

WPFG

working papers in functional grammar

wpfg no. 76
2002

Understood Objects in Functional Grammar
Daniel García Velasco, University of Oviedo, Spain
Carmen Portero Muñoz, University of Córdoba, Spain

Understood Objects in Functional Grammar

Daniel García Velasco
University of Oviedo

Carmen Portero Muñoz
University of Córdoba

Understood Objects in Functional Grammar

1. Introduction¹

The aim of this paper is to give an account of object omission in English within the context of the theory of Functional Grammar (FG). In the first section we discuss the factors that, in one way or another, are relevant to understanding the complex nature of this grammatical phenomenon. In so doing, we review the main aspects of some of the analyses that can be found in the literature. Drawing most notably upon Fillmore (1986), section 3 introduces a crucial distinction between lexical and discursive object omission. We formulate a number of hypotheses on the properties of object omission, which are then tested in the light of corpus data. In sections 4 and 5 we study the implications of our findings for FG. In particular, we claim that the formal equipment of the theory is not able to capture the full complexity of the problem, and, in this vein, we suggest that the new architecture of FG, Hengeveld's (fc.) Functional Discourse Grammar, together with the formalism introduced in García Velasco & Hengeveld (fc), might be better suited to accounting for the facts presented.

2. Understood objects: relevant factors

The following subsections introduce the criteria cited in the literature which seem to play a role in the phenomenon of object omission.

2.1. Given/new participant

Those participants which are given in the context will be more likely to be omitted than those which have not been introduced or are introduced for the first time. Obviously, a given object can be recovered from the surrounding linguistic context, which is not the case with a new participant. Allerton (1975) offers an interesting scale of 'givenness', which he illustrates with the following examples:

New = indefinite	<i>Bill was watching a match</i>
Given = definite	<i>Bill was watching the match</i>
Supergiven = proform	<i>Bill was watching it</i>
Hypergiven = deleted	<i>Bill was watching</i>

As the examples show, there seems to be a correlation between the givenness of a participant and its formal expression. The more given it is, the more possibilities it has of being left out.

It is usually assumed that new information is the focus of a linguistic expression. Thus, in the first example above, *a match* (or *watching a match*) is the focus of the sentence. As pointed out to us by Lachlan Mackenzie (p.c.) presumably the difference between the expressions *and then we ate* and *and then we ate dinner* must partly be that the eating is in Focus in the former and the dinner in the latter. In other words, if the focus of a linguistic

¹ Thanks are due to Lachlan Mackenzie, Hella Olbertz and an anonymous reader for helpful comments and suggestions. A preliminary version of this paper was delivered at the 9th International Conference on Functional Grammar (Madrid, September 2000).

expression is the activity denoted by the main verb, the participants are more likely to be left out.

2.2. Structural omission

Some linguistic constructions readily favour argument omission. Among those cited in the literature we find the following:

Contrastive: *He theorises about languages but I just describe* (Dixon 1991)

Fixed phrases: *Seek and ye shall find; hit or miss* (Fellbaum & Kegl 1989)

Linking or sequential: *First she knitted, then she sewed* (Dixon 1991); *He will steal, rob and murder* (Kilby 1984)

Instructional imperatives: *Drink up. Push hard.* (Levin 1993)

One property of structural omission is that it seems to override other relevant factors. That is, if a verb typically does not allow object omission, in most cases it will be possible to suggest a structural context in which it does. What is important to remember in these cases is that the omission is motivated by the structure itself and not necessarily by the properties of either the verb or the omitted object.²

2.3. Verbal object

Another relevant factor pertains to the nature of the omitted object in a very broad sense. This parameter turns out to be one of the most complex ones, with implications for the type of *Aktionsart* or State of Affairs (henceforth SoA; activity vs. accomplishment) the predication designates and the referential nature of the object itself.

2.3.1. Activity vs. Accomplishment

As is well known, the presence or absence of an object may affect the type of SoA denoted by the predication. In Vendler's traditional classification (Vendler 1967), the following two sentences, which only differ in the presence/absence of an object, denote an *activity* and an *accomplishment* respectively:

- (1) a. John is eating (activity)
b. John is eating an apple (accomplishment)

The presence of an object serves to mark the end point to the verbal process. Consequently, the possible combinations with duration phrases are divergent: *activities* take *for*-phrases, whereas *accomplishments* take *in*-phrases:

- (2) a. John was eating for an hour/*in an hour (activity)
b. John ate an apple *for an hour/in an hour (accomplishment)

2.3.2. Referential nature of the verbal object

² Although they will not be treated here, derived intransitives such as middles (e.g. *this book reads well*), and ergatives (e.g. *the chocolate melted*) typically involve suppression or omission of arguments and could be considered cases of structural omission as well.

It has long been noted that it is not only the presence/absence of a verbal object that allows the transition from an activity to an accomplishment reading with some verbs. When the verbal object is non-specific, indefinite or generic, it is possible to obtain the same effect:

- (3) a. He ate a plate of spaghetti in ten minutes (accomplishment)
- b. He ate spaghetti for ten minutes (activity)

Van Valin & LaPolla (1997) note that this situation is frequent with verbs of *creation* or *consumption*. According to the authors (1997: 122), the second argument in activity predicates does not show referential properties, which usually imparts a generic or habitual interpretation to the predication. Compare:

- (4) a. Mario eats pizza (activity)
- b. ? Mario eats a slice of pizza

Combination with durative phrases seems to offer the expected results:

- (5) a. Mario ate pizza for an hour/ *in an hour
- b. Mario ate a slice of pizza in an hour / *for an hour

On the basis of these observations, the authors make the following claim (1997: 122-123):

Given that the second argument of these verbs is non-referential, it is not surprising that it need not appear overtly, as in sentences like *Mary is eating/drinking*, and moreover, the unrealized argument cannot be interpreted as having a discourse referent. That is, if someone asks, 'Where is my sandwich?', 'Bill is eating' is not an appropriate response if one means that Bill is eating the questioner's sandwich (see Fillmore 1986) (...) Thus, the second argument with an activity verb like *eat* will be called an INHERENT ARGUMENT, an argument which expresses an intrinsic facet of the meaning of the verb and does not refer specifically to any participants in an event denoted by the verb; it serves to characterize the nature of the action rather than to refer to any of its participants.

This analysis suggests that some participants introduced in the semantic structure of verbs need not be realised syntactically, which seems to call for a more elaborate theory of the syntax/ semantics interface than current FG seems to offer. As we shall show later, Van Valin & LaPolla's observations are neatly captured in the analysis we will develop in section 5.

2.3.3. Object +/- specific (as required by the verb)

Another relevant factor pertains to the specificity of the omitted object. By specificity here, we refer to the capacity of the verb to take just one or a very limited number of objects. The hypothesis is, then, that if a verb can only take one specific object, that participant will be predictable and, hence, amenable to being left understood. Rice (1988: 203-204) comments:

Objects that can be omitted tend to be those whose lexical content is most probable given the meaning of the verb. Omitted objects are generally restricted to complements with a low degree of semantic independence from the verb. There are many verbs whose omitted objects are clearly understood because they are inferred from a very narrow, if not exclusive, range of possibilities.

According to the author, this explains the differences observed among semantically related verbs.

