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Time reference in English indirect speech

Sterre Leufkens

University of Amsterdam

When a quotation is syntactically embedded in English, there are repercussions for temporal reference: absolute referential elements have to shift to the new deictic centre. Absolute adverbials must be adapted, dropped or replaced by relative elements. Tense undergoes so-called sequence of tenses (tense copying): a past tense main clause requires backshifting of the embedded tense. The chapter discusses Comrie's (1986) analysis of this phenomenon and examines exceptions. It discusses criticism by Declerck (1988) and goes on to show how Functional Discourse Grammar (Hengeveld & Mackenzie 2008) elegantly explains the data: tense copying, triggered by a Reportativity operator at the Interpersonal Level, is accounted for by operator copying at the Morphosyntactic Level, restricted by information from the Representational Level.

1. Introduction¹

In indirect speech constructions, two deictic centres are combined: that of the original speech situation and that of the quoting situation. In a direct speech context like (1a), the original quote is fully retained as it was spoken. In indirect speech, like in (1b), elements of the embedded quote are adapted to the deictic centre of the new utterance. Such adaptation is called 'shifting'; the adapted forms are known as 'shifters' (Hengeveld 1997).

- (1) a. Vicky said: 'I was here yesterday.'
- b. Vicky said that she had been there the day before.

All deictic elements are potential shifters: units that specify time (tensed verbs and temporal adverbials), location (locative cases and locational adverbials) and features of conversation participants (person inflection on verbs and pronouns). Which of

1. I am greatly indebted to Freek Van de Velde, Evelien Keizer, Kees Hengeveld, Hella Olbertz and an external reviewer for their valuable feedback on earlier versions of this chapter. I would also like to thank the participants in the FDG conference in Ghent, June 2012, for their helpful comments. Renee Clapham, Gareth O'Neill and Lachlan Mackenzie were kind enough to provide their native speaker intuitions.

these elements actually shift is a language-particular matter: Leufkens (2009) finds that in many languages, at least pronouns, locational and temporal adverbials are shifted, while shifting of tense (as occurs in English) is typologically rare.

In an influential paper by Comrie (1986), the shifting of tense in English indirect speech quotes is explained by a rule, known as sequence of tenses or *consecutio temporum*, which requires so-called ‘backshifting’ of the tense of the embedded verb when the main clause has a past tense. Functional Discourse Grammar (Hengeveld & Mackenzie 2008; henceforth FDG) partly mirrors Comrie’s analysis by positing a tense copying rule: the past tense operator of a main clause is passed on from the Representational Level to the Morphosyntactic Level, and there copied to the operator slot of the embedded clause (Hengeveld & Mackenzie 2008: 351, 367). However, whereas Comrie states that sequence of tenses is automatic and a purely morphosyntactic phenomenon, FDG leaves room for pragmatic and semantic influences on the morphosyntactic tense form.

As both Comrie and FDG acknowledge, exceptions to a sequence of tenses rule occur. Under certain semantic conditions, i.e. when the situation in the embedded clause is still true at the time of quoting, backshifting is optional. Consider (2): sequence of tenses predicts a past tense ‘were’, but in fact the simple present ‘are’ is used.

- (2) He emphasised that puffins are not rare seabirds. <ICE-GB:w2c-015 # 68:4>²

In fact, such exceptions are quite prominent in spoken English. A quick search in the spoken compartment of the British National Corpus gives 53 hits for ‘said that X was’, and 40 hits for ‘said that X is’ – 43% being quite high for what is generally perceived as an exception to a rule.³ FDG would benefit from being able to account not only for sequence of tenses but also for these ‘deviations’. As this chapter will show, FDG is in fact fully capable of dealing with them, by virtue of allowing for pragmatic and semantic influence on the application of tense copying. FDG thus offers an improvement over Comrie’s purely morphosyntactic approach.

2. Two corpora were consulted for this chapter: the British National Corpus (BNC, Davies 2004) and the International Corpus of English (ICE). The BNC can be found at <http://corpus.byu.edu/bnc/> and contains spoken and written language. It consists of 100 million words of current British English. The ICE is smaller as it contains 1 million words. Its British component can be obtained at <http://www.ucl.ac.uk/english-usage/projects/ice-gb/>

3. These are results of the queries ‘said that X was/were’ and ‘said that X is/are’, where X was one of the English pronouns, combined with the appropriate verb form. A reviewer suggested searching for the construction without ‘that’ as well, but hits would then also include direct speech complements, which are not cases of shifting (e.g. ‘He said John likes me’ can be either direct or indirect speech). I have therefore decided to leave this construction out.

The chapter will address the shifting of (lexical and grammatical) temporal reference in indirect speech in English – aspect will not be an object of study. It attempts to show how Functional Discourse Grammar can account for exceptions to tense copying and, tentatively, propose why they occur. For reasons of space, complement-taking predicates other than verbs of saying (e.g. ‘I thought that...’, ‘I doubted that...’) will be excluded from the research. I will only consider prototypical indirect speech – other reported speech constructions (e.g. free direct and free indirect speech) will not be a topic of study (but cf. Keizer 2009 and Giske 2012 for FDG analyses of such constructions).

The chapter is structured as follows. First of all, Section 2 gives a brief overview of the various types of temporal reference. In Section 3, two influential accounts of tense copying, viz. Comrie (1986) and Declerck (1988), are presented and compared. FDG’s analysis of tense copying is outlined in Section 4. It is shown how FDG is able to deal with the ‘exceptional’ cases introduced above. Section 5 offers a discussion of a possible motivation for using the non-default construction and finally, Section 6 lists the main conclusions of the chapter.

2. Temporal reference: Locating situations in time

Languages have various means at their disposal to locate a given situation in time, either lexically by adverbials or grammatically by means of tense.⁴ One strategy, traditionally termed absolute time reference, is to relate the situation to the deictic centre of the on-going conversation. Lexical absolute time reference is for instance achieved by adverbs ‘yesterday’, ‘today’ and ‘tomorrow’, which define a point in time relative to the here and now of speaking. Such units are interpretable only in relation to the deictic centre of the conversation.

