Against the Identification of Anaphora and Presupposition

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Abstract

Since van der Sandt and Geurts have put forward and extensively applied the notion of a fundamental identity of presupposition and anaphora, something like a universal consensus seems to have developed that this view is basically correct. Supposing that it is, and further supposing that it entails an empirical hypothesis, there are a number of facts that have so far remained unaccounted for. This paper presents some of these facts and argues that more differentiated notions of anaphora and presupposition may well be more fruitful for further research in the semantics-pragmatics interface.

Introduction

Since van der Sandt & Geurts (1991), van der Sandt (1992) and Geurts (1995, 1999) have put forward the notion of a fundamental identity of presupposition and anaphora, a fairly universal consensus seems to have developed that this view is basically correct. Assuming that this notion is intended to have empirical consequences I shall refer to this view in the following as the 'Presupposition is Anaphora Hypothesis', for short: the PIA hypothesis.

There is surely no doubt that phenomena of presupposition and anaphora are not unrelated. Understanding anaphora quite conventionally as a way of resuming a previously established reference more or less involves the assumption that this reference has actually been established beforehand and in this sense is presupposed. In this rough and general sense anaphora is presuppositional.

Conversely, in presupposing that one or the other proposition is true, a relation is established to something that either was said before, follows from something that was said before, or at least could reasonably have been said before; and this relation may in some rough and general sense be called anaphorical.

Now Geurts and van der Sandt do not stay at a rough and general level, but turn these relations between anaphora and presupposition into a venerable theory of presupposition that yields certain technical advantages for the treatment of presupposition when it is implemented in (a variety of) Discourse Representation Theory (van der Sandt (1992) and Geurts (1995, 1999)).

I shall argue below that despite this technical progress the PIA hypothesis obscures both the notion of presupposition and the notion of anaphora. The Procrustean relationship actually harms our understanding of both phenomena. At the same time, I shall argue, the Hypothesis is empirically wrong with respect to linguistic data. I shall start with the latter.

1   Empirical Problems

There are at least the following sets of data that would seem to cause difficulties for the PIA hypothesis:

(a) some definite full NPs that carry the usual presuppositions are not adequately handled as anaphorical;

(b) presuppositions that are part of the lexical semantics of various predicate expressions bear at least no obvious relation to anaphora;

(c) some definite full NPs that are used in a clear sense anaphorically don't seem to carry the expected presuppositions;

(d) a number of anomalies can be observed with anaphorically used personal pronouns with regard to their presuppositional contents.

I shall attend to each set of data in turn in the following subsections.

1.1 Non-anaphoric definite NPs

I assume a semantics for definite NPs that follows Löbner (1985); for short: a definite NP is analysed as expressing (or, if you prefer, denoting or even referring to) a function, in the sense that it yields a unique value for (whatever may be) its arguments.

Some definite NPs achieve their functional characteristic by virtue of properties of their context of occurrence: e.g.,

(i) by plain resumption of a previously established discourse referent: *A woman entered the room. The woman was wearing black*. Or,

(ii) by a more indirect, but still recoverable, relation to an established discourse referent (so-called bridging reference): *A bicycle stood by the entrance. The handle bar was missing*. Or,

(iii) by reference to the utterance situation: *This month shows a new decrease in unemployment*.

Other definite NPs, however, would appear to be definite merely by virtue of their lexical and (internal) compositional semantics. Examples are the following:

(1)   *the sum of 3 and 4*
(2)   *the first thing that comes to mind when one thinks of Aalborg*
(3)   *the April 2001 unemployment figures for Germany*
(4)   *the beauty of a sunset*
(5)   *the H_2O molecule*

The presuppositions that are triggered by the use of such expressions are reasonably clear:

(1')   There is a unique thing that is the sum of 3 and 4.
(2')   There is a unique thing that first comes to mind first when one thinks of Aalborg.
(3')   There is a unique set of figures that is the April 2001 employment figures for Germany.
(4')   There is a unique thing that is the beauty of a sunset.
(5')   There is a unique thing that is the H_2O molecule.

