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ORIGINAL PAPER



The Place of Interpersonal Lexemes in Linguistic Theory, with Special Reference to Functional Discourse Grammar

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Abstract

The paper presents a critical assessment of the place reserved for lexical expressions with discourse-related meanings in four major functional theories of language, also considering a few narrower-scope accounts of linguistically encoded pragmatic meaning. I argue that the status of discourse-related lexemes is not duly recognized in most functionally-oriented frameworks and make the point that, by contrast, Functional Discourse Grammar finds itself in an optimal position to offer an adequate account of this specific type of linguistic expressions. Yet, I will claim that the Functional Discourse Grammar approach to lexical expressions of pragmatic meaning is not entirely satisfactory, namely in that the lexemes in question are assumed to be inserted into the relevant slots of underlying pragmatic structure without being modeled as a separate type of linguistic unit. I will therefore suggest that discourserelated lexemes be redefined as a distinct layer of the hierarchically organized pragmatic structure of linguistic utterances, just as lexemes with purely representational content are assigned to a distinct layer of semantic structure. Empirically, the advantages of this proposal are illustrated with the analysis of authentic English examples, mainly from the GloWbE corpus (https://corpus.byu.edu/glowbe/: Davies and Fuchs in English World-Wide 36:1–28, 2015), plus a number of other examples from the internet and from previously published research.

Keywords Pragmatics · Linguistically encoded meaning · Lexical/grammatical distinction · Functional linguistics · Functional Discourse Grammar

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Introduction

After the pragmatics of discourse was brought to the fore of language sciences in the 1960s and 1970s, thanks especially to the work of language philosophers like J.L. Austin, Paul Grice and John Searle, linguists of various theoretical persuasions have been paying increasing attention to the importance of discourse matters for the workings of the grammar. In particular, more and more research has been carried out on the questions of which aspects of discourse tend to be explicitly encoded in linguistic form, in which ways this encoding may be performed in natural languages and how the linguistic elements that fulfil the functions in question tend to develop over time. Generally speaking, however, not much has been said about the lexical items whose specific function is that of conveying pragmatic, discourserelated meanings. In fact, despite the increase in studies dedicated to the explicit linguistic expression of such meanings (especially, to items usually referred to as "discourse markers", "pragmatic markers" and "discourse connectives"), authors working in this field are not often concerned with the distinction between lexical and grammatical encoding of discourse-related functions. The aim of this paper is to start filling this gap by addressing the status that ought to be assigned to lexemes with pragmatic meaning within a functional theory of language structure. This entails the explicit assumption that linguistic expressions with discourse-related meanings do not form a homogeneous set as regards the lexical/grammatical divide but can be distinguished into grammatical and lexical elements (with no prejudice to the gradual nature of the lexicon/grammar opposition), in the very same way as this is commonly assumed to be the case of expressions whose meaning is strictly descriptive (i.e. denotational).

Before proceeding any further, I would like to clarify what I mean as I use the terms semantics and pragmatics. In the terminology adopted here, the notion of semantics is exclusively concerned with the ideational aspects of meaning, that is, with the descriptive representation of referents and states-of-affairs; in their maximal form, such representations are construed as (possibly complex) propositions. In the view of language endorsed in this paper, it is crucial to distinguish between conceptual and grammatical semantics. The former term refers to the abstract conceptual representations construed by the human mind, which may (or may not) be expressed through any type of semiotic code. By grammatical (or *linguistically* encoded) semantics, I refer to the grammatically relevant aspects of the abovementioned abstract representations, that is, to the actual, language-specific ways in which semantic content is structured in verbal communication. This means that such analytical constructs as those of presupposition, logical entailment, conceptual network or the truth conditions relevant to a given linguistic utterance are not the object of grammatical analysis, unless they receive explicit linguistic encoding in the language under consideration (for instance, in case all kinship terms in a given language require a certain type of affix, all movement verbs require a special auxiliary, etc.).

