

***Text and discourse as context: Discourse anaphora and the FDG Contextual Component*¹**

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Abstract

In recent proposals for the crucial internal structure of the framing Contextual Component within Functional Discourse Grammar (Hengeveld & Mackenzie 2006, 2008) — for example by Rijkhoff (2008:88-97) and Connolly (2007) —, what is here called *text* is considered as equivalent to *discourse* within an account of the NP (Rijkhoff) or of context (Connolly).

The article purports to show that this conflation of *text* and *discourse* is not adequate to the task of describing and accounting satisfactorily for discourse-anaphoric reference in actual texts, in particular, and that a principled distinction between the two is needed. Discourse anaphora is a particularly good diagnostic of context, since it clearly involves a (co-)textual dimension, but also a discourse one, relating to the world of referents, properties and states of affairs.

The *context* relevant for a given act of utterance is in constant development: the discourse derived via the text both depends on the context and at the same time changes it as the discourse is constructed on line. So both the (co-)text and the discourse (a provisional, hence revisable, interpretation of the preceding co-text and/or context), as well as the anchoring situation of utterance, must be represented within the Contextual Component within an FDG representation of a given communicative event.

¹ This is the revised text of a paper entitled “FDG and the framing Contextual Component: How does discourse anaphora fit into the picture?” presented at the 13th International Conference on Functional Grammar (ICFG13), held at the University of Westminster, Harrow, London (3-6 September 2008). I would like to thank the audience at the presentation of the original paper for some very useful discussion after it, Elena Martínez-Caro for her careful reading of an earlier draft of this article, as well as an anonymous *WPPFG* referee for helpful comments on the original submission.

1 Introduction

In recent proposals for the crucial internal structure of the framing Contextual Component within Functional Discourse Grammar (Hengeveld & Mackenzie 2006, 2008) — for example by Rijkhoff (2008:88-97) and Connolly (2007) —, what is here called *text* is considered as equivalent to *discourse* within an account of the NP (Rijkhoff) or of context (Connolly). Hengeveld (2005:58) describes the Contextual Component as containing a record of the form and content of the preceding discourse, as well as a description of the relevant features of the utterance situation. Rijkhoff (2008:88) claims that these contents should be given separate divisions within the component as a whole, as does Connolly (2007:21, Fig. 2). However, in mentioning the first sub-division, Rijkhoff conflates Hengeveld's "content and form" of the preceding discourse into what he terms "discourse (co-text)" (Rijkhoff 2008: 88). This equating of 'discourse' with 'co-text' is underlined (p. 89) by Rijkhoff's use of the term "textual component (co-text)" to refer to this sub-component. Further, on p. 90, he defines 'discourse' as "basically consisting of the *linguistic material* preceding and following an utterance in some discourse" (my emphasis –FC).

The article aims to show that this conflation of *text* and *discourse* is not adequate to the task of describing and accounting satisfactorily for discourse-anaphoric reference in actual texts, in particular, and that a principled distinction between the two is needed (cf. also Widdowson 2004:Ch. 1; Cornish 2008, 2009). It will also examine the different facets of 'context', and how they affect both the speaker's choice of a particular form of utterance and the addressee's interpretation of it. The overall aim is to sort out the different strands of context and how they relate to each other, as a preliminary to formulating more precisely how 'context' may be articulated within the FDG model.

To start, I will draw a three-way distinction amongst *text*, *context* and *discourse* (section 2), and will then look more closely at the second of these dimensions of language in use (section 3). Of course, both *text* and *discourse* under this conception can and do act as context for an upcoming utterance on some occasion of use themselves. Next, I will consider how context is currently handled in the FDG model — notably in terms of Connolly's (2007) account— (section 4), and will end by assessing what conception of context the facts of discourse anaphora, in particular, will require (section 5). I will be making several suggestions for a revision of Connolly's proposals along the way.

2 Text, context and discourse

First, let us draw a three-way distinction amongst the dimensions of *text*, *context* and *discourse* (see Table 1 below).

The *text* is the trace of at least one utterance act (whether realized in terms of a verbal, linguistic trace, or of a non-verbal one – which may be gestural, sensori-perceptual or prosodic).² Among the relevant non-verbal signals are nods of the head,

² Connolly (2007:14) lays emphasis on the necessarily 'multi-modal' character of discourse, and includes both its linguistic and non-verbal aspects within what he calls "discoursal context" (however, he does not explicitly draw a distinction between *discourse* and *text*). In my conception, the two aspects Connolly mentions fall within the dimension 'text', as distinct from 'discourse'.

winks, gaze direction, pointing gestures, raising of the eyebrows, and so on; and in the written form of language, italics, boldface, underlinings, punctuation and layout generally (see Clark, 1996:Ch. 6 on what he calls “signaling”). *Text*, then, refers to the connected sequences of signs and signals, under their conventional meanings, produced by the speaker and (in informal spoken interactions: signals of acknowledgement, approval, objection, etc.) by the addressee —certain of which point to possible ways of grounding the discourse to be constructed within a particular context, in cognitive terms. These signals correspond to what Gumperz (1992a:234) calls “contextualization cues” (see also Auer 1992, as well as Gumperz 1992b).

Text	Context	Discourse
The connected sequence of verbal signs and non-verbal signals in terms of which <i>discourse</i> is co-constructed by the discourse partners in the act of communication.	The <i>context</i> (the domain of reference of a given text, the co-text, the genre of speech event in progress, the discourse constructed upstream, the socio-cultural environment assumed by the text, and the specific utterance situation at hand) is subject to a continuous process of construction and revision as the discourse unfolds. It is by invoking an appropriate context that the addressee or reader may create <i>discourse</i> on the basis of the connected sequence of textual cues that is <i>text</i> .	The product of the hierarchical, situated sequence of utterance, indexical, propositional and illocutionary acts carried out in pursuit of some communicative goal, and integrated within a given <i>context</i> .