But the notion that there should be an anaphorical relation between the presupposing expressions in (1)-(5) and their preceding, or embedding, context that would be related in any relevant way to the interpretation of (1)-(5) is hard to grasp. I take it rather that these NPs would rather demonstrate that presupposition may occur without anaphora. If one implements an algorithm for the processing for definite NPs that handles (1)-(5) by first accommodating the relevant entities as discourse referents ("global accommodation") and then lets the newly accommodated objects be bound by them, this would just obliterate the difference between the contributions of lexical and compositional semantics on the one hand and of discourse semantics on the other. If one appreciates this difference, one should be rather reluctant to make it technically disappear in the processing mechanism. The more so, because it adds nothing to the understanding of definiteness and if the expressions in (1)-(5), used out of the blue or in any case without actual discourse antecedents, are declared anaphors, it would be hard to see what is left of the notion of anaphora. "Anaphoric" would come to mean roughly the same as "related to any not explicitly stated background knowledge" and would lose any specific connection the current discourse.

1.2 Lexical presupposition of predicates

In 1.1 we have just been looking at definite referential expressions that seem to lack an anaphorical character. There are also predicate expressions that clearly carry presuppositions, but have very little, if anything, to do with anaphora.

In (6) to (8) - and obviously many analogous cases - the (a)-sentences carry presuppositions as expressed by the corresponding (b)-sentences:

(6) a.   Fred's a bachelor.
    b.   Fred's an adult.
(7) a.   Fred ignored me.
    b.   Fred noticed me.
(8) a.   Fred closed the door at 5.
    b.   The door was open at 5.

The idea in cases of this kind is that the structure of a lexical item assumes a distinction between what is asserted and what is presupposed whenever the lexical item is predicated of an object. - But where is the anaphora? And

supposing you find one (there is no natural limit to ingenuity): What would be the explanatory value of anaphora in cases of this kind?

Similarly related to lexical semantics would be presuppositions that are attached to such diverse discourse markers as *but, although, even, anyway* - and also for those cases I just fail to understand where there would be an interesting connection to anaphora.

1.3 Epithet NPs

A class of definite NPs often used for anaphoric resumption of currently prominent discourse referents are so-called epithets like *the old grocer* or, even less complimentary, *the dirty swine, the old goat,* etc. The literal lexical content of these NPs however, does not enter the truth conditions of the corresponding sentences. The referents need not be shopkeepers of more than the expected age, or dirty or old specimen of family Suidae or genus Capra. Surprisingly, though, when the same expressions are used non-anaphorically and in a focus position (and perhaps prosodically marked) they have exactly this literal meaning and trigger the corresponding presuppositions.

(9)   *When I arrived at Jones's office, the old grocer greeted me with the bill.*
(10)   *When I arrived at Jones's office, the old GROcer greeted me with the bill.*
(10')   *When I arrived at Jones's office, it was the old GROcer who greeted me with the bill.*

In (9), where the expression *the old grocer* is prosodically unmarked, it is naturally interpreted with anaphoric reference to Jones and no old shopkeeper plays any role. In (10) and (10'), with the intonationally marked *grocer,* no anaphoric reference to Jones comes about, but instead a presupposition is triggered that leads to the accommodation of a new discourse referent as the reference for *the old grocer* - with the properties of being old and a shopkeeper.

In occurrences of this kind there is actually a choice between either anaphora or presupposition in the interpretation of the definite NP; but each clearly excludes the other. The

anaphoric interpretation of (9) is truth-conditionally equivalent to

(9')   *When I arrived at Jones's office, he greeted me with the bill.*

and *the old grocer* in (9) - without affecting truth conditions - merely expresses an attitude of the speaker towards Jones. This option is available only in contexts where the intended referent is unambiguously established and any lexical material in the definite anaphor is irrelevant for the purposes of referent selection. In such contexts we also find semantically vacuous anaphors like *that son of a gun, the guy, the chap, the fellow,* etc.

