

Scope and external datives

Pieter A.M. Seuren

Abstract

SLE-Poznan, 11–13 September 2014.

In this study it is argued that scope, as a property of scope-creating operators, is a real and important element in the semantico-grammatical description of languages. The notion of scope is illustrated and, as far as possible, defined. A first idea is given of the ‘grammar of scope’, which defines the relation between scope in the logically structured semantic analysis (SA) of sentences on the one hand and surface structure on the other. Evidence is adduced showing that peripheral preposition phrases (PPPs) in the surface structure of sentences represent scope-creating operators in SA, and that external datives fall into this category: they are scope-creating PPPs. It follows that, in English and Dutch, the internal dative (*I gave John a book*) and the external dative (*I gave a book to John*) are not simple syntactic variants expressing the same meaning. Instead, internal datives are an integral part of the argument structure of the matrix predicate, whereas external datives represent scope-creating operators in SA. In the Romance languages, the (non-pronominal) external dative has been re-analysed as an argument type dative, but this has not happened in English and Dutch, which have many verbs that only allow for an external dative (e.g. *donate*, *reveal*). When both datives are allowed, there are systematic semantic differences, including scope differences.

1 What is scope and what does it do?

1.1 The reality and relevance of scope

Scope phenomena, though of great importance, have so far been badly neglected in all varieties of linguistic theory, which have all relegated them to the less clearly defined fringe of the pragmatics of discourse or information structure. In fact, none of the theories ‘on the market’ today is able to account for them in a satisfactory way, which is precisely why they have been swept under the rug.

1.1.1 The data problem

A perennial problem in the study of scope, as in many other areas of theoretical linguistics, is the status of the data (Seuren 2009: 37–47).¹ This is a common feature of many disciplines in the human sciences, weakening their empirical basis. What I consider data in the present study are mostly competent speakers’ intuitions regarding well-formedness and possible interpretations of given sentences and much less statistical breakdowns of what people actually say in their daily lives. Data of the latter kind may be useful for the study of certain aspects of language use, but without any further judgements on the part of competent speakers regarding grammatical or

¹ For a candid and highly illuminating discussion of this problem, see Levelt (1974a: 3–7; 1974b: 6–7, 14–21; 2008, Postscript: 9–11).

semantic correctness, they are bound to give a distorted picture of the linguistic competence underlying token utterances (Seuren 2009: 42)—just as actual behaviour in traffic gives a distorted picture of the traffic rules. It is thus necessary to tap competent speakers' intuitions regarding the socially accepted ways of expressing given meanings. That, however, has turned out to be a difficult job.

One problem is that the formulation of intuitions of the kind mentioned requires a certain amount of linguistic awareness on the part of those speakers whose intuitions are recorded, and a minimal capacity to reflect on one's speech or language—requirements that are underdeveloped, sometimes even taboo, in many individuals and in certain cultures or subcultures. Then, as regards professional linguists, vested interests in a given linguistic theory often cause linguists simply to deny what are obvious intuitions to less prejudiced observers, as a result of which the whole argument becomes a matter of rhetoric and power play, making any discussion fruitless. Although such radical disregard for native intuitions in fact places the linguists in question outside the realm of rational empirical investigation, it is difficult to argue against it. To avoid problems of this nature, more reliable ways of tapping native intuitions are needed.

This cannot be done, in the case at hand, by statistical counts in speech corpora, first because, as has been said, actual behaviour often deviates from socially accepted norms, and secondly because scope phenomena are not countable in any practically efficient manner. Nor can it be done by means of striking, serendipitous observations of live speech, since, though such incidental observations are nice and sometimes highly revealing, the very fact that they are serendipitous makes them unsuitable for the covering of a wide ground. All they can do is DISPROVE a given theory, hypothesis or generalization. The only way out, as far as I can see, is to set up a battery of psycholinguistic experiments where competent speakers are not asked about their intuitions but are, so to speak, caught in the act as they interpret given utterances in context. If done properly, this should clinch the matter. But, since such a method is costly and highly circumstantial, it has in practice hardly been followed in linguistics or semantics. In the circumstances, all I can do here is appeal to my readers to probe their own intuitions in as sympathetic a way as they can muster.

1.1.2 Some data

Given this proviso, let me give some examples to show the effects of scope. Everyone with some knowledge of English will immediately grasp the semantic difference between (1a) and (1b):

- (1) a. Five students have read two books.
- b. Two books have been read by five students.

The primary readings of these two sentences can be rendered as (2a) and (2b), respectively:

- (2) a. 'there are 5 students x such that there are 2 books y such that x has read y'
- b. 'there are 2 books y such that there are 5 students x such that x has read y'

It is normally said that these readings differ in that in (2a) *five students* TAKES SCOPE over *two books*, whereas in (2b) the opposite is the case. One indication that there is such a difference is the fact

that, on hearing (1a), it makes sense to ask “Which students?”, whereas on hearing (1b), one may reasonably ask “Which books?”.² The question is, therefore: what is it, in the grammar of English (but an analogous question arises for any other language), that makes these sentences mean what they mean? This question is discussed in Section 1.1.3.