2.3.4. Semantic nature of the object: semantic role

There seems to be an intimate relation between omission and the semantic type of the omitted object. This idea is suggested by Fillmore (1986), who provides examples of verbs with different senses, or with different valence possibilities, in which only one sense of the verb with one semantic type of complement permits omission in context. Thus, we can say

- (6) a. He won the race
- b. He won the gold medal

but if we omit the second argument

- (7) He won _____

the interpretation of the omitted object will be constrained to “the race”. In Fillmore’s own words, “the understanding necessarily is that there is a contextually given competition in which he was the winner, not a contextually given reward of which he was the receiver”. This same phenomenon is observed in other verbs with different senses:

- (8) a. They accepted (my offer)/ *(my gift)
- b. I forgot/ remembered (to fix it/ that she’s fixed it)/ *(my keys)
- c. I heard (that you resigned)/ *(the song)
- d. They know (that she resigned)/ *(Louise)
- e. He noticed (that she was blind)/ *(the mouse)
- f. I see (that they’re here)/ *(the rat)

The examples provided by Fillmore reveal a relation between the possibility of omission and a specific semantic type of object. Although Fillmore realizes this connection, he does not draw any generalization about which specific semantic type is happier with the omission regarding these examples. What he does explicitly state is the existence of a connection between the possibility of omission and the semantic role of the object. For him, the semantic role of Patient appears not to occur among the definite omissibles, which means that no cases of the process will be found with change-of-state verbs like *break*, *bend*, *create*, *destroy*, *move*, *lift*, and the like.

2.4. Frames or situational contexts

Object omission is also enhanced if the extralinguistic context (in a very broad sense) provides clear clues to the identification of the missing information. For example, the expression

- (9) Have you eaten _____ yet?

contains an understood argument, which, although totally compatible with the verb *eat*, is not likely to be *an apple*, but one of the meals of the day (*lunch*, *dinner*, etc). In this case, it is our world knowledge, the fact that we eat several times on the day, which leads us to the right interpretation of the understood object.

This difference can be more easily perceived with the verb *write*, which seems to allow two types of understood objects. Compare the following expressions:

- (10) a. Have you written _____ ?
b. Do you write _____ ?

In (10a) the understood object is probably *a letter* or *a postcard* (Herbst & Roe 1996), whereas (10b), obviously influenced by the habitual interpretation of the present simple, seems to suggest ‘professional writing’.

Situational contexts or frames of knowledge are also relevant in some cases of object omission. Rice (1988: 206) points out the following examples:

- (11) *Restaurant script*:
The man entered, he ordered, he ate, he paid, he left.
- (12) *Play-by-play of a sports announcer*:
Simmons intercepts, now he passes. Roberts catches and scores³.

An interesting case is that of recipes, where we can find examples such as the following:

- (13) Cook _____ gently for four minutes in plenty of boiling, salted water to obtain an “al dente” texture. Drain _____ and serve _____

Massam & Roberge (1989) study the properties of understood objects in recipe contexts. The authors observe *inter alia* that omitted objects tend to receive a specific (non-arbitrary) interpretation and do not need to be present in the linguistic context.

2.5. Verbal class and semantic structure

Some scholars, especially Fellbaum & Kegl (1989), attempt to explain aspects of the phenomenon by relying on lexical networks or taxonomies, as they call them. Thus, in the case of the verb *eat*, they propose the existence of two entries associated with two different semantic networks which predict its behaviour. *Eat1* is equivalent in meaning to *eat a meal*, and, in this sense, it behaves just like other verbs which also include in their lexical structures a particular meal: *breakfast, lunch, dine, brunch, snack, picnic*. All of them share the feature of having incorporated their cognate object. Thus, the relationship of *eat1* with those verbs would be similar to that of *to dance* with *to tango* or *to waltz*.

Eat2 is equivalent to *ingest food in some manner*, and hence shows a behaviour parallel to those verbs of “manner of eating” such as *devour, gobble, gulp*. It is this manner component that forces the presence of the object (see Rice 1988 above). The authors claim that the same situation occurs with *drink, draw, wash* and their related verbs. Omitted objects tend to belong to semantically neutral verbs (*eat, drink, study, speak, etc.*), as opposed to those which introduce a manner component in their semantic structure (*bite, devour, sip, memorise, utter, etc.*). Rice claims that the manner component adds a certain degree of specificity to the action, which makes the verb lose its basic status⁴. The correlation seems to be the following: if the verb incorporates an object, it will be basically intransitive (unless it

³ Although these examples could be considered cases of structural omission (linking or sequential).

⁴ However, the author herself mentions cases of verb with a specific complement which, nevertheless, do not accept omission: *He manicured *(his nails)*.

shows up as a cognate or hyponym)⁵; if it incorporates an adjunct, it will be transitive. Note that this also explains the absolutive use of the verb *drink*. Since it incorporates an object (alcohol), this use of the verb is basically intransitive.

Dixon (1991) classifies English verbs in different semantic classes which he uses to predict object omission. According to him, verbs of “motion”, “rest” or “giving” do not usually allow omission: **he often throws*. There are, however, exceptions as in the case of the following set of antonyms: *follow/lead*; *give/take* or motion verbs like *drive*.

The (im)possibility of omission may be then considered to be related to specific semantic components shared by verbal sets, which might foster or forbid the omission. Apart from the manner component referred to by Fellbaum & Kegl, features like “completion” can make a verb incompatible with omission (e.g. *devour*, *eat up*). As an example of the opposite case, we could mention the duration component, which makes verbs like *watch* very likely candidates for omission.

The problem with this type of analysis, however, seems to be that the same semantic component may cause different results depending on the class of verbs in which it appears. Thus, although both Rice (1988) and Fellbaum & Kegl (1989) suggest that the presence of a manner component in ‘manner-of-eating’ verbs accounts for the impossibility of omitting the object, Rappaport & Levin (1998) observe that manner-of-action verbs, as opposed to result verbs, are much more flexible in the range of syntactic contexts in which they can figure, allowing object omission. In this sense, manner-of-ingesting verbs may be the exception to the rule.

3. Two types of object omission

The five parameters introduced clearly show that argument omission is a complex phenomenon which affects two main grammatical areas: the lexicon and discourse or context in a broad sense. Moreover, there seems to be a not too well understood relationship between the two, which makes things even more complicated. Schematically, the organisation of the parameters is as follows:

Lexicon:

1. Type and Nature of verbal object.
2. Verbal class and semantic structure.

Discourse:

1. Given/new participant.
2. Structural omission.
3. Frames and situational context.

Obviously, lexical facts seem to be more susceptible to being captured in a formal theory of grammar. It is no surprise, therefore, that most studies on the subject only mention discourse factors *en passant* and almost nothing at all is said about the interaction of the two areas. Notable exceptions are Allerton (1975), Fillmore (1986), Groefsema (1995), Németh (2000) and, in a lesser degree, Fellbaum & Kegl (1989).

