

CONTEXT IN FUNCTIONAL DISCOURSE GRAMMAR

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- **ABSTRACT:** An important and admirable characteristic of the FDG framework is that it takes very seriously the fact that utterances are produced and understood in context. Given this fact, the aim of the present paper is to articulate, in more detail than hitherto, how context may be treated and described within FDG, and to provide FDG with a more comprehensive contextual framework than has previously been available. At the beginning of the paper some general principles of context are established. It is then shown how context may be internally categorised, to reveal a complex multidimensional structure. In the light of this, a modified version of the FDG framework is proposed. The proposed model is then applied to the functional description of some aspects of Modern English, with a view to showing how the application of the framework enables a more analytical and perspicuous description of the pragmatics involved. The areas illustrated are constituent order, fragmentary text, clauses with unexpressed elements, and the inferencing of information. It is concluded that the framework makes possible a more exact and detailed treatment of the role played by context in language-use than would otherwise be feasible.
- **KEYWORDS:** Context; discourse; Functional Discourse Grammar; pragmatics; text.

1 Introduction

Any approach to language that merits the epithet 'functional' has to take into account not only the lexical, morphosyntactic and semantic resources afforded by the language system, but also the ways in which those resources may be deployed for the purposes of communication. An important fact about communication is that it always takes place in a context; and such contextually-situated use of language constitutes the essential concern of pragmatics.

Functional Discourse Grammar (FDG) represents a pragmatically-oriented approach to language of the kind just outlined. Therefore, in accordance with

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the principles established for by Dik (1997, p.6) in respect of Functional Grammar (FG), from which it derives, FDG needs to take seriously the situated nature of language-based communication and hence to provide for an account of the interplay between language and context.

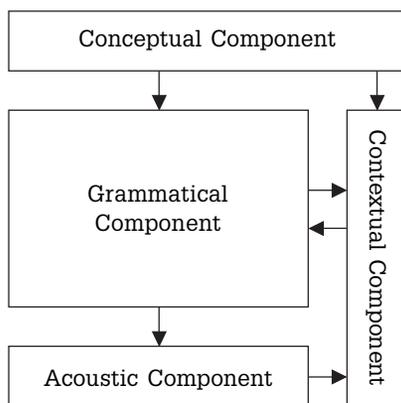


Figure 1 – Outline of FDG as proposed by Hengeveld (2005)

It is argued in Connolly (2004) that in order to offer an explicit account of this interplay, it is helpful to treat context as a level of description. This principle is recognised in the framework for FDG proposed by Hengeveld (2005, p.60-62) and summarised in Figure 1. The core element in this framework is the grammatical component, but the other three elements are vital also. The output component is concerned with the articulation of spoken language, the conceptual component with communicative intention, and the contextual component with what Dik (1997, p.410-12) calls the ‘pragmatic information’ that lies behind and serves to facilitate the development of communicative intentions by the speaker and the interpretation of discourse by the listener.

The aim of the present paper is to attempt to advance our understanding of the treatment of context in FDG. First of all, we shall consider the nature and structure of context. Next, we shall suggest how such theoretical considerations may inform the treatment of context in FDG, leading to a more detailed analysis of the context of discourse. Finally, we shall provide some examples of how this analysis may be exploited in an FDG-based account of contextually situated language.

2 The Phenomenon of Context

2.1 The Nature of Context

Let us begin, then, with some general comments about the nature of context. Suppose that we are interested in giving a functional account of a particular discourse or discourse-fragment, which we may denote as D. In that case, as pointed out above, our account will need to be sensitive to the context in which D occurs. But what do we actually mean by 'context'?

The context consists in whatever surrounds D and is relevant to its production and interpretation.² It is essential to restrict context to what is relevant, for if we were to attempt to treat it as consisting of everything in the universe outside of D, then it would be completely intractable; cf. Cook (1990, p.6). Admittedly, what is deemed relevant is to some extent a matter of judgment on the part of the analyst. This implies, as Shailor (1997, p.97) remarks, that context is not an objective phenomenon but an analytical construct.

We should not think of context as forming a static backdrop to discourse; cf. Goodwin and Duranti (1992, p.5). Rather, as the discourse proceeds, the context also changes. Once the initial utterance has been produced, every subsequent utterance occurs in the context of what has been said up till that point; and this 'preceding context' is added to with each new utterance. Moreover, utterances may have perlocutionary effects, whereby they make an impact upon the context; and conversely, context will exert an influence upon discourse. For instance, suppose that Bill has the radio on too loud for Ann's liking, so she says, 'Please turn that down!' and Bill complies. Here, the noisy radio was a contextual factor which had an effect on the language behaviour of Ann, who was thus motivated to utter the request to Bill, whose compliance ensured that her utterance had the desired perlocutionary effect. As a result, the context changed and Ann no longer had the motivation to ask for the radio to be turned down.