It is often thought that English main clauses exhibit absolute tense. Section 4 presents a different view, but let us take this position for now. English is said to have four main absolute tenses: the simple past (*smiled*), the present perfect (*has smiled*), the simple present (*smiles*) and the future tense (*will smile*). If a hearer encounters for example a past tense, she knows that the situation described has occurred (and perhaps has finished, dependent on the aspectual specification) prior to the here and now of the conversation. The present perfect is ‘the odd one out’ here, as it does not only locate the situation in time (i.e. the (recent) past), but

4. As is common in semantic research, I will use the term ‘situation’ for any semantic unit with a temporal dimension. This covers processes, states, actions and events and corresponds to FDG’s State-of-Affairs.

points out the relevance of the effect of the situation in the present (cf. Comrie 1976:52). The status of the present perfect as an absolute tense is therefore somewhat dubious. I will not dive into the specifics of the present perfect in this chapter, as it is not relevant to the discussion of tense copying, but Section 4 will show how FDG can model the present perfect.

A second strategy of temporal referentiality is relative time reference: placing the situation in time with respect to some other point in time. Since English has no pure relative tenses in its main clauses (at least, to my knowledge there is no one who claims so), I will turn to a different language to illustrate relative tenses. They are found for instance in Hausa (a Chadic language spoken in Nigeria), cf. (3).

(3) Hausa – Hengeveld and Mackenzie (2008:173)

- a. *Jiya da 3:00 sun shiga.*
 yesterday at three 3PL.ANT enter
 ‘Yesterday at three o’clock they had entered.’
- b. *Gobe da 3:00 sun shiga.*
 tomorrow at three 3PL.ANT enter
 ‘Tomorrow at three o’clock they will have entered.’

The relative tense marker *sun* indicates anteriority, that is, it locates *shiga* in time prior to some other point in time. This other point in time can be in the past, present or future – *sun* does not specify this by itself. The absolute time of the event is not obligatorily expressed in Hausa, but can be expressed lexically: in (3a), the phrase *jiya da 3:00* ‘yesterday at three’ places the reference point in the absolute past, while in (3b) *goba da 3:00* ‘tomorrow at three’ encodes an absolute future reference. *Sun* is hence interpreted relative to the lexically expressed point in time but does not have an absolute time specification of its own.

Relative tense in main clauses is not common in European languages, but does appear in complement clauses, crucially in complements of speech predicates. Russian, for example, makes use of absolute time reference in main clauses and of relative time reference in embedded clauses.

(4) Russian – Comrie (1986:275)⁵

- a. *Tanja skaza-l-a: ‘Ja tancu-ju.’*
 Tanj say-PST-F I dance.PRS-1.SG
 ‘Tanja said: “I am dancing.”’

5. I am grateful to Vadim Kimmelman and Katja Bobyleva for providing glosses for the Russian examples. All remaining errors are of course my own.

- b. *Tanja skaza-l-a, čto ona tancu-et.*
 Tanja say-PST-F that she dance.SIM-3.SG
 ‘Tanja said that she was (lit.: is) dancing.’

In (4a), the verb in the quote is in the present tense. In (4b), the quote is adapted to the main clause’s deictic centre, as shown by the shifted pronoun (first person in the directly quoted clause, third person in the indirectly quoted clause). The main clause locates the event of saying (*skaza*) in the past by means of absolute time reference. The event of dancing is then located in relation to the event of saying in the main clause: the event of Tanja’s speaking and the situation of her dancing have occurred simultaneously.

Note that the absolute present tense in (4a) and the relative simultaneous tense in (4b) both have the form *tancu-*. The embedded tense in (4b) is therefore often called a present tense, which in my opinion confuses the distinct semantics of the forms. I prefer to regard the forms as homonymous and strictly reserve the terms ‘past/present/future’ for absolute tenses and ‘anterior/simultaneous/posterior’ for relative tenses.

Just as absolute tenses have an adverbial counterpart, relative tenses can be related to relative time adverbials, for example ‘that day’ in (5).

- (5) a. He called me that day.
 b. He will call me that day.

‘That day’ as such cannot be located in the past, present or future – it can only be interpreted relative to the moment of the phone call and is in that sense comparable to a relative tense. Relative time referencing units cannot by themselves place a situation in the past, present or future, but specify whether the situation occurred before (anterior), at the same time as (simultaneous) or after (posterior) another specified point in time. The relative adverbial thus ‘needs’ an absolute past tense in (5a) and an absolute future tense in (5b), to locate the day in the past and the future respectively. Adverbial phrases like *the day before*, *that day* and *the day after* are in that sense equivalent to anterior, simultaneous and posterior relative tenses respectively.⁶

A third way of locating a situation in time is by means of absolute-relative time reference. Absolute-relative tenses locate a situation both with respect to the here and now and with respect to some other point in time, to be specified elsewhere (typically in an adverbial clause). An example of an absolute-relative tense is the pluperfect ‘had closed’ in (6).

6. Freek Van de Velde remarks that it is interesting that the adverbial phrase *the other day* shows absolute time reference, even though it is formally similar to *that day*. I assume this is a lexical idiosyncrasy.

- (6) When Jack arrived, the university had already closed.

The event of Jack's arrival is located in the past by means of the absolute past tense *arrived*. The closing of the university is then located anterior to Jack's arrival. *Had closed* is not an absolute tense, since its location in time depends on the moment of Jack's arrival, not (only) on the here and now. Nor can it be considered a pure relative tense (even though absolute-relative tenses are characterized by some as a special type of relative reference), as it does include an absolute specification of past, present or future: *had closed* could never refer to a present or future situation (compare **When Jack arrives tomorrow, the university had closed*). The pure relative anterior tense in the Hausa example (3a) carries only the semantics of anteriority, but gives no information about past, present or future occurrence, while the absolute-relative *had closed* combines the semantics of anteriority and pastness.

Three absolute-relative tenses are distinguished (e.g. by Comrie 1985:64): firstly the combination of past and anterior that is called pluperfect (*had smiled*), secondly the past and posterior combination called conditional tense (*would smile*) and finally the future anterior tense, called the future perfect (*will have smiled*).⁷ One also finds the names 'past in the past', 'future in the past' and 'past in the future' respectively for these tenses but in accordance with my argument above I find it confusing to use 'past' and 'future' for relative tenses. The terms 'anterior in the past', 'posterior in the past' and 'anterior in the future' fit the semantic properties of the respective forms better.

Parallel to relative and absolute tenses, absolute-relative tenses have an adverbial equivalent. These are combinations of absolute and relative adverbials, such as *the day before yesterday* and *the day after tomorrow*. In principle, all adverbials can be combined in this way but in practice only few such absolute-relative adverbial phrases are used. In Section 3.1, a possible reason for this will be addressed.

