

So Be It: The Discourse-Semantic Roles of So and It

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Abstract

The aim of the article is to determine whether *so* and *it* fulfil distinct discourse-building roles, in their predicate- and proposition-anaphoric guise. Is the choice between them determined by the syntactic or semantic nature of their 'antecedent', or of the context in which the choice between them is to be made? Or do they in fact themselves determine their 'antecedent' (or at least superimpose upon it a characteristically distinctive interpretation)? I shall argue for the latter analysis, indicating a range of factors (of a mainly semantic nature) which co-determine both the choice between these two anaphors, and their full utterance-level interpretation. A wide range of attested and constructed examples will be presented as the basis for the discussion.

1 INTRODUCTION

The basic aim of this article is to examine one type of predicate and propositional anaphora expressed by two closely related anaphors, *so* and *it*, in terms of its discourse-building role. I want to show, first, that the anaphora created via each of these expressions (in conjunction with their host verb, and the mood, tense and aspect values associated with it) has several important functions beyond that of simply retrieving a predicate or proposition already used as such in prior discourse. And second, I will try to pinpoint the precise semantic and pragmatic contribution made by *so* and *it* to the discourse content they help to structure, as well as the contextual factors that favour or constrain the choice of one or other of these two anaphors.

I shall start by briefly defining the view of anaphora as a semantic-pragmatic phenomenon to which I subscribe, and will then spend the rest of the article examining the examples to be presented later under various different headings. These examples are mostly attested, naturally occurring utterances embedded in some specific discourse context.

2. PRELIMINARIES

2.1 *Discourse anaphora*

Discourse anaphora is intimately connected with deixis. Both are concerned with the management of discourse in terms of the coordination of speaker's and addressee's attention. Deixis centrally has to do with the switching of that attention focus (itself a deictic motion) from a previously existing focus to a new one—but which is derived from the current discourse context. Anaphora, on the other hand, is a set of procedures for maintaining both speaker's and addressee's attention focus on objects, substances, situations, processes, events, concepts etc. which are already in (relatively) high focus (cf. Ehlich 1982; Bosch 1983). There is thus a kind of inverse relation between the use of deictic and of anaphoric expressions. Deixis presupposes that the referent in question has a relatively low level of focus ('intermediate' in Ariel's 1990 scheme) at the point where it operates, so that a high degree of concentration and cognitive effort is needed by the addressee to bring it into high focus; whereas anaphora presupposes that the referent already enjoys a high level of focus at the point where it functions, so that only a relatively low level of concentration is needed by the addressee to retrieve (or even construct) the referent in question. The formal properties of deictic and anaphoric expressions reflect these different discourse functions—though not perfectly so (cf. Ariel 1990, who conceives of the distinction in terms of three main levels of referent accessibility).

One major cognitive goal of the speaker or writer is to get his or her addressee to synthesize a mental model of the situation being evoked via the text (and via other non-linguistic sources of input) that matches his/her own model to some degree (cf. Johnson-Laird 1983). Deixis and anaphora constitute specific procedural instructions for organizing and constructing these models—manipulating, not expressions in the co-text ('antecedents', as traditionally conceived), but conceptual representations of entities, properties, situations, etc. within the relevant discourse models.

To set the scene for what is to come, let us examine example (1).

- (1) '... In countries like Israël and Sweden, academics and authors write their work in English for world publication, and only *then* have it translated into their own language...' (*The Guardian*, 6 June 1989)

In the process of reaching an interpretation of *then*, a deictic temporal anaphor, it is clear that an inference is triggered such that the Israeli and Swedish academics and authors in question *have in fact* published their work in English, something which is not entailed by what I am calling the 'antecedent-trigger' (cf. Cornish 1986:8 and *passim*) of the anaphor. This inference is derived from

the result of the processing of the first clause of the discourse fragment: *then* (which would receive a high degree of stress and pitch if spoken, due primarily to the focusing presence of *only* immediately preceding it)¹ thus refers to this particular time stage in the process, which evidently follows the writing of the works in question. The contextually derived referent of *then* here would thus be something like 'Once the Israeli and Swedish authors have had their work published in English in publications reaching a world audience'.

This example illustrates an important feature of anaphora generally. Anaphors serve to integrate the segment of text in which they occur with the result of the processing of a preceding segment. They point to entities etc. in the relevant discourse model and may even (as we shall see) serve partially to construct such entities. Anaphora is not, then, a purely textual intra-linguistic relation between two or more expressions in a co-text (the 'antecedent' and one or more anaphors). The importance of the predicative context in which an anaphor occurs (in particular, the valency properties of its governing verb or other predicate) is paramount in the way this phenomenon operates.