This is not, of course, to say that the entire context will change during the course of a discourse; cf. House (2006, p.342-343). In the example just given, Ann and Bill's location in the physical universe may not have altered at all. Nevertheless, some aspects of the context will inevitably be dynamic, and there will typically be interplay between discourse and context, such that each will have an effect upon the other.

Another essential property of context is that it is structured. This fact is reflected in the various attempts that have been made to classify context

² The relationship between relevance and context is a key issue in Relevance Theory (RT) as proposed by Sperber and Wilson (1986). However, in the present paper the term 'relevance' is employed in its everyday sense, without any implied commitment to RT.

internally it in terms of categories; see in particular Firth (1957, p.203), Hymes (1972, p.58-65), Harris (1988, p.78-81), Devlin (1991, p.33, 217-221), Goodwin and Duranti (1992, p.6-9) and Cook (1992, p.1-2). The structure of context is the next issue that we shall consider.

2.2 The Categorisation of Context

In the light of existing work on the analysis of context, it is proposed in Connolly (2007, p.195-197) that the following broad distinctions should be drawn:

- (1) (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.

These dichotomies will now be explained.

It is commonplace in linguistics to distinguish between 'linguistic context' and 'situational context'.³ If D represents the discourse or discourse-fragment at the centre of our analysis, then any relevant surrounding discourse constitutes D's linguistic context. The remainder of the context, for instance the time and place of utterance (assuming these to be relevant), is situational in character. Linguistic context consists purely of language, and so any contextual phenomenon that is not linguistic must be situational. Consequently, non-verbal aspects of communication are excluded from the linguistic context.

The above dichotomy is satisfactory if one is happy with a purely unimodal view of discourse, in which the non-verbal accompaniments of language are treated not as part of the discourse but as extraneous to it. However, as Kress and van Leeuwen (1996, p.39) remind us, discourse is inherently multimodal. In the contemporary world within which, thanks to modern information technology, multimedia is ubiquitous, the multimodal nature of discourse cannot reasonably be ignored. Consequently, we need to operate with a slightly different distinction, namely between situational context and what we are calling 'discoursal context'. Situational context remains defined as the part of context that falls outside of the current (or any other) discourse, while 'discoursal context' lies in the surrounding (relevant) multimodal discourse, including both the linguistic and non-verbal aspects of the latter.

³ Terminology varies, but the essential point is not affected.

Nevertheless, the term 'linguistic context' is still available if needed, but it is now to be regarded as a proper subset of discoursal context. In other words, discoursal context is divisible into two parts, namely linguistic and non-verbal context.

The situational context may be divided into the 'physical context' and the 'socio-cultural context'. The physical context is supplied by the material universe, and includes such contextual factors as time and space. The socio-cultural context, on the other hand, lies in non-material phenomena, notably social organisation and norms of thought and behaviour.

Both discoursal and situational context may be divided into 'broader' and 'narrower' aspects. Given a discourse-fragment D, the narrower discoursal context of D is supplied by the remainder of the discourse in question, and is termed the 'co-text' of D; see for instance Lyons (1995, p.271) and Halliday (1999, p.3). However, sometimes the context of a discourse or discourse-fragment is supplied by some other discourse or discourses, for which the term 'inter-text' has been coined; cf. Cook (1992, p.1). The inter-text thus comprises the broader discoursal context. Both co-text and inter-text may be subdivided into 'linguistic' and 'non-verbal' parts.

The narrower situational context of a discourse or fragment is supplied by the immediate surroundings, for instance the room in which a conversation takes place. If the production of a discourse and its perception and interpretation by its audience are not co-located, then the narrower situational context is said to be 'distributed' over the two or more spatio-temporal locations concerned.

To employ some terminology from Hymes (1972), the narrower physical context may be termed the 'setting' and the narrower socio-cultural context the 'scene'. The same setting may host different scenes. For instance, a hall could be used either for a meeting or for the counting of ballot papers during an election, these being very different 'occasions' in socio-cultural terms.

The analysis of the setting typically focuses the factors in (2), and that of the scene on those in (3).

- (2) (a) The animate and inanimate entities present, together with their physical attributes and activities.
 - (b) The location in time.
 - (c) The location in space
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- (3) (a) The discourse participants, together with their social and psychological attributes and activities, including their social relationship with one another. (Participants include the speaker or writer and the intended audience, these being termed the 'ratified' participants by Goffman (1981, p.131-137). However, unratified participants

may also be present and have an effect on what is said, by virtue of the fact that they are in a position to overhear.)

