

Presenting and Predicating Lower Events*

Abstract

The effects of different forms of predication have been insightfully (and almost exclusively) studied for 'simple' cases of predication, of which the 'presentational sentence' is maybe the paradigm instantiation. It is the aim of this paper to show that the same kind of effects as well as in fact the same kind of structures are present at embedded levels in thematically and otherwise more complex structures. Beyond presentational sentences, 'unaccusative' experiencing constructions involving a dative subject, 'double object constructions' and – to a lesser extent – spray/load constructions are discussed. For all of these, it is argued that they comprise a predication encoding the ascription of a transient temporal property to a location. On this basis, a proposal is made as to how the scope asymmetry between the two arguments involved in the constructions can be explained. Furthermore, a proposal is made as to how what has been called 'argument shift' is motivated.

1 Introduction

In this section, the constructions under investigation are briefly introduced (1.1). Subsection 1.2 comprises the proposal and gives an overview of the discussion. Some background assumptions the proposal depends on are spelled out in 1.3.

1.1 Constructions

The constructions to be dealt with are exemplified in (1) to (4). Since the bulk of data to be discussed comes from German, I give an example in German verb-final order under (a). (b) roughly indicates the assumed structure:

- (1) Presentational Construction (PC): 'There {was, appeared} a man (in the garden)'
 - a. Da ein Mann (im Garten) {war, erschien}
 - b. [There [[DP_{man-NOM} (PP_{garden})] was/appeared]]

- (2) Dative Experiencer Construction (DEC): 'A gangster escaped the police'
 - a. Der Polizei ein Gangster entkam
 - b. [DP_{police-DAT} [DP_{gangster-NOM} escaped]]

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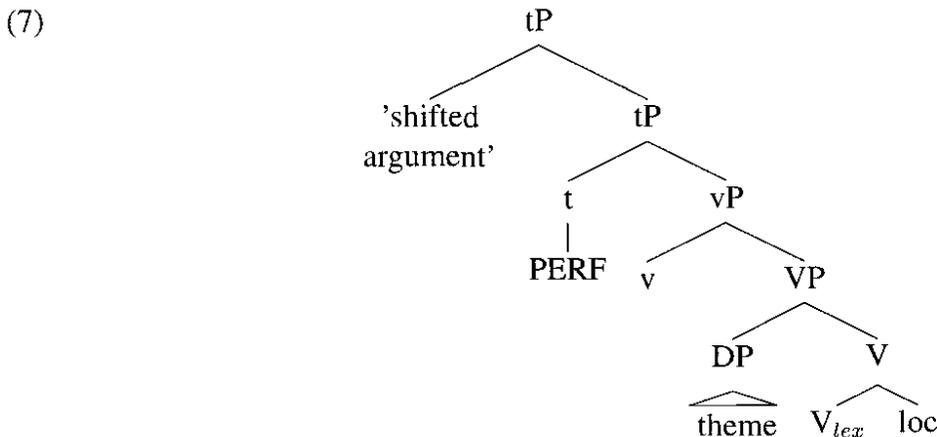
- (3) Double Object Construction(DOC): 'Otto sold a man a gun'
- Otto einem Mann eine Pistole verkaufte
 - $[DP_{otto-NOM} [DP_{man-DAT} [DP_{gun-ACC} sold]]]$
- (4) Shifted Spray/Load Construction (shifted S/LC): 'Otto loaded a cart with hay'
- Otto einen Wagen mit Heu belud
 - $[DP_{otto-NOM} [DP_{cart-ACC} [PP_{hay} loaded]]]$

For ease of reference, I call the elements underlined 'shifted arguments'. This is however not to suggest that they have undergone movement. A detailed discussion of the (common) syntactic properties of these constructions is not the subject of this paper but can be found in Brandt (in progress). In what follows, reference will be made also to what I call here the 'oblique object construction' and the 'unshifted spray/load construction', exemplified in (5) and (6):

- (5) Oblique Object Construction (OOC): 'Otto sold a gun to a man'
- Otto eine Pistole an einen Mann verkaufte
 - $[DP_{otto-NOM} [DP_{gun-ACC} [PP_{man} sold]]]$
- (6) Unshifted Spray/Load Construction (unshifted S/LC): 'Otto loaded hay onto a cart'
- Otto Heu auf einen Wagen lud
 - $[DP_{otto-NOM} [DP_{hay-ACC} [PP_{wagon} loaded]]]$

1.2 Proposal and Overview

The 'shifted arguments' restrict a spatiotemporal location that is ascribed a temporal property. This property is a change of state associated with the occurrence of an event. In rough syntactic terms, the claim is that (1) – (4) share as part of their overall structure a structure as depicted in (7) that encodes this meaning:



Spelling this out in more detail, the paper seeks to derive in particular:

- The fact that a D/NP in the c-command domain of the 'shifted argument' is confined to a narrow scope interpretation
- The reason behind what has been called 'argument shift'

After laying down more global background assumptions, the view here on presentational *there* sentences is sketched and motivated to some extent: Presentational *there* sentences are viewed as encoding the ascription of a transient temporal property to a location (section 2). Section 3 presents evidence in favor of the claim that the shifted ditransitive constructions under discussion are biclausal. However, the lower clause is argued to comprise an event, the predication it encodes thus being different from a primitive possessive relation HAVE. Building on Freeze (1992), section 4 argues for the shifted ditransitive constructions that the possession-like relation between the shifted argument and the theme argument really stems from the lower clause's corresponding to a presentational sentence. Collecting (the relevant parts of) the constructions into one, section 5 analyzes the building blocks of the predication in question and how they are put together, deriving (A) and (B) above:

As to the 'scope freezing' property associated with the construction, it is argued that a D/NP that finds itself in the c-command domain of the shifted argument codefines the property that is ascribed to the shifted argument. It is in this sense 'incorporated' into the predicate, which forces it to take narrow scope.

As to the motivation for 'argument shift', it is argued that the D/NP (including *there*) that finds itself in the position of the shifted argument acts as the logical subject of the predication encoded, restricting what is being quantified over. Not filling this position with an appropriate argument would leave the restriction too small for the predicate to be assessed, resulting in a semantically ill-formed structure.

Section 6 sums up the results and aims them back at presentational sentences that do not seem to fit the picture.

1.3 Core background assumptions

1.3.1 Lexicon/Syntax

The general view of 'narrow' syntax adopted here is this: Syntactic structures are not deterministically projected from contentful lexical categories (idiosyncratic sound/meaning associations). Rather, (arrays of) functional categories selecting these lexical categories to a large extent determine the eventually projected syntactic structures and – as a consequence – how they are interpreted.¹ An example is the assumption made here of a category 'light verb' labelled 'v' that selects VP as projected by the lexical verb. For example, selection of (an instance of) 'little v' determines whether an agent argument is projected or not. As far as I can see, two conjectures crucial here are natural on, if not essential to, this view: First, 'poorer' structures (where for example an agent argument is not projected) correspond to parts of full blown structures with higher layers missing (rather than being derived from these full blown structures). Second, since syntactic structures (LFs) feed interpretation, not all meaning is associated with contentful lexical categories.

1.3.2 Spatiotemporal Location, states and events

Following Galton (1984), I assume that states are logically distinct from events in the following way: States correspond to sets of times, namely those times where they are true. A proposition encoding a state can therefore be evaluated with respect to just a time. Events 'take time': A proposition encoding an event can be evaluated only given an event AND a particular time:

¹This view seems particularly prominent in recent work by Borer, Marantz and Cinque among others and is sometimes called 'neoconstructional'.

It will be true if the event occurred in that time and false otherwise. To cite a passage from Galton (1998): "With an event, the natural question is *When did it happen?*, answered by means of the function which maps event occurrences onto times, whereas with a fluent [\approx states and progressives], the natural question is *What is its value at time t?*". Events as well as times are both primitive, then, with each event being associated with a certain time in the temporal framework.

For the representation of time, I assume the following: The type T of times has the structure of an algebra, comprising atomic times and sums built from these atomic times, where these sums are again individuals 't'. The Time Structure will be ordered with respect to (at least) inclusion (' \leq ') as well as precedence (' \prec ').² The crucial assumption pertaining to the state/event distinction is that states can be evaluated with respect to an atomic time (\approx instant). The occurrence of an event can be assessed only given a 'sum individual' time (\approx interval).