Pragmatics, I will assume, embraces two distinct domains of linguistic communication, namely the interactional/interpersonal and the textual/rhetorical domain. The former includes the emotional/attitudinal and intersubjective content of linguistically communicated messages (where intersubjective refers to those aspects of the message which specifically concern or are grounded in the interaction between speech participants); the latter covers the dimensions of information structure and cohesive rhetorical relations between chunks of text/discourse. As in the case of semantics, not all aspects of pragmatics are directly relevant to the grammar. Conversational implicatures, matters of style, register, genre and the broader relation between language, society and culture pertain to what I refer to as *discourse pragmatics*; by contrast, the explicit linguistic marking of illocution, speech-participant roles or attributes, speaker attitudes (towards the addressee, the speech situation or the message itself), information and rhetorical structure (etc.) are the object of *grammatical*—or *linguistically encoded*—*pragmatics*.

Since the subject of this paper is the place of lexemes with textual or interpersonal functions within a general theory of grammar,¹ my focus will be entirely on linguistically encoded pragmatic meaning and the opposition between the latter and linguistically encoded semantics. In choosing to concentrate on these domains of research, I do not wish to ignore the necessarily rather arbitrary nature of such theoretical constructs as the distinctions between semantics and pragmatics, lexemes and grammatical elements and encoded and non-encoded meaning. This implies that adherents of different theoretical frameworks may prefer to place the boundaries between the two terms in each of these oppositions at different points, or even (equally arbitrarily) reject one or more of those oppositions altogether. In the light of such considerations, Degand and Evers-Vermeul (2015: 74) recommend that linguists working on the emergence and conventionalization of linguistic expressions with pragmatic meaning always be as explicit as possible "about their conceptualization of grammar". Needless to say, this methodological recommendation may-and should—be extended to synchronic studies such as the present one; it is also clear that Degand and Evers-Vermeul's caveat about the need for explicitness about the nature and limits of the grammatical system subsumes an identical caveat as regards more specific notions such as those of lexical versus grammatical, semantics versus pragmatics and linguistically encoded versus non-encoded, which are all fundamental components of one's "conceptualization of the grammar". It is precisely in the spirit of such recommendations that our assumptions concerning the oppositions in question have been introduced at the outset of this paper.

Several contemporary models of language sanction (some dimension of) the textual and interpersonal organization of verbal communication as a legitimate component of the grammatical system. One would therefore expect such a basic tenet of linguistic theory as the lexical/grammatical distinction to have been thoroughly modelled with respect to this dimension of linguistic analysis. As mentioned above, however, the concept of lexeme with discourse-related meaning is virtually absent from the linguistic debate. In the next section ("Functional Models and Interpersonal Lexemes"), I will briefly discuss the positions of various functionally-oriented approaches with regard to (a) the lexical/grammatical distinction and (b) the place

¹ For the sake of brevity, such lexemes will be referred to as *interpersonal lexemes*.

reserved to semantics and pragmatics within the general organization of the grammar. This will allow us to assess the status of interpersonal lexemes, if any, within each of these models. I will start by reviewing the accounts of these important theoretical issues entertained by Discourse Grammar, Construction Grammar and Systemic Functional Grammar and then turn to some narrower-scope works which are not cast within any particular theoretical framework. It goes without saying that it would not be possible to do full justice to all these models within the space of a single paper, nor is it the objective of the discussion in the "Functional Models and Interpersonal Lexemes" section to contest the theoretical premises or the internal consistency of the frameworks taken into account in each of those sections. Any assessment of the existing approaches to a given topic, however, can only be conducted from the specific perspective afforded by the writer's "conceptualization of the grammar" (as Degand and Evers-Vermeul put it). This is precisely what I will be trying to do as I propose my personal evaluation of the position in which different models of functional inspiration find themselves with respect to the notion of interpersonal lexeme, given the respective assumptions about the lexical/grammatical and the semantics/pragmatics opposition. The results of this survey are summarized in the "Interim Summary" section.

In the "Functional Discourse Grammar" section, I will first introduce the general properties of the theory of Functional Discourse Grammar and its account of the lexical/grammatical dichotomy. Subsequently, I will argue that, thanks to its layered approach to the structure of the grammar, the latter model provides a particularly suitable framework for defining and formalizing the status of interpersonal lexemes; however, I will also claim that the actual implementation of the Functional Discourse Grammar model is not quite satisfactory in this respect. This is because, unlike lexemes with ideational/representational content, interpersonal lexemes are not represented as a separate layer at the relevant level of analysis. For this reason, I will propose that the theoretical machinery of Functional Discourse Grammar be expanded by introducing a new layer of the Interpersonal Level (which deals with the grammatically relevant aspects of pragmatic structure), which I will refer to as the Lexical Deed. Drawing on the analysis of English corpus data, I will show that this solution is not only desirable from a theoretical point of view but is also necessary to account for a number of grammatical phenomena that present a serious analytical problem for the Functional Discourse Grammar approach to interpersonal lexemes, as it currently stands.