- (b) The occasion (in the sense just exemplified), characterised in terms of properties such as the degree of formality and seriousness.⁴
- (c) The purpose and outcome of the discourse.

As Bunt (2000, p.28) points out, it is useful to distinguish between the immediate purpose of the discourse, which is to evince the intended interpretation in the audience, and the ulterior purpose, which is to affect the world in some (perlocutionary) way, for instance by making someone aware of certain information or persuading them to take a certain course action. Of course, the intended outcome may or may not match the actual outcome, as misinterpretations are always a possibility.

As for the broader situational context, this is supplied by the physical and social universe outside of the immediate context. For instance, when standing in a travel agency and booking a flight abroad, the geographical destination would be a relevant physical consideration and the currency-system in which the cost was presented would be a relevant socio-cultural factor in the conversation. Neither the destination nor the currency-system would lie (at least entirely) within the immediate context.

The state-of-affairs described in a discourse or fragment constitutes the 'described context'. This may either coincide with the narrower situational context or it may relate to some other spatio-temporal location, in which case it constitutes what Martinec (2000, p.244) terms a 'displaced context', or it may range over both.

Given that the terms in the above exposition are familiar from the literature, it will suffice to illustrate them here with the aid of a brief example, in which a man called Michael is sitting at home, in Newport (South Wales, UK), talking to his friend James, who is paying him a visit.

- (4) I'm going on a slightly unusual railway journey two weeks from today. *Opens an atlas.* If you look at this map, you can see that there's a line from Llanelli to Briton Ferry via Felin Fran, which is normally only used by goods trains, but the special train I'm travelling on will be going along it. I found out about this train from an advert I came across in a magazine that I now seem to have thrown away, unfortunately.

In this example, the narrower physical context is supplied by Michael's abode on the day of the conversation, where the relevant animate entities are Michael

⁴ Note that we are referring here to the formality of the *occasion* rather than the formality of the language used. The formality of the *language* will depend partly on the formality of the occasion and partly on the social relationship of the participants.

and James and the relevant inanimate entity is the railway atlas, while the relevant actions are those of conversing and of opening and looking at the book. The narrower socio-cultural context is characterised by Michael's role as speaker and James's as listener on an informal occasion, and by the fact that, being friends, they have a mutual interest in each other's activities and a relaxed social relationship. Michael's intention is to share with James the news of his planned trip, and assuming (as is overwhelmingly likely) that James understands what Michael is trying to communicate, then a successful outcome will result.

Michael's reading of the magazine and his anticipated journey, which constitute the described contexts of the discourse-excerpt, both take place outside of the narrower situational context and therefore constitute displaced contexts. As for the broader physical context, this includes the railway system and vehicles on which Michael is to travel, while the inclusion of the Welsh place-names, Llanelli and Felin Fran, attests to the use of two language systems within the broader socio-cultural context of Welsh society.

With regard to the discoursal context, the narrower part of this is supplied by the current conversation. For instance, the phrase 'this train' in the final sentence relies on the preceding linguistic context for its interpretation. The map is also brought into the discoursal context, in providing additional content relating to the course of the railway line; and being essentially a graphical representation, it belongs to the non-verbal context. The magazine containing the advertisement supplies the inter-text for the current conversation.

2.3 The Structure of Context

It emerges from what we have seen so far that context has a multidimensional hierarchical structure. In the first place, it is divided into discoursal and situational parts. Then discoursal context is subdivided into narrower and broader aspects (co-text and inter-text) and also, orthogonally, into linguistic and non-verbal aspects. Situational context, too, is subdivided into narrower and broader aspects and also, orthogonally, into physical and socio-cultural aspects.

Insofar as it is helpful to the purposes of contextual analysis, it is possible to identify further elements of hierarchy in addition to the above, as is done, for instance, by Devlin (1991, p.33, 217-221). For example, the broader situational context is supplied by the universe, within which we may identify the world, which may be divided into successively smaller areas, such as continents, countries, regions, settlements (such as towns), districts, individual properties... or other units (for instance, language and dialect areas), depending on whatever is relevant to the analysis.

Another concept that should be mentioned here is that of 'genre' (in the sense of 'discourse-type').^{5,6} This is relevant to the subject of context, given that certain ways of speaking or writing can be acceptable or otherwise, depending on the context involved. For example, a sentence like 'The squirrel scolded the rabbit' would be acceptable in the context of a fairy story but not in the context of a scientific paper. It is possible to classify (spoken and written) texts into genres, such as novels, plays, letters, and so on, and to subclassify these further, for instance subdividing plays into comedies and tragedies, or letters, into personal and professional. Of course, the classification is not watertight, and not all texts fit neatly into one type or sub-type. However, insofar as the classification is serviceable, it shows that genre has a hierarchical structure.