2.2 *The distribution of so and it*

Before we look in detail at the examples of *so* and *it* to be presented below, we need to establish, first, which type of *so* and *it* we are interested in, and, second, whether in fact each type of expression we are concerned with is in complementary distribution with the other. If the latter is the case, it should be possible to specify the particular formal environments which determine the selection of one or other of these anaphors in their predicate- or proposition-anaphoric guise.

2.2.1 Non-anaphoric occurrences

Let us first examine certain types of non-anaphoric occurrences of *so*.

(2a) Conjunction: . . . *so*, as I say, we do have a case after all . . .

(2b) Intensifier: Your book was *so* absorbing that I completely forgot to cook the dinner!

(2c) Variant of *also*: . . . and *so* can/does \emptyset Pete.

All three uses of *so* illustrated in (2a-c), namely the conjunction in (2a),² the intensifier in (2b), and the variant form of *also* in (2c), need to be set aside in our investigation. Note that *does* in (2c) is not a form of the full verb *do* in *do so*, but the auxiliary that provides 'do-support' in polar questions, negations, etc.; the actual anaphor in instances of this kind is the zero form \emptyset , rather than either *so* or the auxiliary.

Two types of non-anaphoric uses of *it* are illustrated in (3a, b).

- (3a) Expletive: *It's* terribly hot in here.
 (3b) *It* seems that a June election is unlikely.

Neither the 'ambient *it*' in (3a) nor the dummy, non-argumental *it* in (3b) is anaphoric; hence, these uses of *it* do not fall within the type of use I am concerned with here. Furthermore, I am also not concerned here with the 'entity-referring' use of *it* as illustrated in instances such as: *John bought a new umbrella, but it didn't keep the rain out!*

2.2.2 Predicate- or proposition-anaphoric occurrences

Having narrowed down the range of types of uses of *so* and *it* to those in which the expressions are interpreted in terms of a discursively salient predicate or proposition, we need now to determine whether in fact the choice between them is determined by the environment in which each may occur: if it is the case that each type of expression may be interpreted in terms of the *same kinds* of referents (predicates or propositions), and that each expression-type occurs in a *different* set of environments (as the data presented below suggest may well be the case), then the conclusion that they are in complementary distribution would appear to be inescapable. Let us examine environments (4)–(9) below.

- (4) *So* occurs as adjunct of certain complement-taking verbs (e.g. *hope*, *appear*, *remain*, *suppose*);
 (5) *So* may follow certain *WH*-words: *how/why so*?
 (6) *So* may follow the conjunction *if* and *even*: . . . *if so*, *then that will be the end of the matter*; *even so*, *you shouldn't do it*.
 (7) *So* can occur in pro-clitic position: '. . . *and elements that cannot so occur are inside the verb phrase*' (G. Lakoff & J. R. Ross 1976, 'Why you can't *do so* into the sink', p. 105);
 (8) *So* can occur in pre-adjective position: *so-called*, *so-defined*.
 (9) *It* occurs in all argument positions (subject, direct object, indirect object, oblique object). *It* ($\neq so$) can thus occur as subject of passivized verbs: *If you can apologize, it/*so should be done immediately*.

It can occur in none of the environments in which *so* may occur (namely those specified under (4)–(8) above); and, conversely, *so* may occur in none of those indicated under (9). Though superficially, it might appear that *so* and *it* share an environment in common, namely where *so* occurs as the adjunct of certain verbs (e.g. *do*, as in *do so*), and where *it* occurs as direct object of certain of these same verbs (e.g. again *do*, as in *do it*), this is only a 'surface' impression, as the impossibility of passivizing *do so* in the example given under (9) demonstrates. This example already enables us to see how different is the grammatico-semantic relationship between *it* (an argumental pronoun, unlike *so*) and its host verb, on the one hand, and *so* and its host, on the other.

The information presented so far, then, strongly suggests that *so* and *it*, in their predicate- and proposition-anaphoric role, are in complementary distribution. Further support for this conclusion is provided by a pair of occurrences found in a children's book:

- (10) '... "Could you be king of the Clowns one day?" "I suppose *so* but I don't think *it*'s really likely''

The conclusion must be, then, that whereas *so* is syntactically adverbial (and see Bouton 1970 for still further arguments to this effect), *it* is nominal.

