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Implicational universals in the distribution of indefinite pronouns

Summary

This paper establishes a series of implicational universals, geometrically represented in terms of a two-dimensional implicational map, which restrict the distribution of indefinite pronoun series over a set of nine functions. The universals are based on a sample of forty languages (fully documented in HASPELMATH 1993a). In the first part of the paper, the object of study is defined, and the nine contextual-semantic functions which are most often distinguished in indefinite pronouns across languages are described and illustrated in some detail. In the second part, the implicational map is introduced and illustrated with data from two languages (Italian and Modern Greek). Next an explanation for the map in terms of semantic features is proposed, and finally it is shown that the implicational map also accounts for some aspects of the diachronic development of indefinite pronouns.

1. Introduction

Most languages seem to have two or more series of indefinite pronouns, i.e. expressions meaning 'someone', 'something', 'anyone', 'anywhere', 'nothing', 'never', etc. English, for example, has a *some*-series, an *any*-series, and a *no*-series. Polish has a *-ś*-series (e.g. *kto-ś* 'someone', *co-ś* 'something'), a *-kolwiek*-series (e.g. *kto-kolwiek* 'anybody'), and a *ni*-series (e.g. *ni-gdzie* 'nowhere'). Modern Greek has a *ka*-series (e.g. *ká-pjos* 'somebody', *ká-ti* 'something'), a *típota*-series (e.g. *kanénas* 'anybody', *típota* 'anything'), and a *-dhípote*-series (e.g. *opjos-dhípote* 'anybody'). While I have just glossed the Polish and Greek indefinite pronouns by means of English indefinites that resemble them, there is by no means a direct correspondence between the different series in different languages. The examples in (1–5) illustrate how English, Polish and Greek differ in different contexts. Typological variation of this kind is the topic of this paper.

(1) Past tense
English: **Some-body** (/*any-body*) *has come*.
Polish: **Kto-ś** (/*kto-kolwiek*) *przyszedł*.
who-INDEF who-INDEF came
Greek: **Ká-pjos** (/*kanénas* /*opjos-dhípote*) *írthe*.
INDEF-who anyone who-INDEF came

(2) Imperative
English: *Bring* **something** (/??*anything*) *to eat*.
Polish: *Przynieś* **co-ś** (/??*co-kolwiek*) *do* *jedzenia*.
bring: IMPV what-INDEF what-INDEF to eating

Greek: *Fére* **típota/** **ká-ti** *na* *fáme*.
bring: IMPV anything INDEF-what SBJV we: eat

(3) Question
English: *Can you see* **anybody/somebody**?
Polish: *Czy* *widzisz* **kogo-ś** (/?*kogo-kolwiek*)?
Q you: see whom-INDEF whom-INDEF
Greek: *Vlépis* **kanénan/** **ká-pjon** (/*opjon-dhípote*)?
you: see anyone INDEF-whom whom-INDEF

(4) Negation
English: *The girl saw* **nothing**./*The girl didn't see* **anything**.
Polish: *Dziewczynka* *nie* *widziała* **nic** (/*co-kolwiek*).
girl not saw nothing what-INDEF
Greek: *To* *korítsi* *dhen* *ídhe* **típota** (*oti-dhípote*)
the girl not saw anything what-INDEF

(5) Free choice
English: **Anyone** *can come*.
Polish: **Kto-kolwiek** *może* *przyjść*.
who-INDEF can come
Greek: **Opjos-dhípote** *borí* *ná* *rthi*.
who-INDEF can SBJV he: come

As these examples show, none of the nine different series illustrated in them behaves exactly like any of the other. The Polish *-ś*-series is normal in (1–3); the English *some*-series is the only possibility in (1–2), but is less usual in (3); and the Greek *ka*-series is the only possibility only in (1), but competes with the *típota*-series in (2–3). The *típota*-series is also used in (4). The English *any*-series is used in (3–5), but Greek *-dhípote* and Polish *-kolwiek* are used only in (5). However, Polish *-kolwiek* is marginally possible in (3), unlike Greek *-dhípote*. And so on. When the cross-linguistic data are presented in this way, it is not easy to see any regularities, although the similar behavior of the three languages in (1) and (5) indicates that there are indeed typological generalizations that need to be captured.

In this paper I formulate a number of implicational universals that restrict the possible patterns of distribution of indefinite pronoun series across languages. The universals are based on a larger study of 40 languages (HASPELMATH 1993a), and they are stated in the form of an implicational map (section 3). In a further step, explanations for these universals are proposed (section 4). There is not enough space here for an extensive discussion of competing explanations of the behavior of indefinite pronouns (e.g. explanations stated in terms of binary semantic features, or logical semantics, or the Chomskyan binding theory). But no previous treatment of the topic has taken into account a comparable range of indefinite pronoun functions from such a large number of languages. Thus, whatever the merits of my own explanations will turn out to be, the universal patterns of distribution uncovered here will be an important challenge for any future study of indefinite pronouns.

Finally, I will consider the diachronic sources of indefinite pronouns and their further development (section 5). It will be shown that the implicational map also makes predictions about diachronic change.

But before I present the implicational universals in section 3, section 2 will give some further background on the forms and functions of indefinites.

2. Forms and functions of indefinite pronouns

2.1. Definition of the object of study

I define indefinite pronouns here, somewhat loosely but very intuitively, as "pronouns that are semantically indefinite". The criterion of pronounhood means that only grammatical items are included, whereas lexical expressions like *person* or *thing*, or phrases like *at a place*, *in some way*, are not considered as pronouns. Of course, since the boundary between grammar and lexicon and between words and phrases is not clear-cut, there may be various intermediate cases. The second criterion, semantic indefiniteness, means that my definition is narrower than the use of **indefinite pronoun** in many descriptive grammars, where often the section on indefinite pronouns also comprises scalar quantifiers like *few*, *several*, *many*, generic pronouns like French *on* 'one', and universal determiners and pronouns like *all* and *every*. However, the above expression types are not necessarily semantically indefinite, unlike true indefinite pronouns such as *someone*, *anything*, *nowhere*.

2.2. Structural types of indefinite pronouns

Indefinite pronouns generally occur in series which have one member for each of the major ontological categories such as person, thing, property, place, time, manner, and a few others. Some examples of different series in different languages are given in (6).

(6) a. **English**   *some*-series   *any*-series   *no*-series

	some-series	*any*-series	*no*-series
person:	somebody	anybody	nobody
thing:	something	anything	nothing
place:	somewhere	anywhere	nowhere
time:	sometime	anytime	never
manner:	somehow	anyhow	no way
determiner:[1]	some	any	no

b. **M. Greek**   *ka*-series   *típota*-series   *-dhípote*-series

	ka-series	*típota*-series	*-dhípote*-series
person:	ká-pjos	kanénas, kanís	opjos-dhípote
thing:	ká-ti	típota	oti-dhípote
place:	ká-pu	puthená	opu-dhípote
time:	ká-pote	poté	opote-dhípote
manner:	ká-pos	(me kanénan trópo)	

c. **Basque**   *-bait*-series   *i*-series   *edo*-series

	-bait-series	*i*-series	*edo*-series
person:	nor-bait	i-nor	edo-nor
thing:	zer-bait	e-zer	edo-zer
place:	non-bait	i-non	edo-non
time:	noiz-bait	i-noiz	edo-noiz
manner:	nola-bait	i-nola	edo-nola
determiner:	–	–	edo-zein

[1] A determiner such as English *some*, *any*, *no* is not strictly speaking a pronoun, but since determiners often show both formal and functional similarities with indefinite pronouns, they may be treated as members of indefinite pronoun series.

In most cases, indefinite pronouns consist of a stem indicating the ontological category, plus a formal element shared by all members of the series, e.g. *some-*, *any-*, *no-* in English, *-bait*, *i-*, *edo-* in Basque, and so on. I call this element an **indefiniteness marker**. Since indefinite series generally share both distributional properties and an indefiniteness marker, the indefiniteness marker can be thought of as expressing the distributional properties of the series, just as a tense marker on a verb expresses its tense properties. Indefiniteness markers may be prefixes (e.g. Greek *ka-*) or suffixes (e.g. Basque *-bait*). They usually occur outside of any case marking (cf. Polish *kto-ś* 'somebody [Nom.]', *ko-go-ś* 'somebody [Acc.]').[2] Another, less common, strategy for deriving indefinite pronouns is reduplication, e.g. Latin *quis-quis* 'anyone', *quid-quid* 'anything'.