If we are interested in some discourse D, then the inter-text of D is supplied (subject to the criterion of relevance) by the texts other than D. Insofar as these other texts can be classified by genre, the hierarchical organisation of this classification provides a structure to the inter-text.

2.4 Mental Context

The final distinction drawn in (1) above is that between 'mental' and 'extra-mental' context. The mental context constitutes the part of the context that resides in the minds of the producers and the interpreters (including analysts) of a discourse or fragment, while the extra-mental context is supplied by the outside universe. This subdivision of context into mental and extra-mental parts adds a further dimension to the hierarchical structure of context that has just been expounded.

It is inevitable that each discourse-participant will have his or her own particular mental representation of, or 'viewpoint' on, the context, and so the mental context includes all these viewpoints. Typically there exists a considerable degree of overlap among the different viewpoints, and thus of shared knowledge among the different participants, at the outset of a discourse,

⁵ Genre is a concept which has been the subject of various approaches and definitions; see Swales (1990, p.33-63) for an overview. Space does not permit detailed discussion here, but suffice to say that the definition of 'genre' offered by Kress (1988, p.182-183), as a type of discourse that 'derives its form from the structure of a (frequently repeated) social occasion, with its characteristic participants and their purposes', will serve our current needs.

⁶ It should be noted that the term 'genre' is employed, along with the term 'register', in the approach to context associated with Systemic Functional Linguistics (SFL), where both terms are used in particular senses: in the account offered by Eggins (2004, p. 9-11, 54-112), register relates especially to the narrower situational context, while genre is associated with teleological social processes. SFL also recognises three 'register variables': 'field', 'mode' and 'tenor'; see Eggins (2004, p. 90). Whether these, or something similar, could usefully be adopted by FDG is not clear at present.

and the discourse then serves to increase the amount of common ground. See further Clark and Carlson (1992, p.67-71) and Givón (2005, p.91-92).

Of course, we do not pretend to understand the mental representation of context in detail. However, van Dijk (2006, p.168-173) makes the interesting suggestion that it takes the form of a mental model in the sense of Johnson-Laird (1983). The exploration of this idea will be left as a question for further research.

But whatever the cognitive details, it must be recognised that from the pragmatic perspective of the analysis of situated discourse, mental context is an extremely important consideration, because the only way in which contextual factors may directly affect the production and interpretation of discourse is through their presence in the mind of those individuals. (The complication raised by the possibility of non-human discourse-participants, particularly computers, is set aside in the present paper; see, however, Connolly (2001) and Connolly, Chamberlain and Phillips (Forthcoming).)

What has been stated so far about the categorisation and structure of context has been formulated with particular reference to the extra-mental context. However, insofar as these external aspects of context are represented within the minds of discourse participants (as indeed they need to be), it is reasonable to posit a basically similar structure for both mental and extra-mental context. Nevertheless, there are at least two important differences.

Firstly, the scope of mental context is broader than that of extra-mental context, since mental context extends to imaginary as well as real phenomena and events, which are not found in the actual universe that supplies the extra-mental context. Secondly, the participants' mental representations of the discourse in which they engage are not an exact counterpart of the extra-mental co-text. When we take part in discourse activity, we are not always able to recall verbatim what has been said prior to the current moment. Rather, we build up a memory of the gist of what has gone before, based partly on the preceding utterances, but also partly on inferences that we have drawn in the light of the context.

3 Context in FDG

Given that context has a complex multi-dimensional structure, it is not simple to incorporate it into a block diagram such as Figure 1 above. One possible and justifiable approach would be to incorporate into the diagram a single contextual element — a super-component encompassing all aspects of context — and to describe its complicated internal structure separately. However, Figure 1 contains

not one but two components that accommodate what have here been treated as aspects of context, namely the contextual component and the conceptual component. This issue requires some discussion.

Dik (1997, p.4) envisaged that a functional model of grammar should be incorporated into a broader model of verbal interaction, in order to offer a full functional account of language-based communication. Hengeveld's FDG framework, summarised in Figure 1, represents an important and welcome step towards that broader model of verbal interaction, particularly on the production side, even though, as is clear from Butler (2003, p.454-459), there is still a long way to go.

Let us first consider the conceptual component of the framework. Butler (Forthcoming) argues that this component has, to date, been too narrowly conceived, and that it should be broadened into a 'content component'. The latter would retain a conceptual sub-component, but would also contain a sub-component concerned with 'affective/interactional content', including the attitudes, emotions and speech act forces that are expressible through language. This proposal is attractive, since it extends the coverage of communicative phenomena in an appropriate manner, and it will therefore be adopted here.

