

Event anaphors – a unified account?

JENNY STRÖM HEROLD (LUND UNIVERSITY)

Abstract

This paper is concerned with different types of event anaphors in English and to some extent also in Swedish. The point of departure is the seminal work of Hankamer and Sag (1976) where two major classes of anaphors are suggested, namely *surface anaphors* and *deep anaphors*. An important distinction is that surface anaphors, such as the VP-ellipsis, demand a linguistically realized antecedent, whereas deep anaphors, like the *do it* proform, can also refer to a situationally evoked antecedent. Ever since its publication date, Hankamer and Sag's work has been the subject of much debate, some linguists claiming the distinction to be legitimate, while others dismiss some or all aspects of the suggested anaphor division. Considering English and Swedish data, the question will be pursued if the original proposal can be maintained.

1 Introduction

Most work published in the research field of anaphors has primarily focused on the form and distribution of personal pronouns. In the following examples the pronouns *he* and *it* exemplify what is known as *entity anaphor* – including anaphoric reference to animate and non-animate entities:

- (1) Peter_i is very happy about his promotion_j and *he*_i will celebrate *it*_j in a big way.

In the above example the pronouns and the NPs are said to be co-referent, as made evident by the used indices. Thus, syntacticians have focused on the different Binding Conditions (Principle A, B and C) supplied from the classical Binding Theory which restrict the use of co-referential and non-coreferential indexation¹. Semanticists and pragmaticists have instead concentrated on the entity anaphor as a discourse phenomenon. One of their main concerns has been to clarify the speaker's preferences for choosing definite or indefinite referential NPs in a particular discourse context.²

¹ Some major work on Binding Theory: Wasow (1979), Chomsky (1981) and Pollard/Sag (1994)

² A few mentionable works in this research area are: Heim (1983, *File Change Semantics*), Prince (1981) and Gundel (1985)

By contrast, the research has not been as extensive in regard to the so-called *event anaphor* which I am primarily concerned with in this working paper, exemplified through the *do it/so*-anaphor in (2):

(2) Peter applied for a new job, and Anna *did it/so* too.

In the example above, the proform receives its semantic import through the event (i.e. the VP) *apply for a new job* introduced in the previous part of the conjunction.

Within the framework of Generative Grammar, one particular type of event anaphor has attracted considerable attention in the Anglo-American literature. The construction is known as VP-Ellipsis (subsequently, VPE) and has, ever since Ross (1967), often been analyzed as a deletion phenomenon. However, as will be made evident in the subsequent discussion, other proposals have been put forward (strike through marks the deleted string):

(3) Peter applied for a new job, and Anna did ~~apply for a new job~~ too.

Crucial for the VPE, such as the one in (3), is the deletion of an identical VP in the surrounding discourse. It should be noted that there is a vivid ongoing debate regarding the specific formulation of the identity requirement for the VPE; some linguists claim that the VPE must be identical to its antecedent on a syntactic-structural description level (cf. Fiengo & May 1994), while others claim that the ellipsis process is constrained by a “looser” semantic identity condition (cf. Hardt 1993). Moreover, the VPE is subject to a structural licensing condition which postulates that an overt INFL-Element, such as an auxiliary or a modal, must govern the deletion site (cf. Lobeck 1995).

Yet another event referring anaphor has received some attention in the generative literature, although to a lesser extent than the VPE, namely the Null Complement Anaphor (subsequently, NCA):

(4) Peter tried to get a new job, and Anna also tried.

As the name already indicates, the NCA is analyzed as an anaphoric construction in which a verb usually selecting an infinitival *to*-complement (i.e. a control verb) can stand on its own. This is essentially the analysis put forward in Hankamer & Sag (1976). Depiante (2001), who analyzes the NCA equivalent in the Romance languages, draws the conclusion that the licensing verb – usually a verb semantically closely related to modals – is followed by a silent pronominal *pro*. This proposal resembles the one in Hankamer & Sag in one important aspect. That is, both analyses presuppose that the NCA is a non-deletion phenomenon which receives its semantic import through an interpretive process. Moreover, the event anaphor, and in particular the VPE, has frequently

been discussed in a discourse-pragmatic framework just like the entity anaphor. One question of concern is how far away in the discourse the antecedent of the event anaphor may be placed (see Hardt 1993).

After the presentation of the relevant background data, we can turn to the main topic of this paper which reduces to the question if the anaphors cited in (2)-(4) are to be treated as various instances of essentially the same phenomenon or rather illustrate altogether different constructions.

The point of departure is the well-known anaphor dichotomy proposed in Hankamer & Sag (1976), according to which English anaphors fall into one of the following two subgroups: *deep anaphors* or *surface anaphors*. The authors suggest that there is a fundamental difference between a deep anaphor, such as the *do it* proform in (2), and a surface anaphor, such as the VPE in (3). Crucially, they suggest that the two anaphor subtypes behave differently in discourse, due to the way they emerge in the syntactic component.

However, in view of the examples above, the event anaphors seem to have many basic features in common; from a syntactic-structural stand point all of them are preceded by an overt modal or auxiliary, and from a discourse-pragmatic perspective they are a relevant means of indicating discourse-given information. Indeed, a thorough examination of H&S's proposal will show that the anaphor division is not as clear cut as suggested after all. Thus, I will argue that there is really more evidence in favour of a unified treatment of the event anaphors under discussion.

The paper is organized as follows: In section 2, the anaphor dichotomy proposed by Hankamer & Sag will be presented. Thereafter, in section 3, the various aspects of this classification will be thoroughly examined. A representative selection of the empirically and theoretically motivated objections to the original anaphor division which have been put forward in the literature will be discussed.

As previously mentioned, the anaphor division laid out by Hankamer & Sag only takes English data into consideration. Thus, in section 4, the corresponding event anaphors in Swedish will be presented and discussed. Finally, some concluding remarks are offered in section 5.

2 Event anaphors in Hankamer & Sag's dichotomy

Ever since the seminal work of Hankamer & Sag (henceforth H&S, 1976) and later also in Sag & Hankamer (henceforth S&H, 1984), the event referential constructions cited in (2)-(4) have been considered to fall neatly into two groups of anaphors. However, as will become clear later on, some linguists have questioned this dichotomy and proposed other classifications. The VPE and also

the *do so*-anaphora together with other elliptical (i.e. deletion) anaphors³ are considered to be instances of the so-called *surface anaphors*, whereas the *do it*-anaphora and the NCA are classified as *deep anaphors*.

