



**“ANAPHORA”, “ANAPHOR” AND “ANTECEDENT” IN
NOMINAL ANAPHORA:
DEFINITIONS AND THEORETICAL IMPLICATIONS**

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Whether in grammars, dictionaries or encyclopaedias of linguistics, anaphora, which etymologically means back reference (*ana-* = backwards, *-phorein* = carry), is unanimously defined as an interpretive relation between at least two elements, in which one element guides the interpretation of the other(s). For Asher & Simpson [1994 : 116], for instance, “an element or construction is dependent for its interpretation on being associated with something else in the context”, while to Huddleston & Pullum [2002 : 1453], “anaphora is the relation between an anaphor and an antecedent, where the interpretation of the anaphor is determined via that of the antecedent” [see also, for instance, DUCROT & SCHAEFFER 1995 : 458 or CHARAUDEAU & MAINGUENEAU 2002 : 45]. But although all linguistic frameworks share this definition, there is wide variety as to what the notion of anaphora is taken to cover, which in turn has consequences on the senses given to the words ‘anaphor’ and ‘antecedent’, and on the boundary between anaphora and deixis.

Anaphora is typically said to be endophoric—that is, to have an antecedent which is a segment of text. It is then opposed to deixis, in which an expression also gets its interpretation indirectly, but prototypically via a situational element, indicated for instance by a gesture. Anaphoric relations might be of various types—coreferentiality, association, resumption, ... — and involve nominal, verbal or adverbial elements, as illustrated by the following utterances:

(1) Bruce smiled to himself as he walked along Forth Street. (nominal anaphora)

(2) Please complete this form in full. Failure to do so will result in your application to join the scheme being rejected. (verbal anaphora)

(3) I put the keys in the top drawer; they should still be there.
(adverbial anaphora)

But this is only one possible approach to anaphora, anaphors and antecedents. The present paper proposes to give an overview of the meanings that these words acquire in various theoretical frameworks, more specifically in one domain: the noun phrase. The aim is to make out the theoretical implications of such choices, for a better grasp, ultimately, of the mechanisms at work in anaphora processing. Three theoretical approaches are examined in turn: Binding Theory, textual anaphora, and the cognitive-pragmatic definition.

I. Anaphora, anaphor and antecedent in Binding Theory

In Binding Theory, the study of anaphora is restricted to nominal expressions in same-sentence uses [HARBERT 1995 : 179]; the term “anaphor” only applies to some reflexives and to reciprocals; and an antecedent is a segment of text.

These senses are directly related to the theoretical tenets of that framework. Binding Theory is the module of Government and Binding Theory that deals with NP interpretation, more specifically with the indexing of relationships between nominal expressions [HAEGEMAN 1991 : 189; HARBERT 1995 : 179]. In the wake of other generative frameworks, it seeks to establish the grammatical rules and constraints on language, which leads it to distinguish between syntactic anaphora (that is, anaphora that is governed by strictly grammatical rules) and discourse anaphora (which is not governed by grammatical relations). Only syntactic anaphora lies within the scope of grammar, and is therefore studied in Binding Theory [REINHART 1983; ZRIBI-HERTZ 1996 : 92]. For instance in (1), reproduced here as (4):

(4) Bruce smiled to himself as he walked along Forth Street.

Himself is a case of syntactic anaphora because the form of the anaphor is determined by its grammatical relation to the antecedent *Bruce*: only a reflexive can indicate coreference with *Bruce*. On the contrary, *him* or *Bruce* or *the man*, for instance, would impose disjoint reference (*Bruce smiled to him / smiled to Bruce / smiled to the man*). An additional grammatical constraint on *himself* concerns the order in which the anaphor and its antecedent appear: *Bruce* must precede *himself*, so that **Himself smiled to Bruce* is unacceptable. Conversely, the fact that further on in the sentence, *he* refers to *Bruce*, is not imposed by grammar, but by discourse-related factors: depending on the context, it could refer to someone else, for instance to someone that *Bruce* is

watching. Although this is regarded as anaphora, for linguists working within a generative framework it lies outside the scope of grammar and should not be taken into account in the study of anaphora.