It should be noted that as a rule, indefinite pronouns are transparently derived from some other word type. In the most common case, indefinites are based on interrogative pronouns, like the Greek *ka*-series (cf. *pjós* 'who?', *tí* 'what?') or the Basque indefinites (cf. *nor* 'who?', *zer* 'what?'). Indefinites may also be based on generic nouns, e.g. English *some-time*, *any-place*, *nothing*. Occasionally they are based on relative pronouns, e.g. Bulgarian *kojto i da e* 'anyone', based on *kojto* 'who (relative)'. The reverse direction of derivation (i.e. interrogative or relative pronouns or generic nouns based on indefinites) never occurs.[3] However, the limiting case, i.e. indefinites that are identical to interrogatives, is not rare (e.g. Pashto *cok* 'who; somebody')

Very rarely, indefinite pronouns have special forms that are unrelated to any other forms of the language, e.g. German *nichts* 'nothing', Catalan *ningú* 'anybody', *enlloc* 'anywhere', Hindi-Urdu *koii* 'someone', *kuch* 'something'. All these forms were diachronically derived from interrogatives or generic nouns but have now become totally opaque.

2.3. Functional types of indefinite pronouns

In this subsection, I will illustrate various functional distinctions that indefinite pronouns are sensitive to. In some of the cases below it is clear that different series of indefinite pronouns express different meanings. In other cases one might prefer to say that they are restricted to certain semantic contexts, or that the restriction is purely syntactic. In order to neutralize between these various types of restrictions, I will speak of **functions** of indefinite pronouns.

2.3.1. Direct negation. Many languages have special indefinite pronouns that are used in negative sentences where the scope of negation extends over the indefinite. For example, the German *n*-series (*niemand*, *nichts*, *nirgends*, etc.) and the Hungarian *sem*-series are only used in this way.

(7) a. German
     *Ich habe **nichts** gesehen.*

[2] However, there is a diachronic tendency to change this order and to make the case affixes internal, as shown in HASPELMATH (1993b).

[3] Thus, the Esperanto situation, where indefinites (e.g. *iu* 'somebody', *iam* 'sometime') are formally unmarked with respect to interrogatives (e.g. *kiu* 'who?', *kiam* 'when?'), is not attested in non-artificial languages, and Esperanto is not a possible language in this respect.

b. Hungarian

Nem	lát-t-am	**sem-mi-t.**
not	see-PAST-1SG	NEG-what-ACC

'I did not see anything.'

Notice that the German negative indefinite expresses negation on its own, whereas the Hungarian negative indefinite cooccurs with verbal negation (*nem* 'not'). This is a separate dimension of typological variation that I cannot discuss here (see BERNINI & RAMAT 1992: Ch. 6–8, HASPELMATH 1993a: Ch. 7).

2.3.2. Indirect negation. In some languages, negative indefinite pronouns are also used in subordinate clauses when they are in the scope of main clause negation. Thus, Italian *nessuno* is used as in (8), whereas German *niemand* cannot be used in subordinate clauses in this way (cf. 9).[4]

(8) Italian
     a. *Non è venuto* **nessuno**.
         'Nobody has come.'
     b. *Non è necessario che venga* **nessuno**.
         'It is not necessary that anybody come.'

(9) German
     a. **Niemand** *ist gekommen.*
     b. *Es ist nicht nötig, dass* **jemand (/#niemand)** *kommt.*

Basically the same indefinites are also found with implicitly negative expressions like 'without', e.g. Italian *senza nessuno* 'without anybody', contrasting with German *ohne jemanden* 'without anybody'. I treat both cases, subordinate clauses in the scope of negation and contexts of implicitly negative expressions, as a unitary function, "indirect negation".

2.3.3. Scale-reversing (or "negative polarity") contexts. Not uncommonly, indefinite pronoun series are associated with negative environments, but are not restricted to them and occur also in a whole range of non-negative contexts that likewise exhibit the semantic property of **scale reversal** (FAUCONNIER 1975a, 1975b, 1977, 1979). Although negation is only one of these contexts, they are still often called "negative polarity contexts" (e.g. PROGOVAC 1994 and many others). The most typical non-negative scale-reversing contexts are conditionals, (polar) questions, and the standard of comparison. The English *any*-series and the French *personne*-series (*personne, rien, jamais, aucun*) are used in scale-reversing contexts, but not in non-scale-reversing contexts like affirmative declarative clauses.

(10) English
     a. **I saw* **anybody***.*
     b. *Have I* **ever** *made them happy?*
     c. *I hold you responsible if* **anything** *transpires in the press.*
     d. *He speaks better than* **any** *orator.*

(11) French
     a. **J'ai vu* **personne***.*
     b. *Les ai-je* **jamais** *rendus heureux?*

     c. *Je vous rends responsable si* **rien** *s'ébruite dans la presse.*
     d. *Il parle mieux qu'* **aucun** *orateur.*

However, not all scale-reversing contexts behave alike. First, many languages have special indefinites for direct and/or indirect negation, as was already pointed out. Second, the standard of comparison may have a different indefinite than other scale-reversing contexts. For instance, in Maltese and Japanese, the indefinite series that is used in negative and comparative contexts (Japanese *-mo*, Maltese *ħadd/xejn/qatt*) is not used in questions and conditionals.

(12) Maltese
     a. (negation)

Ħadd	*ma*	*qalli*	**xejn.**
anyone	NEG	he: tell: me: PERF	anything

         'Nobody told me anything.'
     b. (comparative)

Dan	*huwa*	*l-isbaħ*	*inkwatru li*	**ħadd**	**qatt**	*pinġa.*
this	it	the-beautiful: COMP	picture that	anyone	ever	he: paint: PERF

         'This is the most beautiful painting that anyone has ever painted.'
     c. (conditional)

Jekk	*tara*	*xi*	**ħaġa**	*(/*xejn),*	*ghidli.*
if	you: see: IMPF	INDEF	thing	anything	tell: me: IMPV

         'If you see anything, tell me.'

(13) Japanese
     a. (negation)

Dare-mo	*kanojo-o*	*aisi-te*	*i-na-i.*
who-INDEF	she-ACC	love-CONV	DUR-NEG-PRES

         'Nobody loves her.'
     b. (comparative)

Kono	*syoonen-wa*	*kono*	*kurasu-no*	**dare-yori-mo**	*hayaku*	*hasir-u.*
this	boy-TOP	this	class-GEN	who-from-INDEF	fast	run-PRES

         'This boy can run faster than anyone in his class.'
     c. (question)

Rusutyuu-ni	**dare-ka**	*(/*dare-mo)*	*ki-masi-ta*	*ka?*
absence.duration-DAT	who-INDEF	who-INDEF	come-POL-PAST	Q

         'Did somebody/anybody come while I was gone?'

Finally, in some languages even conditionals and questions do not behave alike. Thus, in Finnish and Bulgarian there is a series that is used in the standard of comparison (as well as the free-choice function, cf. 2.3.6.) and in conditionals, but not in questions:

(14) Finnish
     a. *Soitt-i-ko*   **joku/**   **kuka-an/**   ***kuka**   **hyvänsä?**

call-PAST(3SG)-Q	someone	who-INDEF	who	INDEF

         'Did someone/anyone call?'
     b. *Jos*   **joku/**   **kuka hyvänsä/** ***kuka-an**   *soittaa,*   *sano*   *minulle.*

if	someone	who INDEF	who-INDEF	calls	tell(IMPV)	I-on

         'If someone/anyone at all calls, tell me.'

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[4] When *niemand* is used in (9b), a different sense arises: 'It is not necessary that nobody comes'.

(15) Bulgarian

    a. *Vidja*   *li*   **ne-što**   (/***kakvo-to i da e**)?
       you: saw   Q   INDEF-what   what-INDEF
       'Did you see anything (at all)?'

    b. *Ako*   *vidiš*   **ne-što/**   **kakvo-to i da e,** *kaži*   *mi.*
       if   you: see   INDEF-what   what-INDEF   tell: IMPV me
       'If you see anything/anything at all, tell me.'