As already observed by Aristotle, no such scope differences occur when a definite determiner, such as *the*, *these* or *those*, is used, so that there is no quantification in the noun phrase in question. The sentences (3a) and (3b) are *grosso modo* synonymous and show no scope difference:

- (3) a. These students have read those books.
- b. Those books have been read by these students.

There is a strict semantic (and in many languages also grammatical) distinction between quantified and definite or referring noun phrases. The latter require CONTEXTUAL KEYING, that is, a contextually given clue as to which entity is being referred to, for the proposition expressed in the sentence to be true or false. The former are used in sentences that can, in principle, be judged true or false without any specific context that fixes the reference (although in practice, of course, quantified sentences are normally used in specific contexts). To ask whether *The man is a compulsive liar* is true or false makes no sense as long as no indication is given as to which individual is referred to by the definite NP *the man*. But to ask whether *Some men are compulsive liars* is true or false requires no special context for an answer to be given—although a special context does no harm. Definite determiners do not have scope but help to place the NP in which they occur in a reference relation with regard to a specific entity. For this and a few other reasons, it is a basic mistake to say, as formal semanticists are in the habit of doing nowadays, that definite determiners are quantifiers. If they were, they would have scope, which they do not.

As regards the real scope-creating operators, it is usually said, in particular by possible-world semanticists, that, yes, different scope readings do exist, but when two or more scope-creating elements co-occur in one sentence, that sentence is ambiguous in as many ways as there are possible scope permutations. Therefore, the grammar does not have to worry about scope: anything goes.

This, however, is simply not true. What is true is that sometimes there are PRIMARY and SECONDARY readings. Consider again the sentences (1a) and (1b), whose primary readings are as in (2a) and (2b), respectively. The secondary readings are (2b) for (1a) and (2a) for (1b). These are called ‘secondary’ because they can only be ‘reached’ with some difficulty, for example, by thinking up a special context or by imposing a special intonation. Sometimes, however, a particular scope permutation is just impossible. Consider the sentence pair (4a,b):

- (4) a. She didn’t sleep for six hours.
- b. For six hours she didn’t sleep.

² The two meanings represented in (2a,b) are not only semantically different, they are also logically independent, in that they can be both true, or both false, or the one can be true while the other is false.

Here the two scope-creating operators are *not* and *for six hours*. While (4a) is genuinely ambiguous between 'for six hours it was not the case that she slept' and 'it is not the case that she slept for six hours', (4b) can only have the former meaning. Why that should be so is a question that has to be answered by an adequate theory of grammar.

Consider also the following four sentences:

- (5) a. The bank has earned less on account of bad loans.
- b. On account of bad loans, the bank has earned less.
- c. The bank's profit has gone down on account of bad loans.
- d. On account of bad loans, the bank's profit has gone down.

Here we see that (5a) is ambiguous regarding the scope of the scope-creating operators *less* and *on account of bad loans*, but, like (4b), (5b) can only have the latter taking scope over the former. By contrast, (5c) and (5d), which contain only the operator *on account of bad loans*, are not only unambiguous but also synonymous.

Both of the following two German sentences are unambiguous and allow for just one single scope assignment:

- (6) a. Ich habe ein Buch nicht gelesen.
 ('there is one book I didn't read')
- b. Ich habe kein Buch gelesen.
 ('I didn't read a (single) book')

The examples in (6) cannot be copied for modern English, whose grammar, in principle, does not allow for the negation word *not* to occur after the direct object (older forms of English do, as in *He loves me not*). But English shows the same effect in sentences like (7a,b), where the existential quantifier occurs in subject position, before the verb phrase:

- (7) a. Many books were not sold.
- b. Not many books were sold.

Another such case is presented by the following sentence pair:³

- (8) a. Some words in all texts are derived from Latin.
- b. Some words occurring in all texts are derived from Latin.

Sentence (8a) is synonymous with *In all texts some words are derived from Latin* and can only be read as 'for all texts *x* there are some words *y* in *x* such that *y* is a derived from Latin'. It cannot be read as (8b), where the word *occurring* has been inserted. More is said about this example below.

In some cases, scope permutation leads to SYNTACTIC UNGRAMMATICALITY, which shows the relevance of scope for syntactic analysis and description and thus constitutes empirical evidence against Chomsky's theory of autonomous syntax (see below). The ungrammaticality of (9b), for

³ The example has been chosen with care, making sure that both readings are pragmatically acceptable.

example, is due to the fact that the NEGATIVE POLARITY ITEM (NPI) *in the least* can only be used in the immediate scope of the negation *not*:⁴

- (9) a. Five people were not in the least interested.
b. *No five people were in the least interested.

This should suffice to show (i) that scope differences are real, and (ii) that scope assignment is not arbitrary but subject to certain restrictions in the grammar of the language in question—in so far as a grammar is taken to be a system that maps semantic analyses (SAs) onto surface structures.