Table 1: The respective roles of *text*, *context* and *discourse* (Cornish, 2008:998, Table 1, revised)

The discourse partners exploit this trace by simultaneously invoking an appropriate *context*³ in order to construct discourse. The context relevant for a given act of utterance is a composite of the surrounding co-text, the domain of discourse at issue, the genre of speech event in progress, the situation of utterance, the discourse already constructed upstream and, more generally, the socio-cultural environment which the text presupposes —including mutual personal knowledge on the part of the speech participants as well as more general encyclopædic and cultural knowledge⁴. The various aspects of this context are in constant development: the discourse derived via the text both depends on them and at the same time changes them as this is constructed on line (cf. also Roberts 2004; Unger 2006; Connolly 2007). We shall be looking at this crucial dimension later on in more detail (in sections 3 and 4).

Discourse, on the other hand, refers to the hierarchically structured, mentally represented product of the sequence of utterance, propositional, illocutionary and

³ See Akman & Bazzanella (eds.) (2003), Roberts (2004), Connolly (2007), Fetzer (2004) and Givón (2005) for accounts of the various types of context operating in text and discourse, as postulated by a range of different approaches to language use.

⁴ See Clark’s (1996) chapters 4 ‘Common ground’ and 8 ‘Grounding’, in relation to conversational speech.

indexical acts that the participants are jointly carrying out as the communication unfolds (see Hymes 1972:57 for a similar view). Each participant severally constructs his or her own discourse model of the communicative event taking place; thus in principle, these may diverge, but only within the confines of the risk of misinterpretation and communicative breakdown (which can and occasionally does happen). Such sequences are primarily directed towards the realization of a local and/or global communicative goal of some kind (see Parisi & Castelfranchi 1977). Discourse is both hierarchical and defeasible (a provisional, and hence revisable, construction of a situated interpretation). Discourse clearly depends both on *text* **and** *context*.

Text, in normal circumstances of communication, on the other hand is essentially linear, due to the constraints imposed by the production of speech in real time – though in the spoken medium, paralinguistic, non-verbal signals may well co-occur simultaneously with the flow of verbal signs and signals, and overlapping speech by more than one participant may and does occur. It is the discourse constructed in terms of the text and a relevant context which is capable of being stored subsequently in long-term memory for possible retrieval at some later point. On the other hand, the textual trace of the communicative event is short-lived, disappearing from short-term memory once that discourse is constructed — or very soon thereafter (cf. Clark, 1996:53). Short-term memory is by definition very limited in storage capacity.

Now, the crucial point about this distinction is that discourse is a (re-)constructive, and so highly probabilistic matter: from the addressee's or the reader's point of view, it is in no sense a question of simply **decoding** the text in order to arrive at the complete message intended by the speaker/writer. 'Meaning' doesn't lie completely 'within' the text, it has to be constructed by the addressee or reader (and the speaker/writer!) via the text in conjunction with an appropriate context. The text is but a sequence of 'hints' or instructions to (a) invoke a relevant context (or rather contexts) and (b) create discourse as a function of it or them. It is always incomplete and indeterminate in relation to the discourse that may be derived from it with the help of a context – including knowledge of the world, the genre of which the text at hand is an instance and the social and communicative conventions that regulate the relevant language event (cf. also Bach 2005:15; Bianchi 2004:3,5; Jaszczolt 2005:13; Widdowson 2004:8).

Text, *context* and *discourse*, then, are interdependent, interactive and inter-defining. So arguably, both the recent (co-)text and the discourse constructed upstream (which by definition is a provisional, hence revisable, interpretation of the preceding co-text and/or context) must be represented within the Contextual Component within an FDG representation of a given communicative event.

3 Context: what is it, and what role does it play in the construction of discourse?

Let's look more closely now at *context* and its role in creating discourse. First, the context invoked will serve to select the relevant sense of given lexemes, will narrow this down so as to be compatible with the discourse already constructed, and will in general act to disambiguate potentially multiple possible interpretations of given textual segments (cf. Asher & Lascarides 1996; Wilson & Carston 2007). To illustrate, let's take a news-in-brief item that appeared in a UK broadsheet newspaper:

(1) **Threat to Congo’s forests**

Two-thirds of the forests in the Congo river basin could disappear within 50 years if logging and mineral exploitation continue at present rates, the environmental group WWF has warned... (*The Guardian Weekly* 22.12.06-4.01.07, p. 2)

Here, given that the condition placed on the potential disappearance of two-thirds of the Congo river basin forests mentions “logging” (line 2), it is more likely in this context that this nominal refers to “felling trees to make logs to be transported by floating down river”, rather than “recording day-to-day events in a log-book during a (normally sea-going) journey of some kind” —an otherwise possible meaning of this noun. See also the noun *dressing* (line 2) as used in the context of a recipe in example (6) (section 5 below), signifying in that context “an accompanying sauce”, rather than having the otherwise possible sense “an antiseptic bandage placed over a wound”.

Context will also make it possible to flesh out elliptical as well as indeterminate references in the co-text, and to enrich allusions made in the text to real-world knowledge. Furthermore, it will help the recipient to determine the illocutionary force of each incoming clause (cf. also Roberts 2004:199). One contextualising device *par excellence* is prosody: its influence, when superimposed on a given text segment, operates both retroactively on the immediately preceding segment(s) and proactively, on the following one(s) (see for example Schiffrin 1987:28-9; Brazil 1997). Likewise, the application of a particular information structure (whether categorical, for example topic-comment, orthetic —e.g. a presentational focus articulation) to a given utterance in the making is both sensitive to utterance context as well as to prior textual and discourse context and creates a context by its very character. After a given information structure is expressed by a particular utterance in some text, then only a restricted set of other information structures is possible in the utterances that follow.