3. SYNTACTIC AND SEMANTIC CHARACTERISTICS OF *SO* AND *IT*

3.1 *Insensitivity of so and it as predicate or propositional anaphors to the syntactic category of their antecedent trigger*

Let us look now at how these anaphors receive their full, utterance-level interpretation. First of all, the examples presented under the above heading indicate that the 'antecedent triggers' (as I am calling them) of both *so* and *it* are syntactically diverse. Consider the following:

- (11a) I'm extremely busy at the moment, and expect to be *so* for the next two hours at least.
 (11b) John isn't usually worried, but today he certainly looks *it*
 (12a) The entire factory is on strike, and is forecast to stay *so* for some considerable time
 (12b) A:—You look on top of the world today!
 (12b) B:—Kind of you to say *so*; I really feel *it* too!
 (13) '... It looks very much as if arts graduates are becoming a drug on the market and are likely to remain *so*' (*The Sunday Times*, 6 June 1971)
 (14a) I know that he's coming, because he told me *so* himself
 (14b) Max is a superb linguist, and he knows *it*

In (11), the antecedent triggers are adjective phrases (*extremely busy* in (11a), *worried*—not # *usually worried*—in (11b)); in (12), they are prepositional phrases (*on strike* in (12a), *on top of the world* in (12b)); in (13), it is a nominal (*a drug on the market*), and in (14) they are clauses (*that he's coming* in (14a), and the entire initial conjunct in (14b)). Thus *so* and *it* (whose type of anaphoric value is constant throughout this series of examples) are clearly not dependent on the syntactic nature of their antecedent-trigger for their operation. The antecedent-triggers in (11) to (14) are *predicates*. Now it is well known that predicates are to a large extent independent of syntactic category. Indeed, Napoli (1989: 350)

suggests that predicates need not have any particular syntactic characteristics at all. They clearly do not have to correspond to single lexemes (as they do in (11a), (11b) and (12b), where *on top of the world* is an idiom, that is, a single lexical unit). This is shown by the antecedent-triggers in (12a), (13) and (14a, b). Predicates can be headed by nouns (often abstract nominals like *destruction*, or relational nouns like *father (of)*), by adjectives, by verbs, or even by some types of preposition (those that express a relation, usually a spatial relation, between two or more entities). What is important is that as predicates, they must have at least one external argument ('role player', in Napoli's terminology), and must predicate some property of it (or, where there are two or more such arguments, some relation holding between them).

3.2 *Semantic independence of mood and modality of antecedent trigger*

The examples presented under this heading suggest that the interpretation of the occurrences of *so* and *it* here may be independent of the particular choice of mood or modality in whose scope the antecedent trigger predication occurs. Observe the following:

- (15a) '... Does the great presentation the following day necessitate the disastrous evening the night before? At Rank Xerox we don't think *so*' (advertisement, *The Guardian*, 18 March 1991, p. 5).
- (15b) 'Was Johnson badly advised? He would have detected *it* first' (title of article in *Times Higher Educational Supplement*, 10 November 1978, p. 9)
- (16a) 'Don't get lost—*it* wastes petrol' (notice in garage, Canterbury)
- (16b) 'Stay low, or you'll live to regret *it*' (government anti-drink-and-driving advertisement)
- (17a) Willard may have cooked the dinner, but I doubt *it* (from Peterson 1982, ex (44))
- (17b) 'WARNING'—Do not leave purses, wallets etc. unattended. If you see anyone acting suspiciously, report *it* to a member of staff' (notice placed at entrance to library, University of Kent at Canterbury)

In (15a) and (b), the antecedent-trigger predication occurs within the scope of an interrogative operator; in (16a) within that of a negative imperative; in (16b) within that of an affirmative imperative; in (17a) within that of an epistemic modal; and in (17b) within that of a counterfactual or conditional. In none of these instances, then, is the antecedent-trigger predication asserted. And in none of them is the particular modality involved part of the interpretation of the respective anaphors.