To gain a better understanding of this specific proposal we have to consider how Generative Grammar was modelled in the late seventies. In brief, every sentence is thought of as being represented at two separate linguistic levels, the deep structure and the surface structure. The deep structure level corresponds to the basegenerated structure of a sentence, and this is also the level at which semantic interpretation takes place. The deep structure then generates a surface structure by means of different transformational rules. One of these transformational rules is the *deletion rule* which, according to H&S, is responsible for the surface structural outcome of an underlying complete sentence, see example (3).

Deep anaphors, on the other hand, are not the result of any transformation rule according to H&S.⁴ The deep structural form of the *do it*-anaphora and the NCA look just the same as their corresponding surface structural form.

In support of this categorial distinction, the authors put forward the claim that only deep anaphors can be “pragmatically controlled”. That is, only deep anaphors can refer to a situationally evoked antecedent, whereas surface anaphors always require an appropriate linguistically present antecedent. The following examples, presented with a non-linguistic antecedent, are provided by H&S:

Surface anaphors:

- (5) VPE: [Sag produces a cleaver and prepares to hack off his left hand]:
 Hankamer: #Don't be alarmed, ladies and gentlemen, we've rehearsed this act several times, and he never actually does.
 (1976:392)

³Among the deletion anaphors discussed in H&S we also find, for instance, *Gapping* and *Sluicing*:

(i) Gapping: Ehrlichman duped Haldeman, and Nixon, Ehrlichman. (1976: 410)

(ii) Sluicing: We were looking for somebody, but I can't remember who. (ibid: 408)

⁴We should note that this was not an uncontroversial claim at the time of the publication of their article. Without going into the specific details, we can maintain that the linguists concerned with the properties of anaphora were split into two camps, which we can refer to as 1) “the Pronominalization Camp” and the 2) “the Interpretative Camp”. According to the first position, pronominal expressions are the result of a pronominalization transformation, which roughly means that the deep structural representation of for example the surface structural form *he* would equal a full NP such as *the man* (cf. Lees & Klima 1963). The interpretativists, on the other hand, argue that pronominal expressions are inserted into the deep structure component in their pronominal form, being interpreted by virtue of an antecedent (cf. Bach 1970).

- (6) *do so*: [Hankamer again attempting to pass 12“ ball through 6” hoop]:
Sag: #I don’t think you can do so. (ibid:418)

Deep anaphors:

- (7) *do it*: [Sag produces a cleaver and prepares to hack off his left hand]:
Hankamer: ... He never actually does it. (ibid:392)
- (8) NCA: [Observing Hankamer attempting to stuff 12“ ball through 6” hoop]:
Sag: I don’t see why you even try. (ibid:414)

The reason why the *do it*-anaphora in (7) and the NCA in (8) effortlessly can refer to a non-linguistic antecedent depends on the way these anaphors emerge in the linguistic components (see also footnote 4). Since the deep anaphors in H&S’s analysis are not introduced via a transformational pronominalization rule and thus are interpreted with respect to some kind of conceptual level of representation, they do not require a linguistically introduced antecedent. It remains somewhat unclear in what way the strictly linguistically determined deep structure has access to a conceptual representation of a non-linguistically introduced event. The authors make a remark on this very issue in a subsequent article (S&H, 1984) and draw the conclusion that deep anaphora – which they rename as “model interpretive anaphora” – should be resolved (i.e. find their antecedent) in a more global discourse model.⁵

In contrast, surface anaphors, as can be seen in (5) and (6), are not acceptable without a linguistically expressed antecedent. As deletion phenomena, the surface anaphors demand a lexically complete expression at deep structure, but the deep structure does not include material which is non-linguistically present.

It should be noted that there seems to be an uncertainty regarding H&S’s classification of the *do so*-construction. However, they classify it as a surface anaphor because it cannot be pragmatically controlled: “It is not clear that we can draw any conclusions about *so* except that it is an anaphoric flag that turns up in certain constructions when an S or VP disappears. Whatever it is, we will argue [...] that *so*-anaphora⁶ is deletion anaphora.” (1976:415)

The core idea that the VPE and the *do so*-anaphora as deletion phenomena stand in opposition to the more interpretive anaphors such as the *do it*-anaphora and the NCA is supported not only by their main criteria “pragmatic control” but also by certain syntactic conditions. Absolute structural isomorphism is claimed to be a requirement for the surface anaphor but not for the deep anaphor. In

⁵ For reasons of clarity, we shall continue to refer to the *do it*-anaphor and the NCA as deep anaphors, since this term is still the one most commonly used in the literature.

⁶ It should be noted that, according to H&S (1976), the *do so*-anaphor is merely one subtype of a class of anaphoric constructions which they label *so*-anaphora.

essence, this means that the antecedent of a surface anaphor must be structurally parallel to the anaphoric element or else the deletion rule cannot operate on the deep structure material. This point is supported by the following examples provided by H&S in which the deep anaphors, but not the surface anaphors, are shown to tolerate voice mismatches (i.e. passive-active alternation)⁷:

- (9) The oats had to be taken down to the bin,
- (a) VPE: *so Bill did.
 - (b) *do it*: so Bill did it.
 - (c) NCA: so Bill volunteered. (1976:413)

The so-called *Missing Antecedent Phenomenon* (originally described by Bresnan, 1971 and Grinder & Postal, 1971) provides yet another indication that surface anaphors are deletion constructions, according to H&S. The phenomenon prescribes the ability of an anaphoric pronoun to refer to a surface-structurally missing antecedent. The following examples are provided by H&S (1976):

Surface anaphors:

- (10) VPE: He said that one of us had to give up his seat, so Sue did, because *it* was too narrow for her anyway. (1976:413)
- (11) *do so*: I didn't ride a camel, but Ivan must have done so, and now our office is infested with *its fleas*. (ibid:418)

Deep anaphors:

- (12) *do it*: *Jack didn't cut Betty with a knife – Bill did it, and *it* was rusty. (*it* =the knife Bill cut Betty with) (ibid:405)
- (13) NCA: *He said that one of us had to give up his seat, so Sue volunteered, because *it* was too narrow for her anyway. (ibid:412)

H&S conclude that the pronoun *it* in (10) and (11) can refer back to the surface-structurally lacking antecedent *Sue's seat* and *a camel*, respectively, situated within the VPE and the *do so*-anaphor because of its presence in the underlying deep structure. Based on these results, they draw the conclusion that surface anaphors must consist of an internally structured, but phonologically deleted VP

⁷ Unfortunately, the authors don't provide any examples of the *do so*-anaphora with a passive antecedent. But in accordance with their classification we should presume that it rejects a voice mismatch just like its kin, the VPE.

constituent, or else the pronoun would not be able to relate back to the antecedent situated within the respective anaphor.