The pragmatician Kent Bach (2005:21) defines ‘context’ as in (2) below:

(2) What is loosely called ‘context’ is the conversational setting broadly construed. It is the mutual cognitive context, or salient common ground. It includes the current state of the conversation (what has just been said, what has just been referred to, etc.) the physical setting (if the conversants (*sic*) are face to face), salient mutual knowledge between the conversants, and relevant broader common knowledge. (...) So-called context does not determine (in the sense of ‘constitute’), but merely enables the hearer to determine (in the sense of ‘ascertain’) what the speaker means. It can constrain what a hearer could *reasonably* take a speaker to mean in saying what he says, and it can constrain what a speaker could *reasonably* mean in saying what he says, but it is incapable of determining what the speaker actually does mean. That is a matter of the speaker’s communicative intention, however reasonable or unreasonable it may be (Bach 2005:21).

Bach is dealing here with features of what we might call ‘interactional context’. His point about context not **determining** speaker intentions, but enabling the hearer to work them out, is well taken.

Okada (2007:186) presents a compilation of various authors’ conceptions of context:

- **Physical context** comprises the actual setting or environment in which the interaction takes place, such as a house-warming party or a hospital.

- **Personal context** comprises the social and personal relationships amongst the interactants, for instance the relationships between intimate friends or between employer and employees.
- **Cognitive context** comprises the shared and background knowledge held by participants in the interaction, including social and cultural knowledge. It is sometimes referred to [as] schemata. For example, knowledge about how an interview, a wedding or a lecture is conducted.
- **Textual context** comprises the world which the text constructs, that is the textual world (...) (Okada 2007:186).

As we will be seeing, the so-called “textual world” in the fourth sub-category here is in fact the discourse, as I conceive this notion (see Table 1). I would argue that the “textual context” in Okada’s formulation is more accurately characterised as the ‘co-text’, the verbal and non-verbal context surrounding a given utterance. Moreover, what Okada characterises as the “physical context” (see his term “setting”) corresponds to what Hymes (1972:60) calls “scene” (the occasion of a verbal interaction) —“setting” for Hymes (1972:60) being the strictly physical aspects of the context of utterance. I will define these different aspects more precisely in the next section, when we come to consider Connolly’s account of context.

Relevant context needs to be invoked in order to ‘ground’ an utterance. (3) is a typical example (from French):

(3)

[Notice on motorway panel above lanes near Aix-en-Provence, France]
 Des hommes travaillent. Soyez vigilants.
 ‘Men (are) working. Exercise due care’

Given the physical context of this message (this part of this particular motorway), the intended addressees (motorists using this motorway) must ground it in the stretch of the motorway around the panel and beyond: the men in question are understood to be doing work on this particular stretch of the motorway, and they are doing motorway maintenance work of some type (not any other kind of ‘work’). But this is not stated. The intended agent of the imperative in the second clause is clearly the motorist who is intended to read this message, driving under the panel on which it is displayed. And the “vigilance/due care” to be exercised is not to be directed at potential pickpockets, terrorists, etc. (as would be the case with notices of this type —as in the second utterance in (3)— displayed in railway stations, airports, etc.), but at motorway maintenance workers operating on the hard shoulders of the motorway in question. This aspect of the context here clearly derives from motorists’ knowledge of motorways in general. So the kind of “vigilance” to be exercised is not the vigilance aimed at protecting oneself from thieves or potential aggressors, but the one concerned with avoiding accidentally hitting the motorway maintenance workers with one’s vehicle.

The context invoked in interpreting this message thus involves the **physical context, assumed real-world knowledge** (of motorway maintenance work as well as workers), the nature of the **context of utterance** at issue,⁵ and the nature of the “vigilance/due care” to be exercised. This latter ‘narrowing’ of the adjectival lexeme

⁵ Where the addressor is the motorway operating company or the public authorities; and the intended addressees, individual motorists using this motorway.

‘vigilant’,⁶ as well as the causal relation between the two discourse units at issue here (requiring the invocation of the coherence relation *Explanation* in order to integrate the two units), is induced via the **discourse context** set up through the understanding of the initial clause of the message, and the inferred connection established with it. Lexical narrowing in context applies to all the lexical elements involved in this two-utterance text: ‘hommes’ (‘men’), ‘travaillent’ (‘work’) and ‘vigilants’ (‘vigilant’).

An interesting example of a processing error caused by the ‘wrong’ accessing from long-term memory of a **topic domain**, another crucial aspect of context (showing the influence of top-down processing over the assignment of one sense of a lexeme), occurred in 1991 in my own reading experience:

(4) **Travellers’ anger over tipping rule**

TRAVELLERS in Herne Bay are embroiled in a row with Kent County Council and Canterbury City Council after senior planners launched a blitz on illegal tipping. Both Councils claim the problem has reached epidemic proportions in Kent. But travellers on the Broomfield caravan site want more dumping of top-soil around their homes – to improve the quality of life...

(Extract from *Adscene*, 16.08.91, p. 4)

As I read the title of this brief article (cursorily, as one does this type of text — a free, local newspaper), the lexeme tokens *travellers* and *tipping* together evoked a ‘tourism’ topic domain, in which ‘tipping’ denoted the practice of leaving tips or gratuities in bars and restaurants (the Canterbury area of east Kent being a thriving tourist area, with many Continental visitors for whom tipping was at the time a more common custom than it was in Britain, and the time of publication (mid August), occurring in the middle of the busy summer season: this aspect clearly reflects the broader socio-cultural context of this article). But as soon as I reached the direct object of the verb of the second sentence of the second paragraph of this article (namely *more dumping of topsoil around their homes*), an evident difficulty arose: how to integrate into this topic domain – the superstructure of the text adumbrated by the title, as I had interpreted it – the concept of ‘dumping top-soil around one’s home’? Such an integration would clearly result in interpretative incoherence. Yet the fact that ‘dumping’ is clearly a superordinate of ‘tipping’ in the sense of ‘waste disposal’ meant that the integration of the referent of the direct object in question with *this* particular topic domain would be perfectly coherent. So I immediately revised my partially constructed discourse superstructure accordingly. The correctness of this revision was in fact confirmed via the very next sentence, beginning the third paragraph:

(4) a ...They have used waste soil to build a wall, or bund, around their caravans to act as a windbreak and to reduce noise generated by the busy THANET WAY...