3. Previous approaches to tense copying

The shifting of tenses and time adverbials in reported speech is a recurrent theme in English linguistics. The most influential account is that of Comrie (1986), which

7. Examples can also be found of conditional tenses referring to the future ('Would you perhaps have liked another biscuit?') and pluperfect tenses referring to the future (e.g. Dutch *Ik had u graag een vraagje gesteld*, 'I had gladly asked you a question', meaning 'I would like to ask you a question.'). In such cases, the tense does not in fact locate the situation in the past but serves to create a distance that is perceived as highly polite (I am grateful to Freek Van de Velde for pointing this out to me). Such uses should in my opinion be seen as metaphorical extensions of the prototypical meaning of these tense forms.

is still adhered to in many English textbooks, even though it was heavily criticized by, among others, Declerck (1988). Other perhaps more fine-grained analyses have been advanced by Huddleston (1989), Declerck (1988, 1995), Declerck and Tanaka (1996), Salkie and Reed (1997) and more recently Davidse and Vandelanotte (2011). The principal points of disagreement that are relevant for the purposes of this chapter are well represented in Comrie's and Declerck's papers, which is why I will restrict the discussion to these.

3.1 Comrie (1986)

Comrie notes that in English a past tense is used in embedded clauses, as in (7b), where Russian uses a relative simultaneous tense (compare (5b)).

- (7) Comrie (1986: 275)
- a. Tanja said: 'I am dancing.'
 - b. Tanja said that she was dancing.

Since it is impossible to interpret *was dancing* relative to the tense of the main clause, as in Russian, Comrie asserts that English has no relative tenses. Furthermore, to account for the use of a past tense, he proposes his now famous sequence of tenses rule (henceforth SoT rule; Comrie 1986: 279):

If the tense of the verb of reporting is non-past, then the tense of the original utterance is retained; if the tense of the verb of reporting is past, then the tense of the original utterance is backshifted into the past.

According to this rule, the present tense *am dancing* in (7a) is embedded under the past tense *said* in (7b), and therefore backshifted. Even though *was dancing* appears to be an absolute past tense, (8) shows that it is not.

- (8) Comrie (1986: 276)
- a. Vera said: I will arrive tomorrow.
 - b. Vera said that she would arrive on the next day.

The simple future tense *will arrive* in (8a) is backshifted in (8b). This results in the conditional tense *would arrive*: an absolute-relative past posterior tense. Even though Comrie does not explicitly spell this out, he models the process of backshifting as a combination of changing the original absolute tense to a relative tense (future > posteriority), and then adding an absolute specification within the new deictic situation (past). Assuming that the same process applies in (7b) forces Comrie to analyse *was dancing* as an absolute-relative tense as well, but one that is homonymous with an absolute past tense. Section 4 will show that FDG's account does not need to assume homonymy and is in this respect more parsimonious.

Comrie argues that the SoT rule is strictly syntactic and blind to semantics: "... it is completely independent of the meaning of the tense forms involved, it is a purely formal operation" (Comrie 1986:290). Hence, SoT is supposed to apply obligatorily, but Comrie acknowledges that it is in some cases optional, as in (9).

- (9) Comrie (1986:285)
- a. Many medieval scholars said: 'The earth is flat.'
 - b. Many medieval scholars said that the earth was flat.
 - c. Many medieval scholars said that the earth is flat.

Application of SoT leads to a grammatical and contextually acceptable result in (9b), but the use of a present tense in (9c) is grammatical as well. To account for such exceptions, Comrie introduces a 'condition of continuing applicability': SoT applies, "... except that if the content of the indirect speech has continuing applicability, the backshifting is optional" (Comrie 1986:285). In Section 5, more will be said about this notion of continuing applicability.

Concerning adverbials, Comrie distinguishes between absolute and relative time adverbials. As shown above, some absolute-relative time adverbial phrases are available in English, so that, as with tenses, absolute adverbials could in theory backshift to an absolute-relative form. However, Comrie does not address the existence of absolute-relative adverbials but argues that adverbials, when embedded, do not undergo backshifting. What does happen is illustrated in (8), repeated here as (10).

- (10) Comrie (1986:276)
- a. Vera said: I will arrive tomorrow.
 - b. Vera said that she would arrive on the next day.

Retaining the absolute adverb *tomorrow* in the embedded clause in (10b) would give a different and unwanted reading: *tomorrow* would be interpreted relative to the here and now of the current utterance, instead of to the deictic centre of Vera's original utterance. Therefore, the absolute adverb has to be replaced by the relative time adverbial *on the next day*. While tense forms are backshifted under a past tense main clause, absolute adverbials are replaced by relative ones. Alternatively, they can be replaced by the absolute adverbial that gives the correct reading under the new deictic centre, in this case *today*.

As was said, Comrie does not address the possibility of backshifting an absolute adverbial to an absolute-relative adverbial phrase. That would in principle be possible: as with the shifting of tense, the absolute adverbial could be replaced by its relative equivalent and an appropriate new absolute adverbial could be added. Backshifting of (10a) would then give *Vera said that she would*

arrive on the day after today (where the absolute adverbial is dependent on the moment of Vera's utterance). Even though this is a fully acceptable sentence, this is not what we find in practice. This may be due to the relative complexity of absolute-relative adverbial phrases compared to simple relative time adverbials. Perhaps the combination of two temporal adverbials is just too complex to be used – replacement by a simple relative adverbial is a more economical way to express the same content.

Comrie addresses yet another reason to use a relative adverbial rather than an absolute one, namely that the use of an absolute adverbial in an indirect speech construction can give rise to a conflict between adverbial and tense. Consider (11) for an illustration; assume that today is Wednesday.

- (11) Comrie (1986: 288)
- a. On Friday, Roman will say: 'I arrived on Thursday.'
 - b. On Friday, Roman will say that he arrived on Thursday.
 - c. ??On Friday, Roman will say that he arrived tomorrow.