2.3.4. Specificity and non-specificity.

Some languages use different indefinite pronoun series depending on whether the phrase is referentially specific or non-specific. Roughly, a phrase is non-specific if it has a referent only in an irrealis mental space (see FAUCONNIER 1985 for a detailed theory of mental spaces). Irrealis mental spaces are indicated by non-indicative moods (imperative, optative), by the future tense, by modal verbs like 'want', 'be able to', 'try', as well as some other means. In such irrealis contexts, phrases may be specific or non-specific. In most cases such sentences are ambiguous, and phrases (especially indefinite noun phrases) may be interpreted either specifically or non-specifically. A typical example of this ambiguity is given in (16), which has the two readings that are paraphrased in (17a–b).

(16) *Erzsébet wants to marry* **someone** *with a Ph. D. in linguistics.*

(17)   a. (specific:) *There is a linguistics Ph. D. that Erzsébet wants to marry. (She fell in love with him in graduate school, and although he doesn't have a job, she is determined to go ahead with the wedding).*
      b. (non-specific:) *The person that Erzsébet would want to marry must be a linguist. (She just loves to talk about linguistics in bed.)*

In the specific reading, there is a referent both in the speaker's reality space and in the 'want'-space, and these referents are linked by an identity connector (see FAUCONNIER 1985). That is, the speaker presupposes the existence of a referent. In the non-specific reading, there is a referent only in the 'want'-space, and there is no presupposition of existence.

Now some languages have different indefinite pronouns for these two readings, so that the two readings of (16) are formally distinguished. For instance, the Russian equivalents of (16) are shown in (18) (see DAHL 1970, PADUČEVA 1985, among many others). Other examples come from Lithuanian (cf. 19) and Hindi-Urdu (cf. 20).

(18) Russian

    a. *Èržebet xočet vyjti zamuž za* **kogo-to** *s kandidatskoj stepen'ju v lingvistike.*
    b. *Èržebet xočet vyjti zamuž za* **kogo-nibud'** *s kandidatskoj stepen'ju v lingvistike.*

(19) Lithuanian (PILKA 1984: 57)

    a. *Ji*   *norėjo*   *įsigyti*   **kaž-kokią**   *prekę*   *(bet*   *jos*   *negavo).*
       she   wanted   acquire   INDEF-which   thing   but   it   not: got
       'She wanted to acquire some [specific] object (but she didn't get it).'

    b. *Ji*   *norėjo*   *įsigyti*   **kokią**   **nors**   *prekę*   (*bet   *jos*   *negavo).*
       she   wanted   acquire   which   INDEF   thing   but   it   not: got
       'She wanted to acquire some [non-specific] object
       (*but she didn't get it).'

(20) Hindi-Urdu

    a. *Wah*   **kisii-ko**   *fon*   *kar-naa*   *caah-tii*   *hai.*
       she   someone-DAT   phone   do-INF   want-IMPF   is
       'She wants to phone someone [specific].'

    b. *Wah*   **kisii-ko**   **bhii**   *fon*   *kar-naa*   *caah-tii*   *hai.*
       she   someone-DAT INDEF   phone   do-INF   want-IMPF   is
       'She wants to phone someone [non-specific].'

A particularly good test case for non-specificity are imperatives, because indefinite phrases must be non-specific in imperatives. Otherwise, GRICE's cooperative principle would be violated: on the one hand, the speaker asks the hearer to do something, but on the other hand, she withholds some crucial information from the hearer. This is why the (b) sentences of (21–22) are unacceptable:

(21) Lithuanian (PILKA 1984: 56)

    a. *Aplanky-kite*   *mane*   **kada**   **nors.**
       visit-IMPV.2PL   me   when   INDEF
       'Visit me sometime [non-specific].'

    b. *Aplanky-kite   *mane*   **kaž-kada.**
       visit-IMPV.2PL   me   INDEF-when
       'Visit me sometime [non-specific].'

(22) Russian

    a. *Kupi mne* **kakuju-nibud'** *gazetu.*
       'Buy me some [non-specific] newspaper.'

    b. *Kupi mne **kakuju-to** *gazetu.*
       'Buy me some [specific] newspaper.'

By contrast, past and ongoing present contexts are good test cases for specificity, because non-specific phrases are not possible in such cases, and nonspecific indefinites like the Russian *-nibud'*-series, the Lithuanian *nors*-series, etc. are not acceptable in these environments.

Note that negative and other scale-reversing contexts are also irrealis contexts in this sense, so that all indefinites used in these contexts are also nonspecific. However, in many cases the indefinites used in sentences like (18–20) are different from those used in scale-reversing contexts, so I will call this function 'irrealis non-specific'.

2.3.5. Knowledge of the speaker.

Another semantic factor that is sometimes relevant in choosing between different indefinite series is the knowledge of the speaker. While the hearer never knows the identity of the intended referent (otherwise a definite expression would be used), the speaker may or may not be able to identify the referent. In German, the *etwas*-series (*jemand* 'someone', *etwas* 'something') may be used in either case, but the *irgend*-series (e.g. *irgend jemand* 'someone or other') may be used only when the speaker cannot identify the referent. Thus, in (23a) the speaker may or may not know who called, and the hearer could reply by inquiring who it was. By using *irgend* in (23b), the speaker makes it clear that she is ignorant about the caller's identity, so the hearer cannot ask who it was.

(23) German

    a. **Jemand** *hat angerufen. (– Wer war es?)*
       'Someone called. (– Who was it?)'

b. ***Irgend jemand*** *hat angerufen.* (**– Wer war es?*)

    'Someone (I don't know who) called. (*Who was it?*)'

Similarly, the Russian *-to*-series may only be used if the speaker does not know the referent. Thus, in (24a–b) it is assumed that she forgot the identity of the referent, which is odd in (24b). And (24c) is completely deviant because it is incoherent to utter a desire about something specific that one cannot identify.

(24) Russian

    a. ***Čto-to*** *ja tebe xotela skazat'.* (PADUČEVA 1985: 211)

       'I wanted to tell you something [I forgot].'

    b. *?Ja vstretilas' s* ***kem-to*** *segodnja v 19 časov.*

       'I met with someone [unknown] today at 19.00 hours.'

    c. **Ja xoču spet'* ***kakoj-to*** *romans.* (PADUČEVA 1985: 211)

       'I want to sing some [specific, unknown] romance.'

2.3.6. Free choice.

A semantically well-defined function of indefinite pronouns is the free-choice function, illustrated in (25a–c).

(25) a. English

       Any doctor will tell you that Stopsneeze has dangerous side effects.

    b. Basque (SALTARELLI 1988: 895)

       Galde-tzen duzuna ***edo-zein*** *liburu-tan aurki dezakezu.*

       ask-HAB   you: it   INDEF-which   book-LOC   find   you: can: it

       'You can find what you are asking about in any book.'

    c. Korean

       Nwukwu-na   *i*   *muncey-lul*   *phul*   *swu*   *iss-ta.*

       who-INDEF   this   problem-ACC   solve   can   be-DECL

       'Anybody can solve this problem.'

Free-choice indefinites are sometimes regarded as "universal quantifiers", similar to expressions like *every* and *all* (cf. GIL 1991 for a cross-linguistic study of such elements). However, it has long been recognized that the free-choice meaning cannot be reduced to the universal quantifier of predicate logic (VENDLER 1967).

It should again be noted that the contexts where free-choice indefinites are possible are all of the non-specific type (thus, **Anyone visited me* is out). But free-choice indefinites are even more restricted contextually: They are also odd or unacceptable in imperatives, futures and obligation contexts

(26) a. *??Please buy me* ***any*** *newspaper.*

    b. **Tomorrow I will go* ***anywhere.***

    c. **You must invite* ***anybody*** *to the funeral.*

The most typical contexts for free-choice indefinites are possibility contexts (cf. 25b–c) and generic contexts (cf. 25a).

2.3.7. Summary: the main functional distinctions.

Figure 1 summarizes the functional distinctions that have been made in this section.

Figure 1. *The main functional distinctions made by indefinite pronouns*

specific	known to speaker	
	unknown to speaker	
non-specific	irrealis contexts	
	scale reversal	conditionals
		questions
		standard of comparison
		indirect negation
		direct negation
	free choice	

3. Universals expressed in an implicational map

The universals to be stated in this section concern the distribution of series of indefinite pronouns over the nine functions that were defined and exemplified in the preceding section (2.3). Most indefinite pronoun series can occur in more than one of these functions, i.e. they are multifunctional. In this respect, indefinite pronoun series are much like other grammatical categories such as tenses or cases, which also typically occur in several functions that are distinguished in some languages. Compare (27) with (28).