Seeking to establish the grammatical constraints on the form of anaphoric expressions in syntactic anaphora, Binding Theory shows that those constraints depend on the behaviour of anaphoric expressions relative to binding. On that basis, three kinds of nominals are distinguished:

- anaphors (which can only be reflexives or reciprocals): they must be bound by their antecedent in their local domain.¹

- pronominals (which correspond more or less to the traditional class of personal pronouns, including what is traditionally called possessive determiners): they must be free in their local domain, although they might be bound outside the local domain, like *he* in example (1).

- r-expressions (for “referring expressions”): they must be free in all domains. This class is made up of other nominals, for instance full NPs, demonstrative pronouns and proper names.

Binding is defined as follows [see for instance HAEGEMAN 1991 : 198]:

(5) Binding: A binds B iff

(i) A c-commands B

(ii) A and B are co-indexed

For A and B to be co-indexed means that they refer to or denote² the same element; for instance, in (4), *Bruce* and *himself* are co-indexed. Co-indexing is conventionally signalled by indexed letters, such as *Bruce_i smiled to himself_i*. As for c-command, or constituent-command, a constraint established by Reinhart [1983], it is defined as follows:

(5) C-command:

Node A c-commands node B iff

(i) A does not dominate B and B does not dominate A

¹ The local domain of an NP is the smallest predication that contains it [ZRIBI-HERTZ 1996 : 45], whether a clause or, for instance, “their scorn of money”, where *they* (*their*) can be regarded as a subject NP and *scorn of money* as a predicate [*Ibid.*]

² For instance, in sentences such as *Every woman brought her dog to the party but left it outside*, *it* is not referential, as no particular dog can serve as the referent of that pronoun [BÜRIG 2005: 145].

(ii) the first branching node dominating A also dominates B³

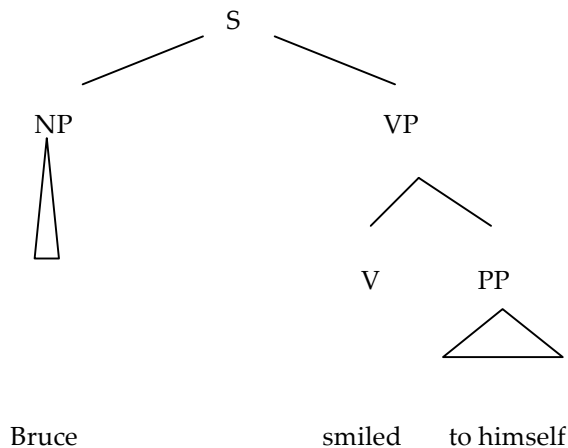
A node A is said to dominate a node B “iff A is higher up in the tree than B and if you can trace a line from A to B going only downwards” [HAEGEMAN 1991 : 75].

In addition to binding, Reinhart [1983] shows a c-command constraint on anaphora [ZRIBI-HERTZ 1996 : 57]:

(6) C-command constraint:

- (i) a pronoun (whether a pronominal or an anaphor) cannot c-command its antecedent (whereas an antecedent might c-command a pronoun)
- (ii) two lexical NPs cannot corefer if one c-commands the other

From these definitions of binding and of the c-command constraint, the sentence *Bruce_i smiled to himself_i* is predicted to be grammatically correct:



Bruce and *himself* are co-indexed, and the antecedent c-commands the anaphor while the anaphor does not c-command *Bruce*. Conversely, **Himself smiled to Bruce* is predicted to be ungrammatical, as the anaphor would then bind its antecedent; as for **Bruce_i smiled to him_i*, it is ungrammatical because a pronominal cannot be bound in its local domain.

³ Subsequent studies have shown that extended interpretations, such as m-command, might allow for more accurate descriptions [HAEGEMAN 1991]. But this goes beyond the scope of the present study.

Similarly, Binding Theory predicts that (7) is not grammatically correct:

(7) Susan_i thought her dog was looking at *herself_i in the mirror.

Here, *Susan* is not in the local domain of the reflexive, so that *herself* is not bound by *Susan*, whereas a complement reflexive (except for override reflexives) must be bound by its antecedent. The only possible antecedent for *herself* would be *her dog*, which is in the local domain of the anaphor.