Note first of all that since the main clause predicate is not a past tense, the past tense in the embedded clauses is not a result of backshifting. Hence, whether we see *arrived* as an absolute past tense (as Comrie does) or as an absolute-relative past simultaneous (as will be defended below), the embedded clause is located in the past with respect to the deictic centre of the indirect speech construction and not the result of a syntactic rule. Native speakers of English consulted by Comrie accept the past tense combined with *on Thursday* in (11b), but some of them reject the combination with the absolute time adverbial *tomorrow* in (11c) (Comrie 1986: 287). Comrie's explanation for (11c)'s dubiousness relative to (11b) is that the past tense semantics of *arrived* clashes with the futurity semantics of *tomorrow* – even though the event really lies in the future so that *tomorrow* is strictly speaking an applicable lexeme here. The contradictory semantics make the sentence less grammatical, which is why *tomorrow* is preferably dropped or replaced by *on Thursday*. Comrie (1986: 287) calls this the collocation restriction.

Now consider a second example of a partially incompatible time adverbial and tense combination, that in (12); again assume that today is Wednesday.

- (12) Comrie (1986: 289)
- a. On Monday, Sashka said: 'I will arrive on Tuesday.'
 - b. On Monday, Sashka said that she would arrive on Tuesday.
 - c. ?On Monday, Sashka said that she would arrive yesterday.

In this case, the future tense of the original clause is backshifted according to the SoT rule, to a conditional (past posterior) tense *would arrive* in both (12b) and (12c).

This conditional tense combines well with *on Tuesday* in (12b). But again, for some native speakers there is friction between *would arrive* and *yesterday*. As in (11c), there appears to be a conflict between the future-like semantics in *would* (the ‘future in the past’ as some would call it) and the pastness semantics of *yesterday*. However, as Comrie (1986: 289) notes on the basis of a consultation of native speakers, (12c) is more acceptable than (11c). The difference lies, according to Comrie, in the fact that *would arrive* does not include future time reference, but only posteriority. The conflict between past posterior on the one hand and pastness on the other is obviously less severe than the conflict between past and future temporality in (11c).

Comrie’s collocation restriction entails that conflicts like the one in (11c) render a sentence ungrammatical (to some degree), so that an absolute adverbial cannot be used in such cases. It has to be replaced by a relative one (e.g. *a day later*, *the day before*), or by a so-called fixed adverbial (e.g. *on Thursday*). The collocation restriction has no influence on the tense forms used.

3.2 Declerck (1988)

Comrie’s analysis was criticized by Declerck (1988). In that paper, Declerck outlines part of his own theory of tense in main, embedded and adverbial clauses.⁸ According to his model (which is much more elaborate than is relevant to describe here), absolute tenses are able to locate situations in so-called ‘absolute sectors’: portions of time that are related to the moment of speech. Declerck distinguishes four sectors (past, pre-present, present and post-present) and groups these into two time-spheres: the past and the present. Since the past time sector is the only sector in the past time-sphere, these categories coincide.

The use of an absolute tense places the situation in one of these sectors and there creates a so-called temporal domain: “... a time interval taken up either by one situation or by a number of situations that are temporally related to each other by means of special tense forms” (Declerck 1988: 515). When two or more situations take place in the same time-sphere (i.e. both in the past or both in the present), the default option for a speaker is to relate one of the situations to the other, or in Declerck’s terminology: to bind one of the situations in the temporal domain created by the other. This means that one of the situations has an absolute tense (creating the domain) and the second a relative one (binding it to the first

8. Declerck (1991) offers an elaborate explanation of his entire theory of tense, which also models the interaction between tense, aspect and modality. Declerck (1988) specifically goes into the parts of that theory that are relevant to refuting Comrie’s approach and is therefore my main source in this chapter.

situation). For instance, in (13), the absolute tense of the main clause locates it in the past time sector.

(13) Declerck (1988: 515)

John said that he had felt very tired when he was working.

The situation of feeling tired is located relative (anterior) to the main clause event of John's speaking. 'Working' is located as being simultaneous to the tiredness, also by means of a relative (simultaneous) tense. Note that this clause is temporally bound to the second clause, but not directly to the main clause. It is not the case that each situation should be bound to the 'central situation' (i.e. the situation with absolute tense); the relative tenses in embedded clauses only locate the situations with respect to each other, within the temporal domain established by the absolute tensed verb. As will be shown in Section 4, Declerck's account resembles FDG in this respect.

Note that Declerck assumes English to have relative tenses, but no absolute-relative tenses. This is due to the fact that Declerck (1988) treats absolute-relative tenses as a subgroup of relative tenses. This is hence a terminological difference rather than a theoretical one.

Note furthermore that Declerck does not posit any rule of shifting or copying. All tenses are directly determined by the temporal semantics of the different situations, without taking the original utterance or its deictic centre as a starting point. The embedded tense forms are not derived from the original quote's tense but are formed independently.

As a consequence, Declerck does not need to assume a condition or other explanation to account for exceptions to tense copying. Instead, he argues that the use of an absolute present tense in an indirect speech clause should be seen as a deliberate choice made by the speaker to construct a second temporal domain. The speaker chooses to use a second absolute tense in the embedded clause, thus creating a second temporal domain that need not be related explicitly to the one created in the main clause. This is for instance the case in (14).

(14) Declerck (1988: 520)

John said that New York is an interesting city.

In the main clause, the past tense verb creates a temporal domain in the past time-sphere. The complement shows an absolute present tense, which establishes a second temporal domain in the present time-sphere.

The use of a relative tense in the embedded clause is argued to be the default and unmarked option and as such always possible. Using an absolute tense as in (14) is non-default, marked, and therefore subject to restrictions. One of these restrictions

is Comrie's continuing applicability: a speaker can only use an absolute present tense in an embedded clause if that embedded clause is still true in the new here and now.

The procedure for the embedding of time adverbials is not explicitly discussed in Declerck (1988), but from the absence of any criticism we can deduce that he agrees with Comrie's account here: absolute adverbials have to be replaced by relative ones when used in an embedded clause. Comrie's collocation restriction is adopted as well (Declerck 1988: 530).

However, Declerck criticizes Comrie on three points. Firstly, Declerck brings some extra examples to the table that Comrie cannot account for, while Declerck's model can. These examples involve cases of the present perfect, multiple embedded clauses, aspect and interactions between tense and modality. To discuss them it would be necessary to go into the details of the models, which would not be relevant to the aims of this chapter. Therefore, I will not discuss these examples here.