The lexeme ‘travellers’ (clearly a euphemism in this context) involves a lexical narrowing to the denotation “gypsies” here. This kind of ‘topic domain’ accessing error happens more often than one might suppose, in fact. See also Okada (2007) on this issue.

⁶ See Wilson & Carston (2007) on this aspect of context-dependent utterance interpretation.

The **genre** (and **sub-genre**) of the text is also an important contextualizing factor (see Unger 2006 for a cognitive-pragmatic account of genre in terms of Relevance theory). This has to do with the user's particular set of expectations based on their familiarity with the type of language event involved.

Finally, both **deixis** and **discourse anaphora** require access to certain aspects of context (in terms both of production and interpretation) in order to operate. Canonical deixis clearly requires access to the **context of utterance**, discourse deixis to a representation of the **previously constructed discourse**, and textual deixis to one of the **immediately preceding co-text**. Discourse anaphora on the other hand may require access to the utterance context (for so-called 'exophora'), and, like discourse deixis, to a mental representation of **the recently constructed discourse**. These last two context-bound referring procedures differ, however, in that discourse anaphora, unlike discourse deixis, presupposes that the discourse representation it accesses is psychologically salient at the point of occurrence of the anaphor. See section 5 below for more detailed discussion of the various types of context required by discourse anaphora.

4 The treatment of context in FDG

As far as the Contextual Component is concerned, the account given of context in the most recent presentation of FDG (see Hengeveld & Mackenzie 2008:9-12) is fairly simplified and undeveloped, as the authors themselves recognise. As they point out (pp. 9-10), the model does not in fact purport to give a complete description of the overall discourse context (which in any event would be a rather tall order). The Contextual Component in FDG is designed to provide two types of information: "the immediate information received from the Grammatical Component concerning a particular utterance which is relevant to the form that subsequent utterances may take" (2008:9-10); and longer-term information regarding the interaction that is in progress so far as this is relevant to the form of the language used.

In broad terms, we may equate these two types of information with the dimensions 'text' and 'discourse' as conceived here, respectively. They also correspond broadly to the "form" and "content" distinction proposed by Hengeveld (2005) as falling within the remit of the Contextual Component of the model, mentioned earlier in the Introduction. The rationale behind this restricted view of Context is that to include all or even most of the multifarious aspects of context in a model of language structure would deprive the model of its predictive power. It is only when questions of style, register, genre etc. (for example) have a systematic impact on the grammatical choices available to a speaker in formulation that these aspects are taken into account. Short-term information relevant to the form of a subsequent utterance needs to be continually updated (p. 11): the need to monitor the ever-changing structure of anaphoric and narrative chaining is specifically mentioned in this respect.

The most detailed treatment of the Contextual Component within the FDG model is to be found in work by John Connolly. I will refer in what follows to his most recent publication within this field, namely, Connolly (2007). Connolly's characterisation of context is somewhat broader, and takes the addressee's perspective into account more centrally: this is appropriate, since speech production in normal circumstances of language use is in fact recipient-designed. As we have just seen, FDG is not intended as a 'grammar of discourse', but as a model of language structure that

takes account of the (indisputable) fact that language is an instrument for use by communicators in order to engage in verbal (and non-verbal) interaction with one another. So the conception of context that emerges within the relevant works (Hengeveld & Mackenzie 2008; Connolly 2007; Rijkhoff 2008 and others) is one whereby the various aspects of context systematically serve to motivate given **forms** of utterances. This is apparent in Connolly’s choice of the majority of areas of application for the notions of context he is arguing for, in his section 4 (entitled “Contextual factors in the functional description of language”): namely, “constituent order” (§4.2), “fragmentary text” (captions beneath photographs or pictures, titles, etc.: §4.3), “supplying unexpressed content” (elliptical utterances: §4.4), and “inferencing” (§4.5). However, see Butler (2008:4) for the position that

we must reject the view that what matters to the linguist is basically just the grammar itself (I intend the term widely, to include at least semantics, syntax, morphology, phonology and perhaps some aspects of discourse structure), in favour of a much more ambitious and far-reaching enterprise which relates the grammar explicitly to what Dik (1997(...), pp. 3-4) calls “a theory of verbal interaction”.

The view of context reflected in Connolly’s account is that it is **dynamic** and **ever-changing** (2007:13), is restricted to what is deemed **relevant** to the particular purposes of the communicative interaction (p. 13), and is **structured** (i.e. there are different strands or aspects of context, which is not a unitary or monolithic notion).⁷ Context is given a preliminary definition on p. 13 as “whatever surrounds D [a particular discourse or discourse fragment —FC] and is relevant to its production and interpretation.” Connolly isolates four basic dichotomies that are assumed to structure the somewhat open-ended notion of ‘context’:

- (5) (a) Discoursal context versus situational context.
- (b) Physical context versus socio-cultural context.
- (c) Narrower context versus broader context.
- (d) Mental context versus extra-mental context. (Connolly 2007:14, items (1a-d))

Connolly sees the most fundamental dichotomy as being that given in (5a), between “discoursal” and “situational” context (see also Rijkhoff 2008). But it does not seem adequate to define “situational context” simply as “the part of context that falls outside of the current (or any other) discourse” (p. 14). After all, this characterisation would seem to apply to “physical”, “socio-cultural” and “extra-mental” context too.

Connolly claims (p.14) that “‘discoursal context’ lies in the surrounding (relevant) multimodal discourse, including both the linguistic and non-verbal aspects of the latter.” However, as emphasised repeatedly in this article, I would view these latter two phenomena as manifestations of ‘text’, not of ‘discourse’. Both linguistic and non-verbal aspects are elements of form which may be perceived (whether auditorily or visually) by the addressee, and so act as inputs to the construction of discourse (the situated, provisional interpretation of the speaker’s communicative intentions). On p. 15, Connolly in fact subdivides “discoursal context” into “linguistic context”

⁷ See the second box in Table 1 above for some of these aspects, as well as the discussion in section 3.