As is common practice, the conclusions of the paper are presented in a separate section.

Functional Models and Interpersonal Lexemes

Discourse Grammar

The framework of Discourse Grammar (henceforth DG) is based on the recognition of "two domains of speech processing [...], referred to as Sentence Grammar (SG)

and Thetical Grammar (TG)" (Heine et al. 2013: 155). The central idea is that SG is responsible for the processing of clausal constituents, whereas all units that do not form part of the syntactic structure of clauses are handled by a separate module of the grammar (that is, TG):

We assume that SG is organized in terms of propositional concepts and clauses, and that the nucleus of the clause is the verb with its argument structure, optionally extended by peripheral participants (or adjuncts). Its main building blocks are constituent types such as phrases, words, and morphemes plus the syntactic and morphological machinery to relate these constituents to one another. TG, on the other hand, subsumes linguistic elements that are generally seen as being outside the confines of SG. They include what is traditionally referred to as "parenthetical" constructions and various extra-clausal units such as vocatives, imperatives, formulas of social exchange, and interjections (Heine et al. 2013: 155).

As stated in the "Introduction" section, the notion of proposition plays a crucial role in defining the domain of semantic analysis. Since SG is said to be "organized in terms of propositional concepts", whereas TG "subsumes linguistic elements that are generally seen as being outside the confines of SG", as one reads the paragraph above one gets the impression that SG is only concerned with the expression of semantic/ideational meaning and TG only deals with the interactional and textual organization of linguistic utterances. This view is in fact quite explicitly formulated in Heine et al. (2013: 182), who claim that "SG units differ from theticals in their semantic-pragmatic scope potential: Whereas the former have scope over the sentence or some constituent of it, theticals have scope over the situation of discourse".

Now, "the situation of discourse" is defined by Discourse Grammarians as being determined by the six following components: text organization, source of information, attitudes of the speaker, speaker-hearer interaction, discourse setting and world knowledge (Kaltenböck et al. 2011: 861–863). It is beyond doubt, however, that SG units of various kinds may well refer to most-if not all-of these six dimensions of the discourse situation. Consider for instance deictic expressions (which are the prototypical exponents of reference to the discourse setting), text-organizing adverbials like first and foremost or in fact, indications of source of information like I'm told or *allegedly*, speaker-attitudinal adverbs and adjectives (e.g. *luckily*, *dear*) and the performative uses of such predicates as *request*, *declare* or *warn* (which are explicit means of regulating speaker-hearer interaction): all of these are commonly found as clause-internal constituents, that is, as SG elements. In other words, not all elements of SG necessarily relate to the propositional part of the communicated message. Also note that this is not only true of lexical elements such as those mentioned above: morphemes, clitics, or syntactic templates reserved for the marking of illocution, emphasis, politeness, topicality, focus or contrast, which firmly belong within the clausal domain—and thus to SG—also fulfil indisputably discourse-related functions.

Just as not all SG units relate to the descriptive/propositional content of linguistic utterances, not all theticals are inherently pragmatic in meaning. The non-restrictive

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relative clause in (1) and the independent parenthetical clause in (2), for instance, contain a bare description of a proposition endorsed by the speaker:

- And then you had a theologian talking about the Big Bang, which I thought was brilliant. (Kaltenböck et al. 2011: 873)
- (2) Winterbottom, I am quite sure you know that, is a fink. (Heine et al. 2013: 158)