Times are understood to 'locate' states in that they are the things that have states as properties. I use times for representation, but will speak in the text of 'spacetimes' or 'locations' rather. While all these concepts seem equally mysterious eventually, times seem to me to have the advantage of having a richer tradition in Linguistics with theories for representation in place.

1.3.3 Events, perfection and target states

Events are essentially determined by the change of state that is associated with them: We believe that something must have happened if something has changed. With Dowty (1979) and Kratzer (1994), I assume that the meaning of an eventive predicate (Vendler (1957)'s accomplishments/achievements) derives from the state that the event 'brings about': Events have as properties the states that result from them. For example, an accomplished event of *feeding the cat* has as a consequence a state where *the cat is fed*. This is captured by Kratzer's 'f-target' function that takes an event argument and maps it onto its 'target state':

$$(8) \quad \text{FEED THE CAT} \rightsquigarrow \lambda e \lambda t [\text{feeding}(e) \ \& \ (\text{fed}(\text{the cat}))(\text{f-target}(e)) \ (t)]$$

For the meaning of the target state (the set of times at which it holds) to be determined, the event leading to it has to have happened or be 'perfected'. The occurrence of an event is represented by binding the event argument, where this binding is accomplished by a perfect operator which is assumed to be situated in the extended verbal projection (cf. (7)). Apart from existentially quantifying the event variable, the perfect operator does something else: It maps the times that make the target state true to a set of 'bigger' times which comprise as parts at least one time where the target state holds and at least one (preceding) time where the target state does not (yet) hold. What the perfect operator does then is capture the event, understood essentially as a change of state occurring over time, 'as a whole'. The denotation of the perfect operator is given in (9), its application to what we have above in (8) is given in (10):

$$(9) \quad \text{PERFECT} \rightsquigarrow \lambda P \lambda t \exists t_1, t_2, e [-P(\text{f-target}(e)) \ (t_1) \ \& \ P(\text{f-target}(e)) \ (t_2) \ \& \ t_1, t_2 \leq t \ \& \ t_1 \prec t_2]$$

$$(10) \quad \text{PERFECT}(\text{FEED THE CAT}) \rightsquigarrow \lambda t \exists t_1, t_2, e [\text{feeding}(e) \ \& \ \neg \ (\text{fed}(\text{the cat}))(\text{f-target}(e)) \ (t_1) \ \& \ (\text{fed}(\text{the cat}))(\text{f-target}(e)) \ (t_2) \ \& \ t_1, t_2 \leq t \ \& \ t_1 \prec t_2]$$

²The Time Structure T can be represented thus: $T = \langle U_T, \oplus, \leq, \prec \rangle$. The sum operation ' \oplus ' is an idempotent, commutative and associative function from $U_T \times U_T$ to U_T . Cf. Link (1983), Krifka (1998) for definitions of part structures for the modelling of Mass Nouns/Plurals and the spatiotemporal domain respectively.

1.3.4 Predication

Predication is asymmetric: Subject expressions are capable of referring and 'standing on their own'. Predicate expressions are essentially incomplete and dependent (Strawson, 1959, chap. 5 & 6).

In Semantic Theory, this asymmetry is expressed in terms of quantification. In first order predicate logic, individual variables are the only terms that lend themselves to quantification. In second order generalized quantifier theory, predication is expressed as an asymmetric relation between sets. Following tradition, I assume that predication proper entails a subject-predicate relation as well as what one might call 'temporal location' (Aristotle: *De Interpretatione*, §§ 2, 3, 5).

The paradigm syntactic unit encoding predication in this sense is the clause. In (generative) Syntactic Theory, the 'Extended Projection Principle' states that 'Sentences must have syntactic Subjects' (Chomsky (1981), Rothstein (1983)) and it is assumed that the structural relation between subjects and predicates is asymmetric in that a subject must c-command its predicate (Williams (1980)).

2 Presentational Sentences

This section draws together some points suggesting that presentational sentences can be viewed as encoding the ascription of a transient state to a location denoted by *there*. It is proposed that the 'scope freezing' property of *there* is rooted in this.

2.1 Presentation and Location

The intuition that presentational sentences are locative in some sense is unsurprising. Across languages, an element similar to English *there* appears both as what is commonly taken to be a meaningless 'dummy' subject expression and as a locative proform. In general, a speaker will be the more ready to utter a presentational sentence the more specifically 'located' the concept that is asserted to be instantiated is. Thus (a) does not make a good presentational sentence, but (b) does:

- (11) a. ??There is life
 b. There is life {on Mars, after marriage}

Presentational sentences are used to 'single out' certain states of affairs, they point to something that 'is the case'. While *life* alone does not seem to make an interesting case, *life on mars* or *life after marriage* does. Inspired by Chierchia (1995), McNally (1998b) argues specifically that 'location dependence' is the crucial property a state must have to be encodable in a presentational sentence. What is ruled out are states that are 'location independent' (\approx Carlson's (1978) individual level predication), where in essence "the entities participating in these states will do so no matter what their location happens to be" (McNally, 1998b, p. 298). Thus *there is a man bald* does not make a good presentational sentence while *there is water available* does. Location does not matter for a man's baldness, but it does matter for the availability of water.

2.2 Predication in Presentational Sentences

An alternative to the view that presentational sentences lack a logical subject (and hence that *there* as it appears as subject in presentational sentences is a 'dummy' expression) is expressed for example in Kratzer (1994), of which I cite a passage:

(I) The White Mountains are visible

... is most easily understood as answering a question about a contextually salient spatiotemporal location: As for the time and place we are considering, what is going on there? (I) says that what is going on there is that the white mountains are visible. [Kratzer 1994: 65f]

In effect, what Kratzer proposes is that (I) really expresses the ascription of a property – the holding of a particular situation – to a location, which is consequently the subject of the predication. Kratzer argues that the LF of (I) comprises a 'raising copula' predicating a situation of a spatiotemporal pronoun corresponding to *there* but phonologically invisible. *The white mountains* raises past the copula and the invisible *there* and becomes the syntactic subject of (I). The logical subject of the presentational sentence is however the location denoted by (unpronounced) *there*.

The 'scrambling language' German provides evidence suggesting that what appears as the surface subject of (I) plausibly generates lower structurally than a locative proform. In German, the proform *da*, largely corresponding to English *there*, has to appear to the left of – and c-commanding on standard assumptions – stranded quantifiers associated with the extracted phrase. Similarly, 'was fuer split' leaves behind the NP restriction to the right of (and c-commanded by) this proform.³

- (12) a. [Weisse Berge]_i waren **da** viele_i sichtbar.
[White mountains]_i were **there** many_i visible.
b. *[Weisse Berge]_i waren viele_i **da** sichtbar.
[White mountains]_i were many_i **there** visible.
- (13) a. Was_i waren **da** [fuer Berge]_i sichtbar ?
What_i were **there** [for mountains]_i visible ?
b. *Was_i waren [fuer Berge]_i **da** sichtbar ?
What_i were [for mountains]_i **there** visible ?

In the spirit of Kratzer (1994), Kiss (1996) puts forward evidence that "There constructions always predicate about a specific point in space and time: about *here and now* or *there and then*". If *there* is the logical subject in a presentational sentence, then it is expected to behave like a definite or 'strong' D/NP in principle, where I assume that the crucial property of a strong D/NP is that it carries an existence presupposition (while a weak D/NP does not).⁴ Evidence for *there* corresponding to a strong D/NP comes from patterns involving tag formation. While tag formation is bad with predicates that involve weak subjects, it is good with predicates involving strong subjects as well as with presentational *there* constructions:⁵

³Stranded quantifiers have been argued to mark the base position of the extracted NP complement (cf. Sportiche (1988)). den Besten (1989) has argued that *was fuer split* can take place only from deep objects before these undergo movement.

⁴Kiss uses the terms 'non-specific' versus 'specific', but I will use the terminology of Milsark (1977).

⁵Presumably, one would want to argue that the anaphor that is part of the tag needs an antecedent the existence of which is established in the common ground.