The fact the phenomenon is influenced by two types of factors (lexical and discursive) has led some scholars to suggest the existence of two corresponding types of

⁵ As is well known, cognate objects can appear in expressions if they are modified (*to dance a tribal dance*; *to die a beautiful death*;) or in the form of “extensions” (*to wave a handkerchief*) or hyponyms (*to dance a tango*).

argument omission: *contextual* and *lexical* omission. This distinction is first introduced in Allerton (1975), to be taken over and developed by Fillmore (1986) and Groefsema (1995). Fillmore establishes an interesting distinction between *definite null complements* (DNC), which basically correspond to Allerton's contextual omission and *indefinite null complements* (INC). Fillmore (1986: 96) employs the following test to distinguish the two categories:

One test for the INC/DNC distinction has to do with determining whether it would sound odd for a speaker to admit ignorance of the identity of the referent of the missing phrase. It's not odd to say things like, "He was eating; I wonder what he was eating"; but it is odd to say things like "They found out; I wonder what they found out." The missing object of the surface-intransitive verb EAT is indefinite; the missing object of the surface-intransitive verb FIND OUT is definite. The point is that one does not wonder about what one already knows.

The distinction is then based on the possibility of recovering the missing element. INC verbs do not allow recoverability from the context. Thus, if the speaker requires the absent information, a straightforward question (e.g. *what was he eating?*) is adequate. Such a question is not pertinent in the case of DNC because the information can be retrieved from the context (either linguistic or extralinguistic).⁶ In what follows we will study in greater detail the properties of each type of omission.⁷

3.1. Indefinite Objects

It seems that those verbs which allow the transition from accomplishment to activity might correspond to IO-verbs. That is, the IO type of omission can be considered to be lexical in nature, and therefore influenced by both the type and nature of the verbal object and the semantic class of the verb itself. A possible line of investigation might then be to establish the circumstances under which a verb can take an activity reading. As Allerton (1975: 214) notes, if the activity denoted by the verb can be seen as self-sufficient, then omission is possible:

Indefinite deletion seems to apply to verbs whose activity may be viewed as self-sufficient without an object. Thus English verbs, such as *clean, cook, drive* (motor vehicles), *examine* 'test academically', *hunt, paint, read, sew, think (about)* are all susceptible to indefinite object-deletion.

Undoubtedly, Allerton's observation is a mere intuition, quite distant from being an explanatory principle. In this sense if the omission of a participant is partly due to the fact that it is the activity itself that becomes the focus of the sentence, we might try to determine the factors under which a given verb (or the activity it denotes) becomes the focus of an expression. The factors of relevance here include the semantic structure of the verb, which itself may give prominence to one semantic component (as in the manner-result opposition), the speaker's communicative intentions, which may lead him to focus on the activity itself, thus downgrading the referential status of the object, and world knowledge, which allows him to construe an action as an autonomous activity. As we will show in section 4, the appropriate locus to capture these factors may be the verb's abstract meaning definition.

In any case, IO type of omission seems to imply a change in the organisation of the event the speaker has in mind. If activities and accomplishments are basic SoA's from a cognitive point of view, we might have an explanation as to why the argument is not recoverable in this case. By omitting the argument we create a new type of SoA: an activity. If the argument could be

⁶ Groefsema (1995) and Németh (2000) question the validity of Fillmore's distinction. However, we believe that his proposal is essentially correct and we will comment upon their criticisms in the course of the exposition.

⁷ In order to facilitate comprehension, we shall adapt Fillmore's terminology slightly: INC will be labelled Indefinite Objects (IO) and DNC will be Definite Objects (DO). Verbs taking them will be named IO-verbs and DO-verbs respectively.

recovered from the context, we would still have an accomplishment and, therefore, the intended event reorganisation would not have taken place. IO omission seems to be an efficient strategy to shift from one type of SoA to another in a very economical and efficient way. Consider the following examples (Fellbaum & Kegl 1989: 95):

- (14) A: Have you read today's New York Times yet?
B: *Yes, I've read _____ this morning
B': *Yes, I've been reading _____ for hours

In this dialogue, the context makes explicit a potential referent (today's New York Times), but, as shown by the ungrammaticality of the 'B' answers, the missing object of the verb *read* cannot be taken to have the same identity. Fillmore (1986) makes exactly the same point, but Groefsema (1995: 142) argues that it is possible to find counterexamples to this generalisation:

- (15) John brought the sandwiches and Ann ate _____

According to Groefsema, the most likely interpretation in (15) is that Ann ate at least some of the sandwiches. This, however, does not undermine the proposal, as the example is a clear case of structural (sequential) omission, which, as mentioned before, may override other factors.

Note also that activities tend to be accompanied by grammatical or lexical expressions of imperfectivity such as present tense, continuous forms or temporal expressions (*all day*, *always*, etc.):

- (16) a. Do you write _____ ?
b. He's been writing _____ all day

As Dixon (1991) observes, the acceptability of object omission with past tenses decreases: **She knitted*. In the same line, punctual verbs such as *hit* or *wrap* do not readily take understood objects. This can also explain why *eat* cannot omit its object in example (15) above.

We can now formulate our first working hypothesis in the following terms:

Hypothesis 1

Indefinite Objects do not present available referents in the surrounding linguistic or extralinguistic context.

We searched the British National Corpus (BNC) for occurrences of different forms of two verbs, *bake* and *eat*, which are usually described in the literature as being capable of taking an activity reading. Our findings on the whole confirm the above-presented hypothesis: when used intransitively these verbs clearly take an activity reading focusing on the activity itself rather than on its product. No potential referent seemed to be available in the surrounding linguistic context.

There were examples, however, of intransitive uses responding to a different process; for example, *bake* tends to appear in recipe contexts, exemplifying the so called "instructional imperative", and consequently a type of structural omission. *Bake*, in this example does not

take an activity reading, and, therefore, it may have a referent in the surrounding linguistic context:⁸

- (17) Drape *four or five squares of filo*, each in a slightly different position, over each ramekin, brushing layers with melted butter. **Bake** _____ at 180C/ 350F/gas for 20 minutes, until crisp and golden. Cool, remove pastry and turn right side up. (A3C 56)

There are examples, however, which might seem to run counter to our expectations:

- (18) In the bakery, which operates from 6am to 3pm, 400 loaves are baked daily, along with rolls, cakes, pizzas and quiches. It is cheaper to **bake** _____ on the premises than buy-in food. (A7F 1092)
- (19) The situation was desperate. There were no biscuits left, no scones or cake, either homemade or bought. She'd been going to spend the next hour **baking** _____. As a last resort she cut a few squares of the fudge she had made earlier for her father and put them on a little plate, then led the way upstairs where she could plug the kettle in and set a match to the fire. (HR6 2434)

In these two examples, we have potential referents for the understood object of the verb *bake*, rolls, cakes, pizzas and quiches in (18) and biscuits, scones and cakes in (19). However, it seems clear that, in both cases, the understood object refers to any “bakable” thing and not exclusively to the ones mentioned in the context (although most likely those ones too). A more problematic example, however, seems to be the next one:

- (20) Thomas arose at 3am, for the hours of a baker are notoriously unsocial, he prepared the dough and moulds and began **baking** _____. Ann would join her husband at 5.30am and then the pair would work diligently together until 7am when Ann would cook breakfast and awaken their daughter. (ANK 1892)

It seems obvious that the most likely object for *baking* in this example is the dough the baker has been preparing. However, the passage describes the beginning of the day for a baker and focuses on his business as a whole rather than on a particular event. It is, then, the whole description which leads to an activity reading.