Non-restrictive relative clauses fall within the subtype of theticals referred to as "constructional" theticals, which Kaltenböck et al. (2011: 871) define as "recurrent patterns or constructions of theticals, being compositional but having some schematic structure and function". Free parenthetical clauses, by contrast, are ascribed to the class of "instantaneous" theticals: these "are fully compositional, can be formed freely anytime and anywhere, can be inserted in most syntactic slots of a sentence, and quite a few of them are uttered only once and never again". The third macrogroup of theticals distinguished by Kaltenböck et al. (2011: 871) is that of "formulaic" theticals, defined as "non-compositional information units [whose] shape is essentially invariable. They are usually short chunks, morphosyntactically unanalyzable, tend to be positionally flexible and to express functions that are mostly procedural, and they relate to the situation of discourse rather than to sentence syntax". This group includes interjections, formulas of social exchange like *hello* or *please* and various fixed expressions referred to as "conceptual theticals" (e.g. as it were, for example, if at all, if you will). Note, however, that imperatives and vocatives are also ascribed to the category of formulaic theticals, despite the fact that their internal make-up may well be fully compositional (Heine et al. 2013: 177) and make use of the same semantic and syntactic "building blocks" that constitute the domain of SG according to Heine et al.'s (2013) definition above. Thus, (some types of) formulaic theticals may—and usually do—also convey some amount of strictly descriptive information. In short, it turns out that lexical and grammatical items that serve interpersonal or discourse-organizing functions may fall within either of the two modules of the grammar encompassed by the DG theory, and, the other way round, lexical or grammatical expressions with purely semantic content are not restricted to the domain of SG but may just as well belong to TG. It seems safe to conclude, then, that the SG/TG divide is an essentially syntactic one (within the clause = SG; outside the clause = TG) and does not relate to the issue of semantic versus pragmatic meaning in any straightforward way.² As such, it is not particularly helpful for the endeavour of defining the place of interpersonal lexemes in a general theory of language structure.

² Heine et al. (2013: 160–161) do in fact acknowledge that "there is not always an absolute one-to-one relationship between syntactic structure and some other component", so that the stipulated "match [...] between different components of grammar may not be complete in some cases". However, it is clear from the way this remark is formulated that the authors regard any counterexamples to the purportedly default correlations SG/propositional meaning and TG/discourse-related meaning as being to some extent exceptional. The examples mentioned above should suffice to show that, in practice, such cases cannot be simply dismissed or downplayed as marginal exceptions.

As regards the lexical or grammatical status of the units of TG, Heine et al. (2013: 157) state that "theticals can be sentential, phrasal, or lexical" (emphasis added) but do not develop this idea any further or distinguish explicitly between lexical and grammatical theticals. Heine (2013), on the other hand, focuses on the emergence of discourse markers, a subtype of formulaic theticals whose distinctive properties are the following: "[t]heir meaning is procedural rather than conceptual-propositional" and "they are non-compositional and as a rule short" (2013: 1209; Heine's examples are I mean, look, in fact and goodbye).³ Discourse markers are argued to arise from instantaneous theticals, a shift which involves a loss of "most or all of the lexicalconceptual meaning [the thetical] may have had in favor of discourse-organizing functions" (2013: 1223). Hence, discourse markers are rather explicitly characterized as not being lexical in nature; but, at the same time, they are also not referred to as grammatical items. Importantly, this special status of discourse markers with respect to the lexical/grammatical opposition is not presented as a matter of degree, as in usual clines of grammaticalization: rather, Heine insists that the emergence of discourse markers takes place within TG, whereas grammaticalization is regarded as a separate process, which is specific to SG. The author also argues that, once a discourse marker has emerged (in TG), it may potentially undergo grammaticalization as an element of SG: but, as soon as this happens, the expression will no longer be analyzed as a discourse marker, since discourse markers are explicitly defined as TG units. In sum, as regards the lexical/grammatical opposition, the DG view of discourse markers appears to be that these are neither lexical nor grammatical but represent a genuinely separate class of linguistic elements, to which the lexicon/ grammar divide does simply not apply. This is of course a legitimate position, but also one that does not provide any especially useful insight for a principled definition of interpersonal lexemes.

Construction Grammar

One of the hallmarks of Construction Grammar (CxG) is its rejection of the traditional distinction between lexicon and (morpho)syntax. This is not simply a matter of conceptualizing the boundary between lexicon and grammar "proper" as a gradual rather than sharp one: it is the very distinction between lexical and grammatical categories which is subsumed under the more encompassing assumption that each and every expression or expression pattern of a language can be characterized, in essentially the same way, as a "form-meaning pairing". Note that this does not only apply to the opposition between lexemes and abstract morphosyntactic rules but also to that between lexemes and grammatical words or morphemes (see e.g. Goldberg 1995: 4, 23).