- (14) a. ?*A girl appeared, didn't she/one ? [weak subject]
 b. A girl knew the answer, didn't she/one ? [strong subject]
 c. There was a man at the door, wasn't there ? [-> strong subject]

Another piece of evidence involves focussing adverbs which do not allow in their scope strong subjects. While these can appear to the left of and have in their scope clauses involving weak subjects, they cannot appear to the left of and have in their scope clauses involving strong subjects. *There* constructions again pattern with clauses involving strong subjects:⁶

- (15) a. [Only [A BABY WAS BORN]]; nothing else happened. [weak subject]
 b. *[Only [JOHN READ A NOVEL]]; nothing else happened [strong subject]
 c. *[Only [THERE WAS AN ACCIDENT]]; nothing else happened [-> strong subject]

Taking *there* to be a locative subject expression locating a state opens a perspective on a range of notorious problems with presentational *there* sentences, such as possible disagreement between the copula and the alleged associate as in: *There's lots of cookies in the box.*⁷ Agreement in presentational *there* sentences varies across languages. Thus in e.g. Finnish or French, the copula is always third person singular, no matter what its alleged associate. In the Bantu language Ndendeule, agreement in presentational sentences seems to be with the location (cf. 4.3.1). The absence of existential import in sentences such as *There are steps missing in that proof* (Chomsky, 1999, p. 20) could be rather straightforwardly accounted for presumably if *there* *be* – assumed to do the work of a quantifier essentially – is not associated with an NP (here: *a book*), but rather with an entire (set of) state(s). Similarly, the oddity of *??space is in the fridge* as opposed to *there is space in the fridge* (cf. McNally 1998b, p. 299) could be blamed on the essential lack of content of the concept associated with *space*, making it unsuitable as a (broadly speaking) topical expression (cf. 5.3).

I will assume here that *there* is locative and that it corresponds to the logical subject in presentational sentences.⁸ As to the nature of the predicate in presentational sentences, let us put down for the time being that it corresponds to a state that is location (time-) dependent – we return to the matter toward the end of the paper.

There does not 'add' to meaning to the extent that *whatever 'is' is somewhere*. That *there* makes a difference to truth conditions shows in a pattern concerning scope, to which we turn.

2.3 Scope in Presentational Sentences

To capture the fact that in presentational sentences D/NPs cannot be 'quantifier raised' across *there*, Williams (1984) has proposed that *there* acts as a 'scope marker'. For example, while in (16a) *someone* can take scope over the modal *must*, this seems impossible in (16b) where it is in the syntactic scope of *there*, cf. also Heim (1987, p. 24). 'x > y' should be read as 'x has scope over y':

⁶For lack of better terminology, the units comprising weak and strong subjects are both dubbed 'clause' here. The unit associated with a weak subject should really be understood as meaning 'clause - X', where 'X' stands in for syntactic material relating to temporality.

⁷Breivik (1997) suggests that *there's* here means something like *I could mention* or *Let me recall*, which take propositional complements.

⁸Bolinger (1977, p. 91) states: "Whether *there*₂ [existential *there*] is meaningless enough to force a distinction [from locative *there*] depends on one's sense of proportion". Kayne (class lectures) argues that *there* is always part of a larger structure comprising a silent demonstrative as well as an abstract noun like PLACE, THING or PERSON.

- (16) a. A man must be in the house [must > a man, a man > must]
 b. There must be a man in the house [only: must > a man]

This was unproblematic in principle under the assumption of a level of 'deep structure' and a mechanism of 'late insertion'. Under the 'minimalist' (Chomsky (1986) and later) analysis according to which *there* is replaced at LF by its associate D/NP, the phenomenon remains mysterious. Here, the assumption is that the two sentences have identical LFs and that only their phonological form differs.

The 'scope freezing' property of presentational *there* sentences is reminiscent of the scopal properties of predications involving individual level predicates (Carlson (1978)). The subjects of these very strongly take wide scope with respect to the D/NPs they c-command:⁹

- (17) a. A girl knew every answer (a girl > every answer, very hard: every answer > a girl)
 b. A boy loves every girl (a boy > every girl, very hard: every girl > a boy)

To the extent that a distinguishing feature of presentational sentences as well as individual level predications is that of encoding the ascription of a property to an individual, it seems reasonable to assume that predication and 'scope freezing' are related.

3 DOCs and shifted S/LCs: An extra predication and its contents

Evidence for an 'extra' predication in DOCs and shifted S/LCs is presented. The view that this predication comprises a primitive relation HAVE is argued against. The predication is argued to comprise an event rather which is 'perfected', that is, a change of state.

3.1 Evidence for an extra predication in DOCs and shifted S/LCs

It is assumed here that predication entails a subject-predicate relation as well as 'temporal location'. That full-fledged DOCs and shifted S/L constructions indeed encode two separate predications in this sense is suggested by a range of facts:

3.1.1 Ellipsis, Anaphora, Comparatives

Under the null hypothesis, ellipsis is licensed if what is elided can be recovered through a structurally (LF) identical antecedent. Consider (18), adopted from Den Dikken et al. (1998):

- (18) Shall I give you another sausage ? I can't [XP \emptyset]. I'm on a diet.

We understand that what is unpronounced here – traditionally, this projection would correspond to the VP – has a meaning close to *have a sausage*. The most straightforward explanation is that the preceding sentence in fact comprises a structure that encodes this meaning.¹⁰

⁹According to my intuition, a wide scope reading for *every answer* and/or *every girl* in (17) is about as hard to get as a wide scope reading for the universally quantified D/NP in (i), where clearly a CP boundary intervenes between *ein Mann* "a man" and *jede Frau* "every woman":

- (i) Ein Mann glaubte [_{CP} dass jede Frau einen Liebhaber haben muesse]
 A man believed [_{CP} that every woman a lover have must]

¹⁰If Hardt (1999) is right in that what we are dealing with in (18) is not ellipsis but involves an empty proform, then this is also a case of anaphora.

Similarly with DOCs and shifted S/LCs, the anaphor *it* can pick up as an antecedent something propositional that is 'smaller' than the predication superficially encoded by the main verb (cf. McCawley (1974)):

- (19) a. Max offered Anna his crocodile. But her mother won't allow it. cf.
 b. ?Max offered his crocodile to Anna. But her mother won't allow it.

It is not Max's offer that Anna's mother doesn't allow, but rather that Anna *have* or *get* a crocodile. On the null assumption that anaphors need structurally encoded antecedents, this is straightforward if in fact this 'smaller' propositional meaning is encoded in (19a).

Although somewhat subtle, a contrast involving comparative ellipsis is worth mentioning here. Assume that comparative ellipsis involves the construction of a predicate that is structurally (LF) identical to an antecedent predicate, where what is compared is abstracted over. Consider now a) and b):

- (20) a. I'll give you more wine
 b. I'll give more wine to you

Both constructions have a reading according to which what is compared is the amount of wine involved in an event of giving: *I'll give you more wine than someone else did before*. (20a) however has an additional reading which seems to be absent in (20b). This reading amounts to something like: *I'll give you wine and you will have got more wine as a result than you had before*. Without further assumptions, this is predicted if the DOC in (20a) indeed encodes a propositional meaning corresponding to *x having (got) y-much wine (at t)*, in contrast to the OOC in (20b) which does not encode this 'extra' propositional meaning.

3.1.2 Temporal Location

McCawley (1974) notes that DOCs allow two temporal adverbs. These may be mutually incompatible:

- (21) a. At the meeting yesterday the salesmanager gave Anna Europe next year
 b. ??At the meeting yesterday the salesmanager gave Europe to Anna next year

If we assume that it is clauses, i.e. units encoding a propositional meaning that allow for temporal modification, then this is evidence that DOCs correspond to two clauses rather than one.¹¹

Cinque (2000) argues that the temporal adverbs *always* and *already* can occur only once in a clause, thus providing a test for the number of clauses one is dealing with. What we find is that in shifted S/L constructions and DOCs, these adverbs can in fact appear twice:¹²

- (22) a. Immer hat Schimanski den Kühlschrank immer mit Bier vollgepackt
 always has Schimanski the fridge always with beer full-packed

¹¹Not all DOCs so easily allow independent temporal modification. Clearly, world knowledge and context play a decisive role here. No matter what the context is, however, 'simple' transitive predicates as well as 'oblique object constructions' do not allow it. It would seem that the possibility to have independent temporal modification relates to a verb's ability to license a clausal complement overtly. However, as also the example with 'give' above shows, this is not a necessary condition for the availability of independent temporal modification.