Deep anaphors, on the other hand, lack this possibility altogether. According to H&S, the pronoun *it* in (12) and (13) cannot refer to an antecedent within the *do it*-anaphor or the NCA. The reason for this is that deep anaphors are not deletion constructions, but instead are made up of either an overt or a covert syntactically unstructured pro-predicative unit.

At this point, I would like to add that in more recent generative frameworks, such as the *Minimalist Program* (Chomsky 1995), the notion of a deep and a surface structure and the diverse transformational rules of the early GB model have more or less been abandoned in favour of a more simplified model, commonly assumed to consist of two representational levels, namely: 1) Logical Form (LF) and 2) Phonological Form (PF). However, the main idea behind the division of deep and surface anaphors can successfully be adopted into the minimalist framework. Thus, a deep anaphor, such as *do it*, can be analyzed as being inserted into the syntactic component as an overt proform which receives its reference by virtue of an antecedent in the surrounding discourse, whereas the surface anaphor, such as the VPE, can be analyzed as being lexically “complete” when entering the syntactic component and the interpretational LF-component, while undergoing deletion in PF.

After this overview, we can maintain that there are essentially three related properties associated with the proposed anaphor dichotomy, which, according to H&S, are predicted to restrict the use of surface and deep anaphors to a varying extent. These are:

- 1) Possibility or non-possibility for the anaphor to coincide with a situationally evoked antecedent
- 2) Requirement or non-requirement of structural parallelism between anaphor and antecedent
- 3) Presence or non-presence of internal structure in the anaphoric site

3 Critical review of Hankamer & Sag’s anaphor dichotomy

The anaphor dichotomy proposed by H&S (1976) has not been left unnoticed in the literature. In the following sections, 3.1-3.3, a critical review of the three properties outlined in the previous section is offered. More specifically, the different arguments which have been put forward in the main literature against the anaphor division will be presented and re-examined.

3.1 Event anaphors and “pragmatical control”

Soon after the publication of H&S’s article (1976), Schachter (1977, 1978) wrote a critical response to their anaphor split, focusing on the main criteria “pragmatical control”.

Schachter argues strongly that the VPE can appear with a non-linguistic antecedent. His most famous example – provided in (14) – is also the title of his article (1977) and is taken from an advertisement on a hair dye product:

- (14) Does she or doesn’t she? Only her hairdresser knows for sure.
(1977:763)

Schachter acknowledges a few more elicit cases:

- (15) (John tries to kiss Mary. She says:)
John, you mustn’t. (ibid:764)
- (16) (John pours another martini for Mary. She says:)
I really shouldn’t. (ibid)

Important to note is that Schachter, unlike H&S, argues that there is no VP deletion rule. According to him, English auxiliaries can be used as substitutive “propredicates” for a given VP in the same way as pronouns can substitute a previous mentioned NP-referent. The following examples – modified from Schachter (1978) – illustrate the close connection between pronoun anaphors and propredicates⁸:

- (17) As for Schwartz, [^{NP-pro} he] is sick. (1978:189)
- (18) Bill doesn’t love Mary, but John [^{VP-pro} does]. (ibid:190)

At this point, we are not going to deal with the specific syntactic consequences which are brought about by this analysis. Our main concern lays in the fact that

⁸ One example of the similar distribution of personal pronouns and propredicates is the observation that both must follow the so-called *BAC*-principle (“Backwards Anaphora Constraint”, originally proposed by Langacker, 1969), which states that a pronoun may only precede its antecedent when it is not c-commanded by it. The VPE examples in (i) and (ii) are provided by Lobeck (1995):

- (i) *Sue didn’t [e] but John ate meat. (1995:22)
(ii) Because Sue didn’t [e], John ate meat. (ibid)
(iii) *Sue didn’t eat it_i, but John ate meat_i.
(iv) Because Sue didn’t eat it_i, John ate meat_i.

Schachter does not treat the VPE as a special anaphor case unable to refer to a situationally given event. Since the VPE in his view is to be treated on a par with pronouns, there is really nothing extraordinary about the exophoric use of this construction. As is well known, personal pronouns can readily be applied when referring to a person or an object in the surrounding non-linguistic discourse:

- (19) [Enter Schwartz; the speaker points to him, saying:]
 [^{NP-pro} He] is sick. (ibid:189)

It should be noted that Schachter's work on the VPE in many ways can be considered as having provided the foundation for a by now very influential ellipsis account which likewise focuses on the pronominal properties of the VPE. One of its strongest proponents is Hardt (1993) (see also Chao 1987, Lobeck 1995 and Winkler 2003). In reality, Hardt's analysis differs only minimally from the one in Schachter (1977, 1978) in that the VPE is analyzed as an auxiliary followed by a silent pronominal *pro* complement. The empty *pro* receives its semantic import through a discourse-interpretative mechanism much in the same way as is proposed for the deep anaphors in H&S (1976). However, Hardt expands the empirical coverage of the VPE and provides for instance examples in which not only personal pronouns but also the VP-substituting *pro* can refer to a so-called "split antecedent" – enforcing the *pro*-hypothesis:

- (20) Wendy is eager to sail around the world and Bruce is eager to climb Kilimanjaro, but neither of them can because money is too tight. (1993:29, as cited in Webber 1978)

After this short extension we should return to the discussion of the VPE examples above in (14)-(16).