The examples in which the predicate *eat* appears with an understood object seem to offer similar results. Most of them clearly take an activity reading and, as expected, no available referent occurs in the surrounding context. Again, a few potentially problematic examples merit some comments. Consider:

- (21) The brunette sighed and forked a piece of steak into her mouth, and as she began to chew, Jean-Pierre lost interest. He hated to watch people **eat** _____. (CM7 583)
- (22) There was a high wind blowing. The night had turned rough and the rattle from the windows had seemed to be emphasised by the silence during supper. They had almost finished **eating** _____ when Martin spoke. (CFY 966)

⁸ Those examples followed by an alphanumeric code have been extracted from the BNC and can be found there under that reference.

- (23) Constance cooed with delight as Ludovico unpacked the bags. Coffee, oranges, apples, fresh warm bread, thick creamy milk — she couldn't believe the luxury of it all. They **ate**_____ on the terrace and Constance found it almost as sensual and satisfying an experience as the previous night's love-making. (CEY 2577)

The first two examples show again possible referents for the understood object of *eat*, “a piece of steak” and “supper”, respectively. However, in (21) *eat* clearly refers to the activity of eating rather than to the eating of a piece of steak. Example (22), however, does seem to refer to the eating of the supper, although, the focus seems to be on the social activity of eating a meal. Finally, example (23) is quite similar to the one proposed by Groefsema as a counterexample to Fillmore's proposal. Yet, although most probably the participants ate part or all of the items mentioned, nothing excludes the possibility that others were eaten too. Hence, “Coffee, oranges, apples, fresh warm bread, thick creamy milk” is not necessarily the referent of the understood object.

We can conclude, on the basis of these data, that IO omission serves to turn an Accomplishment SoA into an Activity one, shifting the focus of the sentence to the verbal process. However, it is obvious that not all verbs admit this process. If the focus in an activity is the verbal action itself, rather than the result or effect upon the participants, those verbs whose objects are drawn from a restricted range of possibilities will be likely candidates to take understood objects.

Thus, some authors (Lehrer 1970; Fellbaum & Kegl 1989) have suggested a sort of scale or degree of specificity of verbal objects. At one pole of the scale we would have the so-called “cognate” objects, so specific and predictable that they do not usually appear in linguistic expressions (see footnote 4). Examples of verbs taking them include: *sing, dream, live, die, laugh, dance*. Cognate objects are believed to coincide with the selection restrictions on the object position, which makes them redundant if present in the actual expression. If the object appears as a sort of selection restriction it need not be recovered in the context since it is already available from the verb's semantics. Groefsema (1995: 152) formalises this idea with Jackendoff's system of representation and proposes the following principle:

an argument can be left implicit if the verb puts a selection restriction on the argument such that it gives us an interpretation in accordance with the principle of relevance.

Basically, the principle of relevance claims that expressions show optimal relevance when they enable the speaker to derive an adequate number of contextual effects for no unjustifiable processing effort.

A second group of verbs take their objects from a very limited range of potential candidates, and, therefore, can be easily retrieved if omitted. Examples include: *read, write, clean, eat*. Lehrer (1970) adds the following: *sew* (cloth, clothes); *spill* (liquid, collection of small pieces of some physical object, etc.); *spend* (time, money, energy), among many others.

Our second hypothesis, then, can be formulated as follows:

Hypothesis 2

The more predictable an object is (given the meaning of the verb), the more likely it will be to be left out.

It seems intuitively obvious that verbs taking cognate objects will occur in intransitive constructions more often than not. Searching the BNC for different verbal forms of the verb *dance* we found that, out of 200 occurrences of the predicate, only 17 (8.5%) were transitive uses containing a cognate object, as in the following example:

- (24) Shots of the Kinnocks' 25th wedding anniversary party portrayed Neil the family man, **dancing** the anniversary waltz with Glenys to Larry Adler's solo harmonica, watched by daughter Rachel, striking in a red dress. (AJ6 427)

We can compare these results with those of the predicate *sew*. According to Lehrer (1970) this verb does not take a cognate object, but its potentially omitted object is restricted to two possibilities, either “cloth” or “clothes”. The difference between the verbs is illustrated with the following examples:

- (25) a. ?? He danced a dance
b. He sewed the clothes

It is to be expected, therefore, that *sew* allows a greater number of transitive uses than *dance*, since the latter presents a more predictable object. Again we searched the BNC for occurrences of the verb *sew*. The results were significantly different: out of 200 occurrences, 112 (56%) were transitive uses of the predicate.

A third hypothesis that can be explored relates, again, to the role of the verbal object as a telic marker. We mentioned before that when the focus of the sentence is turned to the verbal process itself the object is more likely to be omitted and the expression takes an activity reading. In a similar vein, it is expected that, if an element in the expression forces the object to become the focus it should be impossible to omit it. This is precisely one of the effects caused in expressions by the so-called completive or perfective particles (*up* and *out*) in phrasal verbs such as *drink up*, *use up*, *seek out* or *work out*. According to Mittwoch (1971), these particles combine with those actions which are capable of completion and, consequently, completive particles are incompatible with object omission (see 2.5.). In quite a similar line, Quirk et al. (1985: 595) claim that these particles serve to shift the focus of attention onto the result of the action, hence, onto the verbal object. That is why we find the following contrast:

- (26) a. He is eating _____
b. *He is eating up _____

The perfective particle *up* requires the action to be capable of completion, hence disallowing object omission. The hypothesis that we want to explore can thus be formulated as follows:

Hypothesis 3

Transitive verbs containing a perfective particle cannot omit their objects.

We put this hypothesis to test with two phrasal verbs: *eat up* and *use up*. These verbs differ significantly in the type of object they take. Unlike *use*, *eat* imposes quite specific selection restrictions on its object; it is possible, then, that, given the adequate context it could omit its object. Some examples were indeed found, but again they respond to cases of instructional imperatives:

- (27) I knew the neighbours complained that the pigeons grew used to coming close to the windows, but I didn't care. “**Eat up**,” I told the nearest bird. “You're lucky I'm feeding you, not eating you”. (AOU 1644)

We did find an example which clearly runs against our expectations:

- (28) Are you **eating up** _____ ? Would you like me to put the kettle, mummy?
(KBW 18809)

In this example, *eating up* does seem to take an activity reading. However, the fact that we were only able to find one construction of this type indicates that it is indeed an exceptional case. As for *use up*, we were not able to find a single intransitive occurrence.

It should be noted, however, that the relationship between the particle and the possibility of omitting an object can only be reliably tested when the particle has a clear completive semantic contribution. In some cases the particle does not show this meaning, which explains why object omission is possible in those cases (Mittwoch 1971: 258):

- (29) Mary is washing up/tidying up/cleaning up _____

3.2. Definite Objects

The DO type of omission is clearly contextual, and, therefore, influenced by the contextual factors mentioned above. It should be noted, however, that the context is not the only influencing factor since this type of omission is closely related to some sets of verbs, as we will see.

Again, the problem seems to be to determine the circumstances in which contextual omission is possible. Groefsema (1995) is the only article we know of that tackles this issue. She proposes the following principle:

an argument can be left implicit if the rest of the utterance makes immediately accessible an assumption (or assumptions) which gives us an interpretation in accordance with the principle of relevance

From Groefsema's statement we derive that contextual recoverability does not necessarily mean actual presence of the object in the linguistic context, as in:

- (30) Paul lied about his age, but Mary found out _____

where the object of *find out* has just appeared in the previous discourse: what Mary found out is that Paul lied about his age.