¹²'Schimanski' is the name of an inspector in the German crime series 'Tatort'

b. ?*Immer hat Schimanski immer Bier in den Kühlschrank gepackt
 always has Schimanski always beer into the fridge packed

(23) Schon hat er ihr schon (wieder) einen Kuss gegeben
 Already has he her already (again) a kiss given

Cinque's test supports the claim then that DOCs as well as shifted S/LCs are 'biclausal', encoding two propositional meanings.¹³

3.2 Core Contents of the predication

It is an old intuition going back at least to generative semantics that the meaning of *give* predicates in DOCs can be decomposed into something like CAUSE-TO-HAVE. While this is in line with the general idea that DOCs are biclausal, it seems too simple to assume that the lower predication involves something like primitive 'possessive' HAVE. Importantly for the issue at hand, there is reason to believe that the predication we are looking at is of an 'eventive', that is, 'change of state' nature.

3.2.1 Entailments

If predicates entering DOCs were indeed composed out of the primitive relations CAUSE and HAVE, we would expect that the constructions quite generally have this meaning, that is, that they generally carry what Oehrle (1976) has called a 'success entailment' involving the HAVE relation. This is not the case, as some run-of-the-mill examples show:

(24) a. I sent Otto a letter $\neg \rightarrow$ Otto ended up having a letter
 b. I threw Otto the ball $\neg \rightarrow$ Otto ended up having the ball

(24a) and (24b) may be felicitously uttered also in circumstances where Otto does not end up having a letter or a ball. For example, the mail might have lost the letter; Otto might have failed to get hold of the ball because he stumbled. It is possible to put the blame on the CAUSE predicate, which amounts to the claim eventually that the CAUSE relation is idiosyncratically dependent on the particular verb entering the construction. This move would however deprive the idea of decomposition of its motivation, which is to capture systematically patterns of entailment. What is entailed by the examples given seems to be just what the sentences *Otto was sent a letter* and *Otto was thrown a ball* express – or maybe, putting more weight on the state following the sending: *Otto has been sent a letter (thrown a ball)*.

3.2.2 Event-related Adverbs and Particles

That DOCs and shifted S/LCs encode two events rather than just one is suggested by examples such as the following:

(25) She offered me tenderness through the phone

¹³Interestingly, Cinque notes that clitic climbing, a clausebound process, is generally allowed with raising predicates but cannot take place when – on Cinque's view – the raising predicate selects a dative argument. Cinque's example involves the raising predicate *seem*, but 'blocking effects' related to the presence of dative arguments are more frequent. Ngonyani (1996, p.34) reports that in Ndebele and Swahili, clitic climbing of the direct object is impossible in what corresponds to the DOC. Cf. Anagnostopoulou to appear, chapter 1 and references there for blocking effects associated with the presence of a dative argument.

- (26) Wir betrauefelten den Kuchen ordentlich mit Zuckerguss
 We be-dropped the cake properly with sugar-coating

(25) is ambiguous: It can mean that the offer was made via the phone or that the transmission of tenderness was to proceed through the phone. The preferred interpretation of (26) is not that the dropping itself happens in the proper fashion but rather that the cake gets properly sugar-coated.

In this connection, the following is an interesting pattern:

- (27) Anna ist eine gute Nachbarin, weil sie...
 Anna is a good neighbor, because she...
- a. ...einem Nachbarn wieder ein Namensschild an die Tuer gebastelt hat.
 ...a neighbor again a name-tag at the door tinkered has.
 - b. ...wieder einem Nachbarn ein Namensschild an die Tuer gebastelt hat.
 ...again a neighbor a name-tag at the door tinkered has.

The reading we are interested in is the 'restitutive' one – on this reading, (27a) carries a pre-supposition saying that a particular neighbor 'had' a name tag at her door before (which at some stage has fallen off say). Let us assume following (but oversimplifying) Kamp and Ross-deutscher (1994) and Stechow (1996) that the element *wieder* triggering this presupposition has to have in its scope the event that 'restitutes' that former state. Abstracting away from marked intonation, let us further assume that the scope of *wieder* is just what is encoded in its syntactic scope, that is, in its c-command domain (which in the example is everything to the right of *wieder*).

Now the restitutive reading is available only as long as *wieder* occurs to the right of the shifted argument, as in (27a).¹⁴ If *wieder* appears to the left of the shifted argument as in (27b), only a 'repetitive' reading is available: It is not the first time that Anna tinkered with some neighbor's name tag. Under the assumption that *wieder* has to combine with an event argument before this is 'closed off' by binding, this shows that an event leading to the state in question is bound in between the shifted argument and the arguments it c-commands.

Adjectival passive realizations of DOCs and/or shifted S/LCs are still modifiable by event-related adverbs. On the assumption that adjectival passives correspond in essence to the lower 'causeless' parts of the full-blown structures, this shows that these lower structural parts encode an event (cf. Kratzer (1994) for discussion):¹⁵

- (28) Ewige Liebe ist schnell versprochen
 Everlasting love is quickly promised

¹⁴The same goes for S/LCs: Cf. *Bauer Müller belud einen Wagen wieder mit Heu* ("Farmer Miller loaded a cart again with hay" with a restitutive reading available vs. *Bauer Müller belud wieder einen Wagen mit Heu* ("Farmer Miller loaded again a cart with hay" with only a repetitive reading).

¹⁵That the relevant predication is in a sense eventive is further supported by so-called 'Nixon-sentences', observed first, to my knowledge, by Oehrle (1976):

- (i) a. Nixon gave Mailer a book
 b. Nixon gave a book to Mailer
- (ii) a. Anna gave Otto a kick
 b. ?*Anna gave a kick to Otto

(ia) can be interpreted such that it was *the writing of a book* – an event – that Nixon made possible for Mailer. This interpretation is not available in the OOC in (ib). Similarly, if the theme argument encodes an event, such as a kick or a kiss, only the DOC is possible but not the OOC. Note however that one cannot say *Otto has a kick*.

4 Hidden Presentational Sentences in DOCs and shifted S/LCs

Parallels between presentational sentences and the 'extra' predication in DOCs and shifted S/LCs are pointed out. Core properties of the latter constructions follow if this predication is in essence presentational, i.e., comprises a locative subject. The 'scope freezing' property of the constructions is proposed to be rooted in this predication.

4.1 Existentials, Possession and Location

It has been argued that DOCs and shifted S/LCs cannot be decomposed satisfactorily into CAUSE and HAVE. Still, there is something true about the intuition that DOCs encode 'possession' in a sense. However, it is more of an accident of Germanic that possession is expressed by means of something like *have*. The crosslinguistically productive pattern seems to be that a copula corresponding to *be* as well as some locative marking (case or a preposition) on the subject of the predication are employed to express possession.¹⁶ Here is an example from Russian, but languages as diverse as Hebrew, Hungarian, Hindi, Finnish, Japanese, Swahili and Yucatec exhibit the same pattern.

- (29) U menja byla sestra [Russian]
 at 1sg.Gen was sister
 'I had a sister'

On the basis of a rich collection of data, Freeze (1992) argues that one and the same structure is employed in sentences involving 'predicate locatives' (DP *be* PP), 'have' predication (DP+loc *be* XP) and 'presentational locatives' (there *be* DP PP), where presentational sentences exhibit the 'underlying' structure.

4.2 Parallels between Existentials and DOCs and shifted S/LCs

If the predication we are looking at is of the particular locative nature assumed here for presentational sentences, core properties of these constructions that are otherwise mysterious follow. Let me first give some initial plausibility to the idea that the lower predication in DOCs and shifted S/LCs is in a sense locative and then point out in some more detail parallels between presentational sentences and the predication under investigation in DOCs and S/LCs.