Soon after Schachter's fundamental questioning of the anaphor dichotomy and specifically of the criteria "pragmatical control", Hankamer (1978:73) counters with the argument that the examples provided by Schachter belong to "[...] a limited number of fixed expressions". Already in H&S (1976:409, fn.19) there is indeed a short note to be found on a few pragmatically controlled VPEs where they mainly point at their highly conventionalized nature. Hankamer further develops this reasoning and points out that the examples in question all have a specific illocutionary charge; they are imperatives, exclamatives or interrogatives, but never declaratives. The example that H&S find unacceptable, cited in (5), is exactly of that type, namely a declarative VPE referring to an event introduced in the surrounding non-linguistic discourse. Thus, in accordance with Schachter, he proposes that these rare conventionalized VPE cases can be analyzed as propredicates, but still maintains that the productive linguistically determined VPE is a syntactical deletion phenomenon.

In my view, Hankamer's explanation is empirically incorrect with respect to linguistic data. The VPEs supplied by Schachter, cited in (15) and (16), can indeed be considered true declaratives. Other similar VPE declaratives with a non-linguistic antecedent have been put forward in the literature, hence undermining Hankamer's analysis and the proposed anaphor dichotomy:

- (21) [As A is about to order a second beer. B says:] (Context supplied by SH!)
You can, but I won't. (Chao 1987:96)
- (22) [as A reaches for his gun:]
B says: I wouldn't, if I were you. (Wilson 2000:105)
- (23) [For example, suppose that a group of friends, including John and Bill, has gone bungee jumping. Every member of the group is watching Bill, who is the first to muster the courage to bungee jump. As Bill is standing eight stories above the water on the platform of a crane, ready to plummet into the water below, Sarah, aware of John's terror of heights, turns to one of the other friends and utters [the following], shaking her head:]

John won't.⁹ (Stanley 2000:404-405)

Schachter, however, only objects to the criterion of "pragmatical control". Therefore it remains unclear how the other proposed anaphor properties, such as "structural (non)-coherence", should be explained in his "propredicate theory".

Before concluding this section it should be added that Schachter admits that some cases of pragmatically controlled VPEs can sound very odd. He discusses the following examples (see also example (5)):

- (24) [John escapes from a locked safe and says:]
- (a) I did it!
(b) *I did! (1977:765)

⁹ Stanley (2000:405, fn. 15) takes a slightly different approach in claiming that a contextually salient event can serve as a linguistic antecedent: "[...] a linguistic expression can be made salient in a context without being explicitly mentioned [...]". This however has no bearing whatsoever on the empirical fact that a declarative VPE can co-occur with a non-linguistically salient VP-referent.

Schachter argues that the VPE in opposition to the *do it*-anaphor is more ambiguous because it has a wider range of antecedent possibilities. He points out that the VPE but not the *do it*-anaphora can be used in referring to a non-agentive event and thereby concludes:

[...] the pro predicates typically *need* a linguistic cue to their intended referents because their possible referential range is so wide. *Do it*, by contrast, having a narrower referential range, can more often be interpreted correctly on the basis of the nonlinguistic context alone [...].

(Schachter 1977:766)

However, in consideration of the example in (24), this explanation seems somewhat peculiar. The supplied situational context is clearly a case which must be interpreted as evoking an event with an agentive reading, such as [*x escape*]. Why is it then that the example in (b) seems much more degraded than in (a)? I suggest that it has to do with the very light semantic content of the so-called dummy-*do*. Thus, if we replace the auxiliary *do* with the semantically more contentful VPE licensing modal *can*, the oddity of the VPE in this particular context more or less disappears:

(25) I didn't think that he could.

Merchant (2004) takes a slightly different approach to the situationally evoked VPE by claiming that the missing VP-constituent is really the phonological non-realization of the deep anaphor *do it*. He supports this claim by showing that a *wh*-constituent cannot be moved out of the VPE site:

(26) [Seeing a contestant about to pick among three choices]
*Which (one)/What do you think she will? (2004:722)

Had the VPE in (26) been internally structured (i.e. not been composed of a silent VP substituting *do it*) – which, in accordance with Hankamer (1978) and H&S (1976), Merchant assumes that the *linguistically* controlled VPE is – the extraction of the *wh*-phrase should be possible. I will momentarily set this issue aside and return to the discussion of extractions out of the VPE site in section 3.3. Important for the present discussion is that Merchant on the one hand rejects the claim made by H&S that the VPE is not possible with a situationally evoked antecedent, but on the other hand agrees with their hypothesis that the “true” VPE (i.e. the syntactically controlled VPE) is in fact an internally structured VPE deleted during the course of derivation.

We can thereby conclude that it is an uncontroversial fact that the VPE needs some kind of given context in order to establish its semantic import. But there is also good reason to assume that this context can be introduced either linguistically or non-linguistically, as long as it is salient enough for the VPE to be referentially linked to. The infelicitous uses of pragmatically controlled VPE

frequently cited in the literature are actually those involving the VPE licensing dummy-*do*. In my view, the oddity of these examples results from the scarce semantic contribution of this particular INFL-element.

3.2 Event anaphors and structural parallelism

As was demonstrated by H&S (1976), through (9a)-(c), surface anaphors in contrast to deep anaphors exhibit sensitivity to the structural representation of their antecedent. According to the authors, this stems from the fact that surface anaphors are deletion phenomena which search for their antecedent at a (deep) structural level of representation. Deep anaphors, on the other hand, do not hinge on any linguistically related description level since they look for their antecedent in a more global discourse model.

However, this analysis is seriously jeopardized due to examples found in the literature where an active VPE coincides perfectly well with a passive antecedent:

Passive/active mismatch:

- (27) This information could have been released by Gorbachov, but he chose not to. (Hardt 1993:37)
- (28) The ice cream should be taken out of the freezer, if you can. (ibid)
- (29) A lot of this material can be presented in a fairly informal and accessible fashion, and often I do. (Chomsky 1982, as cited in Dalrymple et al 1991:39)

Not only passive/active mismatches have been noticed in the literature but also nominal/verbal mismatches. In the following examples the verbal VPE refers to an antecedent in nominal form:

Nominal/verbal mismatch:

- (30) David Begelman is a great laughter, and when he does, his eyes crinkle at you the way Lady Brett's did in *The Sun Also Rises*. (Hardt 1993:34)
- (31) People say that Harry is an excessive drinker at social gatherings. Which is strange, because he never does at my parties. (ibid:35)

All of these cases pose a serious challenge for H&S's anaphor dichotomy and specifically for their proposed criteria of "structural parallelism".

