2 (beside other varieties where it is 3PL):

La belle, si nous étions dedans sur au bois, **ons** i **mangerions** fort bien des noix.
My fair one, if we were in the wood, **ON would.eat.1PL** there nuts very well.

*Dialectal French* (Nyrop 1925: §378-9)

This developmental path has been studied in detail for Brazilian Portuguese *a gente* by Taylor (2009). Originally, *a gente* walls a 3SG definite 'the people', which developed to an impersonal, then acquired 1PL uses with 3SG finite agreement and *se*-anaphora but already remote 1PL anaphora, and eventually progressed to 1PL agreement and local anaphora, at which point it can replace the old 1PL *nos*.

**A gente** vi**u**     uma cobra atrás d**a gente** / de **nós**.          *Brazilian Portuguese*
**A gente**<sub>≈we</sub> saw.**3SG** a snake behind **a gente**<sub>≈us</sub> / **us**.

Nós      vimos uma cobra atrás d**a gente** / de **nós**.
**We** saw.**1PL** a snake behind **a gente**<sub>≈us</sub> / **us**.
(Taylor 2009, grammar with 3SG agreement for *a gente*)
**A gente** pergunt**ou**/pergunt**amos** pró Paulo quando **nós** aparecerí**amos** na TV.
**A gente**<sub>≈we</sub> asked.**3SG/1PL** Paul when **we** could.appear.**1PL** on TV.
(Taylor 2009, grammar with 3SG or 1PL agreement for *a gente*)

Taylor (2009) gives *a gente* a complex syntax with both 3SG and 1PL elements, similarly to the presence of both impersonal and 1PL elements in specific *on*. The development whereby *a gente* and *on* lose impersonal properties like 3SG/default finite verb agreement and *s*-anaphora seems to reflect their reanalysis as 1PL pronouns.

## 8.9 Generic impersonals

We have been concerned with ρ-impersonals, which have both generic and arbitrary uses. There also exist arbitrary and generic impersonals. Arbitrary impersonals have been studied in 3PL *pro* of languages like Italian (Cabredo-Hofherr 2003, Siewierska and Papastathi 2011) all, and argued to be ordinary personal pronouns (Malamud 2013), modulo qualifications about plurality discussed earlier (section 5). They are usually related to ρ-impersonals, and we discussed them further. Generic impersonals are exemplified by English *one* and *you*. These do often stand in a narrow historical relationship to ρ-impersonals, as in Germanic *mannaz* that leads to the German ρ-impersonal *man* and the Icelandic generic impersonal *maður* (Egerland 2003ab). We discuss them in this section.

Generic impersonals are licensed under the quantifiers that give covariation of indefinites, like the generic quantifier or *usually, rarely, sometimes*. However, not all covariation under quantifiers licenses generic impersonals. Intuitively, there have to be enough situations to make for a generalisation:

> When I was editor, if you/?one/a person/people submitted an article by email, I usually answered within the hour.
> Yesterday afternoon, if ??you/?*one/a person/people submitted an article by email, I usually answered within the hour.

> In my first year as editor, every time you/?one/a person/people submitted an article by email, I answered within the hour.
> Yesterday, every time ??you/?*one/a person/people submitted an article by email, I answered within the hour.

The degraded examples improve when relevant situations are multiplied:

> Something is clearly up: yesterday afternoon every time you/?one emailed a government official anywhere in Moravia, you/?one got the busy signal.

In these examples, the ρ-impersonal *one* covaries with the freedom of *a person, people*, not with the limitations of the generic impersonals. Curiously, *one* is available outside generic contexts on the pseudo-specific use (and *you* is deictic, not generic, in these examples).[276]

> Rassilon: The Sisterhood of Karn has no business in this chamber, or on this planet.

---

[276] The source of quantification over situations is often hidden, giving generic impersonals in what seem like episodic sentences (cf. Egerland 2003b: 83n11, Moltmann 2006: 4.2). This is so in the following examples, where generic *you* is also possible, and so is generic (hence covarying) *a person*, betraying the hidden quantification: *What **one** actually felt at the moment was that the column of light was vertical but the floor was not horizontal — the whole room seemed to have heeled over as if it were on board ship.* (C.S. Lewis)

Ohila [a priestess of Karn]: I heard the Doctor had come home. **One** [sc. *I*] so loves fireworks!

(Doctor Who,"Hell Bent")

"Yes," continued Curry, pursuing another train of thought. "**One** sees now that Denniston would never have done."