(27) Multifunctionality of English *any-*

    a. (free choice) ***Anything*** *can happen.*

    b. (direct negation) *I don't believe* ***anything.***

    c. (question) *Have you heard* ***anything*** *like that before?*

(28) Multifunctionality of the German Present tense

    a. (future) *Nächstes Jahr* ***fahre*** *ich nach Florianópolis.*

       'Next year I'll go to Florianópolis.'

    b. (progressive) *Pelé* ***spielt*** *heute wieder wunderschön.*

       'Pelé is playing beautifully today again.'

    c. (habitual) *Zeyda* ***fährt*** *jeden Monat nach Timbuktu.*

       'Every month Zeyda goes to Timbuktu.'

Of course, the fact that the German Present tense corresponds to three different tense-aspect forms in English does not necessarily mean that it is polysemous – the German Present is probably simply more general in its meaning. Likewise, the fact that *any* occurs in various functions that are distinguished in other languages does not mean that it has different meanings, or that two or more homophonous *any*-indefinites have to be posited. However, languages can be compared only at the level of functions (or uses) of grammatical items because otherwise there is no basis for the comparison (cf. FERGUSON 1970).

Another necessary prerequisite for cross-linguistic comparison is the finiteness of distinctions that are made across languages, and this is clearly fulfilled in the case of indefinite

pronouns. While the nine functions distinguished in section 2.3 are not completely exhaustive of the possible distinctions, they are found in language after language along the same lines, so that little doubt is left that they really constitute the cognitively (or grammatically) most salient distinctions that speakers can make. This is again similar to the results obtained in other typological studies on other grammatical categories, e.g. on tense and aspect (Dahl 1985, Bybee et al. to appear) and on voice (Kemmer 1993) – in each case we find recurring similar semantic distinctions in language after language.

The best way of capturing cross-linguistic regularities in such situations is by establishing an **implicational map**, i.e. a quasi-spatial representation where the different functions in a domain are arranged in such a way that grammatical markers cover an adjacent area. Such implicational maps have been proposed by Anderson (1982) for the perfect, and by Kemmer (1993: Ch. 6) for the middle voice, among others. They are often called "cognitive" or "semantic" maps because adjacency on such a map is naturally explained in terms of semantic or cognitive similarity.

The universal implicational map that I propose here for indefinite pronouns is shown in Figure 2.

Figure 2. *An implicational map for indefinite pronouns.*
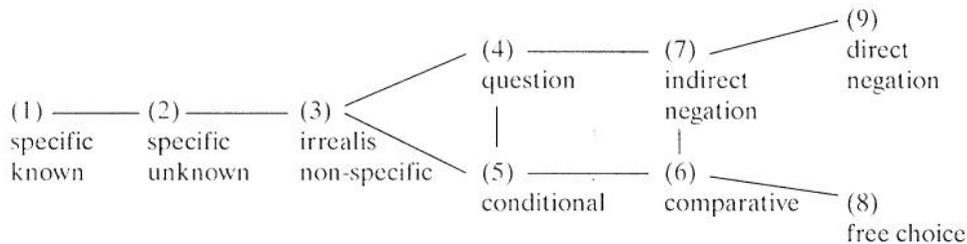
This map is based on data of 40 languages with substantial genetic and areal diversity (Haspelmath 1993a).[5] In all these languages, the generalization holds that if an indefinite pronoun series is used in two functions *n* and *m* that are not adjacent on the map (i.e., not directly linked by a line), it may also be used in all functions that lie between n and m on the map. There are 24 pairs of non-adjacent functions, so the map can be regarded as an abbreviated and highly structured statement of 24 implicational universals about the distribution of indefinite pronouns.

To see more clearly how this map works, let us consider two examples, Italian and Modern Greek. Although these languages are genetically related and areally quite close to each other, they show quite different systems. Italian has three main series of indefinite pronouns: (i) the *qualche*-series (*qualche* 'some', *qualcuno* 'someone', *qualcosa* 'something', etc.), (ii) the *nessuno*-series (*nessuno* 'nobody; no', *niente* 'nothing'), and (iii) the *-unque*-series (*chiunque* 'anybody', *qualunque* 'any', *dovunque* 'anywhere'). The distribution of these three series on the implicational map is shown in Figure 3.[6]

Figure 3. *The distribution of Italian indefinites*
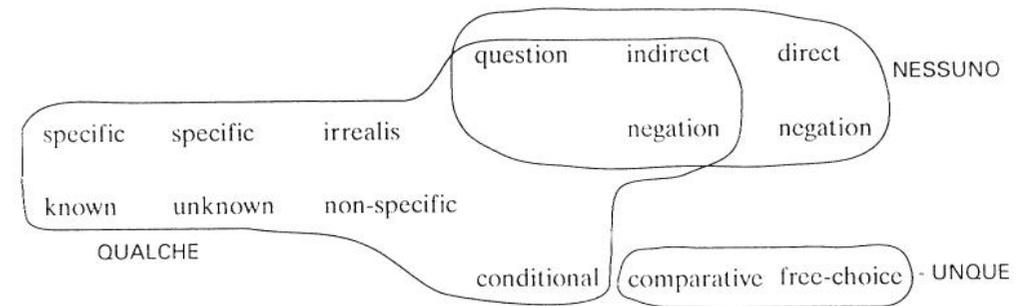
The most general series is the *qualche*-series, which occurs in the specific, irrealis-non-specific and question/conditional functions.

(29) specific known
    Qualcuno *è venuto – indovina chi!*
    'Someone has come – guess who!'

(30) specific unknown
    *Non trovo la penna, eppure **in qualche parte** l'avrò messa.*
    'I can't find the pen, and yet I must have put it somewhere.'

(31) irrealis non-specific (future, imperative)
    a. *Fra tanti troverò **qualcuno** che mi possa dare l'informazione necessaria.*
      'Among so many people I'll find someone who can give me the necessary information.'
    b. *Compra **qualcosa** per me.*
      'Buy something for your niece.'

In the question function and in the indirect-negation function (but not the conditional function!), the *nessuno*-series is also possible.

(32) question
    *Vedi **qualcosa/niente**?*
    'Can you see anything?'

(33) conditional
    *Se senti **qualcosa** <*niente>, svegliami.*
    'If you hear anything, wake me up.'

(34) indirect negation
    *Non è necessario che venga **nessuno**/che **qualcuno** venga.*
    'It is not necessary that anyone come.'

The *-unque*-series is restricted to the free-choice and comparative functions.

(35) free choice
    *Puoi andare **dovunque**.*
    'You can go anywhere.'

(36) comparative
Christie ha scritto più romanzi che **chiunque** altro in questo secolo.
'Christie has written more novels than anyone else in this century.'

In the direct-negation function, only the *nessuno*-series is possible.

(37) direct negation
a. **Non** ho veduto **nulla**.
'I have not seen anything.'
b. **Nessun** professore ha scritto **mai nessun** libro.
'No professor has ever written any book.'

Modern Greek also has three main series of indefinite pronouns: (i) The specific *ka*-series (e.g. *ká-pjos* 'someone', *ká-ti* 'something'), (ii) the non-specific *típota*-series (*kanénas* 'anybody', *típota* 'anything', *puthená* 'anywhere'), and (iii) the *-dhípote*-series (*opjos-dhípote* 'anyone', *oti-dhípote* 'anything', etc.). The distribution of these three series is shown in Figure 4.[7]

Figure 4. *The distribution of Modern Greek indefinites*
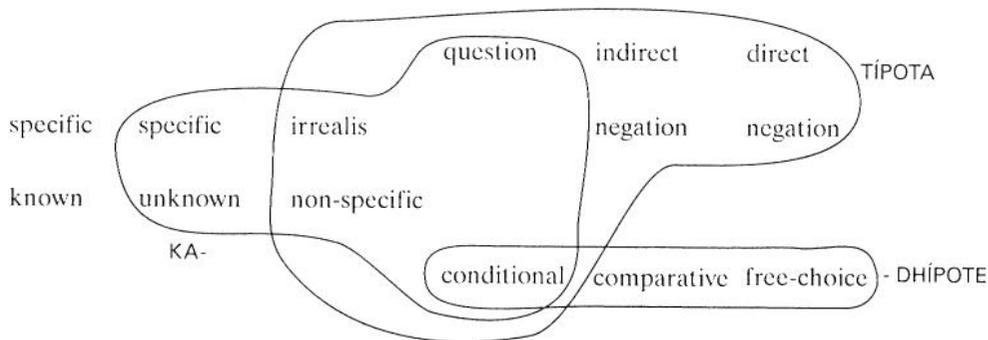
The *ka*-series may be used in specific, irrealis-non-specific and question/conditional functions. However, in the non-specific functions (irrealis, question, conditional) the *típota*-series is preferred.