In this light, it is remarkable that no grammatical theory on the (extremely busy) market has so far presented an account of scope assignment. The only exception is the now virtually extinct theory of GENERATIVE SEMANTICS, where scope differences were of central concern. Historically, this theory was developed as a critique of Chomsky's *Aspects*, of 1965. The point was (and still is) that *Aspects* posited, for each sentence, besides its SURFACE STRUCTURE, a syntactically underlying DEEP STRUCTURE (DS) that was at the same time a SEMANTIC REPRESENTATION. But the DSs actually posited in *Aspects* could not account for scope differences. For a theory of DS to do that, it proved necessary to go much 'deeper' and postulate DSs that incorporated LOGICAL structures, so that a grammar would have to be seen as a mapping procedure from logically structured DSs to surface structures. But Chomsky refused to go that 'deep'. As soon as the theory of Generative Semantics began to attract attention, it was axed by Chomsky, who now proposed that deep structure does not equal SA but is 'autonomous' and open to both a semantic and a phonetic interpretation. Although this proposal, rebarbative in itself, has been shown to run counter to empirical facts (see Seuren 2004, Chs. 7, 8, and also, for example, (9a,b) above), Chomsky managed to make his authority prevail and thus to dominate the market for many years (Harris 1993, Huck & Goldsmith 1995).⁵

When questions of scope are raised, Chomskyan generativists tend to join their opponents, the Cognitivists, who say that scope phenomena are reducible to 'information structure' or 'topicality' (e.g. Goldberg 2006: 155–161; for a critique see Seuren 2009: 29–33). While it should be clear that information structure and topicality are both real phenomena in language, the problem with this answer is that these notions are then left without a proper definition, which makes it impossible to falsify, and thus to test, this answer. In the light of the clear truth-conditional differences generally resulting from scope permutations, any theorist worth their salt should be at least dissatisfied with answers of that nature.

In possible world semantics, as we have seen, it is actually asserted that scope assignments are arbitrary. That this is false has been shown above, which alone suffices to show that this form of

⁴ Note also that both *Five people were not interested* and *No five people were interested* are unambiguous as regards scope.

⁵ My *Semantic Syntax* of 1996—a direct follow-up on Generative Semantics—is a late attempt at actually constructing a syntactic theory that maps logical structures onto surface structures (though still without a detailed treatment of scope phenomena), but, owing to my aversion to marketing techniques, that theory has not, as yet, hit 'the market'.

semantics-cum-grammar is in serious default. The reason for this default is central to the entire approach, which crucially depends on the technique of unrestricted lambda abstraction of quantifiers from surface structure. Since that technique allows for arbitrary scope assignments, it is too weak to account for either compulsory or primary versus secondary scope assignments.

1.2 The definition of scope

I will refrain from making the rounds of each and every theory of grammar and simply state that none of them can account for scope phenomena. If there is a counterexample to that, please take this as a challenge to show me wrong. Instead, I will now turn to the question of what scope actually is—a question that has remained unanswered in the entire literature, whether logical, semantic, grammatical or pragmatic. Yet scope is spoken about freely, especially in logic, where it is an indispensable notion in the first place. But not even in logic is the notion ever defined in logical or semantic terms. Occasionally, a formal syntactic definition is given, in terms of some specific logical language. Then it is said, for example, that, given an operator **O**, the scope of **O** is whatever follows **O**, or whatever is included in brackets after the occurrence of **O**. But this is like saying that a doctor is anyone who has the right to put "Dr." in front of their name. Clearly, if we want to take scope seriously, we must come up with something better.

Over the years, I have thought long and hard about this question. But I have not, so far, come up with a complete and final answer. A few things have become clear, however. One is that the notion of scope extends far beyond the narrow limits of logic, whose operators are all scope creators, and applies to natural language as a whole, as the examples above show. Then, a scope-creating operator does what it says: it *CREATES* its scope, ensuring that what is in its scope is semantically restricted to the scope just created. This is why I do not use the normal term *scope-bearing* as an adjunct to *operators* and have consistently replaced it with *scope-creating*.

I have always felt that scope has to do with some kind of domain restriction, without, however, having formulated a hard-and-fast formal analysis of that intuition. In view of the fact that domain restriction is a typical feature of complement-taking predicates, accounted for in the theory of DISCOURSE SEMANTICS (Seuren 1985, 2010), and given that scope is not just a logical but a semantico-grammatical phenomenon in natural language as a whole, it seems natural to seek a definition of the notion of scope in terms of discourse semantics. Just as complement-taking verbs or adjectives such as *know*, *believe*, *hope*, *probable*, etc. create their scope by opening up (or continuing) a restricted subdomain, represented as such in the discourse representation, the logical scope-creating operators can be seen as opening up (or continuing) their interpretative subdomains. The chapter on discourse incrementation in Seuren (2010, Chapter 8) does not deal with scope in these terms, but I have meanwhile begun to feel that perhaps that is the direction we should take.⁶ Yet,

⁶ Looking for an answer in terms of discourse domains and subdomains implies an agreement in principle with the overall thesis, defended in Johnson-Laird (1983), to the effect that the logical powers of the

as has been said, I have not so far developed anything close to a formal theory in this respect—not surprisingly, since the very notion of domain or universe restriction as a factor in semantic interpretation has not, so far, been explored very well in the literature.