From these various binding constraints on NPs, it follows that only bound reflexives⁴ and reciprocals are termed “anaphors”. An anaphor is defined by Carnie [2002] as “an NP that obligatorily gets its meaning from another NP in the sentence”; bound reflexives and reciprocals are the only elements that require binding, and so which obligatorily get their meaning from another NP in the sentence. Conversely, “pronominals” may (but need not) get their meaning from another word in the sentence,⁵ while r-expressions get their meaning by referring to an entity in the world. Reinhart [1983] therefore distinguishes between bound anaphora (for reflexives and reciprocals) and free anaphora (for pronominals and r-expressions), defined as cases in which the antecedent is not required to c-command the anaphoric expression [ZRIBI-HERTZ 1996 : 91]. Only bound anaphora lies within the scope of grammar.

As a consequence, in this approach, an antecedent is considered to be a segment of text. More precisely, Carnie [2002] defines an antecedent as “an NP that gives its meaning to a pronoun or an anaphor”. The constraints on antecedents are as follows [BÜRING 2005 : 2]:

(8) Definition: Antecedent

A is the *antecedent* of B iff (i) A precedes B,⁶ and (ii) A and B corefer.

To conclude on this first approach, Binding Theory isolates a number of contexts in which pragmatic or discursive factors are not at play in anaphora

⁴ Not all reflexives are bound. Only complement reflexives, as opposed to emphatic ones (as in *I do not regard it as important myself*) might have to be bound. Besides, among complement reflexives, some do not require binding – for instance, *both the local authority and myself (/ me)*. These are called “override reflexives”, in that the default form of the pronoun, *me* in the example, is overridden by the reflexive. [HUDDLESTON & PULLUM 2002 : 1485].

⁵ If the pronominal is bound (outside its local domain), as in (1), it will be called a “bound pronominal”, but will not be assigned the label “anaphor” [CULICOVER 2009 : 407].

⁶ Precedence applies in Logical Form, not necessarily in the final linear order. For instance, one finds: *When he_i arrived home, John_i went to sleep.*

encoding and processing: purely grammatical constraints impose the use of a given form. The restrictive sense given to “anaphor” emphasises that fact. Outside the generative framework, however, ‘anaphora’ and ‘anaphor’ are given wider extensions.

II. Textual approaches to discourse anaphora

In non-generative studies, the main focus of interest is on discourse anaphora, both within sentences and across sentence boundaries, although bound reflexives and reciprocals are regarded as being anaphoric as well. Discourse anaphora is considered to lie within the scope of linguistics because of the relation between the anaphoric expression and its antecedent, through which it derives its interpretation. In the textual approach, the element generally called the “antecedent” must be textual in nature. For instance, anaphora is defined as follows by Kleiber [1993], who works in that framework:

(9) [Une expression anaphorique est une] expression dont l’interprétation référentielle dépend d’une autre expression (ou d’autres expressions) mentionnée dans le texte et généralement appelée son antécédent.⁷

This definition echoes that of Huddleston & Pullum [2002 : 1453] given in the introduction in that a relation between an anaphor and an antecedent is posited, but it is slightly more restrictive because it specifies that the antecedent must be a segment of text.

All works on textual anaphora agree as to the definition of “anaphor”: the word is synonymous with “anaphoric expression”, and involves any segment of text that has another segment of text as its antecedent.⁸ There are divergences, however, as to the scope of the word “anaphora” and the definition of “antecedent”. Let us consider first the concept of “anaphora”. In traditional analyses [see for instance CHARAUDEAU & MAINGUENEAU 2002 : 46], anaphora is contrasted with cataphora. The former requires that

⁷ [An anaphoric expression is an] expression whose referential interpretation depends on another expression (or other expressions) mentioned in the text and usually called its antecedent.

⁸ Note that a specific case of deixis is *textual deixis*, in which the deictic expression refers to a segment of text, but only to the words used, not to an extralinguistic referent. Cornish [2011] gives the following example: *Our rhododendrons are in blossom right now. —Oh really? How do you spell that?*

the antecedent occur before the anaphor, whereas cataphora shows the reverse order, as in (10):

(10) When he arrived home, John went to sleep.