Sometimes, the right interpretation of the object is made possible by some part of the linguistic context, although the object itself is not available. Groefsema illustrates this with the verb *give* in:

- (31) Paul gave _____ to Amnesty International

The verb *give* plus the phrase *to Amnesty International* constitute the relevant context making immediately accessible the assumption that people give *money* to Amnesty International.⁹ Compare also the following sentences taken from the BNC corpus:

⁹ See Németh (2000) for a discussion of similar cases in Hungarian.

- (32) He *walked* fiercely along the short street into Leicester Square and **stopped** ____ outside an amusement arcade. (60B 435)
- (33) Their words ran over each other and they **stopped** ____ (FS8 1084)
- (34) While undergoing an operation his heart has **stopped** ____ (GIN 691)

In (32) the object of *stop* is recoverable from the previous discourse: he stopped *walking*. In contrast, in (33) and (34) the object is not present in the previous linguistic context, but it can be inferred given some clues: in (33) the sentence “their words ran over each other” constrains the interpretation of the object of *stop* to *talking*. In (34) the subject itself is the relevant context allowing us to recover the object of *stop*: since the action typically performed by hearts is *beating*, this action must be what his heart has stopped doing, i.e. the object of *stop*. We could say then there are different types of understood object recoverability. In some cases, the object can be retrieved from the immediate linguistic context. Sometimes, the object itself does not appear in the surrounding linguistic context, but can be inferred from it. Finally, less predictable cases of omission take place when the specific communicative situation allows the recoverability of the object. Thus, we can speak of a sort of scale of explicitness of the understood object in the sense of different degrees of linguistic expression of the object in the previous discourse.

Understood object recoverability

Referent availability

Immediate linguistic context

Immediate extralinguistic context

Inferred from linguistic context

Inferred from extralinguistic context

**Easy to
Recover**



**Difficult
to recover**

The prediction stemming from this scale is, then, that an omitted object will be easier to recover (in terms of processing effort) the more to the left its referent appears on the diagram. Moreover, we predict that objects will be more easily omitted the more their referents belong to the categories on the left.

Unfortunately, we have not been able to test its predictive power empirically for obvious practical reasons. A corpus is of little help here, since one cannot figure out the extralinguistic context in which the expressions contained in it have been produced. An interesting exercise would be to create examples containing referents of the four types (although again extralinguistic referents pose a practical problem) and measure the responses of individuals in the processing of the expressions. Our prediction is that inferred referents will take more time to process than those which are immediately available either in the linguistic or extralinguistic context.

In order to look for evidence of contextual omission we chose verbs which are mentioned by different linguists as typical cases: verbs having to do with causing, inducing, or allowing someone to perform an action, in which a social act of some sort is markedly involved (*dare, make, let, ask, order*) (Fillmore 1986: 105); verbs of attention (*see, hear, notice*); thinking (*remember, forget, know, realise, understand*); and deciding (*decide, choose*) (Dixon 1991: 290). Dixon also mentions a few secondary verbs such as *help* and *try*, and Fillmore includes the so-called aspectual verbs (*start, stop, continue, finish, resume, stay, begin*).

As we pointed out in 2.3.4. there seems to be an intimate relation between omission and the semantic type of the omitted object. The examples provided by Fillmore in (8) reveal a relation between the possibility of omission and a specific semantic type of object, more specifically non-first order entities. This possibility explains the fact that contextual omission is typically illustrated by verbs belonging to specific semantic sets: speech act/cognition verbs, perceptual verbs and aspectual verbs (*continue*, *stop*), which typically select objects which are semantically non-first order entities. We can thus formulate the following hypothesis:

Hypothesis 4

The understood object of verbs allowing contextual omission is typically a non-first order entity. Those verbs selecting non-first order entities for their second argument position show a higher tendency to omit their object.

We searched the BNC corpus for evidence of this. From the examples we found it emerged that there are different semantic types of understood objects. For obvious reasons of space we will only mention a few examples. Firstly, there are cases where the omitted object is a second-order entity, i.e. an SoA:

- (35) To get some real benefit from *exercise* you should **continue** _____ for at least 20 minutes. (K52 7339)
- (36) Ven had invited her *to dine out with him that night* and she had **accepted**. (JYF 2026)

In (35) the understood object of the phasal predicate *continue* is *exercise*, a term used to refer to a second-order entity, and in (36) the object of *accept* is a future action, another SoA.

In other cases the omitted object is a third-order entity, i.e. a Possible Fact:

- (37) Having never seen a swing bridge before I wondered how the boats were going to get under it but I was soon to **find out** __. (HJE 156)
- (38) He was all she saw now. Luke — the man she had loved. She closed her eyes as the pain of knowing rose and twisted inside. She didn't want to think, to **believe** _____. Oh, God! Why had she ever opened that letter? (HGT 4813)

Finally, there are many examples which illustrate the omission of a fourth-order entity, i.e. a full Speech Act:

- (39) If you are not sure *whether certain facts are relevant* please **ask** _____ your Insurance Adviser or local General Accident office. (HB5 1642)

Examples like this one lead us to similar cases which nevertheless cannot be regarded as omission since what takes place in them is the anticipation – or fronting (cf. Quirk et al. 1985: 1378 note c) – of the object of the verb, the matrix predicate, as a clausal complement in direct speech:

- (40) *I shall contrive to write to you during my absence, to tell you what is in my mind*

and heart -- and when in the summer we meet again, there will be further clandestine meetings, many joyful hours and reunions, I promise you ____.
(CCD 717)

Nevertheless, Quirk et al. (1985: 1378n(c) & 1112) propose an alternative analysis in which the reporting subject and verb (here *I promise*) constitute a dependent comment clause rather than the subject and verb of the sentence. Quirk et al. claim that these clauses are defective syntactically since the verb lacks its normally obligatory complementation. However, our search was constrained to those verbs cited in the literature about the subject. The question remains whether these are the only cases in which contextual omission is possible. We had a suspicion that omission might be possible even if the understood object is a first-order entity and indeed this seems to be the case. As we showed in the previous diagram, the availability of a referent in the immediate extralinguistic context may significantly increase the possibility of omitting an argument, even if it denotes a first-order entity. Consider the following example from Spanish:

- (41) Context: showing and offering a packet of cigarettes:
¿Quieres ____?
Lit: “Would you like ____?”

In this case, the omitted object is clearly “un cigarrillo” (a cigarette). Similarly, Lachlan Mackenzie (p.c.) provided an interesting example in this regard:

- (42) Context: a designer making over a rather ordinary room. When she was finished she asked the owner:

Designer: “Do you like ____?”
Owner: “I love ____ !”

The verbs *like* and *love* belong to Dixon’s LIKING type. He mentions them as examples of transitive verbs that can never be used without a specified object. Omission seems to be sanctioned in this case because the object is immediately recoverable from the situational context, i.e. the room the designer and the owner are both looking at. The hypothesis we would like to formulate is thus as follows:

Hypothesis 5

The situational context can make omission possible even with those objects denoting first-order entities.

This hypothesis is parallel to Nemeth’s (2000) observation that the referents of implicit arguments can be identified by extending their immediate context with information from the observable physical environment. Obviously, first-order entities are the most likely candidates for this extension.