However, Butler does not regard the content component as contextual in nature, stating that context "need not (...) be part of what the speaker wishes to express", but serves to determine content and expression. In the present paper, on the other hand, a very wide-ranging view of context is taken, in which the content component must indeed be considered contextual in character, for three reasons. Firstly, the content of a discourse or discourse-fragment coincides with the 'described context' (as defined above), which constitutes a highly relevant state-of-affairs while not being part of the discourse itself. Secondly, the situational context includes the discourse-participants, together with their social and psychological attributes and activities; and these activities plainly include generating the content underlying discourse. Thirdly, pre-linguistic intentions (which belong to the conceptual sub-component) are clearly part of the mental context; they are not part of discourse, but they could hardly be more relevant to the circumstances surrounding it.

Next, let us consider the contextual component. This encompasses all the rest of the context, and therefore has a potentially vast range. However, Butler (Forthcoming) and Rijkhoff (Forthcoming) argue that it should be split into two parts, one relating to the surrounding discourse and the other relating to the situation external to the discourse, as has traditionally been done in linguistics, given that when one is dealing with communication, the difference between what is internal to and what is external to discourse is highly significant. In

terms of the categorisation set out earlier in the present paper, this would lead us to distinguish between a 'discoursal context' component and a 'situational context' component.

The FDG framework, as summarised in Figure 1, is described by Hengeveld as a simplification, insofar as it adopts the production-oriented perspective of the speaker or writer rather than the interpretation-oriented perspective of the listener or reader. However, ideally a model of verbal interaction should be neutral between these two perspectives. To this end, let us change the term 'output component', which is clearly production-oriented, to 'empiric component' (borrowing nomenclature from Stamper's (1991) six-level semiotic framework), which is neutral between producer and addressee, and also neutral between speech and writing, and which reflects the fact that at this level we are concerned with physically observable phenomena (acoustic or optical, depending on the medium).

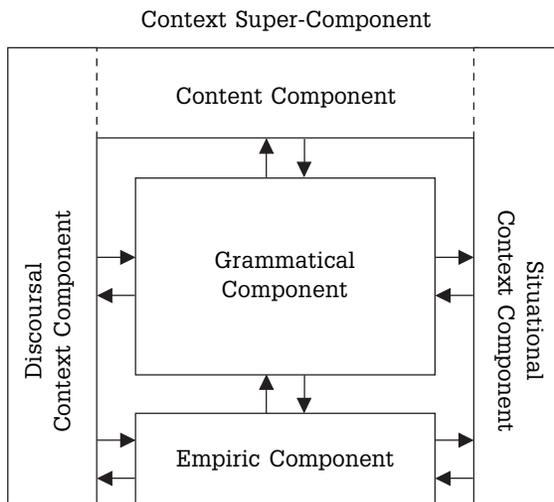


Figure 2 – A modified outline of FDG

Incorporating these various proposals, we may replace Figure 1 by Figure 2. Here, context is presented in terms of a super-component, partitioned into three divisions: a content component, a discoursal context component and a situational context component. The content component represents a very special part of the context, namely what the speaker or writer actually decides to express in language; and this is the reason why it has been picked out and accorded a separate status and not simply subsumed into the situational context component.

It is hoped that the model portrayed in Figure 2 offers a comprehensive and serviceable framework for FDG, doing justice to the treatment of both language and context. Of course, much more work will need to be done on the details of the internal structure and workings of the contextual super-component, but this must be left as a matter for future research.

4 Contextual Factors in the Functional Description of Language

4.1 Refining the Treatment of Pragmatics

Although the influence of context in the production and interpretation of language is widely acknowledged in linguistic pragmatics, often the term 'context' is employed in a rather vague and undifferentiated manner. However, if we are serious about understanding language in use, then we need to work with a more refined concept of context. The framework presented above is intended to help in this endeavour.

The next stage is to illustrate the application of the framework for such a purpose. We shall focus on some selected aspects of Modern English, with a view to showing how the influence of context upon language can be made more precise than if context were treated as a monolithic concept. Although space does not permit an overly elaborate or ramified treatment, it is nevertheless hoped that the essential idea will be clear.

4.2 Constituent Order

Let us begin with constituent order. The FG approach to this phenomenon was laid down in Dik (1978, p.171-212) and received a detailed treatment in Connolly (1991). A somewhat different treatment of expression rules is proposed by Bakker (1999, 2001) and assimilated into FDG by Hengeveld (2005). However, it is argued in Connolly (2005) that the handling of constituent order can and should remain much as in the original model. Importantly, constituent order is highly dependent on context.