The scope of a scope-creating predicate or operator **O** may thus be considered to be the subdomain created by, and dependent on, **O**. Roughly speaking, a DOMAIN **D**, in terms of discourse semantics, is a cognitive model representing the situation described in or by a given piece of discourse (with the help of background and/or encyclopedic knowledge). A SUBDOMAIN **SD** is a cognitive model representing the situation described in or by a propositional argument term (complement) to a higher operator **O**, under the terms of the higher domain **D** that **O** belongs to. A SCOPE-CREATING OPERATOR **O** IS THUS CONSIDERED TO BE A COMPLEMENT-TAKING PREDICATE in the SEMANTIC ANALYSIS (SA) of a sentence *S*.

In the surface structure of *S*, **O** may appear as a verb, an adjective, a quantifier, a conjunction, a sentence adverbial, or even a morpheme. All sentential adverbials, including adverbs like *tomorrow* but also peripheral prepositional phrases (PPPs), such as *for that reason*, *during the trip*, *in France*, are scope-creating operators in the SA of sentences. For examples, see (4) and (5) above. (Below I argue that external datives, which form prepositional phrases, are scope-creating operators in semantic deep structure.) Complement-taking verbs or adjectives, such as *know*, *believe*, *realize*, *fear*, *expect*, *likely*, *fortunate*, *possible* (in fact, *possible* is a logical operator in modal logic), are scope-creating operators in semantic deep structure. Clausal adjuncts, such as relative clauses or subordinate participles (such as the participle *occurring* in (8b) above), or nominal complements, such as the proposition *p* in complex NPs like *the fact that p* or *the question why p*, form ‘scope islands’ in semantic deep structure, created by the commanding NP. And more such categories may come to light in the future. Sometimes, scope is overtly marked in the surface structure of sentences, but often it is not, in which case listeners must rely on their (implicit) knowledge of the grammar of the language in question, or on the universal principles of grammar, to decide which scope relations are admissible.

A necessary condition for further insight into the nature of scope is the realization that all scope-creating operators, including the standard logical operators of quantification, negation, conjunction, disjunction and modality, are to be seen as ‘abstract’ predicates. For those operators that appear in surface structure as complement-taking verbs or adjectives, this is not too hard to understand, but that the same holds for the operators known from logic, as first proposed in Generative Semantics (McCawley 1972), takes a certain amount of abstract thinking. Yet, once one has the knack of it, the matter is quite simple. The quantifier *all*, for example, as in *All flags are green*, may be taken to be an abstract predicate over two sets (denoted by propositional functions): the set of flags (*F*) and the set of green things (*G*). *All* then states (requires for truth) that *F* is included in *G*. And *some*, as in *Some flags are green*, states (requires for truth) that *F* and *G*

human mind are supervenient on SITUATED MENTAL MODELS and do not find their origin in any system of mentally represented logical formulae.

have a non-null intersection. In like manner, it is stipulated that the negation, the logical connectives and the modal operators are ‘abstract’ predicates over (pairs of) propositions.⁷

All of which goes to show that scope phenomena need to be taken seriously in the study of language, despite the incapacity of modern theorizing about language to come to terms with them, and despite the resulting neglect in present-day linguistics and semantics.

1.3 The grammar of scope

Unravelling the underlying grammatical machinery that makes for the possibility or impossibility of certain scope readings is not a simple matter. The more one looks at the details, the more complex the machinery turns out to be—which is no doubt why no analysis of this machinery has so far been developed: the ‘grammar of scope’ still has to be written—and is long overdue. Yet a few things transpire.

First, those scope-creating operators that are not themselves lexical complement-taking verbs or adjectives in surface structure—such as *make* in (24) below—are CYCLICALLY LOWERED into the Matrix S-structure (clause) that forms their scope (complement-taking verbs or adjectives follow the COMPLEMENTATION SYNTAX of the language in question). I will not go into the technicalities of the process of CYCLIC LOWERING (for a formal treatment, see Seuren 1996, Ch. 2), but will limit myself to a single example.

Consider the (unambiguous) English sentence (10a) below, where the scope-creating operators are printed in small capitals and are indexed according to their scope. The surface representative ANYBODY of the existential quantifier has lowest scope (indexed “3”), the negation NOT takes scope over ANYBODY (indexed “2”), and the possibility operator MAY has highest scope (indexed “1”). (10a) is semantically paraphrased as (10b).