Declerck's second point of critique is a theoretical one: he argues that it is at least strange that Comrie's supposedly 'purely formal and automatic' SoT rule is subject to the semantic condition of continuing applicability and the collocation restriction. How can a rule that is automatic, blind to semantics, take semantic conditions into account? In Declerck's model this is unproblematic, since he assumes a direct influence of semantics on tense forms.

A third weakness of Comrie's approach, according to Declerck (1988), is that temporal adverbials and tense are explained in different terms. In Comrie's paper, adverbials can be either absolute or relative, while English tense is absolute (in main clauses) or absolute-relative (in embedded clauses). There is no theoretical explanation for this difference nor does it follow from the semantics of the forms involved. In Declerck's model, adverbials and tenses behave the same: they can both be absolute and relative; when they are absolute they create a temporal domain, otherwise they are bound in another temporal domain. There is no difference to be explained.

Declerck's proposals, especially the idea that English has relative tenses, have in turn been subject to criticism. For instance Huddleston (1989) and Davidse and Vandelanotte (2011) disagree with Declerck's analysis of the English simple past tense as having two distinct meanings: an absolute past tense and a relative simultaneous tense. In their opinion, the simultaneity reading of the English past tense only arises in the right context and is derived from the basic absolute tense interpretation. The next section will go into the modelling of tense in Functional Discourse Grammar. It will be shown that the question whether we are dealing with two homonymous tenses or with one tense with a derived second meaning actually disappears if we assume that *all* English tenses are in fact absolute-relative tenses.

4. Functional Discourse Grammar

Temporal reference is dealt with in FDG at the Representational Level. Absolute, relative and absolute-relative tense are grammatical devices and thus modelled as operators, while adverbs are lexical items and therefore represented as modifiers. Absolute time reference is a property of the Episode: a unit that includes one or more States-of-Affairs. A State-of-Affairs can be located in time by means of a relative tense operator or relative time modifier. It is not located in time relative to the here and now but only with respect to other States-of-Affairs within the same episode. Note that this strongly resembles Declerck's idea of absolute time reference creating a temporal domain (comparable to an Episode) and situations (comparable to States-of-Affairs) that are located within that temporal domain with respect to each other. The hierarchical relation between absolute and relative time reference is illustrated in (15). Tense operators are as yet left out from this representation.

- (15) Hengeveld and Mackenzie (2008: 171)
 Yesterday Sheila went out before dinner.
 $(ep_i: (e_i: (f_i: \text{-Sheila go out- } (f_i)) (e_i): (t_i: \text{-before dinner- } (t_i)) (e_i))$
 $(ep_i): (t_i: \text{-yesterday- } (t_i)) (ep_i))$

The modifier *yesterday* (an absolute time adverb) locates the Episode in time: Sheila's going out is placed in the past. *Before dinner* (a relative adverbial phrase) then locates the first State-of-Affairs 'going out' with respect to another event, i.e. the dinner. *Yesterday* scopes over *before dinner* – the dinner cannot have occurred on any other day than yesterday, as illustrated by the ungrammaticality of (16).

- (16) *Yesterday Sheila went out before that dinner party planned for next week.

Example (17) demonstrates that morphosyntactic placement reflects this scope relation: the lower modifier (*before dinner*) preferably stands closer to the predicate, mirroring its semantic proximity.

- (17) Hengeveld and Mackenzie (2008: 316)
 a. Sheila went out before dinner yesterday.
 b. ?Sheila went out yesterday before dinner.

The demonstrably hierarchical relation between the modifiers proves that they operate on different layers.

An Episode and all the States-of-Affairs it contains are located in time by means of absolute time reference, while the States-of-Affairs themselves are located in time relative to each other. Let us now see how this works for English tenses by considering Declerck's (1988: 515) example (13), repeated here as (18). I will leave out the reporting clause, for a better build-up of the explanation.

- (18) ... he felt very tired when he was working.
 (p_i:
 (past ep_i:
 [(sim e_i: -he feel tired- (e_i)) (sim e_j: -he work- (e_j))]
 (ep_i:))
 (p_i:))

Every State-of-Affairs must carry a relative tense operator, to make sure that it is located in time correctly with respect to other situations. Hence, every (English) main clause tense form combines an absolute tense operator and a relative tense operator. At this point, FDG differs from traditional accounts that assume that English main clause tenses are always absolute tenses. According to FDG, all English main clause tenses are absolute-relative tenses. This puts paid to the question whether there are tenses that have two homonymous forms (one absolute and one relative, as with *tancu-* in the Russian example (4)) or absolute tenses that can get a relative reading in the right context (as proposed by Davidse & Vandelanotte 2011): tense forms have one meaning that includes both absolute and relative time reference.

As opposed to main clauses, English embedded clauses need not always contain absolute-relative tenses: they can also contain pure relative tenses, e.g. in (19) where *having* expresses relative anterior tense, (20) in which *sliding* expresses a simultaneity operator only and (21) in which posteriority is expressed by means of *to wash*.⁹

- (19) Having closed the door, he realized his keys were inside.
 (p_i:
 (past ep_i:
 [(ant e_i: -he close door- (e_i))
 (sim e_j: -he realize keys inside- (e_j))]
 (ep_i:))
 (p_i:))

9. I am indebted to Kees Hengeveld for pointing this out to me.

(20) He left sliding down a rope.

(p_i:
 (past ep_i:
 [(sim e_i: -he slide down rope- (e_i)) (sim e_j: -he leave- (e_j))]
 (ep_i))
 (p_i))

(21) He is the man to wash the dishes.

(p_i:
 (past ep_i:
 [(sim e_i: -he man- (e_i)) (post e_j: -he wash dishes- (e_j))]
 (ep_i))
 (p_i))

These relative tenses are all expressed by means of non-finite forms of the predicate. A pure relative tense does not trigger a specialized lexeme or affix in English (like an absolute past tense selects a suffix *-ed* and a future tense an auxiliary *will*) but is expressed through the use of a verb form that has no tense, aspect, person or number inflection.

The joint expression of an absolute tense operator and a relative tense operator (in main or embedded clauses) leads to the selection of the ancillary tense form at the Morphosyntactic Level. There are nine logically possible combinations, which are given in Table 1.