As anaphora and cataphora differ only as to the position of the antecedent, both phenomena have been grouped together by Halliday & Hasan [1976 : 33] under the umbrella term “endophora”, characterised as having an antecedent “within the text”. But the term is not widely used, and it is more common to take “anaphora” to include both anaphora (in the narrow sense of the word) and cataphora – just as the word ‘antecedent’, which literally means ‘placed before’, also applies when the antecedent is located after the anaphor, as in (10). This is the position taken for instance by Charaudeau & Maingueneau [2002 : 221] or by Huddleston & Pullum [2002: 1453], who use the words “retrospective anaphora” and “anticipatory anaphora” respectively for anaphora and cataphora.⁹

As for the concept of “antecedent”, it is usually understood as the segment of text from which the anaphor derives its interpretation; but Cornish [1999], following work by other linguists, among whom Reichler-Béguelin [1993], advocates giving the word a different sense which would reflect the exact relation between an anaphor and its antecedent. To him, it is wrong to see that relation on a one-to-one basis, i.e. as one that involves only the antecedent segment and the anaphor. This is the traditional approach, in which an anaphor is described as incomplete [MOESCHLER & REBOUL 1994 : 367], as an “unsaturated expression” [MILNER 1982, MOESCHLER & REBOUL 1994 : 363] which must be completed thanks to the antecedent in order to be able to access a referent. For instance, in (10), *John* is said to be saturated, referentially autonomous, in the sense that it can select a referent by itself [MILNER 1982 : 19]; conversely, *he* only denotes /+male/ and /+human (or close to humans)/, which must be completed thanks to the lexical properties of *John* in order to access the proper referent. Similarly in (11):

(11) The cat jumped out of the armchair onto the table.

The cat denotes that the referent is a cat, but only the previous mention of the animal can saturate the phrase and determine that the referent is the specific cat mentioned ahead in the depiction of the scene.

⁹ Huddleston & Pullum [2002 : 1455n] note that anticipatory anaphora has also been known in the linguistic tradition as “backwards anaphora”. This is related to early transformational views on anaphoric personal pronouns, which were considered to be the result of pronominalisation of an NP in the deep structure. The anaphor being to the left of the full NP, the latter looks backwards towards the pronominalised NP.

This view has a long tradition, and was already implied in the earliest generative theory on anaphor, “precede and command” [LANGACKER 1969], which analysed pronouns as the result of a transformation from a full NP, called pronominalisation [BOSCH 1983 : 24]. In the deep structure, two identical co-referring segments were posited; for instance, the underlying structure for (10) was said to be the same as for “When John arrived home, John went to sleep”, and then one of the two identical segments was thought to be replaced by a pronoun under the influence of the other one [ZRIBI-HERTZ 1996 : 37]. Outside the generative framework, Benveniste [1966 : 256], too, defines pronouns as abbreviative substitutes (“substituts abrégatifs”), whose function is one of syntactic representation, i.e. to replace or relay a material element in an utterance.¹⁰ Use of a pronoun is a consequence of the economy principle: a segment is replaced (...) by a more wieldy one.¹¹ Hence the idea, for Charreyre [2004 : 5], that a pronoun is ‘emptier’ than the lexical content of the full NP, retaining only minimal features that were already present in the full NP: “Le pronom personnel, on le sait, ne garde du signifié que les catégories grammaticales dont le nom qui le représentait était porteur (nombre et genre).”¹²

But a number of studies suggest that anaphora, including where the anaphor is a personal pronoun, is a more complex mechanism. This is evidenced in particular by a closer look at English pronominal gender. First, the pronoun might add features compared to the full antecedent NP. As noted by Huddleston & Pullum [2002 : 487], in “my tutor wants me to go and see her”, for instance, the noun ‘tutor’ does not specify sex, whereas the pronoun does. Charreyre’s statement is therefore an oversimplification; what matters in gender and number agreement between the anaphoric pronoun and the antecedent noun is consistency rather than complete identity. This capacity of anaphors to add information not contained in the antecedent holds not only for personal pronouns, but also for full anaphoric NPs [GARDELLE 2009], as in (12):

(12) The experimenter placed a strange, handsome male in a nest of one cock’s lady friend before the cock’s very eyes, then took the frantically

¹⁰ “remplacent ou relaient un élément matériel de l’énoncé”.