Semantically, then, these examples suggest an analysis whereby the interrogative, negative, imperative, modal or conditional components of the clauses at issue would be treated as operators, located *outside* the predication which

occurs within their logical scope (this is exactly the way in which these sentence or utterance modalities are handled in Dik's (1989) Functional Grammar model). Note that the actual antecedent of *it* in (16b) is not 'stay low' but the ellipsed predication (required to be instated for the purposes of coherence) 'in the event that you do *not* stay low' (that is, 'your alcohol blood content is high', or 'not low'). (In passing, it is worth noting that this is good evidence in favour of my distinction between the notions 'antecedent' and 'antecedent-trigger'.) This is effected via the instruction to disjoin the two propositions conveyed by the connective *or* in terms of truth value, and by the fact that *it* is the object of a factive verb (*regret*), presupposing the truth of the proposition to which it is anaphoric. A similar analysis holds for (16a) and (17b).

4. DISCOURSE-LEVEL PROPERTIES

4.1 *The 'discourse-operator' function of so and it*

Having seen in section 3 that the anaphors *so* and *it* are not sensitive to the particular *syntactic* character of their potential antecedent-triggers (cf. 3.1), and that their interpretation is independent of certain aspects of the *semantic* properties of those triggers as well (cf. 3.2), we will now see further evidence of the syntactic-semantic independence of these anaphors, namely evidence of the discursively 'creative' ability of anaphors, in conjunction with their host or governing verb together with its mood, tense and aspect values, to extract or 'construct' predicates from within elements performing non-predicative functions in their textual context.

- (19a) '... some of the soldiers [on the Dunkirk beaches] themselves told me they were starving, and exhausted, and unorganised, and very frightened. I would have been *so* too' (letter to *Radio Times*, 2 June-4 July 1980, p. 60)
- (19b) *Predicate constructed via the interpretation of so in (19a):*
' $\lambda(x)$ (Starving & Exhausted & Unorganized & Very-Frightened, x)'
- (19c) '... Only a virgin can join [the new religious order launched recently by the bishop of Verona, 'in defiance of a society infatuated by the idols of consumerism and sex'], and she must remain *so* for the rest of her days "as a sign of martyrdom"' (*The Guardian*, March 1991)
- (19d) '... He went on to claim that the allegedly high-spending Labour authorities had, by *so doing*, damaged industry and lost jobs' (*THES*, 30 September 1983)
- (20a) 'I'm not a farmer any more—because there isn't enough time to *do it*' (Christopher Mayhew, BBC Radio 4, March 1982)
- (20b) 'Rumania—the odd man out in Eastern Europe, and proud of *it*' (BBC Radio 4, 22 January 1979)

In (19a), the use of *so* by the writer (and its interpretation by the reader) in this context serves to 'abstract' the individual predicators (applied severally in the complement clause of the antecedent-trigger predication to the specific group of soldiers who spoke to the writer) into a single, complex, predicate. This latter is represented in logical terms in (19b).

In (19c), the predicate 'virgin' in the subject expression of the initial clause is syntactically nominal and semantically denotes a set (the class of human females defined by the property of being virgins). Note that the NP this noun-predicate heads is already generic, genericity corresponding to a less highly referential (and hence more fully predicative) contextual value. Note also the variation between *she* (referring to the prototypical virgin eligible to join the religious order in question), on the one hand, and *so* on the other, sharing the same antecedent trigger—though with very different discourse model referents.

High spending in (9d) is an attributive adjective, a modifier.³ The example provides further evidence for the view that *so* and *do so* are not dependent for their interpretation on a syntactically parallel antecedent trigger (*contra* Hankamer & Sag 1976; Sag & Hankamer 1984, who claim that (*do*) *so* is a surface anaphor, requiring surface syntactic parallelism of a potential antecedent trigger). The interpretation of *so doing* here isolates the modifier and gives it full predicative status—as an independent cause of the state of affairs predicated by the main assertion of this utterance. *It* can also behave in this way—though I have collected fewer such attested examples than in the case of *so*.

(20a) is similar to (19c), where, however, the antecedent-trigger predicate is not being used predicatively (i.e. as a predicator) in its immediate context; yet *do it* isolates from it, not the defining property, but the *activity* (due to the fact that it is governed by the activity pro-verb *do*). That is, it is the activity predicate 'do farming' rather than the property predicate 'be a farmer' which is constructed here.

In (20b), the process of interpreting *it*, as the direct object of the factive adjective *proud* (*of*), converts the predicate corresponding to the antecedent-trigger predicator *the odd man out in Eastern Europe* into a proposition having the status of a mutually validated fact; that is, its true value is presupposed by the speaker.

4.2 Further distinguishing features of *so* and *it*

So far, we have seen a number of different semantic and pragmatic values associated with *so* and *it* as predicate or proposition anaphors. Below are illustrations of divergences between *so* and *it* along two further dimensions.