(38) specific known/unknown
a. ***Ká-pjos**   tilefónise.   Mándepse   pjos!
INDEF-who   phoned   guess: IMPV   who
'Someone called. Guess who!'
b. **Ká-pjos**   tilefónise. Dhen kséro   pjos.
INDEF-who   phoned   not   I: know   who
'Someone called. I don't know who.'

(39) irrealis non-specific (imperative, 'want')
a. Fére   **típota/**   **ká-ti**   na   fáme!
bring: IMPV anything   INDEF-what SBJV   we: eat
'Bring something to eat!'

b. Théli   na   pandreftí **kanénan/ká-pjon**   pu   na   milái ghaliká.
wants   SBJV   she: marry anyone   INDEF-whom who SBJV speak French
'She wants to marry someone [non-specific] who speaks French.'

(40) question/conditional
a. Ídhes   **típota/**   **ká-ti?**
you: saw anything   INDEF-what
'Did you see anything/something?'
b. An   dhís   **típota/**   **ká-ti,**   pes   mu.
if   you: see   anything INDEF-what say: IMPV   me
'If you see anything/something, tell me.'

The *típota*-series is also used in the negation functions.

(41) direct negation
a. To   korítsi   dhen   ídhe   **típota.**
the   girl   not   saw   anything
'The girl saw nothing.'
b. **Kanís**   dhen   mu   ípe   **típota.**
anyone   not   me   said   anything
'Nobody told me anything.'

(42) indirect negation
a. To   korítsi   tó   kane   xorís   **kamjá**   voíthja.
the   girl   it   did   without any   help
'The girl did it without any help.'
b. Dhen   nomízo óti   írthe   **kanís.**
not   I: think that   came   anyone
'I don't think that anyone came.'

The *-dhípote*-series is used in the free-choice function and in the comparative function.

(43) free choice
a. **Opjos-dhípote**   borí   na   lísi   aftó   to   próvlima.
who-INDEF   can   SBJV   solve   this   the   problem
'Anyone can solve this problem.'
b. Borís   na   páris   **oti-dhípote.**
you: can   SBJV   you: take what-INDEF
'You can take anything.'

(44) comparative
To   aghóri borí   na   tréksi   ghrighorótera apó   **opjon-dhípote** sto
the   boy   can   SBJV   he: run   faster   from   whom-INDEF   in: the
sxolío   tu.
school   his
'The boy can run faster than anyone in his school.'

The *-dhípote*-series is also possible in the conditional function with more emphatic value, but not in the question function.

(45) question/conditional

   a. *Ídhes   *oti-dhípote?*
      you: saw what-INDEF
      'Did you see anything at all?'

   b. *An*   *dhis*   **oti-dhípote,**   *pés*   *mu.*
      if   you: see   what-INDEF   say: IMPV   me
      'If you see anything at all, tell me.'

Space does not allow me to give such detailed data for more languages (see Haspelmath 1993a for fuller documentation). Below only the distributional schemas are given for twelve additional languages.