¹¹ “C’est une fonction de ‘représentation’ syntaxique, qui répond à un besoin d’économie, en remplaçant un segment de l’énoncé par un substitut plus maniable”.

¹² The personal pronoun, as is well known, only retains from the signified the grammatical categories marked in the noun that represented it (number and gender).

jealous husband cock to a point many miles away and let him loose. He beelined home in a record-shattering time!¹³

Secondly, there might be gender variation in successive co-referential pronouns, as illustrated by (13):

(13) The walk of the gorilla is not on his hind legs, but on all-fours. In this posture, the arms are so long that the head and breasts are raised considerably, and as it runs the hind legs are brought far beneath the body.¹⁴

Such variations, which are by no means uncommon for animals [GARDELLE 2006], show that the perception of the referent evolves as the discourse progresses, and that gender is selected in the immediate context in which the pronoun is used, rather than transferred from the antecedent. Occasionally the choice of gender might even make substitution of the antecedent NP impossible, as in (14):

(14) They promised, almost with tears in their eyes, to be kind to this little chap, to fire him and glaze him and then pack him carefully in straw and wood and send him to me. He has not turned up here yet; though that black basalt fellow I decorated (in my opinion, an inferior production) has been here some time. If Wedgewoods have lost or destroyed it or, in their jealous rage, have locked it away in the safe, I warn them [...]¹⁵

While *he* could be replaced by *the little chap*, the neuter pronoun cannot. Again, this constraint shows that a pronoun is chosen and consequently interpreted in the context of the immediate mental representation.

Beyond the issue of gender, a final objection to the one-to-one relation analysis is that when the antecedent is not an NP, it is often impossible to identify a segment of text that can be said to express precisely the content of the anaphor. For instance in (15):

(15) The first thing that happens is your respiratory rate and heart rates speed up. This occurs both at rest and during sub-max. exercise. This helps offset the lower partial pressure of oxygen. You will not be able to reach

¹³ Packard, Vance. *The Human Side of Animals: Animal IQ*. New York: Pocket, 1950.

¹⁴ Du Chaillu, Paul. *Explorations and Adventures in Equatorial Africa ; With Accounts of the Manners and Customs of the People, and of the Chase of the Gorilla, the Crocodile, Leopard, Elephant, Hippopotamus, and Other Animals*. New York: Negro UP, 1969 [1861] : 398.

¹⁵ Priestley, J.B. *English Journey, being a rambling but truthful account of what one man saw and heard and felt and thought during a journey through England during the autumn of the year 1933*. Leipzig: Tauchnitz, 1935 : 239.

your max VO₂ so don't get frustrated. The faster breathing rate changes your acid-base balance and this takes a little longer to correct.¹⁶

This does not just refer to the fact that the faster breathing rate changes the acid-base balance; the relation is more complex. Huddleston & Pullum [2002 : 1458] conclude that “the task of interpreting such anaphors cannot be reduced to that of identifying an antecedent”.

Cornish [1999 : 44] shows that the relation between anaphor and antecedent is indeed a more complex one, involving more than just these two elements; this is evidenced by an analysis of anaphora processing mechanisms. He takes the example of pronominal anaphora, with the example reproduced here as (16):

(16) Joe ate an apple last night, but it was much too acid for his liking.

In the traditional analysis mentioned so far, (16) would be rephrased as *Joe ate an apple last night, but the apple was much too acid (...)*. This is misleading because *it* does not merely denote the apple, but “the apple that Joe ate last night”. In other words, initially, the antecedent NP *an apple* introduces a referent, but it does so in the context of the rest of the clause to which it belongs (within the proposition *Joe ate an apple last night*), which conveys a mental image of the apple as eaten, or being eaten, by Joe. Then only, *it* accesses the referent in the mental representation at a later stage in discourse; this representation includes the information given before, but also that given in the clause that contains the anaphor. Here, talking about taste (*much too acid*) conveys a representation of the apple as being eaten, whereas if the clause containing the anaphor had been, for instance, *it was very red and shiny*, it would temporarily have conveyed a representation of the apple in its initial state. Cornish concludes from this that each NP, whether an antecedent or an anaphor, is in fact processed *in the context of the clause in which it is used*. This role of predicates in anaphora processing is particularly obvious in recipe-type utterances, such as (17):