To this discussion we will add an analysis which has received considerable attention in the literature on the VPE, since it tackles precisely the kind of

mismatches illustrated above. Kehler (2000, 2002) observes that the VPE can pick out a structurally non-coherent antecedent in specific discourse contexts. Moreover, he distinguishes three major categories of discourse coherence relationships; 1) Cause-Effect relations, 2) Resemblance relations, 3) Contiguity relations, where the first two consist of a few subtypes. For present purposes only a few selected subtypes with some illustrative examples are provided (for a more specific list see 2002:15-23):

Cause-Effect relation:

(32a) *Result*: George is a politician, and therefore he's honest. (2002:20)

(32b) *Explanation*: George is dishonest, because he's a politician. (ibid:21)

Contiguity/Narration relation:

(33) George picked up the speech. He began to read. (ibid:22)

Resemblance relation:

(34a) *Parallel*: Dick Gephardt organized rallies for Gore, and Tom Daschle distributed pamphlets for him. (ibid:16)

(34b) *Contrast*: Gephardt supported Gore, but Army opposed him. (ibid)

A few comments on the particular inference mechanisms underlying the specific coherence relationships are in order, since they will be of importance for the subsequent discussion of how the VPE interacts with the inferential processes involved in establishing different discourse relations.

In the case of a Cause-Effect relation, Kehler proposes that the reasoning underlying the establishment of this relationship is a purely semantic process building on logical inferences of propositional representations, which are generally guided by situation and world knowledge. For the Cause-Effect relation exemplified in (32a), the author provides the following interpretation scheme:

(35) *Result*: Infer P from the assertion of S_1 and Q from the assertion of S_2 ,
 where normally $P \rightarrow Q$
 Proposition P = G (is politician), Proposition Q = G (is
 dishonest) (ibid:20)

What this specifically amounts to is that the Cause-Effect relation does not utilize the argument or constituent structure of the two sentences, but instead a higher-level propositional representation of the assertions in question.

According to Kehler, a similar process is at work in the Contiguity/Narration relation in (33). In this particular case, a temporal progression of two events is logically abducted from the assertions.

In contrast to these two coherence relations, the Resemblance relation stands out as a process operating on the syntactic argument structure of the utterances (i.e. the syntactic IP/VP-level). The Contrast relation, in (34b), for instance, is established through the identification of two syntactically parallel constituents which stand in opposition to one another, in this case the subjects *Gephardt* and *Army*.

According to Kehler, the fundamental distinction between Contiguity and Resemblance relation on the one hand and Cause-Effect relation on the other hand predicts that the VPE will underlie different restrictions when appearing in these different coherence relations. He points out that the lack of syntactic-structural parallelism between the VPE and its antecedent is legitimate in a Cause-Effect relation and to a lesser degree in a Contiguity relation, but entirely prohibited in a Resemblance relation (Reconstruction is enclosed in brackets):

Cause-Effect Relation with passive/active mismatch:

- (36) This problem was to have been looked into, but obviously nobody did.
[look into the problem] (ibid:53)

Contiguity Relation with nominal/verbal mismatch:

- (37) ^{??}This letter evoked a response from Bush, and then Clinton did.
[respond] (ibid:62)

Resemblance Relation with nominal/verbal mismatch:

- (38) *This letter provoked a response from Bush, and Clinton did too.
[respond] (ibid:57)

When reconsidering the introductory examples of passive/active and nominal/verbal mismatches in (27)-(31), we can maintain that all of them exemplify a Cause-Effect relation, clearly supporting Kehler's analysis.

Further support for Kehler's treatment of VPE in different coherence relations is provided by the following examples in which the syntactic Binding Condition A does not have to be obeyed or has to be obeyed, respectively:

- (39) John_i voted for himself_i although no one else_j did. [vote for himself_i]
(ibid:55)

- (40) *John_i defended himself_i and Bob_j did too. [defend himself_i] (ibid:58)

Example (39) illustrates a VPE in a Cause-Effect relation. Since this coherence relation does not require a matching between the clauses at a syntactic level, the example is acceptable in spite of an obvious Binding Condition violation. In (40) a Resemblance relation emerges. Since this relation according to Kehler

does require a syntactic matching between the clauses, the example is correctly ruled out.

Primarily, Kehler focuses on the VPE, but also makes a few interesting remarks on the related *do it*-anaphor:

Our analysis predicts that deep anaphoric forms such as *do it* and *do that* are not sensitive to syntactic mismatches or constraints. In our account, syntactic constraints result from conditions on elidability in the context of Resemblance relations. These conditions are irrelevant for *do it* and *do that*, since these forms contain full VPs from which nothing has been elided. (Kehler 2000:570)

From the passage above it follows that the *do it/that*-anaphor in Kehler's view is an inherently semantic phenomenon and thus, unlike the VPE, should behave consistently regardless of the specific coherence relations it appears in. Therefore, it strikes one as rather puzzling that the VPE example in (38), displaying a resemblance relation, still appears to be degraded when it is replaced with the *do it*-anaphor:

- (41) ??This letter provoked a response from Bush, and Clinton did it too.
[respond]

This suggests that the asymmetry at hand does not necessarily depend on different coherence relations per se. I propose that the degradedness of the VPE in (38) and the *do it*-anaphor in (41) possibly arises from the difficulty of obtaining the intended parallel relation between the two participants *Bush* and *Clinton* involved in the event [*x* respond]. The subject in the antecedent sentence *this letter* seems to be intervening in the identification of the parallel relation because it stands out as a possible parallel topic to *Clinton*.

Kennedy (2003) draws attention to further empirical data which pose problems for Kehler's proposal. In (39) it was shown that Binding Condition violations can be disregarded in a Cause-Effect relation. However, Kennedy provides examples in which a Cause-Effect relation *does* obey syntactic constraints. The following example shows a Condition B violation arising in a Cause-Effect relation:

- (42) *Kim takes care of him_i because he_i won't. [take care of him_i] (2003:35)

Kennedy underlines that any theory – not just the one advocated by Kehler – supporting a semantic-interpretive view of the VPE, such as Hardt's *pro* account (1993) discussed in section 3.1, will face serious problems in accounting for such empirical facts. Instead he favours an analysis very much in the spirit of H&S in which the VPE is treated as a syntactic deletion construction.