4.2.1 'Locativeness' of DEC, DOCs and shifted S/LCs

Constructions encoding a meaning related to perception, especially 'experiencing' constructions in a broad sense such as DECs, regularly bear some locative marking across languages. This is not so strange if perception has to do with location. Similarly, it is hardly an accident that in DOCs the shifted argument crosslinguistically frequently bears what one might loosely call 'locative case' (allative in Finnish, dative in Russian and German, an originally locative preposition in Romance etc.). Shifted S/LCs look quite different, and indeed it is not so clear how their surface syntax agrees with that of the 'dative' constructions. As concerns their interpretation however, they seem very close. Thus in German, what seems to be the same concept may often

¹⁶cf. Benveniste (1966), Kayne (1983), Larson (1988), Den Dikken (1995) for expression of the idea that *have* is the phonological spellout of the copula *be* and a locative preposition.

be encoded as a DOC or as a shifted S/LC. For example, the following two sentences are true in the same situations:¹⁷

- (30) a. Ich belud den Wagen mit Heu [shifted S/L]
I PRF-loaded the wagon with hay
b. Ich lud dem Wagen Heu auf [DOC]
I loaded the wagon hay onto

The inseparable prefix *be-* that is productively involved in German in the formation of shifted S/LCs has developed from a locative preposition *bei* ("at").¹⁸ It is unsurprising that *be-* prefixed verbs and locative complements are in complementary distribution if *be-* prefixes really do the same job semantically as locative complements:

- (31) a. Ich lud Heu auf den Wagen
I loaded hay onto the cart
b. Ich belud den Wagen *(auf die Ladeflaeche)
I be-loaded the wagon *(onto the loading-floor)

4.3 'There' and the shifted Arguments

It is quite uncontroversial that *there* does not have number, person nor case features (cf. for discussion Chomsky 1995, p. 287ff). That dative arguments tend to be crosslinguistically 'defective' as respects their syntactically relevant features is not news either.¹⁹ It seems sensible to take this as a reflex of their meaning.

4.3.1 Binding/ Control, Agreement

If we assume that the shifted arguments denote a location, it is straightforward why they do not control PRO and/or secondary predicates: Not carrying the right features (number, person), they cannot be identified with the anaphorically dependent empty categories involved:

- (32) a. *Mary gave Otto_i a sandwich hungry_i
b. *Otto loaded the wagon_i with hay dirty_i

¹⁷Other examples from German which may surface as either a DOC or a shifted S/LC without truthconditional differences are: *jemandem-DAT etwas-ACC an-kleiden* "dress somebody something on" (DOC) / *jemand-ACC mit etwas be-kleiden* "dress someone with something" (shifted S/LC); *jmd-DAT etw-ACC schenken* (DOC) / *jmd-ACC mit etwas be-schenken* (shifted S/LC) "give something as a present" and following the same pattern: *auf-troepfeln / be-troepfeln*; "drip something onto sth" *auf-dampfen / be-dampfen* "steam sth onto sth"; *zu-denken / be-denken* "equip sb with sth"; *kochen / be-kochen* "cook something for sb" *auf-streichen / be-streichen* "spread sth onto sth"...

¹⁸Kluge (1989), cf. Maylor (1998) for extensive discussion. Marantz (1993, p. 122f) notes that Chichewa and Chaga employ the same applicative affix *-ir* for benefactive and what he calls 'locative applicative' constructions, which he suggests could be related to the presence of a locative class prefix indicating a locatively classified noun:

- (i) Alenje a- ku- luk -ir -a pa- mchenga mikeka
hunters SP- prs- weave -APPL -fv loc- sand mats
'The hunters are weaving the sand with mats'

¹⁹There is of course parametric variation, cf. ex. (33) below. For discussion cf. McGinnis (1998), Anagnostopoulou (to appear), Maling (1998). For argumentation that dative case in German is lexical/semantic cf. Steinbach and Vogel (1998)

Similarly, something like a locative classification could be the reason why in e.g. Germanic or Romance, the shifted dative arguments do not give rise to agreement: There is no locative agreement in these languages. In several Bantu languages such as e.g. Ndendeule, there is agreement between the shifted argument and the predicate. Note that Ndendeule also has locative agreement in what looks like a presentational sentence (examples from Ngonyani (1996, p. 34, 210)):

- (33) a. hokolo a- li- sa- pel -a sa- chokolo hi- tabu
 grandpa 1SA- PST- 2OA- give -FV 2- grandchildren 8-book
 'grandpa gave the grandchildren books'
- b. ku- ki- lisa ku- na li- holo
 17- 7- well 17SA- with 5- tortoise
 'at the well there is a tortoise'
 (SA = subject agreement, numbers = noun classifiers, FV = final vowel)

In (dialects of) Italian, the clitic *ci* largely corresponds to English *there*. Thus we have *Ci vado* ('I go there') and *C'è un uomo nel giardino* ('There is a man in the garden'). Strong evidence for the kinship between datives and *there* comes the following pattern:

- (34) a. Spedise una lettera a noi
 Sent-3rd-sg a letter to us
- b. Ci spedise una lettera
 {to-us, ?there} sent-3rd-sg a letter
- c. *?Ci spedice a noi
 {to-us, there} sent-3rd-sg to us

Crucially, (34b) where we have the locative clitic *ci* but no overt dative D/NP is ambiguous: It can either mean that *he sent a letter there* or that *he sent a letter to us*, where the latter reading seems to be preferred.²⁰ (34c) shows that the locative clitic *ci* cannot replace the direct object.

4.3.2 Interpretation

Presentational sentences are famous for 'definiteness effects'. For the constructions under discussion, asymmetries between the two arguments pertaining to strength are widely attested across languages. There is parametric variation as there is parametric variation concerning definiteness effects in presentational sentences (cf. McNally (1998a) and references there). Some languages carry the asymmetry on their sleeves, such as Persian. Here, in what corresponds to the DOC, the dative is overtly marked with the suffix *-ra* encoding 'referentiality'. The theme may not be marked with *-ra* in the DOC:²¹

- (35) a. shah vazir -ra ketab dad
 shah minister -RA book gave

²⁰Cf. Pinto (1997) who notes highly reminiscent phenomena with postverbal subject constructions in Italian. Interestingly, the only 'dative' interpretation available for *ci* seems to be first person plural. This seems to be related to the essentially deictic character of presentational sentences, cf. also 5.3, 6.2.

²¹The Persian data are from Payne (2000) and have been checked with native speakers from Iran. Other suggestive cases include Russian (where the dative argument is marked with a 'specific indefinite' article (Brandt (2000))) and Akan, which does not allow a definite theme with most 'give' verbs (Osam (1996)). Asymmetries pertaining to the interpretation of 'objects' in ditransitive constructions are discussed in among others Basilico (1998), Beckman (1996), Essegbey (2001), Givón (1984), Lefebvre (1998).

- b. ?*shah vazir -ra kitab -ra dad
 shah minister -RA book -ra gave
- c. ?*shah vazir kitab -ra dad
 shah minister book -RA gave
 'The shah gave (a/the) the minister (a/the) book'

A test that has been proposed for strong argument positions is the interpretation of bare plurals which receive a generic reading in such a position (Krifka et al. (1995)). The shifted argument in a DEC is interpreted generically:

- (36) Laien entgingen die Feinheiten der Darbietung
 Lays-DAT missed the intricacies of-the performance

Judgments are more subtle with respect to shifted S/LCs. While this is expected given that we are dealing with predication at an embedded level, Kiss' test from section 2.2 applied to the passive realizations of S/LCs (as well as DOCs) yields the predicted result:

- (37) a. Wagons were loaded with bricks, weren't some/they? cf. unshifted
 b. ??Bricks were loaded onto wagons, weren't some/they?
- (38) a. ?*Only [a wagon was loaded with bricks]. Nothing else happened/ was the case cf.
 b. Only [bricks were loaded onto a wagon]. Nothing else happened.

The asymmetries pertaining to 'strength' are expected if what we are dealing with in the construction is predication, the ascription of a property to the shifted argument.

4.4 Scope in DOCs and shifted S/LCs

Like presentational *there* sentences, DOCs and shifted S/LCs exhibit 'scope freezing' effects (cf. Larson (1988) and Basilico (1998)). While in the 'unshifted' constructions the structurally lower argument easily takes scope over the higher one, in the shifted variants this seems impossible, cf.:

- (39) a. The teacher assigned a student every exercise
 b. The teacher assigned an exercise to every student
- (40) a. I loaded a wagon with every bail of hay
 b. I loaded a bail of hay onto every wagon

Like 'there' in presentational sentences, the shifted argument confines D/NPs in its c-command domain to take narrow scope with respect to it.²² Again, a straightforward explanation could be that this is due to its being the logical subject of the predication encoded.