(17. Comment on a turkey recipe) I roast the whole thing by my favorite method making broth from the neck and giblets and some seasoning for moistening meat later. Slice and bone it into an attractive baking dish & cover it. [...]¹⁷

¹⁶ “High Altitude and Athletic Training”. Sports Med Web, Feb. 2005. <http://www.rice.edu/~jenky/sports/altitude.html> (15/12/2011)

¹⁷ “How can I make my Thanksgiving turkey ahead?” *Better Homes and Gardens*, 2011. <<http://www.bhg.com/advice/food/cooking-tips/how-can-i-make-my-thanksgiving-turkey-ahead/>> (12/12/2011)

What is accessed by the first *it* is the whole turkey, but the second *it* refers to the turkey once it has been boned. Therefore *the whole thing* is no longer an appropriate description for the second *it*, and cannot be said to saturate the pronoun with its lexical properties.¹⁸

As a consequence, the role of the antecedent is merely that of a trigger, which Cornish (1999 : 44) defines as follows:

(18) The antecedent trigger introduces an entity into the discourse via its predicational and utterance context, and an anaphor of a particular type and form accesses that mentally represented discourse entity at a later point in the discourse, adding to this representation further properties resulting from the processing of the anaphoric clause as a whole.

In other words, Cornish retains the idea of an indirect interpretation of the anaphor via its antecedent, in that an antecedent has introduced the referent ahead in discourse (this is also reflected in the need for consistency in gender and number agreement). But the interpretation of the anaphor proper does not mean going back *in the text* to the antecedent. It is the processing information given by the anaphor, in combination with the rest of the proposition, that enables referent retrieval in the mental representation. Cornish therefore distinguishes between the notions of “antecedent” and “antecedent trigger”.¹⁹ The antecedent trigger is the segment of text traditionally called an antecedent, while the concept of antecedent is applied to the referent in the mental representation. For instance in (16), the antecedent trigger is *an apple*, while the antecedent is the apple referred to; in (17), the antecedent trigger is *the whole thing*, but the antecedent is the turkey.

This distinction, however, is seldom used, and none of the works mentioned in this article, apart from Cornish [1999, 2011], uses “antecedent trigger” for the segment of text. This probably reflects a view that the improvement on the traditional label is not sufficient to coin a new word. Rather, as with “anaphora”, it is the traditional term “antecedent” whose extension is altered to accommodate new theoretical approaches. Such

¹⁸ As a consequence of such approaches, works on anaphora no longer regard personal pronouns as ‘emptied’ forms compared to full NPs. They are rather considered as conveying positive meaning, as other anaphoric expression types do: when unstressed, they signal continuity of attention [CORNISH 1999], a referent in focus [GUNDEL *et al.* 1996].

¹⁹ Reichler-Béguelin [1993 : 335] uses the term “introduceur textuel” (textual introducer).

preference is also obvious when one considers the broader, pragmatic approach to anaphora.

III. Pragmatic anaphora

The definition of antecedent proposed by Cornish [1999] challenges the purely textual approach to anaphora in that the antecedent is defined as an element of the mental representation, but it retains the idea that the antecedent trigger must be a segment of text. A broader approach to anaphora, termed memory-based approach by Kleiber (“*approche mémorielle*”, 2001 : 28), cognitive approach by Charaudeau & Maingueneau [2002 : 47] and pragmatic anaphora by Carlson [2006 : 1] or Allan [2009 : 464], goes one step further: it considers that as the antecedent is in the mental representation rather than in the text, anaphora should not be restricted to textual anaphora. The defining criterion for anaphora is simply a “previous salience” of the referent in the mental representation. In other words, a segment of text is anaphoric the moment the referent is already available to the addressee prior to its mention in the anaphor. This can be achieved through previous mention in discourse, but also via the situational context. For instance, (19) and (20), as well as (21), are regarded as cases of pragmatic anaphora by Carlson [2006 : 1] and Allan [2009 : 464] respectively:

(19) (on catching sight of someone) He appears very upset.

(20) (Picking up a coat from the coat-check attendant) This is torn!

(21) (meaning something in the visual field of the speaker and hearer) I bought that last night.