Interestingly enough, Binding Condition violations like the one observed by Kennedy in (42) do not only arise in VPE contexts but also in explicit anaphoric

constructions such as *do it*, implying that they are subject to the same syntactic conditions:

- (43) *Kim takes care of him_i because he_i won't do it. [take care of him_i]

As a result, theoreticians using examples as in (42) in support of a syntactic (deletion) theory face serious problems when the closely related non-deletion anaphor *do it* is taken into account. Strangely enough, this is seldom done.

On the basis of the preceding discussion, we can conclude that the strong syntactic parallelism restriction, which according to H&S (1976) is imposed on the surface anaphors, is not empirically motivated. Regarding the proposal made by Kehler, it remains at least inconclusive as to which role discourse coherence relations play in accounting for the possibility for a VPE or a *do it*-anaphor to refer to a syntactically non-parallel antecedent.

3.3 Event anaphors and their structural make-up

The final distinctive property discussed by H&S (1976) relates to the structural representation of the deep anaphor and the surface anaphor sites. According to the authors, the *Missing Antecedent* test predicts that surface (deletion) anaphors consist of the same amount of structure as their antecedent, whereas deep anaphors are represented by some kind of unstructured anaphor material. Two of the relevant examples cited in section 2 are repeated below:

- (44) VPE: He said that one of us had to give up his seat, so Sue did,
because *it* was too narrow for her anyway.
- (45) *do it*: *Jack didn't cut Betty with a knife – Bill did it, and *it* was
rusty. (it= the knife Bill cut Betty with)

Firstly, it must be underlined that H&S are themselves not absolutely certain about the legitimacy of this test. They report that the judging of such examples seems to be a very delicate matter.

Undoubtedly, there is an even more substantial problem with this test for the proposed anaphor dichotomy. The referring pronoun *it* in (44) and (45) is in accordance with H&S's proposal to be described as a deep anaphor, just like the proform *do it*. As already mentioned, the authors assume that the deep anaphor searches for its antecedent in a discourse model as opposed to a linguistic level. Now, Williams (1977) poses the very legitimate question why the deep anaphoric *it* with the characteristic of being an interpretive phenomenon should not be able to pragmatically refer to the intended antecedent in the same way as it can refer to a situationally evoked antecedent. Indeed, H&S's characterization of deep anaphors predicts that this is possible. So, by appealing to the Missing

Antecedent phenomenon, H&S, seemingly unaware of their built-in contradiction, argue against their own anaphor distinction.

Nonetheless, the idea that surface and deep anaphors have different structural representations seems to be tenable. Although the Missing antecedent test is occasionally still utilized (cf. Johnson 2001), another insight has been made regarding the structural composition of the different anaphor sites. Thus, it has been reported that a *wh*-phrase or a *that*-element can be extracted out of a VPE indicating that the VPE site has all the structure of its corresponding antecedent, lacking only phonetic material. The following examples adopted from Schuyler (2001) illustrate a VPE-extracted *that*- and *wh*-phrase respectively (see also Chao 1987 and Tancredi 1992 for similar examples):

(46) I discovered that my cat had scratched some of the furniture, and then I sold the furniture [_{CP} OP_i that [_{IP} he HADN'T [_{VP} scratched ~~t_i~~]]] (2001:13)

(47) I don't know which puppy you SHOULD adopt, but I know [_{CP} [which one]_i [_{IP} you SHOULDN'T [_{VP} adopt ~~t_i~~]]] (ibid:1)

In the above examples, the *that*-element and the *wh*-phrase are analyzed as having moved out of the VPE site in narrow syntax before the VP-string gets deleted in the phonetic component. *That*-extractions and *wh*-extractions out of a VPE are not altogether unrestricted according to Schuyler. She acknowledges that a certain locality condition on the focus placement on the material preceding the VPE site must be met. This condition states roughly that there must be a contrastive focus placed in between the extracted element and the VPE site. Therefore, it is crucial that the auxiliary (and negation) in (46) carry contrastive focus indicating a positive-negative contrast relationship between the first and the second part of the conjunction, hence the ungrammaticality of (48)¹⁰:

(48) *I discovered that my cat had scratched some of the furniture, so I threw away the least salvageable pieces that he had. (ibid:12)

Thus, as opposed to (46), the context in the example above does not induce a contrast relation between the first and second conjunct and hence contrastive focus on the auxiliary *had* is not properly licensed.

¹⁰ It should be added that a contrastive focus appearing on an auxiliary and/or a negation is sometimes referred to as (contrastive) *polarity focus*. Seemingly, Schuyler uses the broader covering term *contrastive focus* because she acknowledges that *wh*- or *that*-extractions are also possible when, for example, the subject of the VPE conjunct is contrastively focused:

(i) I know SHARON invited LARRY, but I can't remember who JACK did. (2001, 8)

In view of the recent discussion on movements out of the VPE site, it would be advantageous to reconsider Merchant's (2004) specific proposal regarding the pragmatically controlled VPE which was briefly mentioned in section 3.1. The crucial example is repeated below:

- (49) [Seeing a contestant about to pick among three choices]
 *Which (one)/What do you think she will?

The ungrammaticality of the VPE above is inexplicable since we previously concluded that *wh*-movements out of the VPE site are legitimate. Merchant proposes that the pragmatically controlled VPE is not to be analyzed as a deleted VP with a full-fledged constituent structure, but instead as a phonetically suppressed *do it*-anaphor from which no extractions can be made, hence successfully explaining the impossibility of (49). However, Merchant does not consider the focus placement condition on VPE-extractions discussed above, which states that a contrastive focus must be placed in between the extracted element and the VPE site. The problem in (49) might possibly be due to the lack of an explicit antecedent in the previous discourse which could induce the obligatory contrastive focus in the VPE sentence. Leaving this question open for future research, we can nonetheless conclude that it remains at least inconclusive as to whether the example in (49) is an argument in favour of the proposal that the situationally used VPE is not a deletion of a full-fledged VP.