A different example of a transitive verb not allowing omission which is used in the literature about this topic is *lock*. The following example, taken from Fillmore (1986: 98) does not seem to follow our hypothesis:

- (43) Context: Absolutely clear to everybody concerned which door is in question:
*Did you lock?

However, the ungrammaticality of the intransitive *lock* is very questionable. The example is used by Fillmore to demonstrate that no pragmatic explanation is possible for implicit arguments since this verb does not allow contextual omission even if there is a clear referent available. As in the previous example, the specific situation might make omission possible. As Lachlan Mackenzie has pointed out to us (p.c.), if the door is still in our shared awareness, i.e. if the participants in the conversation still have the door in their field of vision or otherwise in their focus of attention, we certainly could say “Did you lock?” or “Have you locked?”.

Obviously, it is very difficult to find examples of this kind in the corpus since provided the specific situation in each case allows recoverability, many unexpected verbs could be eligible to omit their object.

There still remains the problem of many verbs which do not seem to allow contextual omission even if there is a clear referent available. Compare:

(44) I'll be back, I **promise** _____ (HDC 2518)

(45) That'll loosen a few apron strings, I **guarantee** it" (EWH 1796)

Promise, as opposed to *guarantee*, allows the omission of the object, or rather its anticipation or presentation as Given information (Hypergiven, in Allerton's terms). *Guarantee* does not allow this degree of "givenness" of the object. Like *promise* and *guarantee*, there are many other pairs of verbs behaving similarly (cf. Fillmore 1986: 99):

(46) She **found out** _____

(47) If you think like that, you'll conquer the world, but it's taken me ten years to **discover** it.' (G2E 1491)

The answer to this problem might well lie in a careful analysis of the semantics of these pairs of synonyms, research we have not been able to undertake yet.

4. Understood objects and Functional Grammar

FG avoids the use of deletion rules so that an analysis of understood objects in which argument positions are removed from predicate frames does not seem to be adequate in that framework. As a matter of fact, FG treats participant optionality by means of empty argument positions in predicate frames. This is the analysis Dik (1985: 28n) proposes for the optional expression of agent participants in passive structures. Adopting this line of thought, the following might be the underlying representation for the sequence *John was eating*:

- (48) a. John was eating
 b. Past e_i : [Prog eat [V] (d_1x_i : John)_{Ag} (x_j : <food>)_{Goal}] (e_i)

This analysis implies that *eat* is a basically transitive verb whose second argument position may be left unspecified, thus rendering an activity reading. Moreover, the empty goal position contains the selection restriction <food>, which is therefore available in the interpretation process. This rightly accounts for the fact that the sequence *John was eating* implies “John was eating food”. This is, *mutatis mutandis*, the analysis we find in De Groot (1985: 79), who argues that a predicate such as “read” appears in the lexicon as a two-place predicate in all

cases; if the feature [+tel] is present in the predication, it binds the goal argument, which must then be realized in the linguistic expression. This approach avoids the use of predicate formation rules in the analysis of this alternation, which, although able to account for processes of valency reduction, require the formulation of a grammatical property shared by all those predicates which can participate in the alternation.

Unfortunately, the problem for this approach is that it does not seem to cover all the facts. We have shown that there are at least two different types of object omission (IO and DO) which serve two different communicative purposes. The IO type, on the one hand, helps the speaker reorganise the presentation of SoA's in a very efficient way, whereas the DO type allows a more effective and economical transmission of information. Both processes are of a very different nature and require two different formalisations in the FG notational system. Yet, FG seems to offer just one possibility.

A possible way out is offered by De Groot (1989: 52), who proposes the following predicate frame for the activity reading of the Hungarian predicate *olvas* "read":

$$(49) \quad olvas_V (x_i)_{Ag} (\emptyset)_{Goal}$$

The second argument position in the frame merely contains a null operator. The difference between the two types of omission can then be represented in the following way: DO verbs contain a second argument position with a referential variable in which no lexical material is inserted, but whose referent can be traced back in the context. IO verbs, in turn, present a frame containing a null operator as in (49) in their activity readings.

The advantage of this analysis is that, as mentioned above, verbs such as *eat* and *read* may be treated as two-place predicates in all cases, both in their activity and accomplishment interpretations. The following are the predicate frames for *eat* in those two uses:

$$(50) \quad \begin{array}{ll} \text{a. Accomplishment} & eat [V] (x_i)_{Ag} (x_j)_{Goal} \\ \text{b. Activity} & eat [V] (x_i)_{Ag} (\emptyset)_{Goal} \end{array}$$

However, an obvious problem for this approach is that, although both frames contain two argument positions, the deletion of a referential variable in (50b) seems to suggest that in fact we are dealing with two different predicate frames. Thus, we are forced to either assume the existence of two lexical entries or some sort of derivational process, possibly in the form of a Predicate Formation Rule.

Furthermore, this analysis does not seem to be able to account for the activity interpretation of examples such as (51) in which the second argument position is occupied by non-referential lexical material:

$$(51) \quad \text{He ate spaghetti for ten minutes}$$

In what follows we would like to explore the possibilities offered by the latest development in FG, Hengeveld's (fc.) Functional Discourse Grammar (FDG). We will show that both types of understood object receive a natural treatment in the new architecture of the theory. In the implementation of our proposal we shall also be making use of García Velasco & Hengeveld's (fc) proposal to split predicate frames into lexemes and general predication frames.

5. Understood objects and Functional Discourse Grammar

5.1. General considerations

Hengeveld (fc.) introduces a new architecture for FG, Functional Discourse Grammar, which seeks to integrate two different tendencies in the expansion of FG into a discourse grammar: the so-called *upward layering approach* and the *modular approach* (see Hannay & Bolkestein 1998). One of the most important differences between FDG and previous FG, as presented in Dik (1997a), is the top-down orientation of the model, which now views the generation of a linguistic expression as a process running from communicative intention to actual speech production. FDG distinguishes three different levels in the derivation of a linguistic expression: the interpersonal, the representational and the expression levels. The interpersonal and the representational levels are linked through mapping rules, whereas expression rules serve to link the interpersonal and the representational levels to the expression level. Crucially, the three levels interact with a cognitive and a communicative component, which are characterized as follows (Hengeveld fc.):

The cognitive component represents the (long-term) knowledge of the speaker, such as his communicative competence, his knowledge of the world, and his linguistic competence. (...) The communicative component represents the (short-term) linguistic information derivable from the preceding discourse and the non-linguistic, perceptual information derivable from the speech situation.

We feel that the different nature of the two types of object omission which constitute the focus of this paper can be neatly captured in FDG if we assume that they operate at the interface of the representational level with both the cognitive and communicative components. Thus, IO's pertain to the interaction of the representational level with the cognitive component, whereas DO's pertain to the interaction of the communicative component and the representational level. The following sections will be devoted to going deeper into the details of this proposal.