Consider the following brief text, spoken by a person called Ann, who is bilingual in English and Welsh, to her friend Beth, who knows English only. The transcript has been divided up, purely for the sake of expository convenience:

- (5) (a) Cath informed us
- (b) about the new post of senior tutor at the meeting we had here last week.
- (c) She's received applications from Dave and from Ewan.

- (d) Ewan she's rejected, but
- (e) Dave she's interviewed.

In (5a) we find the standard declarative order of subject + verbal element + object (SVO). Why is this order chosen? The answer involves a number of contextual factors, including the following.⁷

- (6) (a) Broader socio-cultural factors:
 - (i) English is available as a vehicle of communication.
 - (ii) In English the unmarked declarative constituent order is SVO. (In Welsh, by contrast, it is VSO.)
- (b) Immediate socio-cultural factor:

Ann and Beth have English as a common language.
- (c) Immediate physical factor:

Ann and Beth are co-located in place and time.
- (d) Socio-cultural factor in the described context:

Cath informed an audience including Ann about the new post of senior tutor.
- (e) Mental context:
 - (i) Ann knows all the facts in (6a-d).
 - (ii) Ann believes that Beth does not know (6d).
 - (iii) Ann wants Beth to know (6d). This is her purpose in communicating the fact concerned.
 - (iv) Ann therefore chooses to utter a statement (rather than a question). In linguistic terms, this motivates a representative (or declarative) illocutionary force on the part of the clause.
 - (v) Ann chooses to use English rather than Welsh, knowing that it will be intelligible to Beth.
 - (vi) Ann portrays Cath rather than Cath's audience as the announcer of the vacancy, in order faithfully to describe (6d). In linguistic terms, this warrants the assignment to Cath of the semantic role of agent and to Cath's audience the semantic role of goal.
 - (vii) Ann decides to present (6d) from the perspective of Cath rather than her audience. This motivates the assignment to Cath of the function of subject of the clause.
 - (viii) Cath makes the subject the point-of-departure for her utterance. In other words, the utterance is going to say something about Cath. This warrants the assignment to Cath of the function of topic.⁸
 - (ix) Ann feels that the most salient piece of information is 'the post of senior tutor'. This motivates the assignment of the function of focus of information to that term.

⁷ These are couched in FDG-derived linguistic terminology, without of course claiming that this is actually employed by speakers during the psycholinguistic process of producing utterances.

⁸ It is acknowledged that there is a lack of unanimity as to whether the description of English needs to include a topic function; cf. Mackenzie and Keizer (1991).

In FDG the linearisation procedure is based on placement rules and templates. A template sufficient to accommodate example (5a) is as follows:

(7) P1 N1 N2 N3 N4

Placement rules would allocate the subject to N2, the verbal element to N3 and the object to N4. N1 would be left vacant, though it would have been filled if there had been an auxiliary before the subject. P1 would also be left unfilled, as it is a special position for constituents that need to be placed at the beginning of the clause, for example question-words. The effect of all this is to generate the correct order, namely SVO.

The analytical description in (6) does not, of course, add to our understanding of the *syntactic* description of constituent order; nor is it intended to do so. Rather, it makes for a more detailed and explicit account of the *pragmatics* of constituent order in relation to the surrounding context; and within the terms-of-reference of any truly functional linguistic theory, the latter is no less essential than the former. As we can see, the description serves to ground the structure of the utterance in the context from which it sprang; and thus forges an explicit (but generally missing) connection between language and context.

A principle illustrated by (6) is that individual contextual facts may be seen as links in a chain of factors influencing the form of the language produced. For instance, the occurrence of the sequence SVO in (5a) is determined by the fact that it is the unmarked order in English, and by the fact that this was the language chosen by Ann. Ann's choice of English depends, in turn, on its being common to Ann and Beth, and this itself depends on its being available as a means of communication in the society concerned. Clearly, it is only through the analysis context that such dependency chains come to light.

Whereas the unmarked SVO order appears in (5a), in (5d,e) we find the marked sequence OSV. Let us consider (5e) for illustrative purposes. The contextual factors at play here include the following:

(8) (a) Mental context:

- (i) Dave is made the point of departure. Linguistically, this motivates the assignment of the topic function to Dave.
- (ii) Dave is presented as the most salient piece of information. This warrants the assignment of the function of focus of information to Dave.

(b) Co-text:

The preceding clause (5d) exhibits the order OSV and there is a clear parallel in their content. This motivates using the same pattern in (5e), thus reflecting the parallelism in content through a corresponding parallelism in structure.