- (10) a. Arthur MAY₁ NOT₂ love ANYBODY₃.
b. ‘it is POSSIBLE₁ that it is NOT₂ so that THERE IS A PERSON x₃ such that Arthur loves x’

Leaving out tense and other details that are immaterial here, the logically structured SA of (10a) is (roughly) as in Figure 1a, the constituent tree structure corresponding to (10b). This SA is input to the grammar, which stepwise transforms the SA into a corresponding surface structure. In accordance with McCawley (1970), it is assumed that the underlying constituent order in SA-structure is Predicate/Verb—Subject—Object (VSO). Higher structure for the treatment of tense (not shown here) induces the so-called TENSE ROUTINE (Seuren 1996: 67–68), which turns the VSO structure into an NP-VP structure (shown in Figure 1e) as required for English. To say that a rule is CYCLIC means that it belongs to the part of the grammar called the CYCLE. The cycle starts with the

⁷ In many languages, in particular in the languages of Europe, the modal operators are expressed as (often auxiliarized) surface verbs, adjectives or adverbs. In other languages, such as Turkish, they appear as verbal morphemes in surface structure—a procedure followed in the Romance languages and Modern Greek only for the modality of futurity.

most deeply embedded S and continues upward till the highest S has been processed. Each predicate inducing one or more cyclic rules is indexed in the lexicon for the specific rule(s) induced, indicated in the tree structures between angled brackets under the predicate in question (“L” in Figure 1 stands for “Lowering”). Surface category labels are assigned as each S goes through the cyclic process, according to instructions from the lexicon.

Figure 1 shows in rough outline, in the formalism of Seuren (1996), how this process applies to the SA of Figure 1a. The Cycle starts with S₃, the most deeply embedded S-structure, then proceeds upwards till all S-structures have been dealt with, which means that all scope-creating operators have been incorporated into the Matrix-S, as shown in Figure 1d. Somewhere along the line, the existentially quantified *somebody*, finding itself in the immediate scope of *not*, is turned into the NPI *anybody*, which thus becomes a surface signal that it must be interpreted as standing in the immediate scope of *not*.

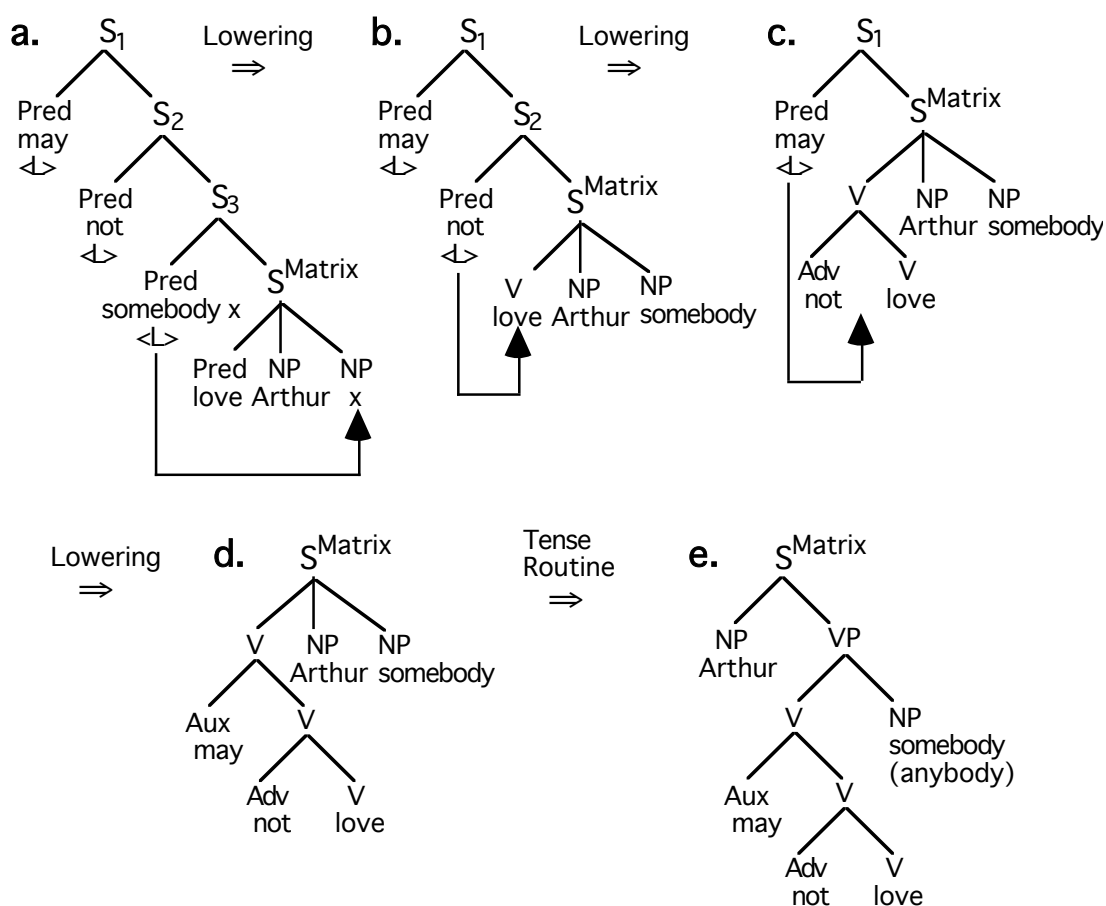


Figure 1

In all this, there seems to be an overarching DEFAULT PRINCIPLE at work to the effect that:

Scope-creating operators, when lowered into their scope/argument clause, reflect the scope hierarchy in the left-to-right ordering of their surface representatives.