(presumably, ‘co-text’) and “non-verbal context”. So there would appear to be no room in this scheme of things for the crucial dimension of ‘discourse’ (the ongoing, situated, provisional and revisable interpretation of the communicative event), as I understand it —though what I am calling ‘discourse’ may well correspond to Connolly’s notion ‘mental discursual context’⁸.

Connolly then divides the “situational context” into the “physical context” and the “socio-cultural context” (p. 15): see the dichotomy in (5b) above. (5c) highlights the fact that “discursual” and “situational” contexts can be envisaged in broader as well as narrower terms. In the former case, the narrower conception is equivalent for Connolly to the notion of ‘co-text’ (the textual context surrounding the fragment to be analysed or understood), and the broader one to that of “inter-text” (references or allusions to other texts). This subdivision clearly shows that the conception of ‘discourse’ adopted here is viewed as equivalent to that of ‘text’ in my conception.

In the latter case (“situational” context), the narrower conception is limited to the “setting”, in Hymes’ (1972:60) terms — that is, the purely physical state of affairs corresponding to a given context of utterance; and the broader perspective corresponds to “the physical and social universe outside of the immediate context” (p. 16). Both conceptions form part of the notion of situational context.

As for the “socio-cultural context”, its narrower conception is said to be equivalent to Hymes’ (1972:60) notion “scene” (essentially, the occasion of a given instance of verbal communication). This would include the discourse participants, their psycho-social attributes and relationships, the nature of the speech event (clearly, the notion of ‘genre’ would form part of this aspect of context), and the purpose as well as upshot of the interaction. The broader conception of socio-cultural context relates to the more global social organisation and norms of thought and behaviour. Connolly does not comment to any extent on his fourth dichotomy ((5d): mental vs extra-mental context). However, it is arguable that **all** relevant ‘context’ is mentally represented, since what is crucial in communication is the users’ **perception** as well as **conception** of the external world, rather than the objective ‘facts’ of the extra-mental universe (indeed, Connolly himself says as much on p. 19). See also Butler (2008:10) on this point as well as the Relevance theory position.

Moreover, Connolly’s third dichotomy (“narrower” vs. “broader” contexts) is not on the same level as the other three, but is in some sense a meta-distinction affecting each of them: after all, Connolly himself explains in the article the broader and narrower conceptions not only of “discursual” and “situational” context, but of “physical” and “socio-cultural” context as well.

Figure 1 is a schematic representation of Connolly’s (2007) conception of context, as given in his items (1a-c) ((5a-c) above) only, taking into account the ‘text’/‘discourse’ distinction which I am arguing for, as well as the restrictions on his conception suggested above.

⁸I am grateful to the anonymous *WPPFG* referee for this point.

Figures

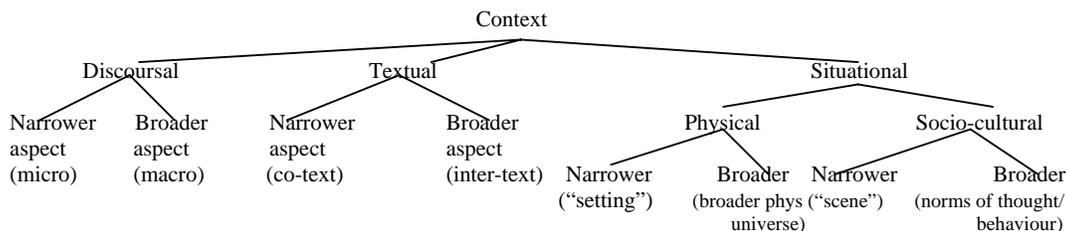


Figure 1: Revised schematic representation of Connolly’s (2007:14) conception of “context” as presented in items (1a-c) only

But these three major strands of ‘context’ are not in fact on the same level: for ‘situational’ context is surely the more fundamental of the three, since without it, neither ‘text’ nor ‘discourse’ would ‘get off the ground’, as it were, or would indeed be ‘grounded’, in the sense of ‘anchored in some grounding context’. All communicative events are grounded in some context of utterance, which they presuppose. Text is the product of this. Once the ‘text’ has been produced by a speaker —with possible input from the addressee, via objections, corrections, signals of approval etc. —, then (from the addressee’s point of view, at least), discourse can be created subject to the invocation of a relevant context. The text as well as the discourse produced and created thereby will then in turn form the context for the next segment of text. This is represented in Figure 2.

Figure 2 is presented from the addressee’s perspective: the speaker’s would require the ‘textual’ and ‘discourse’ boxes to be inverted. This relationship should not be taken to suggest that the understander’s perspective is the mirror image of the speaker’s, however: one piece of evidence that this is not the case is the fact that discourse is **co**-constructed by the speech participants (see Clark 1996:29-58, who writes of “joint” actions and activities on the part of the speech participants) —hence the arrows pointing in both directions, from the “textual” to the “discoursal” box and vice versa. From the speaker’s point of view, discourse is created both in terms of his or her communicative intentions, but also as a function of the feedback to the text produced in order to realise them provided by the addressee’s reactions to it. And from the addressee’s, discourse is constructed via the inputs from the text and context, but his/her textualisations in reaction to the speaker’s will naturally give rise to new discourse, via negotiation with the speaker. This is obviously only a preliminary representation of part of a much more complex network of relationships, and it is solely intended to capture the interrelations amongst text, discourse and situation of utterance as contextual parameters. That fuller characterisation will have to wait for future research.