4.2.1 Possibility of 'sloppy identity' readings

(21a) John kissed his wife, and then Bill *did so*

(21b) John kissed his wife, and then Bill *did it*

So allows so-called 'sloppy identity' readings (i.e. where a nominal contained within the antecedent trigger is construed as a bound variable rather than as a constant) more readily than *it*: see (21a) in contrast to (21b). The most natural interpretation of *did so* in (21a) is given as (21a'):

(21a') '(Bill,) $\lambda(x)$ (kiss x 's wife, x)'

And the most natural interpretation of *did it* in (21b) is represented as (21b'):

(21b') 'kiss j 's wife' (where ' j ' = John)

This no doubt ties in with the greater ability of *so* and *it* to extract or construct predicates from within expressions not used predicatively (that is, as predicators) in the antecedent trigger. (21a') reads '(Bill) has the property of kissing his own wife' (tense not being represented here). Under this interpretation, what has happened is that in the process of interpreting *do so*, the hearer has constructed a new predicate, 'kissing one's own wife', on the basis of the occurrence in its immediate context of a related one, 'kissing John's wife'.

4.2.2 Possibility of occurrence under pragmatic control

Conversely, *it* is much more readily interpretable under pragmatic, rather than purely linguistic control (cf. Hankamer & Sag's 1976 and Sag & Hankamer's 1984 'deep' vs. 'surface' anaphor dichotomy). Observe (22a) in contrast to (22b):

(22) [11 p.m. A couple is preparing to retire for the night. Before entering the bedroom, the wife gives a 'knowing' look at the front door]

(a) Husband:—# I'll *do so*, don't worry!

(b) — I'll *do it*, don't worry!

4.3 Interim conclusions

At this point, it is necessary to take stock of the situation regarding the differences between *so* and *it*. It is clear from the examples and analyses presented up to this point in both section 3 and the present section that *so* is semantically intensional and indefinite: it is interpreted in terms of a predicate (which may be quite complex). *It*, on the other hand, is semantically extensional and definite: it is normally interpreted in terms of a presupposed or asserted proposition having the status of a fact (or treated as such by the speaker, who assumes the hearer will do likewise).

So seems to mean 'true' or 'the case' (Bolinger 1970: 141 defines its meaning as 'it as represented', and suggests that 'imposing a condition is a proper setting for *do so*'). *It*, on the other hand (in this type of anaphoric usage), seems to be equivalent semantically to 'the fact' (at least, when it occurs as the subject or object of a factive predicate: observe the occurrences of *it* in (14b), (15b), (16b) and (17b)). Otherwise, its semantic value is 'the salient state of affairs established in the current context'.

5 THE SEMANTICS OF THE HOST VERB

Let us examine now the issue of the influence of the semantics of the particular host verb on the selection of *so* or *it* as the predicate or propositional anaphor.

5.1 *Verbs hosting so only*

(23) below provides a (non-exhaustive) list of host verbs restricted to taking *so*:

(23) *appear, be, become, hope, presume, remain, suppose, think . . .*

Of these, *appear, be, become* and *remain* are copulative, or quasi-copulative verbs. And apart from this sub-set (with the single exception of *hope*), these verbs are what Hopper (1975) calls 'weak assertive predicates', and Lysvåg (1975) calls 'verbs of hedging'. Given these properties, it is predictable that they will occur with *so* as the governed predicate anaphor, rather than *it-so* carrying no presupposition as to the truth value of the predication in terms of which it is interpreted (cf. also Lysvåg 1975: 127).

5.2 *Verbs hosting it only*

(24) below contains a list (also non-exhaustive) of host verbs restricted to taking *it* as the governed propositional anaphor.

(24) *acknowledge, be surprised (at), claim, deny, doubt, ignore, know, prove, realize, regret, understand . . .*

Unlike the verbs listed under (23), those appearing under (24) (with the exception of *doubt* and possibly also *claim*) are factive: that is, they carry a presupposition on the part of the speaker that their complement proposition is true (see Kiparsky & Kiparsky 1971).⁴ As such, they require a direct object syntactically and a single internal argument semantically. As to their semantics, they are 'strongly assertive predicates', in Hopper's (1975) terminology. *Doubt* is also, in a sense, a strongly assertive predicate, since it is used to assert that the

speaker *cannot accept* the validity (that is, positive truth value) of the complement proposition. In other words, the speaker does take a definite stance (cf. Cushing 1972) with respect to the truth of the complement proposition, namely that it is false.