Table 1. English forms for the nine possible combinations of absolute and relative tense operators

Absolute tense	Past	Present	Future
Relative tense			
Anterior	Pluperfect <i>had smiled</i>	Present perfect <i>have smiled</i>	Future anterior <i>will have smiled</i>
Simultaneous	Simple past <i>smiled</i>	Simple present <i>smiles</i>	Simple future <i>will smile</i>
Posterior	Conditional <i>would smile</i>	–	Future posterior <i>will be going to smile</i>

Whereas most operator combinations straightforwardly correlate to some English tense form, the combination of a present tense with anterior and posterior relative tense is somewhat harder to link to a specific form. However, this is where the present perfect comes in.¹⁰ This tense relates a situation that occurred

10. Thanks to Freek Van de Velde for bringing this to my attention.

in the very recent past or that has a result that is somehow relevant to the present (Comrie 1976: 52ff.). A situation that occurred in the past can simply be coded by a simple past tense but it is exactly the relatedness to the here and now that asks for an absolute-relative tense. The present perfect thus combines an absolute present tense operator, locating the situation in the here and now, with a relative anterior tense, locating the situation before the moment of utterance.

To my knowledge, there is no present posterior tense in English. Therefore, the corresponding cell is left empty in Table 1.

Let us now finally turn to indirect speech. The shifting of tense in an embedded quote is modelled in FDG as an agreement process (Hengeveld & Mackenzie 2008: 350). It is a case of so-called operator copying: the tense operator of the main clause, having been passed on to the Morphosyntactic Level, is copied to the operator slot of the embedded episode. Note that this rule strictly pertains to the Morphosyntactic Level – the past tense meaning is not copied to the embedded clause, only the morphosyntactic operator. The procedure is illustrated by means of the backshifted version of (2), given here as (22).

(22) He emphasized that puffins were not rare seabirds.

RL (p_i :
 (past ep_i :
 (sim e_i : -he emphasize-
 (p_j :
 (pres ep_j :
 (sim e_j : -puffins not rare seabirds- (e_j))
 (ep_j))
 (p_j))
 (e_i))
 (ep_i))
 (p_i))
 ML (Vw_i : emphasize + past + sim (Vw_i))
 (Vw_j : be + <past> + sim (Vw_j))

At the Representational Level, the ‘main clause’ (between quotation marks because at this level, the syntactic difference between main and embedded clauses does not exist) Episode has a past tense operator, while the State-of-Affairs ‘emphasize’ has a simultaneity operator. One of the arguments within the State-of-Affairs is a second Episode, which occurs in the here and now and therefore gets a present tense operator. The second State-of-Affairs has another simultaneity operator.

This semantic information is passed on to the Morphosyntactic Level. There, operator copying applies (Section 5 will go into the reasons for this), so that the past tense operator at ML is copied to the slot of the embedded verb. This copy,

represented in (22) by ⟨past⟩, does not have a correlate at RL – it is an ‘empty’ morphosyntactic unit that creates a mismatch between ML and the tense operator at RL. The absolute tense operator that was passed on from RL, i.e. the present tense operator operating on ep_j , is ignored. The final tense form is now selected on the basis of the operators ⟨past⟩ and *sim*, which results in a simple past tense *were* (cf. Table 1).

Note that the selection of the ‘backshifted’ tense proceeds in the same way as the selection of a regular main clause absolute-relative tense. In Comrie’s account, there is no explanation for the fact that main clauses have absolute tenses while embedded clauses contain absolute-relative tenses, which are in some cases even homonymous. FDG is in this respect more elegant: the same procedure applies for the selection of tense forms in both main and embedded clauses.

So far, operator copying has been somewhat similar to Comrie’s rule of sequence of tenses: it involves an abstract, syntactic procedure that results in an absolute-relative tense form. However, for Comrie, SoT is purely syntactic and automatic. If the operator copying scenario were indeed automatic, we could not account for cases like (2), where a present tense form occurs. Here it is necessary to adopt Declerck’s innovative proposal that a speaker can choose not to apply tense copying. In Hengeveld and Mackenzie (2008), this possibility is not explicitly recognized but there is nothing that prohibits it either. The direct influence of semantics on morphosyntax in FDG’s architecture makes this semantic influence on a morphosyntactic rule possible. Section 5 will go into the question why a speaker would use a present tense; here I will only describe the ‘mechanics’ of the tense operators.

If a speaker does not apply tense copying, as in (2), repeated here as (23), the semantic representation is still the same (compare the RL representation in (22)).

(23) He emphasized that puffins are not rare seabirds.

RL (p_i :
 (past ep_i :
 (*sim* e_i : -he emphasize-
 (p_j :
 (pres ep_j :
 (*sim* e_j : -puffins not rare seabirds- (e_j))
 (ep_j))
 (p_j))-
 (e_i))
 (ep_i))
 (p_i))
 ML (Vw_i : emphasize + past + *sim* (Vw_i))
 (Vw_j : be + pres + *sim* (Vw_j))

The difference lies of course at the Morphosyntactic Level. Without tense copying, the operator slot of the embedded verb at the Morphosyntactic Level is filled not by a copy of the main verb operator but by the operator that is passed on from RL: a present tense operator. The combination of an absolute present tense and a relative simultaneous tense leads to the selection of a present tense *are* (cf. Table 1).

Let us now consider FDG's account of time adverbials. As with tense operators, absolute referential adverbials like *yesterday* are modifiers at the layer of the Episode, while relative time adverbials like *that day* modify States-of-Affairs. Absolute-relative time adverbials are combinations of modifiers that apply at their corresponding layers.

As explained in Section 3, an absolute time adverbial in the original utterance cannot be taken over in an indirect speech clause: to retain the intended meaning of the quote, it is adapted to the new deictic centre or replaced by a relative adverbial, as in (24).

- (24) Last week, Ephraim said that he would come that day.

RL (p_i:
 (past ep_i: -Ephraim say-
 (p_j:
 (past ep_j:
 (post e_j: -he come- (e_j): -that day- (e_j))
 (ep_j))
 (p_j))
 (ep_i: -last week- (ep_i))
 (p_i))

Using an absolute-relative adverbial phrase is theoretically possible, but is not what speakers do in practice.

As Comrie pointed out, the use of an absolute temporal adverbial potentially leads to a conflict with an embedded tense form, as in (11c), repeated here as (25). In this case, a speaker could choose to refrain from using the absolute adverbial.

- (25) ??On Friday, Roman will say that he arrived tomorrow.