This Default Principle is seen at work in the English sentence (10a) above in that every operator lowered into the Matrix-S is lucky enough to end up to the left of all previously lowered operators: there is never any ‘crossing’ of operators. The same is observed in the corresponding French sentence (10c):

(10) c. Il SE PEUT₁ qu’Arthur N₂’aime PERSONNE₃.

Sometimes, however, the grammar of the language in question forces a violation of the Default Principle. In such cases, there is a conflict which is solved either by an available remedy or by a periphrastic rephrasing, as in the English translation of the German sentence (6a) above or in the French (27b) and the Italian (28b) below (see also note 12).

Although the Default Principle accounts for many cases of scope interpretation in all languages—even those, like Latin, with a relatively free word order (Seuren 1969)—it is far from sufficient to explain the data as observed. Thus it seems to be the case that the lowering of operators from their commanding position in the SA structure of sentences into their proper place in the surface structure is subject to certain general constraints that apply across the board in the grammars of languages, such as the well-known ISLAND CONSTRAINTS. Besides, it looks very much as if a number of subsidiary principles are at play, one of which appears to be the following:

When the highest operator in the SA of a sentence is represented by a peripheral PPP in surface structure, the default rule may be violated in that the corresponding surface PPP may also be placed clause-finally, crossing any smaller-scope operator lowered earlier.⁸

This predicts that a clause-final PPP in combination with another scope-creating operator allows for two scope readings: (i) the PPP has followed the default principle and is thus not the operator with highest scope, or (ii) the PPP has made use of the special licence for peripheral PPPs and is thus open to an interpretation in which the PPP has highest scope.⁹ By contrast, a PPP in initial position can only be interpreted as having followed the default principle—that is, it can only have been lowered from the highest scope position. Needless to say, none of the theories ‘on the market’ today comes close to an explanation of the phenomena in question.

2 The asymmetry of external and internal datives

It has traditionally been taken for granted that speakers of those languages that have both kinds of dative, such as English or Dutch, have a free choice between the two. This common but mistaken

⁸ This subsidiary principle for PPPs does not apply when the prepositional object in a PPP is an NPI, as in (26d) below, where the NPI *anybody* can only be interpreted as standing in the immediate scope of *not*. Cp. also (9) above and (27) and (28) below.

⁹ In some cases of a clause-final PPP, an intonational break (or a comma in writing), may help to disambiguate. In other cases, intonational patterns make no difference. The role of intonation is not further discussed here.

notion is based on typical sentence pairs like (11a,b), which, at first sight, look as if they are fully synonymous, differing at most in the style of presentation:

- (11) a. Alice gave a book to John.
b. Alice gave John a book.

It was, however, observed by Green (1974) that there is more going on. First, certain verbs of giving do not allow for an internal dative. Examples are the English verbs *advise*, *assign*, *dedicate*, *demonstrate*, *devote*, *dispatch*, *explain*, *let* (to a tenant), *propose*, *relate*, *reveal*, *say*, *transfer*, *whisper*:

- (12) a. She dedicated the book to her husband.
b. *She dedicated her husband the book.

Conversely, some verbs or expressions, idiosyncratically, do not allow for the external dative. Among the rare examples is the English verb *tell*:

- (13) a. *She told the news to the man.
b. She told the man the news.

Much more common are cases where certain verbs occur as the main verb in a fixed collocation, such as *give a kiss*. The external dative destroys the collocation and forces the literal meaning of the verb in question on the listener/reader:

- (14) a. He gave his mother a kiss.
b. ?He gave a kiss to his mother.

Moreover, a non-truth-conditional yet semantically real distinction between the external and the internal dative is detectable, in that the use of the external dative assigns a certain importance or dignity, or a special relevance, to the referent of the prepositional object. This applies not only to external datives but, in general, to PPPs—that is, prepositional phrases functioning as sentence adverbials. James McCawley observed (McCawley 1970: 292) that a sentence like (15b) strikes one as odd in a way that (15a) does not:

- (15) a. Hubert loves God.
b. God is loved by Hubert.

Likewise in the following sentence pair, where the person referred to in the PPP is assigned greater importance than the person referred to by the subject term, which makes (16a) sound socially appropriate but (16b) just a bit out of place (when said by me, for example):

- (16) a. I shook hands with the Queen.
b. The Queen shook hands with me.

Other examples of the same nature but now involving external datives are (Seuren 2013: 123):

- (17) a. She left her fortune to the Church.
b. She left the Church her fortune.

- (18) a. She left two hundred pounds to me.
 b. She left me two hundred pounds.
- (19) a. He offered his services to the king.
 b. He offered the king his services.
- (20) a. We sell cars to the royal family.
 b. We sell the royal family cars.
- (21) a. She paid a visit to her native village.
 b. She paid her native village a visit.