²²The same scope asymmetry holds of DEC's in German, cf.:

- (i) Einem Lektor entging jeder Fehler [only: a reader > every mistake]
 A lecturer-DAT escaped every mistake

In English, matters are complicated by the fact that a D/NP corresponding to *every mistake* here has to appear to the left of and c-commanding a D/NP corresponding to *a lecturer*, presumably for case reasons. *Every mistake escaped a reader* is ambiguous in English.

5 Analysis: The predication in DEC, DOC, shifted S/LCs, and PCs

In this section, we turn to a more detailed analysis of the format and contents of the predication we are looking at. The first subsection collects (the relevant parts of) the constructions under discussion into one: the structure encoding the predication in question is essentially that of an adjectival passive construction. Subsection 5.2 makes a proposal as to how the 'scope freezing' property that has been noted to pertain to the construction follows from how its structure encodes the ascription of a change of state (the reaching of an event's target state) to the shifted argument. In subsection 5.3, 'Argument shift' is argued to be rooted in the necessity of having subjects that provide a big enough restriction for their predicate to be assessed.

5.1 Changes of State and Target States, Adjectival Passive Constructions

The claim is that the predication we are looking at corresponds essentially to the ascription of a change of state to the shifted argument, where 'change of state' entails the 'perfection' of an event as encoded in a predicate with a clear 'target state'.

Which predicates encode a target state and which don't? Following Kratzer (1994), I assume that the availability of adjectival passive constructions shows the encoding of target states. In a sense, maybe as a default, the adjectival passive realization of a predicate IS the target state associated with that predicate: an event of *feeding a cat* is expected or intended to result in a state where *a cat is fed* (cf. 1.1). Predicates that virtually never encode target states are lexically stative ones like *know*, *love* or *believe*. These predicates do not have adjectival passive realizations and are predicted not to enter the constructions under discussion, which is borne out:²³

- (41) a. *Eine Frau ist geliebt [Adj. pass.]
 A woman is loved
 b. *Da ist eine Frau geliebt [PC]
 There is a woman loved
 c. *Mir ist eine Frau geliebt [DEC]
 Me-DAT is a woman loved
 d. *Peter liebte Otto eine Frau [DOC]
 Peter loved Otto-DAT a woman
 e. **Peter beliebte eine Frau mit Blumen [shifted S/LC]
 Peter BE-loved a woman with flowers

²³Another test for the availability of a target state is the availability of prenominal adjectival participles. To exemplify with the morphosyntactically distinguishable variants of S/LCs, prenominal participles are available on the basis of shifted S/LCs but not on the basis of unshifted S/LCs:

- (i) a. Ich malte Farbe an die Wand — *die gemalte Farbe
 I painted colour at the wall — *the painted colour
 b. Ich bemalte die Wand mit Farbe — die bemalte Wand
 I be-painted the wall with colour — the painted wall

A test suggested by Mourelatos (1978) points the same direction: Count Event Nominals are available on the basis of the 'shifted' S/LC predicates but not on the basis of the 'unshifted' ones:

- (ii) a. Die dritte Bemalung (der Wand)
 The third painting (of-the wall)
 b. *Die dritte Malung der Farbe
 The third painting of-the color

At the other end of the scale, there is a class of predicates that virtually always encode target states, namely the syntactically unaccusative (Levin and Rappaport (1995)) and semantically agentless and telic ones (Dowty (1991)) – these predicates enter presentational constructions and dative experiencer constructions.

Constructions comprising unaccusative predicates in turn bear considerable similarity to adjectival passive constructions: Both have a 'perfective/result state' interpretation, both select *be* as auxiliary (a form of *sein* in German, making them clearly distinguishable from verbal passives that select a form of *werden* "become"), both obviously do not feed passive formation. In terms of thematic roles, they lack an agent argument but select a theme and a location argument, where this location argument is usually assumed to be optional (cf. e.g. Bresnan and Kanerva (1989)).

But is the location argument optional? The German data suggest otherwise. Consider the pair in (42) that involves a verb usually taken to project an 'unaccusative' structure (and that can be multiplied at will):

- (42) a. *?Eine Vase ist gefallen
 A vase is fallen
 b. Eine Vase ist {auf den Boden, herunter-} gefallen
 A vase is {to the floor, down-} fallen

Obviously, the realization of the location argument (be it as a locative PP or as a transparently locative prefix) matters for the availability of adjectival passive realizations, hence for the encoding of target states.²⁴

Exactly the same pattern is exhibited in a pair that involves a verb usually taken to project a 'ditransitive' structure (and that can be multiplied at will):

- (43) a. *?Ein schweres Erbe ist getragen
 A difficult inheritance is carried
 b. Ein schweres Erbe ist {in die naechste Generation ge-, ueber-} tragen
 A difficult inheritance is {into the next generation PRF-, over-} carried

Interestingly now, the predicates on the basis of which adjectival passive realizations are available license a shifted argument also, where the resulting structure is a DEC and/or PC. (44) illustrates with a dative argument, (45) with the locative proform *da*:²⁵

²⁴Quite generally in German, adding a (directional) locative PP makes adjectival passive realizations available. The following inexact list gives an idea of the sort of prefixed verbs that achieve the same effect and could have been used just as well in the examples. For the (separable as well as inseparable) prefixes involved a locative origin is generally traceable (Kluge (1989), Maylor (1998)).

(a) 'ditransitive': *an-vertrauen* "on-trust", *ab-nehmen* "away-take", *an-kuendigen* "announce", *ueber-geben* "over-give (hand)", *ueber-mitteln* "over-mediate", *ueber-bringen* "over-bring", *vergeben*, *verzeihen* "forgive", *auf-tragen* "on-carry (order)", *aus-sprechen* "out-speak", *aus-leihen* "out-lend", *ver-machen* "be-queathe", *ver-derben* "spoil", *be-fehlen* "order"

(b) 'unaccusative': *er-scheinen* "appear", *auf-fallen* "strike", *wider-fahren* "occur", *gelingen*, *gluecken* "be crowned by success", *ein-leuchten* "be enlightening", *ent-kommen*, *ent-gehen* "flee/get away", *ent-wischen*, *ent-kommen* "escape", *entgegen-kommen* "come toward", *gegenueber-treten* "oppose"

²⁵On a 'syntax as a feature checking algorithm' perspective, the following pair from German suggests the syntactic (near-) equivalence of dative D/NPs and locative *da* – For syntactic well-formedness, it does not matter whether an elementary clause contains just *da*, *da* and a dative D/NP or just a dative D/NP:

- (i) a. Da wurde erzaehlt [_{CP} dass Otto geheiratet hat]
 There was told [_{CP} that Otto married has]

- (44) a. Otto ist eine Vase {heruntergefallen, entglitten}
 Otto-DAT is a vase {down-fallen, away-slided}
 b. Otto ist ein schweres Erbe {uebertragen, in die Wiege gelegt}
 Otto-DAT is a difficult inheritance {across-carried, into the cradle laid}
- (45) a. Da ist ein Geist {erschienen, aufgefallen} [PC]
 There is a ghost {appeared, up-fallen}
 b. Otto ist ein Geist {erschienen, aufgefallen} [DEC]
 Otto-DAT is a ghost {appeared, up-fallen}

The formation of adjectival passives is a matter of considerable debate. There seems to be a general consensus however that adjectival passive constructions are not derived from 'richer' structures via syntactic manipulations (Borer (class lectures), cf. e.g. Wasow (1977), Bresnan and Kanerva (1989) Kratzer (1994)).