³ Note that these three features, which Heine indicates as being distinctive of discourse markers, are mentioned by Kaltenböck et al. (2011) and Heine himself (2013: 1211) as prototypical properties of *all* formulaic theticals). As a result, the properties that Heine assumes to distinguish discourse markers from other formulaic theticals remain on the whole quite unclear.

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It has sometimes been noticed, however, that in actual practice "many constructional analyses implicitly assume a separation of syntax and the lexicon" (Boas 2010: 55), an assumption which becomes explicit in the work of constructionists like Boas himself and Pulvermüller et al. (2013). As a matter of fact, explicit references to familiar primitives of linguistic analysis such as those of grammatical or morphosyntactic constraints (e.g. Goldberg 1995: 7; Sag 2010; Michaelis 2013), grammatical morphemes and lexical items (countless examples) are not at all uncommon in the work of Construction Grammarians. It may thus be claimed that the distinction between lexical and grammatical items or constructions is after all not really absent from the theoretical apparatus of CxG (although the traditional terms "lexical" and "grammatical" are sometimes replaced by more abstract properties of the items and constructions in question, e.g. "contentful", "referential" or "substantive", as opposed to "procedural", "abstract" or "schematic"—see Traugott and Trousdale 2013: 11–20). In principle, this would put CxG in a good position to account for the notion of interpersonal lexeme.

On the other hand, one reason why this notion does not seem to fit very well within a constructional view of language structure is that "[a]nother notion rejected by Construction Grammar is that of a strict division between semantics and pragmatics. Information about focused constituents, topicality, and register is presented in constructions alongside semantic information" (Goldberg 1995: 7). In principle, one might object that the very fact that Goldberg mentions pragmatic information as being stored "alongside semantic information" implies a recognition of pragmatics and semantics as two mutually irreducible (but not mutually exclusive) levels of analysis. From this point of view, Goldberg's perspective would not seem much different from that of structural-functional models like Systemic Functional Grammar and Functional Discourse Grammar, which also have it that (most) linguistic forms are stored in connection with both semantic and pragmatic features. The crucial differences with those models, however, is that Goldberg unequivocally states that it is not possible to draw a clear distinction between the semantic/ideational and the pragmatic/interactional dimension of meaning construal, which of course makes (her version of) CxG logically incompatible with the very notions of interpersonal versus representational lexemes.

Finally, it should be remarked that constructionists like Goldberg (1995) and Croft (2001) do a rather careful job of distinguishing between the conventionalized (i.e. linguistically encoded) and the inferable or culturally determined aspects of meaning. At the same time, when Goldberg exemplifies the notion of pragmatic information by citing "focused constituents, topicality, and register", she is conflating aspects of linguistically encoded pragmatics such as information structure (topic, focus) and aspects of discourse pragmatics such as register in a single analytical domain. In the perspective adopted here, whether a given lexeme is reserved for a colloquial, formal, technical (etc.) register has nothing to do with the question whether that element contributes to the propositional or the textual/interpersonal part of the message (e.g. *child* and *kid* or *analgesic* and *painkiller* are equally representational in meaning, whereas *bye* and *kind regards* or *sorry* and *beg your par-don* are equally pragmatic). This is thus another reason why CxG does not seem the best-equipped framework to account for the place of interpersonal lexemes within the general structure of the grammar, at least insofar as one accepts the theoretical premises spelled out in the "Introduction" section.

Systemic Functional Grammar

One of the basic tenets of Systemic Functional Grammar (SFG) is the full recognition of the *textual* and *interpersonal* "metafunctions" of language (Halliday 1985; Halliday and Matthiessen 2004, 2014). These are presented as full-fledged, selfcontained dimensions of grammatical analysis, intertwined with the *ideational* metafunction in the formal organization of linguistic utterances, but strictly distinct from the latter—and from each other—in notional and analytical terms. Thus, contrary to DG, SFG regards the three-way distinction between the ideational, interpersonal and textual metafunctions as being orthogonal to the grammatical/lexical opposition. On the other hand, it differs from CxG in assuming a strict separation between the domains of semantics and pragmatics (the latter being further distinguished into discourse organization and speaker-hearer interaction).