In Seuren (2013: 123) it is commented that: “The (a)-sentences all present the acts described as something honourable or ceremonial. The (b)-sentences, by contrast, are more neutral in this respect, allowing for a less honourable interpretation of the acts described.” The semantic distinction is obliterated when there is no difference in dignity or importance, as in, for example *She paid her son a visit* versus *paid a visit to her son*. But if there is such a difference, the semantic distinction stands out clearly. (18a) may be said by a person who is grateful for the bequest, whereas (18b) can be expected from a person who considers two hundred pounds a pittance, left to a person who is considered unimportant. (19a) sounds quite honourable, but (19b) evokes a somewhat louche type discreetly offering the king certain services not to be known to the general public. Likewise for (20a,b). The pair (21a) versus (21b) also fits this pattern.

I submit that this semantic difference is due to the fact that external datives are, in fact, PPPs that are the surface manifestation of semantic scope-creating operators. This operator status may be taken to be the cause of the psychological impression of a greater distance between the prepositional object on the one hand and the nuclear predicate-argument structure of the clause on the other. But a more direct empirically valid argument is found in the observation of scope differences.

It is generally so, in English and many other languages, that PPPs may be placed either in leftmost or in rightmost position (hence the term *peripheral*). Typically, in rightmost position they create a scope ambiguity which is not there when they are placed in leftmost position, in which case the leftmost operator always takes higher scope. Examples of this phenomenon were given above in (4a,b) and (5a,b). Other examples abound:

- (22) a. I read two newspapers every morning.
 b. Every morning I read two newspapers.
- (23) a. I didn't go home because of the rain.
 b. Because of the rain I didn't go home.
- (24) a. This made him president for four years.
 b. For four years this made him president.¹⁰

¹⁰ Here the complement-taking verb *make* is a scope-creating operator. Since it is represented as a lexical verb in surface structure, it is not lowered into its argument-S but follows the procedure reserved for complement clauses in English.

- (25) a. The sheriff jailed Robin Hood for two years.
 b. For two years the sheriff jailed Robin Hood.¹¹

The same holds for external datives, which display scope-sensitive behaviour in a way internal datives do not. Consider:

- (26) a. I sold two books to nobody.
 b. To nobody did I sell two books.
 c. I sold nobody two books.
 d. I didn't sell two books to anybody.

Again, (26a), with the PPP *to nobody* in clause-final position, is scope-ambiguous between the readings (i) 'there are two books that I sold to nobody' and (ii) 'there is nobody I sold two books to'. By contrast, (26b) can only be understood as having reading (ii), just like (26c) and (26d).

What does all this mean for those verbs of giving that do not allow for an internal dative, such as *donate*, *assign*, etc.? The answer is fairly simple now. All we need is a stipulation in the lexicon of the language in question that these verbs are two-place predicates, taking a subject and a direct object, but not an indirect object. The 'beneficiary' can thus only be expressed, in languages such as English or Dutch, by means of a higher operator that will end up as a PPP.

It is well known that many languages do not have three-place predicates: all they allow for is a subject and, for transitive verbs, also an object position, but no position for a full lexical indirect object (personal pronouns occur more easily as indirect object). In the course of their history, such languages are then seen to develop a lexically defined position for (lexically filled) indirect objects by a process of grammatical re-analysis. The Romance languages and Modern Greek, for example, have re-analyzed original PPPs expressing the beneficiary as regular datives, thus obliterating the distinction, still alive in English and Dutch, between internal and external datives. As a result, the obligatorily external datives in these languages have come to lack the semantic status of scope-creating operators and the external datives have lost the status of PPP, having become prepositional objects of the verb in question (see note 11).

In fact, if a student is asked to translate (26a) into French or Italian, chances are that they will produce (27a) or (28a), respectively, but these can only mean what (26b), (26c) and (26d) mean: 'there is nobody I sold two books to'. The missing reading of (26a) requires a periphrastic

¹¹ Note that the difference between (25a) and (25b) strongly invites an analysis of the verb *jail* as 'cause to be in jail', along the lines of McCawley's famous analysis of *kill* as 'cause to die' (McCawley 1968). In this analysis, the scope-creating operator is 'cause'. The different possible scope interpretations of (25a) and (25b) thus constitute a powerful argument that McCawley's proposal of prelexical syntax should be taken seriously in the theory of grammar. It may be objected that in (25a) *for two years* is not a PPP but a prepositional object, and thus part of the argument structure of the verb, as appears, for example, from the possibility of extracting the NP from the *for*-phrase: *This was the period he was jailed for*—not possible in the other cases. To this I answer that the status of prepositional object is a regular result of the lexicalization of 'cause to be in jail' as the surface verb *jail*: in such cases, the original PPP is, or may be, recategorized as a prepositional object. Note that the same has happened to the original dative PPP in the Romance languages, which is now part of the argument structure of the verb in question.

translation such as (27b) or (28b).¹² The reason, in my analysis, is that French and Italian have a 'split' expression for 'nobody': *ne...personne* for French and *non...nessuno* for Italian, the 'nominal' part of the 'split' negation (*personne* or *nessuno*) being an NPI that requires an interpretation in which it stands in the immediate scope of the negation (*ne* or *non*), as in (26d) above.¹³

- (27) a. Je n'ai vendu deux livres à personne.
 b. Il y a deux livres que je n'ai vendus à personne.
- (28) a. Non ho venduto due libri a nessuno.
 b. Ci sono due libri che non ho venduto (venduti) a nessuno.