(C.S. Lewis)

The nature of the genericity restriction on generic impersonals is unclear. It has been modelled by a syntactic dependency for a feature [Gn] between the impersonal and a generic quantifier (Moltmann 2006 for *one*, cf. Cabredo-Hofherr 2010, Malamud 2012b). However, the foregoing examples suggest that the restriction is semantic, not syntactic (cf. Lekakou 2005: chapter 2). A clue to its nature might lie in the recruitment of indexicals for generic uses (Nunberg 1993, 2004, Moltmann 2006, 2010, Elbourne 2008, Zobel 2011).

Aside from the generic restriction, *one* is close to *on*. Like *on*, the NP content of *one* includes the phi-feature [human] and lacks a lexical N (chapter 4.3). There is also a logophoric component (Zribi-Hertz 1989, 1990, 1995; Moltmann 2006). The anaphoric properties of *one* suggest a phi-deficiency (Quirk et al. 1985: 6.56, Huddlestone and Pullum 2002: 10.1, Safir 2004, Liberman 2013):

**One** found **oneself** running as **one** entered it.

(C.S. Lewis)

In the marsh **one** knew where **he** was, but here one could easily become confused and lost.

(Clifford D. Simak)

%**One** should do **their** best to ensure that such disputes are resolved amicably.

(Huddlestone and Pullum 2002: 10.1)

In some varieties (typically British), only *one* can be anaphoric to *one*. Here *one* is clearly a pronoun immune to novelty and condition C. Like *on*, its poor NP content fails to satisfy pronominal anaphora, but allows anaphoric *one*. In other varieties (typically American), *one* is not anaphoric to itself, and 3SGM or 3PL pronouns are, if any. In these varieties, *one* is perhaps restricted by novelty, and so cannot be anaphoric, but 3SGM/3PL personal pronouns step in if they are phi-default exponents. Distinct from impersonal *one* is *one* as a literary variant of *someone*, with the anaphoric properties of *someone* (even British varieties), no restriction to generic contexts, and capable of modification (OED s.v. *one* 20, 21).

He lifted up his voice and chanted aloud, but as **one** speaking to **himself** alone.

(J.R.R. Tolkien)

Other generic impersonals differ from *one* on the particular conditions on their use, and so arguably their NP content (*one, you, I*, Bolinger 1979, Malamud 2012b; generic objects in English, Massam and Roberge 1989; generic subject *pro* in Icelandic, Sigurðsson and Egerland 2009).

The close similarity between the generic impersonal like (especially British) *one* and ρ-impersonals like *on* suggests a common approach to them (indefinite) DPs with special NPs. Indeed, ρ-impersonals and generic impersonals are often cognate: German *man* versus Icelandic *maður* (Egerland 2003a, Sigurðsson and Egerland 2009), French *on*

versus medieval Italian *l'uomo* (Egerland 2008; cf. furthermore Giacalone Ramat and Sansò 2008 on varieties where *l'uomo* is also arbitrary); Czech *se* versus Polish *se* (Myer 2010:288). The most striking difference of generic impersonals from cognate ρ-impersonals is the generic restriction and availability in a nonsubject contexts.

> It gives **one** confidence. (Quirk et al. 1985: 6.56)
> It was quite extraordinary, Jane thought, how this put **one** out (C.S. Lewis)
> …**one** had the absurd feeling that it could follow **one**. (C.S. Lewis).[277]

We might view *one* as *on* plus a meaning component that restricts it to generic contexts (and perhaps concommitantly adds logophoricity). This might also liberate it from the subject restriction, if the latter is due to poor NP content (see the conclusion).

We will end on particularly complex case, the French *se*-impersonal. Its cognate *si/se*-impersonals in Italian and Spanish are ρ-impersonals. At first sight, French also seems to have *se* as an ρ-impersonal, but a detailed examination suggests itrather has a generic *se*-impersonal and a passive *se*-closure.

Impersonal-like uses of French *se* are illustrated below (Zribi-Hertz 2008, Dobrovie-Sorin forthc, Lekakou 2005). All are restricted to humans and to external arguments of transitives (and some unergatives with PP arguments like *parler de* 'talk about').