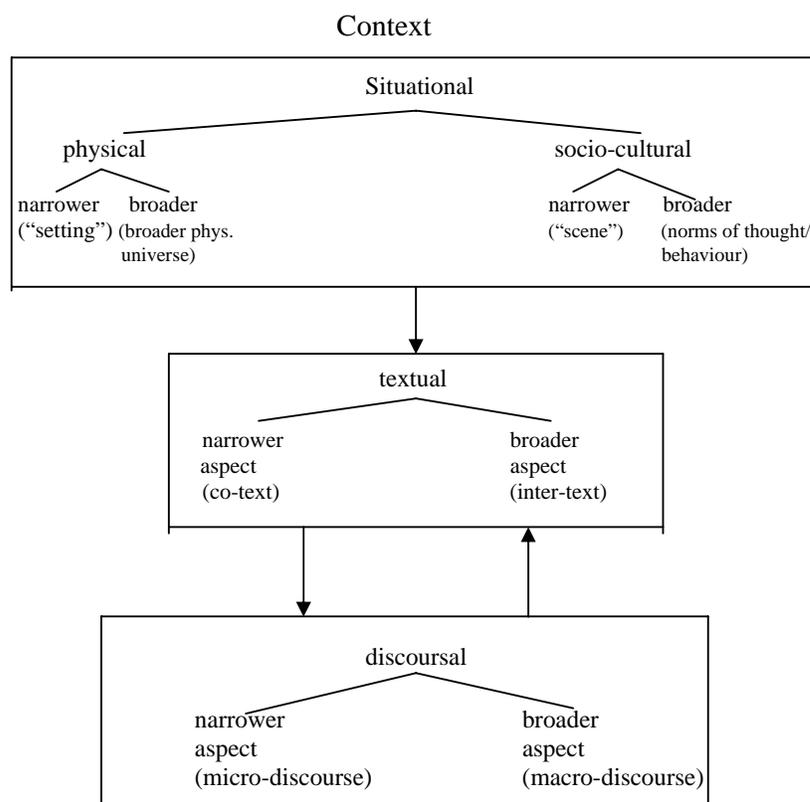


Figure 2: Relationships holding amongst the three major strands of ‘context’: situational, textual and discoursal

5 Discourse anaphora: a diagnostic of context(s)

Discourse anaphora is a particularly good diagnostic of context, since it clearly involves a (co-)textual dimension, but also (and necessarily) a discourse one, relating to the world of referents, properties and states of affairs available to the communicators at any non-initial point in a communicative event. Without context, whether situational, textual or discoursal, anaphoric (as well as deictic) reference would be impossible. As is often pointed out by F(D)G linguists, anaphoric reference is one indicator of the various different layers of functional structure recognised in F(D)G representations: namely, predicate, argument, predication, proposition and illocution (see e.g. Dik 1997:82-3, 294, for anaphoric reference to predicate and propositional variables, respectively). Tokens of various anaphor types may be used to retrieve each of these types of entity within a text.

Now, indexical reference may well be realised in terms of an explicit textual reference (the ‘antecedent’) in the surrounding co-text to the referent intended, as in the traditional account of this phenomenon (reference may also be made to a segment of co-text *qua* text, as in the case of ‘textual deixis’); but it can also be made directly to a

discourse representation of an entity which may be the result of an inference (see examples (7) and (8) below). In this case, there is no co-occurring co-textual expression which the anaphor may be said to retrieve. In any case, even where there has been a (usually prior) co-textual reference by means of an appropriate ‘antecedent’ expression, the anaphor which picks up this referent at some later point will be interpreted in terms of the subsequent predication(s) which will have been applied to it, thereby altering the representation originally set up. An attested textual example follows (each clause has been numbered for convenience):

(6) **Lobster with warm potato, shallot and tarragon salad**

¹) Slice 200g new potatoes into thinnish discs. ²) Simmer \emptyset until al dente. ³) Split a cooked lobster lengthways, ⁴) and make a dressing with 1 tbs red wine vinegar, 2.5 tbs extra-virgin olive oil, 2 diced shallots, tarragon, salt and pepper. ⁵) Drain *the potatoes*, ⁶) and dress \emptyset . ⁷) Serve \emptyset with *the lobster* and lemon wedge.
(Recipe 24, *The Observer Food Monthly* supplement, August 2007, n° 77, p. 34) (Example (12) in Cornish, to appear: 2010)

Here, the (directive) genre at issue —a recipe— requires that each culinary operation expressed by a given clause apply to the output of the immediately previous operation. Clearly, the discourse context is updated incrementally as each clause is encountered and processed. As a result, the anaphoric expressions \emptyset in clause 2 of this recipe⁹ (direct object of the imperative verb-form *simmer*) and the definite NP *the potatoes* in clause 5, refer back, not to the referent of their ‘antecedent’ expression *200g new potatoes* in clause 1, but to the particular set of potatoes this plural indefinite NP will have evoked **as it will have been transformed via the operations prescribed in clause 1** (for the full interpretation of the zero pronoun in clause 2) as well as **via the one prescribed in clause 2** (for the definite NP *the potatoes* in clause 5). Similarly for the interpretation of the definite NP *the lobster* in clause 7, in relation to the referent initially evoked via the indefinite NP *a cooked lobster* in clause 3. So here, if we want to account for the interpretation of anaphors such as these, we will have to take the discourse context provided by preceding predications on a given referent into account. Notice that the use of the two definite NPs (*the potatoes* and *the lobster*) is required due to the specific co-textual and discorsal context obtaining at the point of occurrence: 3rd person pronouns (respectively, *them* and *it* here) would not have been able to retrieve these referents, since their initial saliency has been greatly reduced by the time the retrievals are to be made. This information clearly needs to be made available within the Contextual Component of the grammar prior to the anaphoric references at issue.

An example where there is no canonical textual antecedent at all, but where the definite NP anaphor (*the passage* in line 2 of the footnote) refers unproblematically in terms of an appropriate inference, is given in (7):

⁹ I am using the conventional symbol ‘ \emptyset ’ to mark the position of zero or null pronouns in this text, simply for convenience (there being by definition no overt signal of their existence in the co-text). No theoretical significance should be attached to the use of this symbol (for example, that it marks the ‘deletion’ of an underlying fuller form of some kind). See Cornish (2005) for some discussion of object zero pronouns in English, within the FDG framework.