1.4 Emphatic pronouns

If the PIA hypothesis is to hold generally, it must hold also for anaphoric definite personal pronouns. Interestingly, however, we find the same discrepancy here as under 1.3. For clear evidence we must look at gender languages. In German anaphoric personal pronouns we typically find mere formal gender congruence with the antecedent NP - with no semantic content. If, however, a contrast accent is placed on the pronoun, the pronoun's gender is interpreted semantically as sex (cf. Bosch 1988). Hence the unacceptability of (12) despite the acceptable (11) and (13), where either the intonation marking is missing or the interpretation of gender as sex is admissible:

(11)   *Wenn du die MUTter$_1$ (f) von dem BOLzen$_2$ (m) lösen willst, mußt du ihn$_2$ (m) FESThalten und sie$_1$ (f) nach RECHTS drehen.*
        [If you want to loosen the NUT$_1$ from the BOLT$_2$ you must HOLD it$_2$ and turn it$_1$ to the RIGHT.]
(12)   **Wenn du die Mutter$_1$ (f) von dem Bolzen$_2$ (m) LÖsen willst, mußt du IHN$_2$ (m) festhalten und SIE$_1$ (f) nach rechts drehen.*
        [If you want to loosen the nut$_1$ from the bolt$_2$ you must hold IT$_2$ and turn IT$_1$ to the right.]
(13)   *Wenn du deinen Nachbarn$_1$ (m) von seiner Freundin$_2$ (f) abbringen willst,*

mußt IHM$_1$(m) erzählen, daß du SIE$_2$(f) gestern im Chez Nous gesehen hast.
[If you want to turn your neighbour$_1$ off his girl friend$_2$, you must tell HIM$_1$ that you saw HER$_2$ in the Chez Nous yesterday.]

On the PIA hypothesis, there is no obvious way of distinguishing between the condition in which the coreference relations are supported by the semantic content of the pronouns (13) and the condition where the pronouns' semantic content is plainly irrelevant or even excluded ((11) and (12)). - In order to describe the difference we need a distinction between anaphoric processes and processes that use presupposition based on lexical semantic content.

2   Conclusion

Theories that are empirically incorrect - or incorrect with respect to one or the other detail - may still be conceptually enlightening and give us a fundamentally correct model of the phenomena in question. I doubt that this is the case for the PIA hypothesis. It obliterates a distinction between two phenomena that are different in an interesting way: The business of anaphora proper is the maintenance of reference in discourse (I am not talking here of the entirely different phenomenon of bound or "syntactic" anaphora (cf. Bosch 1983), which is rather a morphosyntactic matter and has nothing to do with either reference or presupposition). Presupposition on the other hand - and here I agree with van der Sandt (1992) - is not essentially bound up with reference, but is an inferential mechanism that contributes to discourse coherence in its own way by constraining the notion of contextual acceptability - pretty much the way proposed in van der Sandt (1988). The attempt to iron out some of the remaining difficulties in the latter approach by reducing presupposition to anaphora may be technically viable (but since this is not my issue here, I choose to remain agnostic with respect to this question), but it assumes a notion of anaphora that is, I believe, eventually not very helpful.

My unsolicited advice, then, is this: Let us grant that van der Sandt and Geurts have demonstrated a very close connection, that was previously never properly detailed, between anaphora and presupposition. This much understood, we had better turn to some of the questions where current insight about anaphora and presupposition is pretty poor and where we may still learn a lot more about both phenomena and their relation. I am thinking, in particular, of the possibly very different relation of anaphora and presupposition to compositionality: One may reasonably hold that presupposition relations can be modelled compositionally. There is no way, however, as far as I can see for a realistic compositional model of anaphoric relations. - But this is clearly a topic for another paper.

References

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