Hence, all these verbs assign a particular theta role (that is, a generalized semantic role in the state of affairs described by the predicator)—namely ‘Theme’—to their object argument, as well as a semantic role as a function of their sense (here, that the proposition denoted by the complement has the status of a fact). Because of this, and because of the definiteness of *it* (in contrast with *so*), such verb + pronoun combinations are *telic* (that is, they denote ‘accomplishments’ in Vendler’s (1967) classification of semantic verb types, accomplishments being events that terminate at a definite end point). The verb + *so* combinations, on the other hand, are *atelic*, denoting activities or states.

5.3 Verbs capable of hosting either *so* or *it*

The most interesting cases, however, are the type of verbs listed under (25) below. These are verbs which may take either *so* or *it* as their anaphoric complement, but with a systematic change in sense.

(25) *assume, be afraid (of), believe, do, expect, fear, guess, imagine, say, seem, tell, wish . . .*

The interesting thing is that, when *it* is selected, the host verb has its full, telic, strongly assertive sense, as is the case with the verbs in *Mary assumed it, they are afraid of it, I believed it, Jack did it, we expected it, Joe and Anne feared it, you’ve guessed it, she imagined it, you said it, it seemed it, they told me it, I wished it*.

On the other hand, when constructed with *so*, the sub-set of these verbs which involves the expression of a psychological or propositional attitude (that is, all the verbs in this category apart from *do, say* and *tell*) assume a ‘weakly assertive’ or ‘parenthetical’ sense, something like ‘be of the opinion that . . . but without wishing to be committed to it’. Thus we have *I assume so, I’m afraid so, I believe so, we expect so, I fear so, I guess so, I imagine so, , it seems so, I wish so*.⁵

As far as the exceptions to this generalization are concerned, with *say* and *tell*, the sense in combination with *so* seems to be such that it is the *content*, not the *form*, of what is said or told that is in focus. I will examine *do so*, the remaining exception, below.

The examples of ‘ambi-valent’ verbs, verbs which may govern either *so* or *it*, which I present below, mainly involve *do*, the most frequent of all verbs (apart from *be*). This is simply due to the fact that my corpus of examples has yielded what I consider to be particularly good examples of the phenomenon I am interested in here, involving *do* as the governing verb in the anaphoric clause.

- (26) '... [Michael] Keaton was nervous of playing his first villain. People were telling him he was a big star so he shouldn't *do it*'/# *so* (*Radio Times*, 9-15 February 1991, p. 37)
- (27) 'Shilton has made more saves this season than any other goalkeeper, and he's *doing it*/? *so* again now' (*ITV*, 28 May 1980)
- (28) '... So the care for each patient is very much tailor-made. And the nurse continually evaluates the care given, updating the system as she *does so*'/?# *it* (advertisement for 'Nursing', *Observer Magazine*, 10 March 1991, p. 39)
- (29) '... "He went on and on, absolutely deadpan. Nobody interrupted him because nobody could believe *it*'/# *so*. *It* was so obviously sincere" ...' (*Observer*, 10 March 1991, p. 21)
- (30) '... We tell you about these things not just to outrage you, but because there is something simple and effective you can do to help stop them. Join Amnesty [International]. Please. *Do it*/? *so* now' (*Observer*, 10 March 1991)
- (31) 'The Americans have developed a new method of shooting down inter-continental ballistic missiles in space: they *did it*'/# *so* on Sunday' (*BBC Radio 4*, 12 June 1984)

First, example (26) involves *do it*, and this is clearly motivated by the fact that the predication at issue is a specific, goal-directed action (viz. 'playing his *first* villain'), the accomplishment of which is of considerable importance to the referent of the subject-topic, Michael Keaton. Hence this predication is telic, according to the test for telicity (cf. Comrie 1976: 44-8): viz. 'Michael Keaton was playing his first villain' does not pragmatically entail 'Michael Keaton had played his first villain'; and *it* is therefore highly appropriate. The use of *so* here would, as predicted, have led to relative incoherence.

In (27), 'making a save [of a shot at goal in football]' is again a goal-directed (pun not intended!) action: the test for telicity is again positive (viz. 'Shilton is making a save' does not pragmatically entail 'Shilton has made a save'), and *it*, once again, is the most appropriate choice of anaphor. *So* is, however, marginally acceptable here, since the sense of 'activity in progress' is to some extent salient in this discourse fragment—particularly via the use of the progressive aspect in the anaphoric verb phrase.