These considerations conspire to cause the object to be placed in P1 rather than its unmarked position of N4, thus preceding the subject (in N2) and the verbal element (in N3). The outcome is the sequence OSV.

When the role of context is spelt out in some detail, as in (6), the description may perhaps appear a little laborious. After all, we are so used to making use of context in our use of language that it intuitively seems a matter of common sense. However, the application of an analytical apparatus to language often delivers a description which contains a lot of information — one has only to think of a full syntactic or semantic analysis of a sentence to appreciate this point.

Furthermore, it is worth remembering here that since the early days of FG there has been a strong interest in the subject of computational implementation; see for instance Kwee (1979, 1994), Connolly and Dik (1989), Dik (1992) and Bakker (1994). In this field the explicit formulation of what humans regard as common sense is a well-known problem, and solutions are positively welcomed. As it happens, the computational modelling of context has, in recent years, been given impetus through the development of what are known as ‘context-aware’ systems, which have a more elaborate means of sensing and internally representing their environment than computers generally do; see, for example, Abowd and Mynatt (2000). However, within computational linguistics there is much scope for improvement, especially in relation to the handling of situational context; and it is hoped that the work set out in the present paper may in the future be applied within that field.

4.3 Fragmentary Text

The account just given of context in relation to constituent order was oriented to the production rather than the interpretation of language. Accordingly, let us now consider context in relation to interpretation, taking as an example the understanding of the title of an image within a multimodal document.

Imagine a photograph of the constellation Orion, with a line drawn upon it in such a way as to enclose a particular subset of the stars in the constellation. Immediately below the photograph is the title ‘The Sword of Orion’.

As is often the case with titles, the expression is fragmentary, in the sense that it does not constitute a full sentence. Consequently, there are few linguistic cues to its interpretation, which must therefore draw on the context in order to be achieved successfully.

First of all, the expression needs to be recognised as the title of an image, rather than, for instance, a section heading, which could easily have the same syntactic structure. This will be cued by its position on the page — a feature of the document layout, which is an aspect of the (multimodal) discursal co-text.⁹

As for the interpretation of the content of the title, this relies partly on the actual stars depicted, an aspect of the broader physical context. However, the metaphor of the 'sword' has to be understood in relation to classical mythology, where Orion was a hunter and therefore would have been equipped with a lethal weapon. The mythological sources accordingly act as inter-text here.

In short, then, three aspects of context are at play in the present example:

- (9) (a) Physical context: universe
- (b) Co-text.
- (c) Inter-text.

This example also demonstrates, of course, the applicability of our framework to multimodal discourse.

4.4 Supplying Unexpressed Content

Another situation when the context plays an important role is when it is needed to supply information that is not actually expressed. For instance, (10a) can be spelt out more fully as (10b), but is nevertheless quite acceptable as it stands:

- (10) (a) The boy washed.
- (b) The boy washed himself.

In FDG the clause underlying (10a) would be represented as containing an agent but no patient (as shown below). The implication of this is that the addressee would be left to infer the patient as part of the process of interpreting the utterance. This would be done on the basis of a convention, which may be stated informally as follows:

- (11) If the patient of a verb like 'wash' is not explicitly stated, then by default it should be taken to be co-referential with the agent.

The existence of conventions of this nature affect both the formulation and the interpretation of utterances. Clearly, an addressee hearing (10a) can use (11)

⁹ See further the treatment of 'pragmatic rules' in Connolly (Forthcoming).

to arrive at an understanding that the boy is both the agent and the patient of the process of washing. However, the speaker, too, can exploit (11), which allows him/her to anticipate that the addressee will be able readily to understand who the patient is, even if the latter is left unexpressed; this enables the speaker (if he/she wishes) to employ the intransitive (10a) rather than the longer transitive reflexive (10b) without endangering the communicative success of the interaction.

Suppose, then that Bill addresses (10a) to Chris. In omitting the patient of 'wash', Bill relies on (11), which Chris (we shall assume) duly applies to its interpretation. The convention (11) is known to both participants and is therefore part of the mental context, while the recovery of the identity of the patient of the verb 'wash' depends on the identification of its agent, the boy, in the context. Thus, in short, the aspects of context at play here are:

- (12) (a) Mental context.
- (b) Co-text.