> Les livres de ce genre se lisent facilement. *French*
> Books of this kind SE read easily (≈ read easily). (middle)

> Les pommes se mangent en hiver.
> Apples SE eat (≈ are eaten) during winter.
> cf. *Apples eat in winter. (habitual)

> Il se loue des apartments.
> There SE rents flats (≈ There are flats being rented). (habitual with expletive)

> La question s'est discutée hier dans la salle de conseil.
> The question SE discussed (≈ was discussed) yesterday in the council hall. (eventive)

> Il s'est traduit trois romans.
> There SE translated (≈ were translated) three novels. (eventive with expletive)
> (Zribi-Hertz 2008, Dobrovie-Sorin forthc)

The combination of generic (habitual) and arbitrary (eventive) uses suggests that the *se*-impersonal is an ρ-impersonal. However, diagnostics for syntactic activity sharply differentiate the generic and the arbitrary uses. In generic uses, there is robust evidence

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[277] cases like *They ought to meet one* (Chomsky 1986: 57) might reflect prosodic restrictions (Zribi-Hertz 1995) and/or a subject (nominative?) restriction proper to American English (Malamud 2012b, Quirk et al. 1985: 6.56, Huddlestone and Pullum 2002: 10.1).

that the impersonal argument is syntactically active in the manner of DPs, like *on* and unlike the implicit agent of the passive.[278]

*Reciprocal*

[Context: quire leader]
**On** chante cette chanson **les uns après les autres**.
**ON$_{≈people}$** sings this song **one after another**.

Cette chanson **se** chante (souvent) **les uns après les autres**.
This song **SE$_{≈people}$** sings (often) **one after another**.

*Cette chanson est chantée$_{Ag}$ **les uns après les autres**.
This song is sung **one after another**.

*Definite article of inalienable possession*

Quand **on** met un chapeau sur **la** tête, **on** n'a pas froid.
When **the$_{≈one's}$** head, puts a hat on **the$_{≈one's}$** head, **ON$_{≈one}$** is not cold.

Quand un chapeau **se** met sur **la** tête, il reprend sa forme.
When a hat **SE$_{≈one}$** puts on **the$_{≈one's}$** head, it regains its shape.

*Quand un chapeau est mis$_{Ag}$ sur **la** tête, …
When a hat is put on **the$_{≈one's}$** head, ...

*S-pronouns* (cf. Kayne 1975: 5.9)

**On** offre les cadeaux de Noël à **ses** propres enfants, pas à la Croix-Rouge.
**ON$_{≈one}$** gives Christmas presents to **SON$_{≈one's}$** own children, not to the Red Cross.

Les cadeaux de Noël **s'**offrent à **ses** propres enfants, pas à la Croix-Rouge.
Christmas presents **SE$_{≈one}$** give to **SON$_{≈one's}$** own children, not to the Red Cross.

*Les cadeaux de Noël sont offerts$_{Ag}$ à **ses** propres enfants, pas à la Croix-Rouge.
Christmas presents are given to **SON$_{≈one's}$** own children, not to the Red Cross.

**On** ne dit pas ça à **ses** enfants.
**ON$_{≈one}$** does not say that to **SON$_{≈one's}$** children.

Ça ne **se** dit pas à **ses** propres enfants!

---

[278] The habitual passive but not the middle use controls into purpose clauses, but these are not a good source of evidence for syntactic activity (Zribi-Hertz 2008 on both points; Landau 2013 on the wide latitude of control into certain adjuncts). Perhaps the middle fails to control into purpose clauses because of its middle reading, asserting a dispositional property of the subject.

That **SE≈one** does not say to **SON≈one's** own children.

*Ça n'est pas dit_Ag à **ses** propres enfants!
That is not said to **SON≈one's** own children

*Secondary predicate licensing and concord*

**On** boit le mauvais vin déjà **saoul(e)**.
**ON≈one** drinks bad wine already **drunk.M(/F)**.

Le mauvais vin **se** boit déjà **saoul(e)**.
Bad wine **SE≈one** drinks already **drunk.M(/F)**.

Le mauvais vin est bu_Ag à la fin / *déjà **saoul(e)**.
Bad wine is drunk already **drunk.M(/F)**.

By contrast, the arbitrary *se*-impersonal is inactive for these diagnostics, like the implicit agent of the passive (which is the best translation in English):

*Cette question **s'**est discutée {**les uns après les autres**, avec **sa** propre famille}.
This question **SE** discussed {**one after another**, with **SON≈one's** own family}

*Cette question a été discutée {**les uns après les autres**, avec **sa** propre famille}.
This question was discussed {**one after another**, with **SON≈one's** own family}

cf.      Cette question **se** discute {**les uns après les autres**, avec **sa** propre famille}.
**SE≈people** discuss this question {**one after another**, with **SON≈their** own family}

The arbitrary *se*-impersonal and the implicit agent only participate in dependencies that have been seen not to rely on DPhood, namely control (chapter 3).

?Il s'est décidé de PRO libérer les prisonniers.
It SE decided to PRO free the prisoners.

Il a été décidé de PRO libérer les prisonniers.
It was decided to PRO free the prisoners.