5.2. Lexemes and predication frames

The analysis of understood objects that we would like to propose here rests crucially on García Velasco & Hengeveld's (fc) proposal. These authors suggest that the notion of predicate frame in FG should be replaced by a combination of predication templates on the one hand, lexemes provided with abstract meaning definitions on the other, and a linking mechanism joining them together. Diagrammatically, their proposal goes as follows:

Lexemes → *Linking* → *Predication Frames*
(abstract meaning definition)

Lexemes should specify the ontological category they designate, as defined by the abstract meaning definition, and the number of participants which are required in the lexical relation. The linking mechanism is sensitive to the number of entities present in the abstract meaning definition which, in the default case, will have to be projected onto syntax. By way of illustration, the authors examine a simple case of linking. They propose the following definition for the lexeme "open":

- (52) *open* [V]
[f₁: [CAUSE (x₁) [BECOME **open**' (x₂)]]]

This entry states that the lexeme *open* designates a relation (as represented by the ‘f’ variable) between two entities (as represented by the ‘x’ variables). The presence of these variables guides the linking process towards the selection of a transitive predication frame.

Predication frames are assumed to define basic syntactic environments for the insertion of lexemes. According to García Velasco & Hengeveld (fc) the inventory of predication frames potentially relevant to languages should contain at least frames for heads and modifiers of predicate phrases and term phrases, frames for modifiers of predications and propositions, and frames for term predicates.

Predication frames are constructed on the basis of the formalism employed in Hengeveld’s (fc) FDG. Apart from the already familiar use of variables referring to entity types (properties/relations (f), individuals (x), states of affairs (e), and propositional contents (p)), Hengeveld introduces two more variables which are intended to represent the communicative function of linguistic units; the variable (R) is used to indicate the referential function of a linguistic unit, whereas the variable (T) indicates its ascriptive (i.e. predicative) value. Thus, the following is the predication frame for the lexeme “open” in its transitive use:

$$(53) \quad (T_1: (f_1: \textit{open} [V] (f_1)) (T_1)) (R_1: (x_1)_{Ag} (R_1)) (R_2: (x_2)_{Pat} (R_2))$$

García Velasco & Hengeveld (fc) provide ample evidence in favour of their proposal. In particular, it seems that from both a psychological and a pragmatic perspective, predicate frames are too rigid to account for the flexibility of language use. Typologically, there are languages which show an extremely flexible part-of-speech system, in that the same predicate may systematically be used in different syntactic environments, given semantic compatibility. In those languages it makes little sense to provide a lexical entry for every syntactic context in which a predicate may appear.

One of the obvious consequences of this proposal is that the number of arguments of a given lexical item and their semantic functions can be obtained from the abstract meaning definitions in an on-line fashion. What is more, the system allows the same lexeme to choose different frames, thus offering a new scenario in which to treat syntactic alternations.

As far as object omission is concerned, the architecture of FDG, together with García Velasco & Hengeveld’s proposal, provides an interesting framework to formalize our observations in an elegant manner.

5.3. IO’s and the cognitive component

IO omission affects the nature of the SoA as defined by the predication in that it typically brings about a transition from an Accomplishment to an Activity. In Hengeveld’s FDG a speaker executes one or more discourse acts to express a communicative intention at the interpersonal level. At the representational level, the message is provided with semantic content, that is, “descriptions of entities as they occur in the non-linguistic world” (Hengeveld fc.).

In line with the top-down orientation of FDG, we will hypothesize that a speaker decides on the type of SoA he wishes to construct and this decision feeds the representational component by leading to the selection of a predication frame on the basis of the lexical properties of the lexemes selected. Thus, following De Groot’s observation above, the introduction of the feature [+tel] in the configuration of the SoA will typically lead to the selection of a transitive predication frame into which the relevant lexeme will be inserted. The following could be the abstract meaning definition for the verb *eat*:

- (54) *eat*
 [f₁: [CAUSE (x₁) [BECOME **eaten'** (x₂: <food>)]]]

If the speaker decides to build up a telic predication both participant variables in the abstract meaning definition will be projected onto syntax. This leads the entry to select a transitive predication frame with two argument positions. Assuming that semantic functions can be defined on the basis of the position which a variable takes in the abstract meaning definition (Jackendoff (1990); Van Valin & LaPolla (1997)), the following could be the predication frame for *eat* in its transitive use:

- (55) (T₁: (f₁: *eat* (f₁)) (T₁)) (R₁: (x₁)_{Ag} (R₁)) (R₂: (x₂)_{Pat} (R₂))

As we noted earlier, one of the main motivating forces for turning an accomplishment SoA into an activity rests on the speaker's focusing his communicative intentions on the verbal action itself rather than on the effect it has upon a participant. In that case, we assume that telicity, a feature deeply connected to the affected participant, will not manifest itself as a relevant parameter and the lexeme will be associated with an intransitive predication template:

- (56) (T₁: (f₁: *eat* (f₁)) (T₁)) (R₁: (x₁)_{Ag} (R₁))
 [f₁: [CAUSE (x₁) [BECOME **eaten'** (x₂: <food>)]]]

The obvious advantage of this analysis is that it accounts for the behaviour of IO-verbs. Having no object position available, it is impossible for a discourse referent to be interpreted as the patient of the verb *eat*. This explains the anomalous properties of examples such as (14) above. Moreover, the presence of the selection restriction <food> in the abstract meaning definition accounts for the entailment *John is eating* ==> "John is eating food".¹⁰

In the case of verbs incorporating a cognate object, rather than a selection restriction, we assume that this element is present in the abstract meaning definition and, therefore, need not be projected onto syntax. In those cases in which the cognate object is expressed in the form of an extension (cf. (24) above) it functions as a sort of selection restriction for potential explicit objects.

Note finally that examples such as (51) are easily handled in this framework if we assume that the second argument position is provided with an Ascriptive (T) variable instead of the Referential (R) one:

- (57) He ate spaghetti for ten minutes
 (T₁: (f₁: *eat* (f₁)) (T₁)) (R₁: (x₁)_{Ag} (R₁)) (T₂: (x₂)_{Pat} (T₂))

5.4. DO's and the communicative component

The obvious difference between the two types of object omission discussed in this paper is that IO's are not available in discourse and, what is more, if there is an adequate referent in the discourse, the sentence may become ungrammatical, as shown in the examples under (14). With DO, however, the opposite situation holds: there has to be a suitable referent in the context for the sentence to be correctly interpreted.

¹⁰ An alternative analysis would imply the formulation of a rule of Lexeme Derivation on the abstract meaning definition. See García Velasco & Hengeveld (fc) for some discussion.

As pointed out to us by Hella Olbertz (p.c.), there seems to be an important pragmatic difference between DO and IO omission. In line with Dik's (1997a: 8) model of verbal interaction, DO omission entails that the speaker estimates that his Addressee's pragmatic information includes the referent of the missing object. In the case of IO such knowledge is possible, but not necessary and, in any case, its identity is possibly not relevant.

In Hengeveld's (fc.) FDG, the communicative component is assumed to interact with the representational level "in order to enable later reference to earlier acts and expressions". Hengeveld mostly restricts himself to reference to linguistic units introduced in discourse, but, as his characterization of the communicative component (cf. 5.1) clearly indicates, information derived from the communicative situation can also feed the representational component.