By contrast, *do so* is appropriate in (28), since the framing predicational context of the anaphoric clause is that of a description of the usual role of a nurse in this particular institution: the mood is generic, or 'gnomic', the nurse in question being construed generically, not specifically. The test for telicity is in fact *negative* here (that is, 'the nurse is (continually) evaluating the care given' *does* pragmatically entail 'the nurse has evaluated the care given'. *It*, as predicted, would clearly be inappropriate in this context, as it would suggest 'accomplishment' rather than mere 'activity'.

In (29), the contextually determined sense of *believe* has to be the full

'strongly assertive' sense, involving a commitment by the referent of the subject expression to a particular belief that such-and-such is the case. Hence, *so* would be quite unacceptable, as it would force *believe* to be construed 'parenthetically', that is 'non-committedly', as it were.

The urgency conveyed via the predicative context in (30) (where the illocutionary stance adopted by the writer is one of exhortation to the reader to perform some specific action) seem to require *it* rather than *so*, which, if used here, would markedly weaken that sense of urgency.

Finally, in (31), the anaphoric predication introduces a specific event which is situated at a definite time in the then recent past (viz. 'on Sunday'). If *so* had been used in place of *it*, the 'accomplishment' sense, with its concomitant assumption of agency on the part of the referent of the subject of *do it* (the Americans) would be lost, and the discourse fragment as a whole would become relatively incoherent. Note that the full interpretation of *do it* in this context does *not* require a plurality of intercontinental ballistic missiles, but only one, unlike the antecedent-trigger predication. 'Shooting down intercontinental ballistic missiles in space' is in fact *atelic* (viz. 'X is shooting down intercontinental ballistic missiles in space' pragmatically entails 'X has shot down intercontinental ballistic missiles in space'). Yet the 'accomplishment' sense conveyed by the choice of *do it* as anaphor is coherent here, since it co-occurs with the definite past tense and the deictic time adverbial *on Sunday*, creating a new (though related) sub-topic from the theme introduced in the initial statement. This is yet another piece of evidence for the relative semantic independence of overt (as opposed to elliptical) anaphors in relation to their antecedent-triggers (cf. also Garcia 1990: n. 4, p. 317).

6 CONCLUSION

The conclusion to be drawn from this discussion is that *so* and *it* are not, after all, in a relation of straightforward complementary distribution with one another. If this were the case, it would suggest that their occurrence is linguistically determined in terms of formal environments. Yet the thrust of the evidence and analyses presented so far has led to the conclusion that the choice between them is subject to the speaker's control in terms of his or her intentions. Table 1 below summarizes the respective properties of *so* and *it* as established in the above discussion. The choice of *it* or of *so* in particular positions is the outcome of an interaction between purely linguistic constraints (both syntactic and semantic) and the pragmatic value of the anaphor-containing utterance as determined by the speaker. As we have seen, that choice may affect *both* the sense of the governing or host predicate *and* the discourse status of the situations, properties, actions, processes, events or propositions

Table 1 Summary of the properties of anaphoric *so* and *it*

Parameter	<i>so</i>	<i>it</i>
Syntactic category:	Adverbial	Nominal
Type of reference:	Intensional	Extensional
Semantic status:	Indefinite	Definite
Nature of antecedent (≠ 'antecedent-trigger'):	(Complex) Predicate	Mutually validated Proposition
Aspectual status of host verb + anaphor combinations:	Atelic	Telic

which are already salient in the mental discourse model at the point where the pronouns are used; and it may even actually serve to create new such referents on the basis of already existing ones. At all events, I think it is clear that the situation regarding anaphoric *it* and *so* is quite a bit more complex than it might at first sight appear, on the basis of the distributional data given in section 2.2.2.

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NOTES

- 1 I am indebted to one of the anonymous *Journal of Semantics* referees for this latter point.
- 2 There is indeed a diffuse anaphoric property encoded in the conjunction *so*, as one of the anonymous *JS* referees pointed out: its pragmatic value is something like 'To return to the topic we were dealing with earlier . . .' However, it is equally clear that it *cannot* have the anaphoric values or roles assumed by the predicate anaphor *so*.
- 3 Napoli (1989: 19–21) distinguishes modification from predication, by saying that a modifier serves to construct the reference

of the NP whose head noun it modifies, and is therefore not independent of that reference; predication, however, involves the application of a predicate (in the shape of a predicator) to an argument (an NP, syntactically) whose reference is independently determined.