Assume then that (a) syntactic structures feed interpretation and that (b) adjectival passives are not syntactically derived from more 'developed' structures. We have seen evidence above (cf. 3.2) that fully fledged DOCs (as well as shifted S/LCs) encode a meaning structurally that is essentially that of an adjectival passive construction. We have now seen that an adjectival passive (/unaccusative) construction crucially involving a location argument suffices for the licensing of a shifted argument. Given what has been discussed above, the obvious candidate for the licensing relation is predication. Given that the adjectival passive constructions involving 'unaccusative' and 'ditransitive' predicates have the same selectional properties, look the same and are interpreted the same way (essentially as change of state 'at' the shifted argument), the strong conjecture is that they share the same structure. Abstracting away from the copula, I propose that this structure is as given in (7) above.²⁶

5.2 The construction of target states: Explaining the scope asymmetry

To arrive in a systematic way at the predication we are looking at, let us consider the role of the constituents involved in their 'bottom up' order, that is, start with the structurally lowest constituent. For perspicuity, I will go through a concrete example given in (46) with the assumed (rough) structure given with the gloss:

- b. Mir wurde da erzaehlt [_{CP} dass Otto geheiratet hat]
 Me-DAT was there told [_{CP} that Otto married has]

²⁶As cannot be shown here for reasons of space, the structures in (43) – (45) are not just superficially similar, but share also 'deep' syntactic properties. Essentially, they pass the standard tests for 'unaccusativity' (ne-cliticization in Italian, (backward) binding, prenominal adjective formation etc.). Discussing similarities and differences between what are called 'adjectival passive' and 'unaccusative' constructions at more detail is however a delicate issue deserving more space than can be offered here. Giving just one example bearing on the issue at hand, patterns pertaining to quantifier stranding and *was fuer* split as we have seen already in (12) and (13) in the context of presentational *there* sentences show that the dative argument c-commands the theme before movement:

- (i) a. Versprecher_i sind **Meteorologen** einige_i zugestanden
 Slips-of-the-tongue_i are **meteorologists** some_i admitted
 b. *Versprecher_i sind einige_i **Meteorologen** zugestanden
 Slips-of-the-tongue_i are some_i **meteorologists** admitted
- (ii) a. Was_i sind **Meteorologen** [fuer Versprecher]_i zugestanden ?
 What_i are **meteorologists** [for slips-of-the-tongue]_i admitted ?
 b. *Was_i sind [fuer Versprecher]_i **Meteorologen** zugestanden ?
 What_i are [for slips-of-the-tongue]_i **meteorologists** admitted ?

- (46) (Die Götter haben) einer Familie aus Theben jedes erdenkliche Unglück in
 (the gods have) [[a family from Thebes] [[every thinkable misfortune] [into
 den Stammbaum geschrieben
 the family-tree written]]]

As to the contribution the PP complement makes to semantic interpretation, I propose that together with the lexical verb it supplies the predicative part of the target state of the event in question – we have seen that the presence of a locative complement (prefix) is crucial for the availability of a target state. The following representation roughly corresponds to the complex predicate expression 'into the family tree written':

- (47) λx [written-into-the-family-tree(x)]

Next, we apply this predicate to the standard GQ denotation of the direct object. The constituent 'every misfortune into the family written' can then be represented as follows:

- (48) $\forall x$ [thinkable misfortune (x) \rightarrow written-into-the-family-tree (x)]

What we have here is a formula (type-theoretically: a truth value). At this point, the view taken here on the role syntactic derivations play for interpretation comes in crucially: The idea is that the whole of (48) defines the target state in question. What we have in (48) – a timeless proposition – is interpreted at the vP level only as something time-dependent, namely as the target state of an event. It is in this sense that the direct object 'incorporates' into the predicate: It codefines the target state which in turn is the defining property of the event in question.

Essentially, this amounts to reinterpreting the formula as a function from events to times to truth values. I assume that this 'promotion' goes along with movement of the lexical verb to the 'light verb' position.²⁷

- (49) $\lambda e \lambda t$ [(($\forall x$ (misfortune(x) \rightarrow written-into-the-family-tree (x)))(f-target(e)))(t)]

This denotes the set of events *e* such that the times *t* at which their target states hold are times that make true the state of affairs corresponding to *every misfortune is written into the family tree*. Applying the perfect operator (cf. 1. 2), we get:

- (50) $\lambda t \exists t_1 \exists t_2 \exists e$ [\neg (($\forall x$ (misfortune(x) \rightarrow written-into-the-family-tree (x)))(f-target(e)))(t_1) & (($\forall x$ (misfortune(x) \rightarrow written-into-the-family-tree (x)))(f-target(e)))(t_2) & $t_1, t_2 \leq t$ & $t_1 < t_2$]

This is the set of times *t* that are such that there is an event *e* that has occurred such that its target state (that every misfortune is written into the family tree) does not hold at a time *t*₁ that is included in each of the times in this set and does hold at a time *t*₂ that is also included in each of the times in this set.

²⁷A more compositional (in the standard sense) solution would be to start out with a free-variable version of (49) and defer (only) lambda abstraction to the functional layer above VP. The intended analogy here is with a substantive operation of 'predication' as assumed in property theories, cf. Chierchia (1985), Bowers (1993). Cf. especially Chierchia (1989) for the assumption of an operation of 'expletivization' turning a proposition into a predicate. Cf. Pesetsky (1989) for argument in favor of main verb movement particularly with predicates involving locative complements.

The last step is applying this predicate to the shifted argument. I propose that it is not interpreted as an ordinary object, but really as the spatiotemporal correlate of the object as denoted by the D/NP in the pertaining position (cf. Quine (1960, p. 171), Strawson (1959, p. 218ff)), the unique (space-) time that this object occupies. We get to this time via a function ' τ ' that maps (ordinary) individuals onto the spacetimes they occupy – such a function is sometimes assumed for the mapping of events onto their run-times (cf. e.g. Galton (1984), Krifka (1998)). The unique time that the referent of the shifted argument occupies has the property then that an event of *writing every thinkable misfortune into the family tree* has occurred in it:

(51) $\exists t_1 \exists t_2 \exists e \dots t_1, t_2 \leq \tau(\text{family from Thebes})$

The theme argument cannot take scope over the shifted argument because it belongs to the event description in turn combining with the perfect operator yielding the predicate that licenses the shifted argument: it is incorporated or 'frozen' in the expression encoding the property that is ascribed to the shifted argument. The scope asymmetry is the asymmetry of predication then.²⁸

5.3 The predicate restriction: Motivating 'argument shift'

Picking up the issue of target states as made available by 'perfected' events (as understood to correspond to the binding of the pertaining event variable), consider the following pair adapted from Basilico (1998). Here, the passive realizations of an oblique object construction (OOC, cf. 1.1) and a DOC respectively have been put into a presentational context.

- (52) a. There were suitcases given to politicians
 $\exists x \text{ suitcase}(x) \ \& \ \text{given-to-politicians}(x)$
 $\exists e \text{ give-suitcases-to-politicians}(e)$
 b. ?There were politicians given suitcases
 $\exists x \text{ politician}(x) \ \& \ \text{given-suitcase}(x)$

While in (52a) an 'event' reading is available, this reading is absent in (52b). On the assumption that *there be* corresponds to an existential quantifier along the lines of Milsark, the contrast could be explained as follows: *There be* has to bind a variable since vacuous quantification is banned. In (52a), *there be* may bind either the individual variable restricted by *suitcases* or the event variable provided by the predicate. In (52b), the event variable is not available for binding. On our assumptions, it is bound lower in the structure by the perfect operator situated above vP. (Linguistically spoilt) speakers do not judge (52b) good, saying they feel a 'definiteness effect': *Politicians* should not be in a presentational context since it is interpreted 'specifically'. This is in line with what has been argued, namely that the shifted argument is interpreted strong qua being a subject of predication, which could be why it does not lend itself to binding by *there be*.²⁹

²⁸If one adopts a quantifier raising approach to scope, this implies that QR is restricted with respect to predication. If it is clauses (projections of material relating to temporality, cf. 1.3.4) that encode predication, this is not far though from the standard idea that clauses restrict QR.

²⁹The pattern shows once more that to the extent that presentational sentences have to do with quantification, there is good reason to assume that DOCs (and shifted S/LCs) indeed encode a predicate comprising a bound event and as a consequence a 'target state'. What the pattern also shows is that we cannot attribute the 'perfective' interpretation to the 'perfective' morphology since this leaves the availability of the eventive reading in a unexplained. That 'perfective' morphology is not responsible for 'perfective' interpretation has been independently argued by several authors (e.g. Kratzer 1994, Iatridou et al. 2000.)