Contextual omission is then motivated by the speaker's estimation that the referent of a given object is already known to his Addressee, either because it has been introduced in the preceding discourse, because it is present in the communicative setting, or because it can be inferred from one of the two. This indicates that DO-verbs should be given a representation which allows the expression of an anaphorical relation. They will thus be treated as transitive verbs whose absent lexical material is coindexed with elements available in the discourse, as the following (simplified) representation shows:

(58) John lied about his age, but Mary found out

(p₁) [Past e₁: [lie [V] (John) (his age)], Past e₂: [find-out [V] (Mary) (Ap₁)]

As we see in the example, the anaphoric operator 'A' sets a referential link between the propositional variable (p₁) of the first clause and the object position of the verb *find out* in the second. As we showed in 3.2. this anaphoric operator can also set a link between the null object position and an SoA or a Speech Act.

An obvious problem is how to include in the system those referents which are available in the extralinguistic context. Following Rijkhoff's (1995) study on bystanders we propose that extralinguistic referents should be included in the underlying representation of the clause. Rijkhoff introduces a new variable (B) for a third party, besides Speaker (S) and Addressee (A), at the interpersonal level. This variable can be further specified with features regarding the sex, age and kinship relation with the speaker, which can potentially influence the form of the utterance. In the same line, we propose that those argument positions whose referent appears in the extralinguistic context be filled with an operator (EX), indicating that the referent of that argument position is to be found in the surrounding extralinguistic context.

More difficult to formalise seems to be the case of those referents which are available from inferences from either the linguistic or extralinguistic context. Although this is a problem that exceeds the scope of this paper, we are tempted to think that Pustejovsky's (1995) theory of 'qualia structure' might be a useful tool here.

6. Conclusion

In this paper we have examined the phenomenon of object omission in English from the perspective of FG. We have suggested that there are two different types of object omission with two radically different motivations and effects. The first type, clearly lexical in nature, mainly serves to turn an accomplishment SoA into an activity. The second serves to put the message across in a more economical and efficient way by omitting material available in context. We confirmed the different characteristics of these two types of omission by

examining real data taken from the British National Corpus. Finally, we suggested a possible treatment of the phenomenon within FDG.

It should be noted, though, that the problem of object omission is indeed a very complex one, with ramifications and implications for different grammatical areas. Unfortunately, we have not been able to tackle all of them at this stage. It seems necessary, therefore, to continue studying in greater detail these interactions in the hope of finding more systematic motivations for the role of object omission in language use.

7. References

- Allerton, D.J. 1975. Deletion and Proform Reduction. *Journal of Linguistics* 11: 213-237.
- Bolkestein, A. Machtelt, Groot, Casper de & Mackenzie, J. Lachlan eds. 1985 *Predicates and Terms in Functional Grammar*. Dordrecht: Foris.
- Browne, W. 1971. Verbs and unspecified NP deletion. *Linguistic Inquiry* 2: 259-260.
- Brisson, C. 1994. The licensing of objects in English verbs. *CLS* 30: 90-102.
- Dik, Simon C. 1985. Formal and semantic adjustment of derived constructions. Bolkestein et al. eds.: 1-28.
- Dik, Simon C. 1997a. *The Theory of Functional Grammar. Part 1. The structure of the clause*. Berlin: Mouton de Gruyter.
- Dik, Simon C. 1997b. *The Theory of Functional Grammar. Part 2. Complex and derived constructions*. Berlin: Mouton de Gruyter.
- Dixon, Robert M.W. 1991. *A new approach to English Grammar on semantic principles*. Oxford: OUP.
- Fellbaum, Christiane & Kegl, Judy 1989. Taxonomic structures and cross-category linking in the lexicon. *ESCOL* '89: 93-104.
- Fillmore, Charles J. 1986. Pragmatically controlled zero anaphora. *BLS XII*: 95-107.
- García Velasco, Daniel & Hengeveld, Kees fc. Do we need predicate frames? In Mairal and Pérez eds.
- Goldberg, A.E. 1995. *Constructions. A Construction Grammar approach to argument structure*. Chicago: Chicago University Press.
- Groefsema, Marjolein 1995. Understood arguments: A semantic/pragmatic approach. *Lingua* 96: 139-61.
- Groot, Casper de 1985. Predicates and features. Bolkestein et al. eds.: 71-84.
- Groot, Casper de 1989. *Predicate structure in a Functional Grammar of Hungarian*. Dordrecht: Foris.
- Hannay, Mike & Bolkestein, A. Machtelt 1998. *Functional Grammar and verbal interaction*. Amsterdam and Philadelphia PA: Benjamins.
- Hengeveld, Kees fc. The Architecture of a Functional Discourse Grammar. In Mackenzie and Gómez eds.
- Herbst, Thomas & Roe, Ian 1996. How obligatory are obligatory complements? An alternative approach to the categorization of subjects and other complements in valency grammar. *English Studies* 77: 179-199.
- Jackendoff, Ray J. 1990. *Semantic structures*. Cambridge, Mass.: The MIT Press.
- Kilby, David 1984. *Descriptive syntax and the English verb*. London: Croon Helm.
- Lehrer, Adrienne 1970. Verbs and deletable objects. *Lingua* 25: 227-253.
- Levin, Beth 1993. *English verb classes and alternations*. Chicago: University of Chicago Press.
- Mackenzie, J. Lachlan and Gómez González, María de los Ángeles eds fc. *A new architecture for Functional Grammar*. Berlin: Mouton de Gruyter.
- Mairal Usón, Ricardo and Pérez Quintero, María Jesús eds fc. *New perspectives on argument structure in Functional Grammar*. Berlin and New York: Mouton de Gruyter.
- Massam, Dianne 1992. Null objects and non-thematic subjects. *Journal of Linguistics* 28. 115-137.
- Massam, Dianne & Roberge, Yves 1989. Recipe context null objects in English. *Linguistic Inquiry* 18: 134-139.
- Mauner, G.; Tanenhaus, M. & Carlson, G. 1995. Implicit arguments in sentence processing. *Journal of Memory and Language* 34: 357-382.
- Mittwoch, Anita 1971. Idioms and Unspecified NP Deletion. *Linguistic Inquiry* 2: 255-259.
- Mittwoch, Anita 1982. On the difference between *eating* and *eating something*: Activities versus Accomplishments. *Linguistic Inquiry* 13: 113-122.
- Németh, Eniko 2000. Occurrence and identification of implicit arguments in Hungarian. *Journal of Pragmatics* 32: 1657-1682.
- Nuyts, Jan 1992. *Aspects of a cognitive-pragmatic theory of language*. Amsterdam: Benjamins.
- Pustejovski, James 1995. *The generative lexicon*. Cambridge, Mass.: The MIT Press.
- Quirk, Randolph; Greenbaum, Sidney; Leech, Geoffrey & Svartvik, Jan 1985. *A Comprehensive Grammar of the English Language*. London: Longman.

- Rappaport, Malka & Levin, Beth 1998. Building Verb Meanings. Butt, M. & Geuder, W. eds. *The Projection of arguments. Lexical and compositional factors*. Stanford: CSLI. 97-134.
- Rice, Sally 1988. Unlikely lexical entries. *BLS* 14: 202-212.
- Rijkhoff, Jan 1995. Bystander and social deixis: some programmatic remarks on the grammar/pragmatics interface. *WPF* 58.
- Van Valin, Robert & LaPolla, Randy 1997. *Syntax. Structure, meaning and function*. Cambridge: CUP.
- Vendler, Zeno 1967. Verbs and times. *Linguistics in philosophy*. Ithaca, NY: Cornell University Press.