- 4 In the case of *claim*, there is a strong assumption attached to the use of this verb that the complement proposition is true; and in that of *deny*, there is an *assertion* by the speaker that it is false (i.e. *not* true). Thus *deny* certainly is a 'strongly assertive' predicate.
- 5 Note that all of these examples involve first-person subjects, with the governing verb in the present tense. These properties underscore the 'subjectivity' of the sense of *so* which I am trying to explicate. It is in fact very difficult to construct an example

involving anaphoric *so* where the subject of its governing verb is third person, and where the verb is in the definite past tense (both of these features suggesting reference to some 'objective' reality, rather than to a subjectively undergone experience):

- (i) ?Jane believed/was afraid *so*.

This restriction does not apply to *it*, however, as the examples illustrating it immediately below example (25) demonstrate. In fact, as the reader will already have noted, with two exceptions, all these examples of propositional *it* are in the definite past tense. Changing this to the present would in certain cases result in unacceptability or extreme oddity (c.f., e.g., ?# *you guess it*). I am indebted to Alan Garnham (p.c.) for pointing this out.

REFERENCES

- Ariel, M. (1990), *Accessing Noun Phrase Antecedents*, Routledge, London and New York.
- Bolinger, D. (1970), 'The meaning of *do so*', *Linguistic Inquiry*, 1:1, 140-4.
- Bosch, P. (1983), *Agreement and Anaphora*, Academic Press, London.
- Bouton, L. F. (1970), 'Do so: do + adverb', in J. M. Sadock (ed.), *Studies Presented to R. B. Lees by his Students*. Linguistic Research, Edmonton, 17-38.
- Comrie, B. (1976), *Aspect*, Cambridge University Press, Cambridge.
- Cornish, F. (1986), *Anaphoric Relations in English and French: A Discourse Perspective*, Croom Helm, London & Canberra.
- Cornish, F. (1991), 'Non-discrete reference, discourse construction, and the French neuter clitic pronouns', *Journal of French Language Studies*, 1:2, 123-38.
- Cushing, S. (1972), 'The semantics of sentence pronominalization', *Foundations of Language*, 9:2, 186-208.
- Dik, S. C. (1989), *The Theory of Functional Grammar, Part I: The Structure of the Clause*, Foris, Dordrecht.
- Ehlich, K. (1982), 'Anaphora and deixis: same, similar or different?', in R. J. Jarvella and W. Klein (eds), *Speech, Place and Action*, Wiley, Chichester & New York, 315-38.
- Fraurud, K. (1990), 'Definiteness and the processing of NPs in natural discourse', *Journal of Semantics*, 7:4, 395-434.
- García, E. C. (1990), 'A psycho-linguistic crossroads: frequency of use', *Journal of Semantics*, 7:3, 301-19.
- Hankamer, J. & Sag, I. A. (1976), 'Deep and surface anaphora', *Linguistic Inquiry*, 7:3, 391-428.
- Hopper, J. B. (1975), 'On assertive predicates', in J. P. Kimball (ed.), *Syntax and Semantics*, Vol. 4, Academic Press, New York, 91-124.
- Johnson-Laird, P. N. (1983), *Mental Models*, Cambridge University Press, Cambridge.
- Kiparsky, P. & Kiparsky, C. (1971), 'Fact', in D. D. Steinberg & L. A. Jakobovits (eds), *Semantics: An Interdisciplinary Reader in Philosophy, Linguistics and Psychology*,

- Cambridge University Press, Cambridge, 345-69.
- Lysvåg, P. (1975), 'Verbs of hedging', in J. P. Kimball (ed.), *Syntax and Semantics*, Vol. 4, Academic Press, New York, 125-54.
- Napoli, D.-J. (1989), *Predication Theory*, Cambridge University Press, Cambridge.
- Öim, H. (1973), 'On the semantic treatment of predicative expressions', in F. Kiefer & N. Ruwet (eds), *Generative Grammar in Europe*, Reidel, Dordrecht, 360-86.
- Peterson, P. L. (1982), 'Anaphoric reference to facts, propositions, and events', *Linguistics and Philosophy*, 5, 235-76.
- Sag, I. A. & Hankamer, J. (1984), 'Toward a theory of anaphoric processing', *Linguistics & Philosophy*, 7, 325-45.
- Vendler, Z. (1967), *Linguistics in Philosophy*, Cornell University Press, Ithaca, NY.