Maybe unsurprisingly, we find a similar effect with 'unaccusative' predicates, where now the difference involves choice of 'progressive' versus 'perfective' tense:

- (53) a. There were flowerpots falling from the balcony
 $\exists e$ flowerpot-falling-from-balcony(e)
 b. ?There were flowerpots fallen from the balcony
 $\exists x$ flowerpot(x) & fallen-from-balcony(x)

Again on a Milsarkian approach where *there be* is taken to correspond to an existential quantifier, we could explain (53b) saying that the event variable is bound and that *flowerpots* does not lend itself to quantification since it receives quantificational force qua being the subject of predication. However, several questions arise: First, assuming vacuous quantification to be strictly banned, we predict strong ungrammaticality, which we do not find however. Second, the idea that *there is* corresponds to an existential quantifier hardly agrees with the idea that *there is* is in fact interpreted strong, that it corresponds essentially to a definite D/NP. Third, expressions usually taken to be referential – like definite D/NPs – are not across the board excluded from the 'scope' of presentational sentences (cf. McNally (1998a)).

We assume that *there* is in fact an individual expression denoting *here and now / there and then*, as proposed by Kratzer and Kiss. (52b) and (53b) above are not odd due to a property of what is traditionally called the 'associate D/NP' of *there* then. The reason why they are bad is really that the (space)time denoted by *there* is too small to contain the bound event. Being atomic, it cannot accommodate both a time at which the target state does not hold and a time at which it holds.

That something like this might be on the right track is suggested by a fact that seems closely related: In English or Russian, sentences in simple present tense expressing events do not refer to the present time (*here and now*) but rather to the future. A way to repair this in English is to use present progressive tense – as a result, the predicate shares crucial properties with stative predicates (such as the subinterval property). In particular, it can be evaluated with respect to a single atomic time. There may be a more general clash then between 'perfected' eventive predicates and something like atomic (space)times, where natural languages may treat deictic *there* as well as simple present tense as referring to such an atomic space time (cf. discussion in Galton (1984)). One could maybe say that deictic *there* combined with a completed (bound) event is in conflict with something like the 'conservativity' property as pertaining to Generalized Quantifiers: The time it denotes could not have as parts the times that would be necessary to assess the predicate. Call this the 'conservativity conflict'.

That it could be the deictic *here and now* interpretation of *there* that is responsible for what is known as the 'predicate restriction' since Milsark is corroborated by the fact that definiteness effects often seem to be much weaker in the simple past, an essentially anaphoric tense, cf.:

- (54) a. ?*There is a guy awarded the Fields medal at the party
 b. ?There was a guy awarded the Fields medal at the party

We expect then that the referring abilities of the element corresponding to *there* are a (maybe the) crucial factor for the strength of effects pertaining to the 'predicate restriction' and a (maybe the) locus for parametric variation: Roughly, languages treating *there* as essentially deictic should exhibit stronger effects than languages where *there* is more ready to refer anaphorically (and/or abstractly).

The 'conservativity conflict' does not arise at all if the shifted argument's denotation is 'big enough' to assess the predicate from the start. This is the case when an 'object denoting' D/NP fills this position, which is however interpreted as its 'spatiotemporal correlate' there. This (space-) time is 'big enough' to assess the predicate:

- (55) a. ??Da ist ein schweres Erbe auferlegt
 There is a difficult inheritance laid-on
 b. Spaetgeborenen ist ein schweres Erbe auferlegt
 Born-lates is a difficult inheritance laid-on

A similar effect obtains when the theme argument appears sentence-initially. The following example illustrates in comparison to the 'dative' case, where the intended interpretation for (56a) is deictic ('Look there are apples ...'):

- (56) a. ??Da sind Aepfel den Abhang hinuntergepurzelt
 There are apples the slope down-tumbled
 b. Mir sind Aepfel den Abhang hinuntergepurzelt
 Me-DAT are apples the slope down-tumbled
 c. Aepfel sind (da) den Abhang hinuntergepurzelt
 Apples are (there) the slope down-tumbled

Fronting the theme argument as in (56c) seems to be another way of solving the 'conservativity conflict' then. But is *apples* the logical subject of predication here? Rather not. First, it has moved presumably from a lower position (cf. above (12), (13), (46), (47)) and we do not expect predication – a 'deep' thematic relation – to be established through movement. Second, witness that *apples* needn't receive a strong (generic) interpretation, which would be predicted if it were the subject. (56c) can mean that there were some apples that had tumbled down the slope. The fronted argument in (56c) is however interpreted as the topic of the sentence (in a broad sense) – I propose that this enables (silent) *there* lower in the structure to pick up the (space-) time it occupies as its referent, that is, *there* refers anaphorically in (56c).

'Argument shift' is then a direct way of providing a big enough restriction for the predicate to be assessed, substituting a D/NP that is interpreted as its (spatio-) temporal correlate for *there*. 'Argument fronting' is an indirect way of solving the 'conservativity conflict', by providing an antecedent for *there* which is then interpreted anaphorically.³⁰

6 Conclusion: Results, Implications, Outlook

This section sums up the main results, providing (short) answers to questions that have been addressed and/or arisen in the course of the above discussion.

³⁰In English, a parallel case could be:

- (i) a. ??There were children grown up
 b. Children were grown up (there)

6.1 Structure and Interpretation

To the extent that the above has some substance, it suggests that grammar is 'uniform' also at a more 'constructional level' in employing 'simple' constructions as parts of more complex constructions, where a structure akin to that of a presentational sentence has a prominent role. While it remains to be seen whether this hypothesis can be further established, it seems to lead some way toward explaining a range of facts that seem mysterious otherwise:

The interpretive properties of what have been called 'shifted arguments' here follow from their status as logical subjects, entailing a presupposition of 'existence', or rather: 'location'.

The argument-atypical behavior of the shifted arguments (control, secondary predication, passivization etc.) is rooted in the 'defectiveness' of their featural makeup which in turn is a reflex of their locative nature. 'Blocking effects' (to be discussed in detail in Brandt (in progress)) associated with the presence of the shifted arguments follow from their being subjects of predication. Assuming that predication proper entails temporal location, the structure in which they are licensed is essentially clausal (at least comprising material related to temporal location).

The often noted 'perfective meaning' of the structures under discussion follows from the nature of the predicate: It corresponds to the set of times comprising a particular change of state, where this change of state consists in the bringing about of the 'target state' as encoded in the predicate.

For the complex constructions under discussion (DOCs and shifted S/LCs), the intuition that these encode 'possession' is better explained by the structures' comprising a structure akin to that of a presentational *there* sentence, where the predicate involves a change of state.³¹

The scope asymmetries/ scope freezing properties of the constructions have been proposed to follow from the lower argument's 'incorporation' into the target state that defines the event encoded and bound lower in the structure: The lower argument is part of the complex property ascribed to the shifted argument and therefore cannot scope out.

It has been proposed that the shifted arguments occupy the positions they do fulfilling a semantic well-formedness condition: subjects have to be 'big enough' for their predicates to be assessed.

6.2 Aiming back at 'bare' presentational sentences

Lexically stative predicates are ruled out from the constructions that have been discussed since they do not encode a 'target state'. While a class of presentational sentences comprises unaccusative predicates of appearance/ coming into 'awareness' – and are therefore 'change of (mental) state' – the question arises as to what should be said about 'bare' presentational sentences not comprising such a predicate. I see no reason why these shouldn't have a structure as depicted in (7) above. The suggestion is that the verbal part of the predicate may remain unpronounced due to its minimal conceptual content. Language may have it not only that *to be is to be somewhere* but also that *to be somewhere is to be PERCEIVED somewhere*. Thus we could have the following parallel:

- (57) a. There appeared a man in the garden
b. There was PERCEIVED a man in the garden

³¹ Among other things, it follows from this that they do not generally carry an entailment that be sensibly analyzed as involving HAVE: The state succeeding the event as encoded in the lower predicate is (as a default) just what the adjectival passive realization of the predicate expresses: A letter has been sent successfully in this sense as soon as the letter is away from the sender.

It has been proposed that in DEC's, DOC's and shifted S/LC's, the shifted arguments have to occupy the positions they do to provide a big enough restriction for the (lower) predicate to be assessed. Analogously in bare presentational sentences, one would want to argue that the predicate itself has to raise to achieve this effect, cf.:

- (58) For example,
- a. ... there is perceived by sight an object extended, coloured, and moved.
 - b. ?*...there is an object extended, coloured, and moved perceived by sight
(Berkeley (1710), Introduction)

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