RL (p_i:
 (fut ep_i: -Roman say-
 (p_j:
 (past ep_j:
 (sim e_j: -he arrive- (e_j))
 (ep_j): -tomorrow- (ep_j))
 (p_j))
 (ep_i: -on Friday- (ep_i))
 (p_i))

For Comrie, such a conflict follows from the semantics of the adverbial and the tense form. He argues that (12c), repeated here as (26), is more grammatical than (25), as the conflict between posteriority and past tense is not as 'severe' as the conflict between future and past tense.

(26) ?On Monday, Sashka said that she would arrive yesterday.

RL (p_i:
 (past ep_i: -Sashka say-
 (p_j:
 (past ep_j:
 (post e_j: -she arrive- (e_j)):
 (ep_j: -yesterday- (ep_j))
 (p_j))
 (ep_i: -on Monday- (ep_i))
 (p_i))

FDG can account for the difference in acceptability of (25) and (26) in the same way as Comrie (1986). In (25), a conflict arises between the past tense operator of (ep_j) and the downright contradictory future time modifier in the same Episode. In (26), there is a slight contradiction between the posteriority operator and the past time modifier *yesterday*, but since these units operate on different layers, the friction is not severe.

5. The function of (not) copying tense

We have seen that, according to FDG, a speaker has two options: to apply tense copying and use a past simultaneous tense form, or to ignore tense copying and use a present simultaneous tense (henceforth I will use past and present tense where I mean past and present simultaneous). We have also seen that the first option is the default, while the second option is only available under the condition of continuing applicability. The question remains why a speaker would choose this non-default option, since the use of a default backshifted tense is in all cases grammatical as well. Especially in functional frameworks like FDG, it is assumed that each form is used for a reason, e.g. because it serves some communicative purpose or conveys an extra subtlety of the message. Even when two formal options are equally grammatical, there must be a reason to use one over the other – a functionalist will always try to explain the use of a form by looking at its communicative function. Hence, in this functionalist explanation of tense copying, we must look for such a reason.

In this section I propose that a Reportativity operator at the Communicated Content triggers tense copying and that speaker commitment to the truth of

the quote can motivate the absence of that operator and the concurrent use of a present tense in embedded speech. Evidence for this will be supplied in the form of corpus examples, to avoid subjectivity. Since formal, written language is less likely to contain ‘accidental’ uses of a present tense, and more likely to show more consciously used forms, all present tense examples are taken from newspapers.

Earlier research on this topic has already shown that a speaker is more likely to use a non-backshifted present tense when she believes in the truth of the original quote (see for instance Huddleston & Pullum 2002: 157). If the current speaker does not commit herself to the quote’s content (or does not have a strong opinion about it), she is more likely to use a backshifted tense. In that case, the truth of the embedded proposition is attributed entirely to the original speaker’s beliefs. This lack of commitment to the original proposition is in some languages expressed by means of an evidentiality marker. English lacks a grammatical category of evidentiality, but by means of tense copying is still able to show explicitly that the current speaker does not commit herself to the embedded clause. Consider for instance (27) and (28), examples with backshifted tenses (*italics mine*).

(27) MORRIS: I don’t know anything. I don’t know anything. I couldn’t even find out if the stuff was or wasn’t. I was told that it wasn’t, but I have a tendency not to believe these people. # 911: And did you tell your doctor that this is what happened? # MORRIS: Huh? # 911: Did you tell the doctor? # MORRIS: Yes, I did. But he *said that he didn’t think* that it was that. He thought that it was probably a virus or something. # 911: I’m going to get the call in to the ambulance. (BNC, *Time Magazine*, 2011)

(28) It isn’t easy picking George Bush’s worst moment last week. Was it his first go at addressing the crisis Wednesday, when he came across as cool to the point of uncaring? Was it when *he said that he didn’t “think anybody expected”* the New Orleans levees to give way, though that very possibility had been forecast for years? (BNC, *Time Magazine*, 2005)

Both clauses concern some statement by the original speaker. The current speaker in (27), ‘Morris’, repeatedly stresses that he has no idea what is true – he cannot judge whether this doctor’s belief is true or false. The author of (28) even considers the original speaker’s beliefs (George Bush’s expectations) to be plain nonsense. In other words, even though the original speakers at the time believed their statements to be true and to stay true, the current speakers do not commit to the truth of those statements, not then and not now (note that the same applies to Comrie’s example in (9)). The use of a past tense in the subordinate clause expresses this non-commitment to the original statement.

Comrie misses this factor entirely when he focuses solely on continuing applicability – he disregards the contribution of speaker commitment to the

application of sequence of tense. FDG, however, can elegantly incorporate speaker commitment into the construction by representing it at the Interpersonal Level. It is argued by Keizer (2009) that an embedded indirect speech quote should be represented as a Communicated Content at the Interpersonal Level. Speaker commitment to a reported speech clause can then be modelled by means of a Reportative operator at this layer,¹¹ as illustrated in the representation of (29).

- (29) Was it when he said that he didn't "think anybody expected" the New Orleans levees to give way, though that very possibility had been forecast for years?

IL (A_I: [(F_I) (P_I) (P_J) (C_I: -he said that- (R_I: (rep C_J: -he didn't think anybody expected *etc.*-) (C_J) (R_J))] (A_I))

RL (past ep_i: (sim e_i: (f_i: [-he say- (pres ep_j: (sim e_j: (f_j: -he not think anybody expect *etc.*- (f_j)) (e_j)) (ep_j))] (f_i)) (e_i)) (ep_i))

ML ⟨past⟩ + say = (Vw: said (Vw))
 ⟨past⟩ + think = (Vw: did think (Vw))

The Reportative operator triggers tense copying at the Morphosyntactic Level, overruling the temporal semantics of the embedded clause. The temporal information at the Representational Level, i.e. the question whether the situation occurs in the present, is deemed irrelevant by the current speaker, since the situation is fully attributed to the original speaker and what she thought true at the time of speaking.

However, if the current speaker wants to express her own commitment to that situation, there is no Reportative operator at the Interpersonal Level. In that case, tense copying does not apply and the temporal semantics of both the main and the embedded clause are expressed morphosyntactically. Examples of this are given in (30) and (31) (italics mine).