The question arises as to whether similar extraction possibilities are legitimate in the remaining anaphor constructions under discussion. Schuyler focuses on the surface anaphoric VPE, but Depiante (2001) provides parallel examples showing that the deep anaphoric NCA prohibits extractions:

- (50) *Bill knows which novel Bill volunteered to read and Mary knows which biography Peter volunteered Ø. (2001:210)

Depiante takes this as evidence that the NCA site is constituted of a covert element with no internal structure in the syntax, namely *pro*, which is claimed to be equivalent to the overt predicative/sentential proform *it*.

To complete the paradigm, we need to consider *wh*-extractions out of the *do it*- and *do so*-anaphor as well. The following examples readily show that extractions out of these anaphors are not allowed:

- (51) *I know which novel Bill read, but I don't know which biography Peter did it.
 (52) *I know which novel Bill read, but I don't know which biography Peter did so.

As for the *do so*-anaphora in (52), the above data is surprising, since H&S (1976) classify this particular construction as a surface (i.e. deletion) anaphor. Indeed, the *do so*-anaphora appears to be elusive as to whether it should be classified as a surface or a deep anaphor. Kehler & Ward (1999) examine the specific properties of this construction thoroughly, and draw the conclusion that it shares characteristics with both the deep anaphor and the surface anaphor. On the one hand, it can refer to structurally non-parallel antecedents. On the other hand, it cannot refer to a situationally evoked antecedent. If Kehler & Ward's analysis is on the right track, this result shakes the very foundation of H&S's strict dichotomy.

In summing up this section, we can maintain that the initial observation made by H&S, namely that surface anaphors, in contrast to deep anaphors, contain an internally structured anaphor site can be successfully adopted as an anaphor distinguishing property. However, as was discussed above, the reliability of the Missing Antecedent test to prove the existence of an internally vs. non-internally structured anaphor site must be called into question. Nonetheless, strong evidence for the different structural make-up of deep and surface anaphors was provided due to extraction data.

4 Event anaphors in Swedish

The anaphor dichotomy in H&S (1976) was proposed specifically for English. By extending H&S's analysis to Swedish and briefly considering the different event referring construction appearing in this language, further evidence for the problematic nature of the anaphor division will be supplied.

To begin with, all of the constructions discussed for English have a Swedish counterpart. Most noteworthy is that Swedish also exhibits the VPE – a construction which to a high degree has been considered exclusive to English. Note that the following overview is not to be regarded as an exhaustive list of event anaphors in Swedish:

Swedish event anaphors:

VPE:

(53) Han bad mig komma, men jag vill inte Ø¹¹. (Teleman et al 1999:946)

Han asked me come, but I want not
He asked me to come, but I don't want to.

¹¹ Note that the symbol Ø is to be considered as a theory-neutral indication of missing elements

Göra det (do it):

- (54) Han vill inte träffa Karin idag, men han måste göra det
 He wants not meet Karin today, but he must do it
 någon gång i den här veckan. (ibid: 959)
 some time in this week [def]
 He doesn't want to meet Karin today, but he must do it sometime this
 week.

Göra så (do so):

- (55) Peter köper böckerna idag och jag gör nog också så.
 Peter buys books [def] today and I do probably too so
 Peter will buy the books today and I will probably do so too.

NCA:

- (56) Peter försökte (att) vinna valet, och Anna försökte
 Peter tried to win election [def] and Anna tried
 också.
 too
 Peter tried to win the election and Anna tried too.

To this list we can add yet another event deletion anaphor which surfaces not in strict coordinated sentences but in adjacency pairs. This construction is known as *Topic-drop* (or *Pronoun Zap*) and is restricted to the initial position in declarative sentences (Swedish being a V2-language):

- (57) A: Kan du hjälpa mig med middagen?
 Can you help me with dinner [def]
 Can you help me with the dinner?

B: Nej, Ø kan jag inte.
 No, can I not
 No, I can't.

This specific Topic-drop construction is not easily available in English. As can be seen in (57), the Topic-drop sentence can be translated into an English VPE. Moreover, the Topic-drop construction seems to be rather restricted in English since “the drop” mainly affects subject pronouns and only appears in specific registers such as diaries and instructional registers (the interested reader is referred to Haegeman 1987 and Haegeman & Ihsane 2001).

Due to space limitations the remaining part of this section will be devoted to the specifics of the Swedish VPE. First of all, it can be noted that the VPE in Swedish, just like its English counterpart, is licensed both by temporal and modal auxiliaries (see also example (53)):

- (58) Har ingen läst den här boken? – Jo, jag har Ø. (Teleman et al 1999:960)
 Has no one read this book [def] Yes, I have
 Hasn't anyone read this book? - Well, I have.
- (59) Du får åka på konferensen om du vill Ø, och jag
 You may go to conference [def] if you want and I
 tycker nog att du borde Ø. (ibid:995)
 think really that you should
 You may go to the conference if you want to, and I do think that you should.

However, Swedish (as do all Scandinavian languages) lacks the so-called dummy-*do* which is frequently used as a VPE licensing INFL-element in English. The Swedish *göra* is a main verb obligatorily selecting a complement – in the following case the pro-predicative *det* (it)¹²:

- (60a) Anna likes Peter but Sandra doesn't.
 (60b) Anna tycker om Peter, men Sandra gör *Ø/det inte.
 Anna likes [Particle] Peter but Sandra does it not
 Anna likes Peter but Sandra doesn't.

There is a vivid debate regarding the specific syntactic properties of the English auxiliaries and modals. Generally, it is assumed that English auxiliaries (including dummy-*do*) and modals, in contrast to main verbs, are functional elements unable to select internal arguments. This is why it is often postulated that they are base-generated in the functional INFL/TENSE-domain. In contrast, the Swedish modals and auxiliaries are lexical elements originating in the VP and are therefore able to subcategorize for internal arguments. This main difference is exhibited through the following examples in which the modal is able to select a directional PP-argument in Swedish, but not in English:

- (61a) Jag ska till stan imorgon.
 I will to city [def] tomorrow
 I will go to the city tomorrow
 (61b) *I will to the city tomorrow.