Cependant, cette décision s'est prise sans PRO consulter le milieu, …
Nevertheless, this decision SE took without consulting the milieu… (G/J)

Cependant, cette décision a été prise sans PRO consulter le milieu …
Nevertheless, this decision was taken without consulting the milieu… (G/J)

Indeed, speakers report that arbitrary *se*-impersonals are even more backgrounded than the implicit agents. In the first example below, the follow up is infelictious because the agent has been rendered inert by using the *se*-impersonal.

> La décision s'est prise hier. #On ne peut pas revenir dessus.
> The decision SE took yesterday. $ON_{\approx one}$ cannot go back on it.

> La décision a été prise hier. On ne peut pas revenir dessus.
> The decision was taken yesterday. $ON_{\approx one}$ cannot go back on it.

Thus there seem to be two types of *se*-impersonals in French. One is a generic impersonal: it is a syntactically active DP like *one*. Unusually for such impersonals, it is limited to external arguments of transitives. This limitation cannot be stated as the property of a DP. However, it may be reduced to independent requirements. If T's phi-features need a goal distinct from the impersonal DP, the generic impersonal can only appear with transitives, where the overt or silent object satisfies the requirement of T (cf. Dobrovie-Sorin 1998, Rezac 2004:5.5). If nothing else is said, we would also expect transitives with generic objects and the external argument relating to T. This generic object construction does exist in French (Authier 1989, see Rizzi 1986 on Romance, Landau 2010 generally). However, there is more to say about why *se* appears only when the generic impersonal is a subject (see Medová 2009 with literature).

> Un bon thérapeute réconcilie $e_i$ avec {soi-même$_i$, sa$_i$ famille}.
> A good therapist reconciles $e_{\approx one}$ with {$SOI_{\approx one}$-self, $SON_{\approx one's}$ family}
> $\qquad\qquad\qquad\qquad\qquad\qquad\qquad$ (adapted from Authier 1989: 47-8)
> *Un bon thérapeute a réconcilié $e_i$ avec {soi-même$_i$, sa$_i$ famille}.
> A good therapist reconciled $e_{\approx one}$ with {$SOI_{\approx one}$-self, $SON_{\approx one's}$ family}

The other impersonal saturates the external argument by closure, like the implicit agent of the passive. Unlike the implicit agent, it is limited to humans (which can be straightforwardly written into the semantics of closure).

> L'orage a été destructeur. Des hectares de forêt ont été abattus$_{Ag=people/storm}$.
> The storm was destructive. Hectars of the forest were razed$_{Ag=people/storm}$.

> L'orage a été destructeur. Il s'est abattu des hectares de forêt.
> The storm was destructive. There $SE_{\approx people/*storm}$ razed hectars of the forest.

Such passive use of the reflexive is independently found the Italian, as passive *si* distinct from the ρ-impersonal nominative *si* (Dobrovie-Sorin 1998, forthc.). The passive *se* is the only impersonal *se* available in episodic contexts in French, giving its "eventive" *se*. It is subject to heavy restrictions, but they have been derived from independent properties of the system: a preference for reflexive and anticausative to impersonal parses in episodic contexts, which nearly bars *se* with the object promoted to Spec,T; and restrictions on expletive constructions, which limits *se*-impersonals generally (Zribi-Hertz 2008, cf. Dobrovie-Sorin forthc).

To close with generic impersonals, let us mention arbitrary PRO (Landau 2013: chapter 7). Outside generic contexts, arbitrary PRO refers to the topical logophoric centre, in contrast to impersonal *on* (chapters 4.4, 6.6). In generic contexts, PRO seems similar to a generic impersonal, but has a logophoricity component stronger than that of even *one*, as in (X) where PRO cannot be divorced from the object of *shock* (cf. e.g. McCawley 1998: 147).

(X)     Nowadays it shocks a person$_i$/you$_i$/me$_i$ if people$_k$ slap one's/a children in public.
        (?)Nowadays it shocks a person$_i$/you$_i$/me$_i$ if one$_k$ slaps one's/a child in public.
        ?Nowadays it shocks a person$_i$/you$_i$/me$_i$ for one$_k$ to slap one's/a child in public.
        *Nowadays it shocks a person$_i$/you$_i$/me$_i$ PRO$_k$ to slap one's/a child in public.

## 8.10   ρ-impersonals as human subjects

In this chapter, we have explored our approach to ρ-impersonals indefinite DPs with poor NP content through cross linguistic variation. This analysis accounts for the DP-like syntactic activity of ρ-impersonals and variation in it. There are two aspects of ρ-impersonals that we have said nothing about: their restriction to subjects and to humans.