To Carlson and Allan, these examples are cases of anaphora because the referents themselves serve as antecedents for the pronoun. In other words, the anaphor is still controlled, though pragmatically, so that there is an indirect relation between the anaphor and its antecedent. Note that this sense is covered by Huddleston & Pullum’s definition of anaphora given in the introduction of the present article [2002 : 1453].

Such an extension of the concept, however, shifts the traditional boundary between anaphora and deixis: (20) and (21) are traditionally regarded as clear cases of deixis. In this broad approach, anaphora is taken to include both endophora (where the antecedent trigger is found “inside” the text) and exophora (which involves situational saturation), to use Halliday & Hasan [1976]’s terminology [CHARAUDEAU & MAINGUENEAU 2002 : 221]. It only seems to exclude cases in which the reference is saturated

via the long-term memory, such as (22), which is regarded as a case of memory deixis [FRASER & JOLY 1980]:

(22) We must go into the agency today and sign up for that flat we saw.

One advantage of the broad approach to anaphora is that it solves problems of categorisation for uses such as that of *he* in (19). This is traditionally termed an “antecedentless anaphor” [YULE 1979, CORNISH 1996], which makes it something of an exception to the definition of anaphora although it is a common use of the personal pronoun. The broad approach to anaphora is also helpful in that it avoids an atomised analysis of some expression types, especially personal pronouns [KLEIBER 2001 : 30]: the *he* in (19) is not felt to be different from the *he* in (1), for instance. But the boundary between anaphora and deixis is made fuzzy, or even possibly unnecessary. It is true that in all cases, the referent is accessed indirectly, whether there has been a gesture, a previous mention in the text, ... This closeness is reflected in the fact that cognitive-pragmatic analyses such as Gundel et al. [1993] or Gundel [1996] consider the cognitive requirements associated with “referring expressions” in general, rather than distinguish between anaphoric and deictic uses. For instance, Gundel [1996] establishes that the minimal requirement for use of *that* + *N* is familiarity, defined as the fact that the referent is part of the addressee’s memory (as in [22]), which includes cases in which the referent has been introduced textually. The kinship between anaphora and deixis has long been noted. Lyons [1977], for instance, regards both deixis and anaphora as cases of pointing, although the pointing is of a less prototypical type for anaphora; as for Bühler [1934], he treats anaphora as a subcategory of deixis, with the concept of “anaphoric deixis” [O’KELLY 2004 : 4]. But the pragmatic approach to anaphora ultimately seems to deny any specificity to textual relations between the antecedent trigger and the anaphor on the one hand, or to prototypical situational pointing on the other. That is why some linguists, such as O’Kelly [2004], Kleiber [2001] or Huddleston & Pullum [2002], retain the traditional textual definition of anaphora. For instance, for O’Kelly [2004 : 3], exophora belongs to deixis, while to Huddleston & Pullum [2002 : 1505], referring to objects present in a situation is the central “deictic use” of demonstratives.

What this overview shows first and foremost is how complex the selection and processing of an expression type is. Within sentences, binding constrains selection and processing on purely syntactic grounds; Binding Theory isolates a category of expression types, termed anaphors, for which in bound contexts, selection among that set is compulsory. It should be

noted that even there, anaphora is construed as a relational phenomenon: reflexives are not bound by virtue of their nature—that is, being bound is not a property of that part of speech—, but only in cases of anaphora, that is, the moment they are in relation with an antecedent which c-commands them. That antecedent is strictly a segment of text; whether it is referential, or a quantificational phrase, ... is not relevant to the relation. When c-command is not at stake, a linguistic relation between the antecedent and the anaphor is still posited in discourse anaphora, but the construction of reference, and thus the link between the two segments of text, is more complex, involving predications and mental representations. An antecedent can therefore no longer be described as being *only* a segment of text. In broader, pragmatic approaches, the segment of text is given an even lower status: it is not deemed necessary to the definition of an antecedent. Prototypical anaphora, though, is still textual in nature, and arguably provides a fundamentally different source of saturation of the anaphor from that given by a gesture in a situational context, with specific linguistic consequences sometimes, such as gender choice in languages with formal gender systems like French [KLEIBER 2001 : 33].

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