¹² However, in question tags, the complement *det* can optionally be left out, probably due to the polarity focus on the verb:

- (i) - Jag läste boken igår. - GJORDE du Ø/det?
 - I read the book yesterday - DID you?

In the light of the data provided above, another interesting fact emerges in regard to the Swedish event anaphors. As the following examples indicate, a modal (62a) or a temporal auxiliary (63a) can select a pro-predicative *det* (*it*), giving rise to an event anaphoric construction, which for the above mentioned reason is not available in English:

(62a) Peter ska hjälpa Anna imorgon, men jag kan inte det.
 Peter will help Anna tomorrow but I can not it
 Peter will help Anna tomorrow, but I can't/do it

(62b) *Peter will help Anna tomorrow, but I can't *it/ Ø.

(63a) Peter har inte hjälpt Anna, men jag har det.
 Peter has not helped Anna but I have it
 Peter hasn't helped Anna but I have/ have done it.

(63b) *Peter hasn't helped Anna, but I have *it/ Ø.

In previous sections we have considered different VPE-antecedent configurations in English. In selecting an antecedent, the Swedish VPE appears to behave like the corresponding English VPE. For example, it tolerates passive/active alternations of the same kind found in (27)-(29) and therefore there is strong evidence against H&S's original proposal also in regard to the Swedish VPE:

(64) Detta måste arkiveras idag, även om du inte vill Ø.
 This must file [Pass] today even though you not want
 This must be filed today, even though you don't want to.

Moreover, Kehler's (2002) suggestion (see section 3.2) that voice mismatches are acceptable in Cause-Effect relations, as shown in (64), and not in Resemblance relations, seems to be applicable also to the Swedish VPE counterpart:

(65) *Detta problem diskuterades av John igår och jag ska
 This problem discuss [Pass] by John yesterday and I will
 också idag.
 too today
 *This problem was discussed by John yesterday and I will too today.

There is, however, one notable distinction between the English and the corresponding Swedish VPE and it has to do with the structural composition of the VPE site. Let us consider the crucial example for English in (46) once more, repeated below:

- (66) I discovered that my cat had scratched some of the furniture, and then I sold the furniture [_{CP} OP_i that [_{IP} he HADN'T [_{VP} scratched-t_i]]].

The example exhibits the possibility of extracting an element out of the VPE site before deletion takes place in the PF-component, which indicates that the VPE is internally structured. Now, the corresponding example in Swedish turns out to be substantially degraded:

- (67) ^{???}Jag upptäckte att min katt hade klöst sönder en del av möblerna, och sen sålde jag de möbler [_{CP} OP_i som [_{IP} han INTE HADE [_{VP} klöst sönder t_i]]].

This indicates that the Swedish VPE in contrast to the English one is not composed of an internally structured VP constituent. Aware of the fact that further data of the above mentioned type must be supplied, I would nonetheless propose that the Swedish VPE is a *pro*-ellipsis. That is, the VPE site is simply the silent counterpart of an explicit pronoun. Indeed, as was presented in example (62a) and (63a) above, Swedish has an overt *det*-anaphor which is licensed by a modal or an auxiliary. The phonetic realization of *det* appears to be optional in Swedish, as is illustrated in the following example:

- (68) Har ingen läst den här boken? – Jo, [_{CP/IP} jag har [_{VP} *pro* /*det*]].
Has no one read this book [def]– Yes, I have it
Hasn't anyone read this book? – Well, I have.

With respect to the suggested *pro*-analysis of the Swedish VPE, I would once again like to point out the dubious nature of the Missing Antecedent test which was utilized by H&S (1976) in order to determine if a specific anaphor equals an internally structured surface anaphor or a base-generated unstructured deep anaphor (see also section 3.3). According to this test the pronoun *den* in (69) should not be able to refer back to an antecedent contained in the Swedish VPE since the VPE site is comprised of an unstructured *pro*-constituent. However, the reading in which the pronoun *den* refers to Anna's paper is readily available, both in the *pro*-version and the *det*-version of the following example:

- (69) Alla måste lämna in sin uppsats idag men Anna
Everyone must turn in their paper today but Anna
vill inte *pro/det* eftersom den inte är färdig.
wants not it because it not is finished
Everyone must turn in their paper today, but Anna doesn't want to
because it isn't finished.

Finally, I would like to add that the analysis of the Swedish event anaphors and specifically of the VPE is to be regarded as preliminary. Without question, further data need to be considered (see Ström Herold, work in progress). Nonetheless, it was made evident that the distinctive anaphor properties suggested by H&S are not rigorous enough to correctly explain the distributive and structural behaviour of neither the English event anaphors nor their Swedish counterparts.

5 Concluding remarks

This paper focuses on the different event anaphors in English and to a lesser extent the event anaphors in Swedish. The theoretical framework for the discussion was the original proposal made by H&S in the late seventies, which distinguishes two major categories of anaphors, namely deep and surface anaphors. According to H&S, specific properties can be associated with one anaphor type but not the other.

However, the empirical findings severely contradict the initial claim made by H&S. Firstly, it was recognized that both deep and surface anaphors can refer to a situatively evoked antecedent. The claim that the situatively evoked VPE is a highly marginalized construction could also be rejected. Secondly, both deep and surface anaphors were shown to coincide with a passive or a nominal antecedent. However, it could be shown that some specific coherence relations restrict the use of the VPE with structurally non-coherent antecedents. Yet, these restrictions were proved to be non-exclusive for the surface anaphoric VPE since they also are imposed on the related deep anaphoric proform *do it*. Indeed, a substantial amount of the Anglo-American work in the research field of event anaphors focuses on the specifics of the VPE and as a result fails to account for the profound commonalities among the different subtypes of event anaphors.

However, the event anaphors discussed in this paper seem to differ in one regard, namely in their structural build-up. The surface anaphoric VPE in English was shown to allow extractions out of the anaphor domain but not for instance the deep anaphoric NCA. Yet, an anaphor dichotomy solely relying on a difference which stems from the syntactic representation of the anaphor site seems highly unmotivated. Instead, what is required is a more refined account than the one originally proposed by H&S which more successfully can reveal the underlying syntactic-semantic and pragmatic regularities *and* common features between the different event anaphors.

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Jenny Ström Herold

jenny.strom_herold@tyska.lu.se