These properties have no nonstipulative account in any current theory. Nothing prevents indefinite DPs or various types of closure from occurring in object positions, or restricts them to humans. In fact, generic impersonals like English *one* are available as non-subjects, and the generic object construction in Romance has specifically been analyzed as existential closure of the object position (both are illustrated in section 8). These generic constructions are restricted to humans, but others are not (Holmberg and Phimsawat 2016; Landau 2010: 383), like the recipe objects construction in English (Massam and Roberge 1989).

Take a crepe$_i$. Cover one half with the jam. Fold over $e_i$ onto itself and sprinkle $e_i$ with sugar.

(Massam and Roberge 1989: 137)

The restriction of ρ-impersonals to subjects is remarkably clear from a diachronic perspective. When ρ-impersonals develop from bare 'human' nouns, as in Romance and Germanic *on, man*, they become restricted to subjects just when they become ρ-impersonals. Egerland (2003a) makes this point forcefully by contrasting cognates of Germanic *man* 'human', which is restricted to subjects as an ρ-impersonal in German and Swedish, but not as a generic impersonal in Icelandic (cf. also Giacalone Ramat and Sansò 2007 on generic object *man* in Old High German). For ρ-impersonals from reflexives, Dobrovie-Sorin (1998, forthc) shows that Romance *se* as ρ-impersonal is restricted to contexts that license subject clitics / *pro* (so-called nominative *si/se*), but not otherwise (such as passive *si/se* that closes the external argument). Egerland (2003b: section 5) proposes that the relevant aspect of subjecthood is phi-agreement. This view allows for ρ-impersonals in agreeing object positions, identified by McCloskey (2011) in Nahuatl subject/object impersonal agreement (Andrews 2003).

On our approach, it is natural to connect the need for agreement with poor NP content ρ-impersonals. There is independently needed a theory that differentiates the licensing of subject clitics / *pro*, or agreement-licensed elements, from nominatives in general on the

one hand, and object clitics on the other (see e.g. Cardinaletti and Starke 1999, Kayne 2000: chapter 9). ρ-impersonals are found in the same environments as agreement-licensed elements. Let us suppose that the absence of lexical N entails that a DP has the status of an agreement-licensed elements. A stronger position would be that being an agreement-licensed element entails lack of lexical N (in which case D-type readings of subject clitic / *pro* must involve doubling by DPs with a lexical N).

On this view, other NPs/DPs without lexical N are licensed by agreement. One clear candidate is arbitrary 3PL, invariant like personal pronouns and definites (Malamud 2013), and so a definite DP on our approach, but unlike referential 3PL with the "existential-singular" reading *entered.3PL: it was your sister* (Cinque 1988, Cabredo-Hofherr 2003, Siewierska and Papasthati 2011). Arbitrary 3PL is in fact limited to agreement-licensed subjects and excluded as object. It is also tempting to relate the restriction of arbitrary PRO to subjects, with similar uses to ρ-impersonals and restricted to [human (see Chomsky 1986: 57). Licensing by agreement is not needed for elements bearing the feature [human] if they have other content, notably generic impersonals like *one* (section 8) < too many ideas in this paragraph:

The restriction of ρ-impersonals to humans is also striking diachronically, although less so than the restriction to subjects. When ρ-impersonals develop from reflexives in Romance and Slavic *se*, reflexive → inchoative → passive → ρ-impersonal, the restriction to humans arises during the development.[279] When they develop partly from passives in Celtic, the restriction to humans also seems to arise at the impersonal stage (Rezac and Jouitteau 2015).[280]

In our proposal, it is definitory of ρ-impersonals that they lack a lexical N, in contrast to R-expressions like *some person* and pronouns like *someone*, as well as other N-like content like the generic restriction of generic impersonals. We are thus led to suggest that NPs must have a lexical N or a person feature. In particular, an NP cannot be radically empty of content, and it cannot consist solely of number/gender. The impossibility of radical emptiness follows if an NP is individuated by its content, so radically empty NPs do not exists (we assume that category features are not part of NP content). The impossibility of NPs consisting solely of number/gender follows if phi-features need to operate on an NP type meaning, which is supplied by lexical N or by person features like [human] (chapter 4).

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[279] But here the restriction to humans is also found for passive *se* that closes the external argument and is not syntactically active like a DP, type *SE burned = be burned* but with a human agent (section 8), in contrast to inchoative *se* that has no such restriction, type *SE break = break*.
[280] McCloskey (2007: 837-8) shows that the Irish autonomous form is found in quasi-expletive constructions **It drove** *him to land*, but it may be syncretic with the ρ-impersonal (Rezac and Jouitteau 2015).

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