- (7) ...Another guest, a tall princess, married to an erudite naturalist landowner called Béla Liphay, from Lovrin in the Banat, was a descendant (not direct, I hope) of Pope Innocent IX of the famous house of Odescalchi, lords of Bracciano.*

* According to Sir Walter Scott (or Macaulay quoting him; I've searched both in vain and will probably come upon *the passage* the day after this book is out), Bracciano, by its reedy lake, was the best example of a mediaeval fortress he had ever seen... (Patrick Leigh Fermor, *Between the Woods and the Water*, London: John Murray, 2004, p. 104) (Example (17) in Cornish, to appear: 2010)

In the footnote to this extract, the author of this book is described as searching for a particular reference to something in a book on history (that something is specified only in the subsequent main clause of this complex sentence). Obviously, this reference necessarily occurs in a particular part of the relevant book (a part not identified in the parenthetical sentence), and this may well be characterised as a 'passage'. It is this assumption which motivates the use of a definite lexical NP with the lexeme *passage* as its head in retrieving this easily-inferred entity. As in the case of example (6), only a definite NP could have successfully targeted the implicit referent here, the use of a 3rd person pronoun (*it*) being totally infelicitous.

Another interesting (also attested) example formed part of a notice displayed in a stationery store (W.H. Smith, Canterbury, UK), where pronominal forms were used to retrieve a (salient) inferred referent:

(8) **CUSTOMER SERVICE REFUND POLICY**

We hope you are delighted with everything you buy from us.

However, if for any reason you are not, simply return *it* to us in *its* original condition with your receipt, within 30 days of purchase and we will gladly refund your money. This is in addition to your statutory rights.

Clearly, the pronoun *it* and possessive pronominal determiner *its* in line 2 of this text refer in terms of a referent made available via the construction of the discourse up to the occurrence of the anaphoric clause, and not in terms of a co-textually introduced entity ('everything you buy from us' would not be an interpretation that is congruent with the form of the pronoun and possessive determiner (singular inanimate)). For if the customer is not "delighted with some article s/he buys from W.H. Smith", then they are requested to return the item bought with the receipt obtained for it, so that a refund may be made. The referent of *it* and of *its* in (8) is 'the article bought by any customer of W.H. Smith with which he or she is dissatisfied, if that is the case'; the modifying conditional clause in this 'antecedent' structure is a reflection of the fact that the referent at issue was evoked, precisely, within a conditional clause (the elliptical clause ...*if for any reason you are not* in the example).

The inanimate pronoun *it* in line 2 of the text could have been felicitously replaced by a definite NP (e.g. *the article*); but its natural occurrence here is clearly due to the high saliency in context of its intended referent (the macro-topic of the notice, as well as being the target of its macro-illocutionary point, as a whole). Again, this context- but also form-relevant factor should be made predictable via the discourse context available within the Contextual Component at the point of occurrence of the pronoun. See Cornish (to appear: 2010) on defining anaphora, regarding the discourse-level constraints regulating anaphor resolution.

(9) below, from the sub-genre of news-in-brief articles within broadsheet journalism (see also (1) above), shows how features of the **co-text** help to determine relative degrees of topicality (and thus of psychological saliency) amongst the nominal referents evoked, and hence indirectly to specify the preferred anaphoric reference of indexicals (here the expanded definite NP *the 60-year-old investment banker*, subject of the second sentence):

(9) **Paulson offered treasury role**

President Bush nominated Henry Paulson, the chief executive of Goldman Sachs, as US treasury secretary in place of John Snow. *The 60-year-old investment banker* is a China expert and keen environmentalist. *The Guardian Weekly* 9-15.06.06, p. 2 (Example (13) in Cornish, to appear: 2010)

In (9), the expanded definite NP *the 60-year-old investment banker* clearly refers back to the referent introduced via the proper name *Henry Paulson* in the initial sentence. In principle, it could also refer back to 'John Snow', also introduced in that sentence. But the first individual is clearly marked as having (macro-)topic status via this sentence. Its exponent NP fulfils the nuclear direct object function, whereas that of the second realizes a more peripheral function as complement of a preposition. In addition, the introduction of the former referent is expanded via an identifying NP in apposition with it. Furthermore, the name of this referent appears in subject position in the very title of the article. These are **co-textual** cues to the discourse status of the two referents at issue here. This shows the usefulness of having available a record of the recent co-text within a discourse-sensitive model of language structure such as FDG, as a means (in this type of instance) of orienting the addressee's or reader's interpretation of potentially ambiguous anaphors in context.

In semantic-pragmatic terms, too, the **discourse context** will contribute to giving preference to the referent 'Henry Paulson', rather than to 'John Snow' as the target of the definite NP anaphor here. For the discourse unit corresponding to the second sentence would be integrated with the first in terms of the coherence relation *Elaboration*, providing as it does further information regarding the macro-topical individual at issue here: given the stative aspectual as well as predicative character of this sentence (which corresponds to a 'categorical', not a 'thetic' utterance), it serves to attribute a further property to Henry Paulson. This 'elaboration' is made possible via the coreference between the two NPs concerned in this short text. The strongly-favoured Elaborative relation motivating the integration of these two discourse units in fact imposes the retrieval by the anaphor of this referent: for in the case of the other potential referent, the second unit would not 'elaborate' the first (since neither the latter nor the former is 'about' the referent 'John Snow' at all).¹⁰

¹⁰ See Cornish (2009) on the question of the interdependence of the operation of integrative coherence relations and anaphora in the creation of discourse, as well as Hobbs (1979), (1990), Asher & Lascarides (2003) and Kehler (2004) for details of the various coherence relations at work in these and later examples. See also Connolly (2004) for an early proposal to represent discourse within the framework of FDG.