As pointed out in Connolly (2007, p.199-202), in relation to the treatment of ellipsis in FDG, it is feasible to omit unexpressed material from the underlying linguistic structure of examples like (10a), while at the same time including it within the contextual description.¹⁰ The representational formulation underlying (10a) would be along the lines of (13a), while that of (10b) would be along the lines of (13b):

- (13) (a) $(ep_i: [(p_i: [(past\ e_i: [(f_i: wash_V(f_i)) (1\ x_i: boy_N(x_i))_{Ag}] (e_i)]) (p_i)]) (ep_i))$
- (b) $(ep_i: [(p_i: [(past\ e_i: [(f_i: wash_V(f_i)) (1\ x_i: boy_N(x_i))_{Ag}(x_i)_{Pat}] (e_i)]) (p_i)]) (ep_i))$

As will be apparent, the patient term $(x_i)_{Pat}$ is present in (13b) but absent from (13a). However, within the content component (representing part of the mental context), both (10a) and (10b) would share the same description, along the lines of (14b), given the facts set out in (14a,c):

- (14) (a) Relevant entities and circumstances:
 - p_1 = Bill (discourse participant)
 - p_2 = Chris (discourse participant)
 - x_1 = boy (a particular individual in the described state-of-affairs)
 - t_1 = a particular time in the past

¹⁰ In this respect the approach proposed here differs from that of García Velasco and Portero Muñoz (2002, p.22).

(b) Content:

wash(x_1, x_1, t_1)

(c) P_1 's state of mind:

believe($p_1, \text{not}(\text{know}(p_2, \text{wash}(x_1, x_1, t_1))))$)

want($p_1, \text{know}(p_2, \text{wash}(x_1, x_1, t_1))$)

The notation is provisional. (14c) means that prior to expressing the content in (14b), Bill believed that Bill did not already know it, but wished him to know it.

This method of representation is very helpful. It enables us to keep track of the full meaning conveyed by utterances without overloading the semantic representation of utterances with elements that are unwarranted by their structure.

4.5 Inferencing

The fact that discourse interpretation involves combining expressed and unexpressed information is well known. It also serves to highlight another important aspect of the context in relation to FDG, namely the fact that context is relevant not only to grammar (which has been very much the focus of the FG tradition) but also to lexis and to discourse processing *per se*. Let us consider a simple example:

(15) (a) That man's a rat.

(b) I'm going to get my own back on him.

Someone hearing this can be expected to infer certain unstated facts, including the following:

(16) (a) The speaker has a low opinion of the man concerned.

(b) The man has hurt the speaker in some way.

Inference (16a) is warranted by the speaker's choice in (15a) of the pejorative word 'rat' to describe the man, while (16b) is motivated by the fact that (15b) expresses an intention to take revenge, and that in general, people who desire revenge have been aggrieved by someone who has hurt them physically and/or emotionally. Through such inferencing, the facts represented by (16a,b) become part of the interpreter's mental context.¹¹

¹¹ A more formal representation of this mental context would, of course, be possible, but has been omitted for brevity, as it does not affect the argument.

It is to be hoped that in future work on FDG, the contextual apparatus will be more widely employed in the explication of lexical and discursal, as well as grammatical, phenomena. This will undoubtedly lead to a more comprehensive treatment of language-based communication.

5 Conclusion

In conclusion, it may be seen that, in this paper, a particular theoretical stance has been expounded towards context and its importance for FDG. A framework for the analysis of context has been developed which is more comprehensive and detailed than was previously available, and this has been incorporated into a revised proposed model of situated verbal interaction. The framework has been applied to the production and interpretation of language, and has been shown to allow for a more precise treatment of the role of context than would otherwise have been possible. It will, hopefully, therefore serve as a useful basis for future research within FDG.

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CONNOLLY, J. H. O contexto na Gramática Discursivo-Funcional. *Alfa*, São Paulo, v.51, n.2, p.11-33, 2007.

- RESUMO: Uma característica importante e admirável do modelo da GDF é a de que ele considera muito seriamente o fato enunciados serem produzidos e entendidos em contexto. Dado este fato, o objetivo deste artigo é articular, mais detalhadamente, como o contexto pode ser tratado e descrito na GDF e como prover a GDF com uma estrutura contextual mais abrangente do que a disponível até então. No início do artigo, alguns princípios gerais sobre contexto são estabelecidos. Mostra-se, então, como o contexto pode ser categorizado internamente, para revelar uma complexa estrutura multifuncional. À luz dessas considerações, propõe-se uma versão modificada da estrutura contextual da GDF. O modelo proposto é então aplicado à descrição funcional de alguns aspectos do Inglês Moderno, para mostrar como a aplicação da estrutura proposta permite uma descrição mais analítica e perspicaz da pragmática envolvida. As áreas ilustradas são a ordem de constituintes, o texto fragmentário, as orações com elementos não expressos e a inferência de informações. Conclui-se que a estrutura proposta viabiliza um tratamento mais exato e detalhado do papel desempenhado pelo contexto no uso da língua.
- PALAVRAS-CHAVE: Contexto; discurso; Gramática Discursivo-Funcional; pragmática; texto.

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