Figure 5. *The distribution of German indefinites*
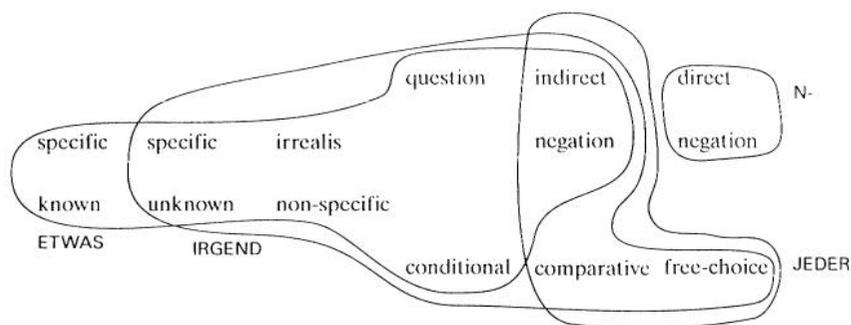
Figure 6. *The distribution of English indefinites*
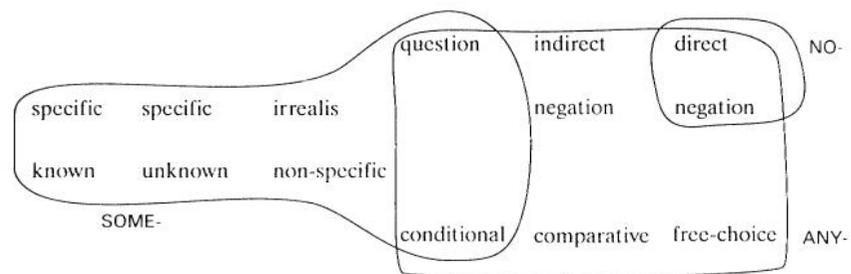
Figure 7. *The distribution of Polish indefinites*
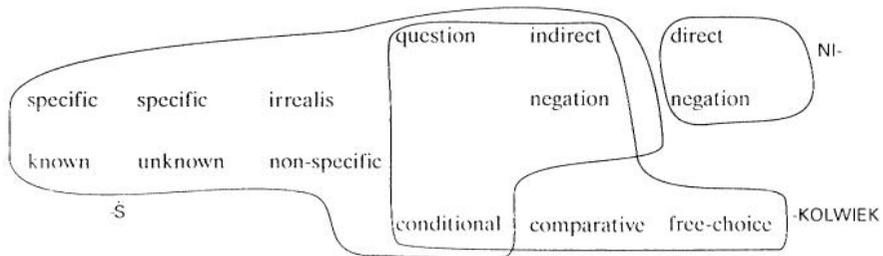
Figure 8. *The distribution of Russian indefinites*
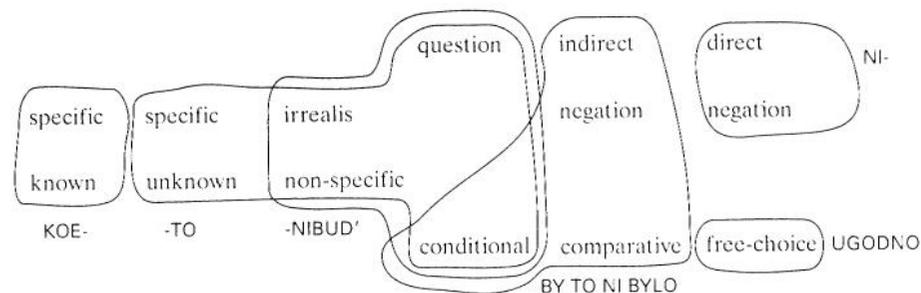
**Figure 9.** *The distribution of Lithuanian indefinites*
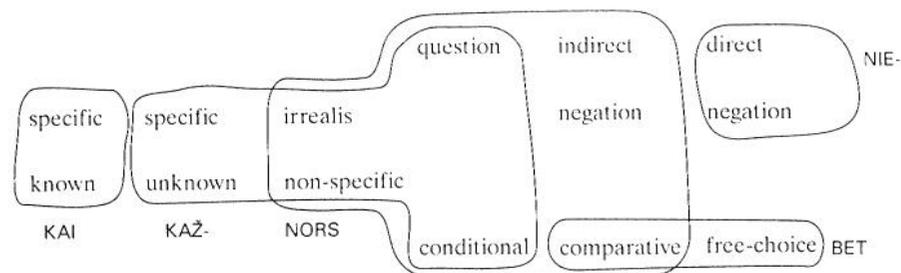
Figure 10. *The distribution of Hungarian indefinites*
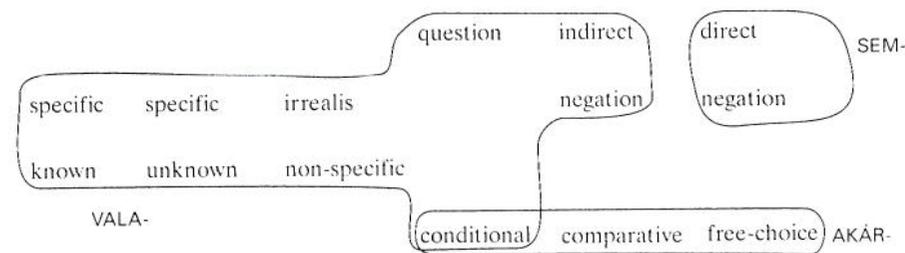
**Figure 11.** *The distribution of Maltese indefinites*
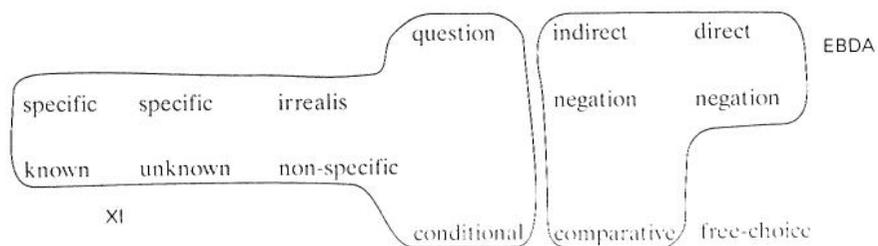
Figure 12. *The distribution of Hebrew indefinites*
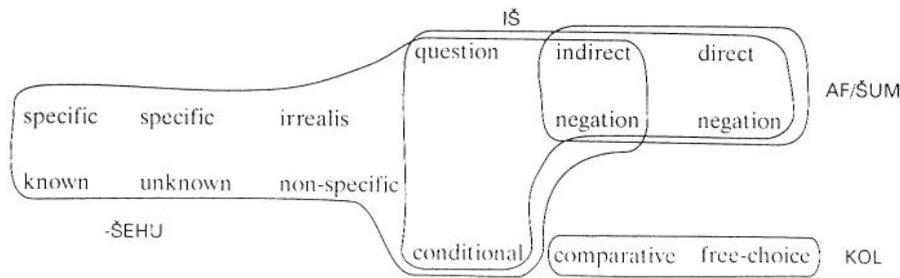
Figure 13. *The distribution of Turkish indefinites*
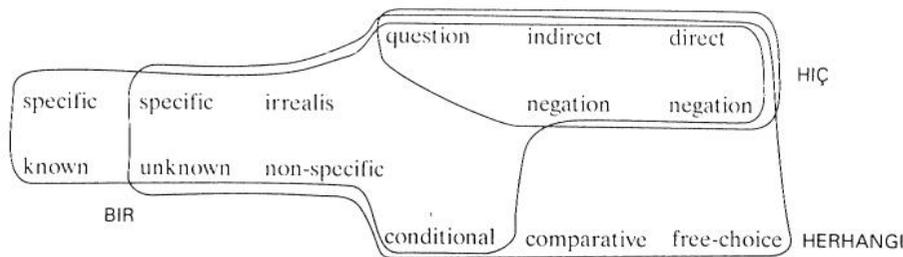
Figure 14. *The distribution of Basque indefinites*
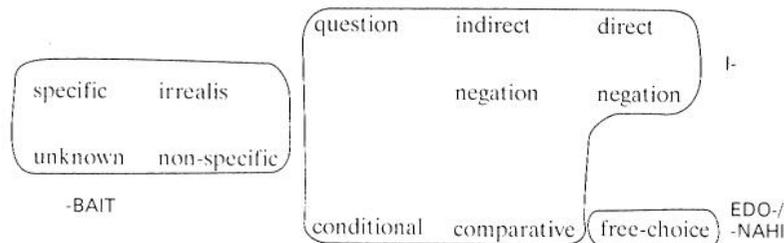
Figure 15. *The distribution of Kanada indefinites*
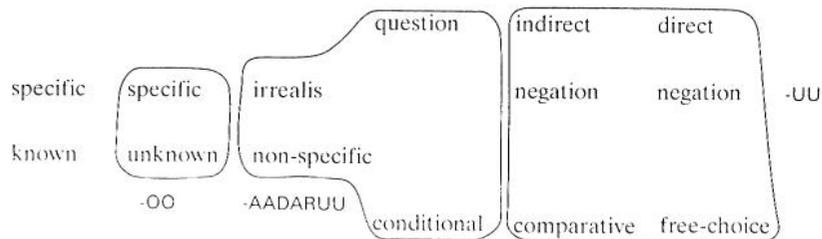
Figure 16. *The distribution of Japanese indefinites*
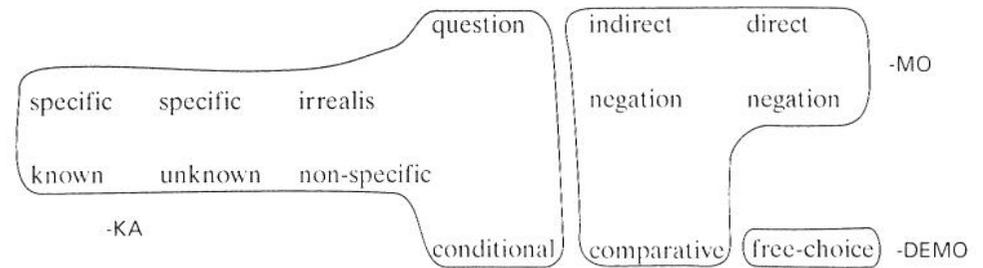
These patterns exhibit a bewildering diversity – notice that there are no two languages that have the same system. However, they all conform to the implicational map. It seems that no further restrictions obtain.

Having established this cross-linguistic pattern, we must now seek an explanation for it, and this is the topic of the next section.

### 4. Explaining the implicational map

My task in this section is to explain why the nine functions of the implicational map are arranged in this particular way and not differently. A complete account would also have to give a rationale for which functions are distinguished in the first place, but at present this important problem is largely beyond our grasp (this applies to most other grammatical distinctions, such as case or aspect; we cannot more than speculate at present why certain aspects and cases but not others are distinguished by human languages).

I start from the plausible hypothesis that spatial closeness on the implicational map is to be accounted for by functional closeness. That is, if an indefinite series expresses several different functions, these functions will be similar (semantically, cognitively, or perhaps otherwise). This reasoning is analogous to the very general principle of polysemy that if an expression has several meanings, these meanings are related. (Otherwise we are dealing not with polysemy, but with homonymy.) Now it is not always clear that the different functions of indefinite pronouns are separate meanings – often we would prefer to say that an indefinite series is vague with respect to a functional distinction rather than polysemous. But in that case the same principle applies: If an expression is vague with respect to a possible distinction between two functions, these functions must be closely related. Since the principle is equally valid for both polysemy and vagueness, we can disregard the distinction in the present context.

I will now discuss four binary features by which the nine functions on the map can be characterized, showing that the functions must indeed be arranged as they are on the map. The first feature is **known** vs. **unknown**. The referent of the indefinite pronoun is known to the speaker if it has the function 'specific known', but it is unknown in all other functions. Since one function is contrasted with all others by this feature, the function must be in a peripheral position, as is indeed the case:

Figure 17. *known vs. unknown*
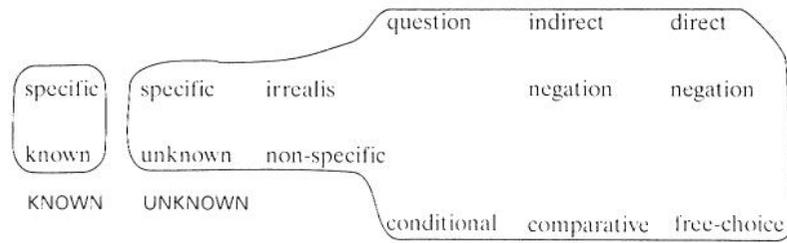
The second feature is **specificity**. Indefinite pronouns are specific when they are used in one of the two 'specific' functions, but non-specific in all other functions, as discussed above in section 2.3.4 (and cf. 2.3.7). Again, these two functions are necessarily peripheral on the map:

Figure 18. *specific vs. non-specific*
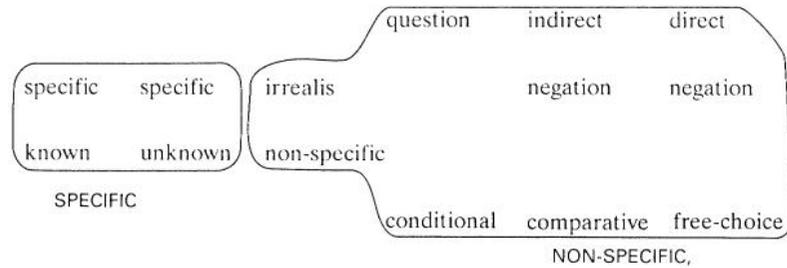
The third feature is **negation**. An indefinite pronoun is negated (i.e. in the scope of negation) if it occurs in the 'direct negation' or 'indirect negation' functions, otherwise it is non-negated. Again, these two functions must be peripheral.[8]

Figure 19. *non-negated vs. negated*
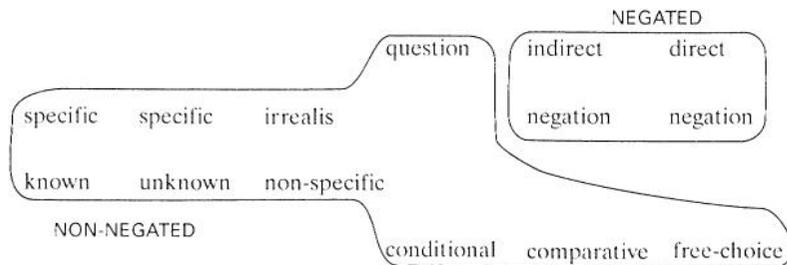
The fourth feature is **scalarity**. In the three functions on the left, the indefinite pronoun never denotes a scalar endpoint, whereas in the six functions on the right it may denote a scalar endpoint. Thus, the specific functions and the 'irrealis-non-specific' function must be peripheral:

That the 'direct negation' function is in the most peripheral position is also plausible: In 'indirect negation' the negator is further away from the indefinite pronoun and does not affect it immediately, hence this function occupies an intermediate position between 'direct negation' and the non-negated functions.

Figure 20. *non-scalar-endpoint vs. scalar-endpoint*
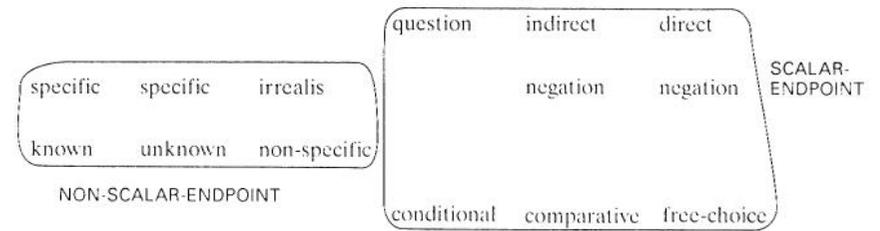
The phenomena and theory surrounding scalarity are too complicated to be discussed here in full detail, so I have to restrict myself to a summary of the relevant points here (see HASPELMATH 1993a: Ch. 4 for a fuller picture). As GILLES FAUCONNIER has shown in various publications (especially 1975a, 1975b, 1977, 1979), the phenomena that are generally subsumed under "negative polarity" in the literature can only be explained by invoking the notions of pragmatic scales and their endpoints. If an endpoint on a scale is non-specific, a scalar implicature may lead to a universal interpretation. This applies to scalar endpoints like superlatives, as in (46–49) (a), but it equally applies to indefinite pronoun series like the English *any*-series (cf. [46–49] [b]), which are approximate paraphrases of the [a] sentences).

(46)   a. *The **slightest** noise can wake her up.*
      b. ***Any** noise can wake her up.*

(47)   a. *If you hear the **slightest** noise, wake me up.*
      b. *If you hear **any** noise, wake me up.*

(48)   a. *Did you hear the **slightest** noise?*
      b. *Did you hear **any** noise?*

(49)   a. *I didn't hear the **slightest** noise.*
      b. *I didn't hear **any** noise.*

Thus, English *any*-indefinites can be said to denote a scalar endpoint on an arbitrary scale (FAUCONNIER 1975a: 373).[9]

Within the functions that allow scalar-endpoint-denoting indefinites, a further distinction must be made: The question, conditional, comparative, and negative contexts have the semantic property that they reverse pragmatic scales. Thus, while *slightest* in the non-negated (50) gives rise to a scalar implicature and is interpreted universally, the negated sentence (51a) does not have the universal reading because the scale has been reversed. Instead, the antonym *loudest* has to be used to obtain a universal reading in (51b).

(50)   *The **slightest** noise bothers her.*

(51)   a. *#The **slightest** noise doesn't bother her.*
      b. *The **loudest** noise doesn't bother her.*

---

[9]   In (i), the superlative *slightest* is specific and hence a scalar implicature is impossible, so the sentence does not have a universal reading (lack of this reading is marked by #).
(i) # *The **slightest** noise woke her up.*
Any cannot occur at all in such contexts because it is inherently non-specific:
(ii) *****Any** noise woke her up.*

The feature **scale-reversing** vs. **non-scale-reversing** distinguishes the free-choice function from the other scalar-endpoint functions. This explains why the free-choice function must be peripheral.

Figure 21. *scale-reversing vs. non-scale-reversing*
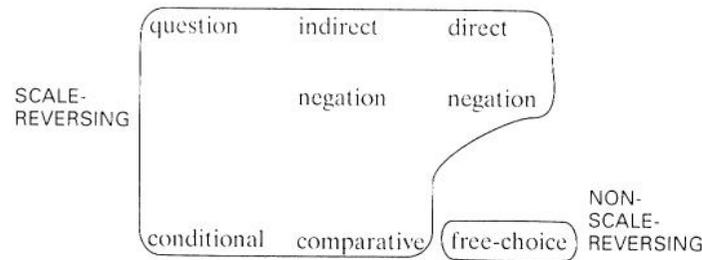
What remains to be explained is the relative position of the 'question', 'conditional' and 'comparative' functions. The question function must be closer to the negation functions because in questions, negation is neutralized. The sentences *Did anybody come?* and *Did nobody come?* are semantically quite similar, so languages can have indefinite pronouns that are used in both cases. The semantic properties of the indefinite pronoun in the comparative function are hard to grasp, but the possible paraphrases make it clear that the comparative function is closer to the free-choice function than the conditional function. Thus, *any*-indefinites have approximate paraphrases with *every*-expressions in the free-choice and comparative functions (52a–b), but not in the conditional function (cf. 52c).

(52) a. free choice: **Anyone** (≈ **everyone**) *can help save the planet.*
      b. comparative: *Leoluca is smarter than* **anybody** (≈ **everybody**).
      c. conditional: *If you hear* **anything** (≠ **everything**), *wake me up.*

This concludes my discussion of the explanation of the implicational map. Note that the original map has been arrived at inductively, by comparing the indefinite pronoun systems of a large number of languages. The explanation above, by contrast, was formulated in deductive terms. By showing that the inductive and deductive perspectives meet, explanatory success has been achieved.

5. Diachronic aspects

Before concluding this paper, I would like to point out in this final section that the implicational map that was established in section 3 also makes predictions about language change. When an indefinite series extends its functions diachronically, it acquires these new functions in the order in which they are arranged on the map. New indefinite pronouns that are grammaticalized from larger expressions originally have the 'specific unknown' or the 'free choice' function. In section 5.1, I briefly mention the most important sources of indefinite pronouns, and in section 5.2 I discuss the way in which they extend their functions on the map (cf. Haspelmath 1991 for a more detailed discussion of the diachronic aspects).

5.1. Diachronic sources

5.1.1. The 'dunno' type. Some indefinites arise from a sentence meaning 'I don't know wh-', where the original superordinate sentence is reduced and grammaticalized to an indefiniteness marker. Indefinites of this type originally have the function 'specific unknown'. Examples are given in (53).

(53) a. Middle High German   *neizwer* 'somebody'
                                        < *ne weiz wer* '(I) don't know who'
      b. Old Norse   *nekkver* 'somebody'
                                          (> Swedish *någon*, Icelandic *nokkur*)
                                          < **ne wait ik hwarir* 'I don't know who'
      c. Bulgarian (dialectal)   *na(m)koj* 'somebody' (cf. Pašov 1965)
                                          < *ne znam koj* 'I don't know who'

5.1.2. The 'want/pleases' type. Indefinite pronouns commonly arise from a sentence meaning 'wh- you want/wh- pleases you'. Here it is the subordinate verb which is grammaticalized and becomes the indefiniteness marker. Indefinites of this type originally have the function 'free choice'. Examples are given in (54).