6 Conclusions

From all we have seen so far, it is clear that some account needs to be taken within the FDG Contextual Component of the ‘discourse’ (construed not simply as ‘co-text’, but as the result of a situated interpretation of a segment of co-text in terms of the context invoked for it) which will inevitably have been co-constructed by the discourse participants. Not distinguishing ‘discourse’ from ‘(co-)text’ is tantamount to assuming (contrary to much work in psycholinguistics as well as to virtually all work in discourse pragmatics) that the understanding of texts, whether written or spoken, is a matter of simply decoding the textual surface in order to gain access to the speaker’s or writer’s intentions. But text gives only a ‘skeletal’ set of cues to the discourse (the situated, revisable interpretation of the communicative event). And these have to be enriched or expanded via the invocation of relevant aspects of the indispensable context.

No discussion of context would be complete without a consideration of its purpose (or purposes) —its *raison(s) d’être*. The most important of these is to **ground** the discourse being co-constructed —first and foremost in the context of utterance, but also in terms of a **genre** (type of speech event) and a **topic domain**. Relevant context is what enables discourse to be created on the basis of text: it is through the invocation of a relevant context that addressees may draw inferences (conversational implicatures in Gricean terms) on the basis of the speaker’s uttering what he or she utters. This is a very important feature of the use of language, since it allows speakers to be as economical as possible in their use of the coded language system in creating text, as a function of their current communicative goals (cf. Clark 1996:250-251). They can rely on their addressees to a great extent to ‘fill in’ the many gaps that may be left in the textual realization of their intended message (see the title of Kent Bach’s 2004 chapter). Context is also what enables the crucial **integration** of discourse units (representing discourse acts or moves) into a higher-level discourse unit.

Representations of both the immediately preceding co-text and of the recent discourse (under my conceptions of these notions: see Table 1) need to form part of the overarching Contextual Component within the FDG model: as far as discourse anaphora is concerned, the immediately preceding co-text is needed in order to provide the cues required for the addressee to base his/her inference of an implicit referent on (see examples (7) and (8)), as well as for the speaker to choose an appropriate context-bound expression to retrieve a given referent accessible via the prior discourse (see examples (6)-(9)). The prosodic structure associated with these prior utterances must also be represented, since it will play a crucial role in the realization of given anaphoric expressions, as well as in their interpretation potential.

The prior discourse representation will make available the discourse referents which particular anaphoric expressions may retrieve; but there also needs to be some kind of discourse calculus which will rank these discourse referents in terms of relative degree of saliency at the point of production of the utterance concerned (Roberts 2004:216), since the choice as well as interpretation of anaphoric expressions is sensitive to this factor, as we have seen. Other types of information which the context discourse representation should include, according to Roberts (2004:215), are individual and joint participant domain goals, the set of “Questions under Discussion” which have not yet been resolved, and an indication of the interlocutors’ common ground. The genre of the text being constructed must also be specified within the Contextual super-component (see Figure 3 below), since it will have implications for the forms of

indexical expressions, in particular: see the frequency of complement zero pronouns in recipes like the one in example (6), and of (often expanded) definite NPs in journalistic texts such as the one illustrated in (9).

In terms of its incorporation into the FDG framework, Connolly (2007) argues in favour of having a contextual “super-component” which includes a Content component (the “Conceptual Component” proposed by Hengeveld 2005 and by Hengeveld & Mackenzie 2006, 2008), flanked by the two major sub-divisions of “context”, namely “discoursal” and “situational”. All these subcomponents frame the core “Grammatical Component”, with mutual interactions potentially occurring among them.

What I would like to do in conclusion is propose the following revised version of Connolly’s (2007) Figure 2, which includes the aspects of context argued for in this paper, and in particular, attempts to make explicit their potential interactions.

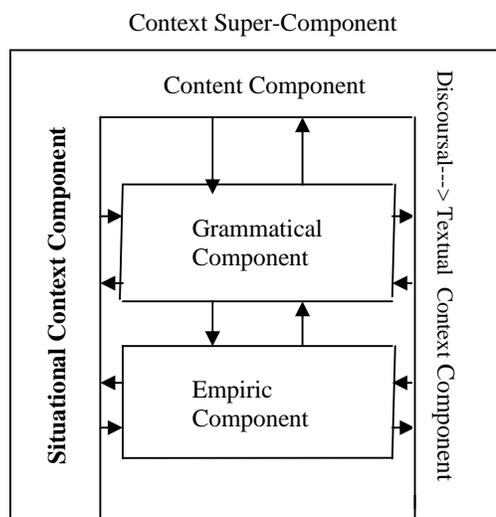


Figure 3: Suggested revisions to Figure 2 “A modified outline of FDG” in Connolly (2007:21). Boldface rather than neutral typeface indicates priority (“Situational Context” over “Discoursal → Textual Context” Components). The ordering “Discourse → Text” here reflects the speaker’s perspective adopted by the current FDG framework. From the addressee’s perspective, these dimensions would be inverted.

One final, very important issue to be resolved is the question of how to represent the discourse needing to be recorded as context for the upcoming utterance(s). The **situation of utterance** is already represented, in skeletal form at least, at the Interpersonal level, where the Discourse Act(s) and/or Moves are represented. However, this clearly needs to be fleshed out as a function of the factors invoked in section 4 of this article in particular. The recent **co-text** may presumably be represented in terms of the outputs of the Morphosyntactic and Phonological Levels of the FDG model (see Hengeveld & Mackenzie 2008:Chs. 4 and 5, respectively). The obvious choice of format for the **discourse** representation would be the one proposed for Moves and Discourse acts within the Interpersonal Level (Hengeveld & Mackenzie 2008:Ch. 2). But some means would need to be developed in order to integrate and hierarchize the

different Moves and Discourse acts recorded — i.e. to provide a veritable discourse model representation—, since the formal representations provided in Hengeveld & Mackenzie (2008) are given for each incoming (or produced) utterance separately and individually. See Connolly (2004:102-113) for a proposal compatible with the FDG framework, which in addition recognizes context as a separate level of description.

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