- (30) A High Commission official has interviewed Selahattin Ozberk, 30, and a doctor who examined him *said that he is potentially suicidal and has scars* which appear to be from beatings in Turkey.
 (BNC, article from *The Independent*)

- (31) Carrying on the good work, Heatherlands' new administrator at the Community House, Chris Keech, is settling into the job after spending a week alongside his predecessor, Mary Riley. Married with two small children, 38-year-old Mr. Keech spent three years as an education welfare officer in the late 1970s, before turning to teaching including a spell as

11. Another trigger for tense copying could be a certainty operator at the layer of the propositional content. I leave this option for further investigation.

deputy headteacher. He *said that he will be continuing* with Mary's work of dealing with residents' worries and complaints

(BNC, article from *The Alton Herald*)

In these cases, the author can rely on (the truth of) the original statement. In (30), the original speaker is a doctor whose diagnosis can be assumed to be fully reliable. The original speaker in (31), Mr. Keech, can also be considered trustworthy, so that his promise can reasonably be trusted by the current author. In both sentences, there is reason for the speaker to commit herself to the truth of the original quote, so that there is no motivation for the use of a Reportativity operator. As a result, tense copying is not triggered, as illustrated in the representation in (32).

(32) ... a doctor who examined him said that he is potentially suicidal ...

IL (A_I: [(F_I) (P_I) (P_I) (C_I: [-doctor said- (R_I: (Ø C_J: -he is potentially suicidal-) (C_J)) (R_I))] (C_I))] (A_I))

RL (past ep: (sim e_i: (f_i: [-doctor say- (p_i: (pres ep: (sim e_j: (f_j: -he is potentially suicidal- (f_j)) (e_j)) (ep_j)) (p_i))] (f_i)) (e_i)) (ep_i))

ML ⟨past⟩ + ⟨sim⟩ + say = (Vw: said (Vw))
 ⟨pres⟩ + ⟨sim⟩ + be = (Vw: is (Vw))

The communicative effect of a non-default present tense in an embedded speech clause, then, is the expression of the current speaker's commitment to that clause.

6. Conclusions

It was shown in this chapter that FDG is well equipped to deal with temporal reference in indirect speech complement clauses. FDG models all English main clause tense forms as being composed of an absolute and a relative tense operator. This resolves classification problems in other models, which are for instance forced to say that some tenses are homonymous between an absolute and a relative reading.

In embedded clauses under a past tense main clause, the default case scenario is for the absolute past tense operator to be copied at the Morphosyntactic Level from the main to the embedded clause. However, if the embedded episode at the Representational Level contains a present tense operator (Comrie's condition of continuing applicability), a second option is available. In that case, tense copying can be ignored, resulting in an absolute-relative tense form with a present tense component.

It was furthermore argued that a Reportative operator at the Interpersonal Level is the trigger for tense copying. Such an operator appears when the current

speaker does not commit herself to the truth of the statement and therefore does not incorporate the statement into her own deictic centre. When the speaker does commit herself to the truth of the original quote, the Reportative operator can be dropped, tense copying does not apply and a present tense results.

Whereas Comrie (1986) considers continuing applicability only, FDG thus demonstrates that speaker commitment is another factor that leads to the selection of a present tense in embedded quotes. More such factors could be listed (cf. Huddleston & Pullum 2002:157–158 for an initial overview) to gain a full understanding of the functional motivation for the application of tense copying. A functional framework like FDG offers an advantage over more formalist models by offering insight into what exactly a construction does in terms of communication. A past tense and a present tense communicate something else, and it is the job of linguistics to find out what that difference is.

With respect to temporal adverbials, the FDG model gives a satisfactory treatment of the English data. Absolute time adverbials are modifiers of Episodes, while relative time adverbials are modifiers of States-of-Affairs. If an utterance containing an absolute adverbial is embedded in an indirect speech construction, it is adapted to the new deictic centre (in that case it functions in an embedded Episode), or replaced by a relative time adverbial (and functions in an embedded State-of-Affairs). Theoretically, the absolute adverbial could also be backshifted to an absolute-relative adverbial phrase, but this does not happen in practice. When an operator and a modifier functioning at the same semantic layer carry contradictory semantics, the adverbial is replaced by a fixed adverbial or by an adverbial working at a different layer.

References

- Comrie, Bernard. 1976. *Aspect*. Cambridge: CUP.
- Comrie, Bernard. 1985. *Tense*. Cambridge: CUP.
- Comrie, Bernard. 1986. Tense in indirect speech. *Folia Linguistica* 20(3–4): 265–296.
- Davidse, Kristin & Vandelanotte, Lieven. 2011. Tense use in direct and indirect speech in English. *Journal of Pragmatics* 43(1): 236–250.
- Davies, Mark. 2004. *BYU-BNC*. (Based on the British National Corpus from Oxford University Press). (<http://corpus.byu.edu/bnc/>)
- Declerck, Renaat. 1988. Sequence of tenses in English. *Folia Linguistica* 24(3–4): 513–544.
- Declerck, Renaat. 1991. *Tense in English. Its Structure and Use in Discourse*. London: Routledge.
- Declerck, Renaat. 1995. Is there a relative past tense in English? *Lingua* 97(1): 1–36.
- Declerck, Renaat & Tanaka, Kazuhiko. 1996. Constraints on tense choice in reported speech. *Studia Linguistica* 50(3): 283–301.
- Giskes, Anna. 2012. Reporting speech as a role playing game. An FDG analysis of reported speech. Research MA paper, University of Amsterdam.

- Hengeveld, Kees. 1997. Shifters. Rede uitgesproken bij de aanvaarding van het ambt van hoogleraar in de Theoretische Linguïstiek aan de Universiteit van Amsterdam op vrijdag 31 oktober 1997. Inaugural lecture. Amsterdam: IFOTT.
- Hengeveld, Kees & Mackenzie, J. Lachlan. 2008. *Functional Discourse Grammar. A Typologically-Based Theory of Language Structure*. Oxford: OUP.
- Huddleston, Rodney. 1989. The treatment of tense in indirect speech. *Folia Linguistica* 23(3–4): 335–340.
- Huddleston, Rodney & Pullum, Geoffrey K. 2002. *The Cambridge Grammar of the English Language*. Cambridge: CUP.
- Keizer, Evelien. 2009. The interpersonal level in English. Reported speech. *Linguistics* 47(4): 845–866.
- Leufkens, Sterre. 2009. Mixed deictic reference. Research MA paper, University of Amsterdam.
- Salkie, Raphael & Reed, Susan. 1997. Time reference in reported speech. *English Language and Linguistics* 1(2): 319–348.