(54) Latin   *qui-vis* 'anybody'   *vis* 'you want'
      Spanish   *cualquiera* 'any'   *quiera* 'wants (subjunctive)'
      Italian   *qualsivoglia* 'any'   *voglia* 'wants (subjunctive)'
      Russian   *kto-libo* 'anybody'   *libo* < *ljubo* 'dear, pleasing'
      Rumanian *cine-va* 'somebody'   *va* < *vrea* 'wants'
      Albanian   *kushdo*   *do* 'wants'

5.1.3. The 'it may be' type. Another source of indefinites are parametric concessive conditional clauses of the type 'wh-ever it is, ...'. Again, the subordinate verb ('be', or similar expressions) is grammaticalized as an indefiniteness marker. The original meaning is also 'free choice'. Examples:

(55) Russian   *kto-nibud'* 'any-/some-one'   < *kto ni budi*
                                            'whoever it may be'
      Bulgarian *kojto i da e* 'anyone'   "who also it be", i.e.
                                          'whoever it may be'
      French   *qui que ce soit* 'anyone'   'whoever it may be'
      Icelandic *hver sem er* 'anyone'   "whoever it is"
      Hebrew   *mi-še-hu* 'someone'   "who that it (is)", i.e.
                                              'whoever it may be'
      Korean   *mues-i-n-ka* 'someone'   *mues* 'what?', *i-n-* 'be', *-ka*
                                              'question particle'

5.1.4. The 'no matter' type. In a few cases indefinite pronouns go back to superordinate predicates like 'it does not matter (wh-)', which become grammaticalized as indefiniteness markers. The original function is obviously again 'free choice'. Examples are shown in (56) (where probably only the French indefinite can be said to be truly grammaticalized).

(56) French   *n'importe qui*   'anyone'
                  cf. *il n'importe (pas)* 'it does not matter'

German   *gleich welcher*   .any'
             cf. *gleich* 'equal, same'
English   *no matter who*

5.2. Extension on the map

In most of the examples of section 5.1, the effects of formal grammaticalization are quite apparent: The elements that are grammaticalized as indefiniteness markers are reduced phonologically and get cliticized and attached to their hosts. The semantic/functional side of grammaticalization is less straightforward. It is sometimes claimed that semantic grammaticalization essentially boils down to metaphorization (e.g. Heine et al. 1991), but there can be no question of metaphor in the present context. It appears that the best description of semantic grammaticalization is in terms of 'semantic weakening', or 'desemanticization' (cf. Lehmann 1982, among others, for this view). Thus, free-choice indefinites may gradually acquire other functions to the left of the 'free-choice' function on the map, which means that they first lose the semantic feature of scalarity, and later even the feature of non-specificity. Once they have acquired more functions to the left on the map, they may lose their original free-choice function. Figure 22 shows several indefinites whose original function must originally have been 'free choice' because their etymology is one of the diachronic sources in 5.1.2–4.

Figure 22. *Diachronic extension of indefinite series from 'free choice'*

specific   irrealis-   question/   comparative   free choice
                non-specific   conditional

                                                        |—————————————|
                                                        Russian *ugodno*

                                          |—————————————————————————————|
                                          Czech *-koli*, Lezgian *xajit'ani*

                           |————————————————————————————————|
                           French *que ce soit*

               |—————————————————————————————————|
               Russian *-libo*

               |———————————————————|
               Russian *-nibud'*

   |————————————————————————————————|
   Lezgian *jat'ani*, French *quelque*

   |—————————|
   Czech *-si*
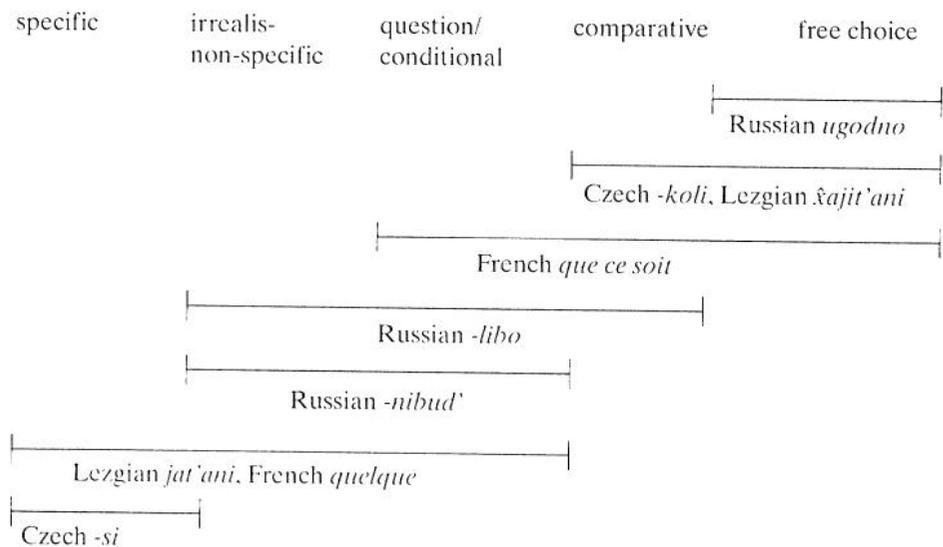
I have much less evidence for indefinites that have been grammaticalized from 'I don't know' (5.1.1) and that originally have the 'specific unknown' function, because I have found much fewer examples of such indefinites. However, there is some evidence that they can also acquire more functions diachronically, by extending their domain to functions further to the right on the map. For example, the older German *neiz*-series (from *ne weiz* 'don't know') is also found in conditional clauses, as in example (52).

(52) *Ich müeste mich wol imer schamen, solte ich fürhten **neizwaz**.*
      'I would have to be ashamed forever if I were afraid of anything.'

This suggests that extension in the opposite direction of Figure 22, as in Figure 23, also exists.

Figure 23. *Diachronic extension of indefinite functions from 'dunno'*

specific   irrealis   question/
                                  conditional
unknown   non-specific   conditional
——→
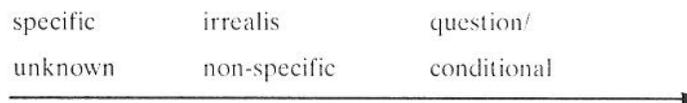
Thus, the implicational map also restricts the way in which indefinite pronouns change diachronically. A diachronic interpretation is also proposed for implicational maps in typological works such as Hengeveld (1992), Kemmer (1993). This and similar work in the functional-typological research tradition shows that the diachronic dimension cannot be separated from the synchronic study of language.

6. Conclusion

In this paper I have summarized some of the main results of my typological study of indefinite pronouns (Haspelmath 1993a). Indefinite pronouns have not been studied systematically from a typological point of view before.[16] I hope to have shown that the typological perspective helps us gain considerable insight in the nature of indefinite pronouns. Indefinite pronouns are formally quite similar across languages, and there is only a small number of salient functional distinctions that recur in language after language. No language has as many different indefinite pronoun series as there are functional distinctions (nine), so indefinite pronouns generally express more than one of these functions (moreover, often a function may be expressed by several indefinites, i.e. there is a lot of overlap). The patterns of multifunctionality are quite diverse across languages, but the diversity is not unlimited. An implicational map expresses the mutual relations of these functions, and independent semantic considerations explain why the map must be arranged in this particular way. Finally, the implicational map is also diachronically relevant.

Abbreviations

ACC   accusative
COMP   comparative
CONV   converb
DAT   dative
DECL   declarative
DUR   durative
GEN   genitive
HAB   habitual

[16] Von Bremen (1983) and Coyaud & Aït Hamou (1972) provide valuable cross-linguistic observations regarding the formal make-up of indefinite pronouns, but they do not take into account the various uses of indefinites. Bernini & Ramat (1992) is the best previous typological study, but is largely restricted to negative indefinites.

IMPV	imperative
INDEF	indefiniteness marker
INF	infinitive
LOC	locative
NEG	negation
PERF	perfect
POL	polite form
PRES	present
Q	question marker
SBJV	subjunctive
TOP	topic

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