In other languages allowing for maximally two-place predicates, the second argument term then normally expresses a direct object relation, with the exception of the verb for 'give', whose second argument term may also express the beneficiary. Many Creole languages, such as Sranan, the Creole of Surinam, fall, or used to fall, into this category. If such languages then have a category of SERIAL VERB CONSTRUCTION (SVC) in their grammar, they will typically express the beneficiary by means of a SVC with the verb for 'give'. An example is the following Sranan sentence:

- (29) A man ben seri a buku gi a pikin.
 (the man PAST sell the book give the child)
 'the man sold the book to the child'

In the course of time, such SVCs were then re-analyzed as dative argument terms to what then became a three-place verb, the original serial verb *gi* ('give') being recategorized as the designated preposition for the newly added indirect object argument. If this is correct, such datives should likewise not have the semantic status of scope-creating operators, but no research into this question has so far been carried out.

This analysis throws a new, and, in my view, explanatory light on the distinction between internal and external datives in those languages that have them. The analysis may have to be rejected or revised when more languages and/or more data are taken into account, but given our limited knowledge and expertise, it would seem that the direction pointed out in the present study is worthy of further exploration.

¹² Cp. the periphrastic English translation of the German sentence (6a) above. As has been said, when the grammar of a language makes it impossible to express a certain scope relation, speakers have to resort to a formulation that is closer to the logically structured SA of the sentence.

¹³ I have the impression that this is not so in the colloquial variety of French in which the particle *ne* has been dropped, so that (27a) comes out as *J'ai vendu deux livres à personne*. As far as I can judge, this has the same ambiguity as observed in its English counterpart (26a). If this is confirmed by proper psycholinguistic testing (or by a sufficient number of authoritative competent speakers), one may assume that, in this variety of French, *personne* functions as a composite negative operator of the kind one finds in the English *nobody*, just as, in this variety, *pas* has taken over the function of *ne...pas*.

References:

- Bowerman, Melissa (1988) The 'no negative evidence' problem: how do children avoid constructing an overly general grammar? In: J. Hawkins (ed.), *Explaining Language Universals*. Oxford: Blackwell, pp. 73–101.
- Chomsky, Noam (1965) *Aspects of the Theory of Syntax*. Cambridge MA: MIT Press.
- Goldberg, Adele E. (2006) *Constructions at Work: the Nature of Generalization in Language*. Oxford: Oxford University Press.
- Green, Georgia (1974) *Semantic and Syntactic Regularity*. Bloomington, Ind: Indiana University Press.
- Harris, Randy A. (1993) *The Linguistics Wars*. Oxford University Press, New York.
- Huck, Geoffrey J. and John A. Goldsmith (1995) *Ideology and Linguistic Theory: Chomsky and the Deep Structure Debate*. London/New York: Routledge.
- Johnson-Laird, Philip N. (1983) *Mental Models. Towards a Cognitive Science of Language, Inference, and Consciousness*. Cambridge: Cambridge University Press.
- Levelt, Willem J. M. (1974a). *Formal Grammars in Linguistics and Psycholinguistics. Vol. II. Applications in Linguistic Theory*. The Hague: Mouton.
- (1974b). *Formal Grammars in Linguistics and Psycholinguistics. Vol. III. Psycholinguistic Applications*. The Hague: Mouton.
- (2008). *Formal Grammars in Linguistics and Psycholinguistics*. Anastatic reprint of Levelt 1974, three volumes, with Postscript. Amsterdam/Philadelphia: Benjamins.
- McCawley, James D. (1968) Lexical insertion in a transformational grammar without deep structure. *Papers from the fourth regional meeting, Chicago Linguistic Society*. Chicago: Linguistics Department of the University of Chicago: 71–80.
- (1970) English as a VSO-language. *Language* 46.2: 286–299,.
- (1972) A program for logic. In: Donald Davidson & Gilbert Harman (eds), *The Semantics of natural Language*. Dordrecht: Reidel. Pp. 498–544.
- Seuren, Pieter A. M. (1969) *Operators and Nucleus: A Contribution to the Theory of Grammar*. Cambridge: Cambridge University Press. (re-issued in 2010)
- (1985) *Discourse Semantics*. Oxford: Blackwell.
- (1996) *Semantic Syntax*. Oxford: Blackwell.
- (2004) *Chomsky's Minimalism*. New York: Oxford University Press.
- (2009) *Language in Cognition (= Language from Within vol. 1)*. Oxford: Oxford University Press.
- (2010) *The Logic of Language (= Language from Within vol. 2)*. Oxford: Oxford University Press.
- (2013) *From Whorf to Montague. Explorations in the Theory of Language*. Oxford: Oxford University Press.

Pieter A.M. Seuren
Max Planck Institute for Psycholinguistics
PO Box 310
6500 AH Nijmegen, The Netherlands