SFG would thus seem to be in an ideal position for fully acknowledging the status of interpersonal and discourse-structuring lexemes within the grammatical system. On the other hand, the ways in which various concrete lexical expressions are distributed across the three basic metafunctions distinguished by the theory seems quite questionable to me. For instance, according to Halliday and Matthiessen (2014: 108–109) the class of modal adjuncts, which is assigned as a whole to the interpersonal metafunction, includes (a) frequency and "typicality" adverbs like *sometimes*, always, (n)ever, often, seldom; occasionally, generally, regularly, which concern the objective description of real-world events, and hence would more straightforwardly be ascribed to the ideational/representational domain; and (b) adverbials expressing "reservation" or "validation" like broadly/strictly speaking, which refer to the discursive status of the expressions in their scope and thus would seem to pertain to the textual metafunction. The other way round, all types of "conjunctive adjuncts" are treated as elements of textual structure, including temporal connectives like meanwhile, before that, later on, next, soon-which, again, are clearly ideational in meaning.4

Presumably connected to this lack of clarity in the division of labour between the three metafunctions is the fact that the contribution of certain expressions to the pragmatic organization of linguistic utterances is sometimes downplayed or ignored altogether in Halliday and Matthiessen. On the one hand, the authors rightly acknowledge that "not everything has a function in every dimension of structure" (for instance, discourse-organizing devices like *however* are said to play no role in the ideational metafunction, 2014: 84). On the other, they argue that swearwords

⁴ An anonymous reviewer points out that some of these connectives can also be used as discourse-organizing devices. This is undoubtedly true, but the point is that in the passage in question Halliday and Matthiesen explicitly refer to these expressions as being temporal (thus, ideational and *not* textual) in meaning.

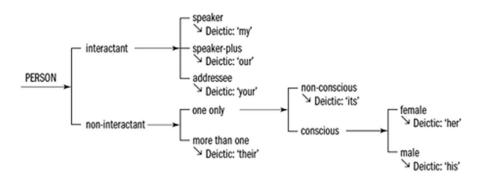


Fig. 1 A fragment of "[t]he nominal group system network: DETERMINATION" (Halliday and Matthiessen 2004: 313)

like *bloody* in *it's a bloody taxation bloody policy* "have very little function of any kind, except to serve as the ongoing punctuation of speech when the speaker has nothing meaningful to say" (Halliday and Matthiessen 2014: 160). Such a hasty dismissal of the communicative role of everyday expressions like the emphatic word *bloody* is hardly compatible with a truly functional analysis, especially, in this case, with the recognition of the interpersonal (meta)function as a separate level of linguistic organization.

As regards the lexical/grammatical opposition, this is regarded in SFG as a matter of *delicacy* along the continuum formed by the network of expressive alternatives referred to as "lexicogrammar". By "delicacy", Halliday and his associates mean the hierarchical level of functional organization at which the selection of a specific expression pattern or individual item is operated. As an example, consider the subsystem of possessive determination in English, as represented in Fig. 1.

Intriguing as this representation format may be from a logical and philosophical viewpoint, defining the lexical/grammatical opposition as a matter of delicacy entails that not only the most delicate (i.e. rightmost) choices in each (sub)system are more lexical than the least delicate (leftmost) ones, but also that any choice, at any level of delicacy, is more lexical/less grammatical than all the choices that come to its left. Thus, according to Fig. 1, the whole class of possessive determiners would have to be understood as a lexical one, since the selection of any individual member of this class is the result of the rightmost alternative on the respective branch of the "determination" network. And even if one accepts this characterization of determiners, it remains far from clear what theoretical assumptions warrant the conclusion that the category of gender should be inherently more lexical than that of (non-) humanness, and this is in turn more lexical than number, which in turn would be more lexical than person (more specifically, the opposition between speech participants and third person referents). Many similar examples can be found in the work of Systemic Grammarians in the light of which it seems doubtful that conceptualizing the lexical/grammatical distinction as a mere matter of delicacy may offer an adequate background for accommodating the notion of interpersonal lexemes.

Other Functional Models

In their account of the structure of English NPs, Davidse and Breban (2019) adopt some important premises of SFG, first and foremost in drawing a sharp divide between "representational functions [which] are concerned with describing the entity referred to" and "interpersonal functions [which] construe speaker stance and speaker-hearer interaction with respect to the representational content" (2019: 332). In addition, this model has the merit of clearly distinguishing between linguistically encoded and language-independent conceptual meaning (see especially Davidse and Breban 2019: 328). All the same, Davidse and Breban's approach does not, in my view, provide a suitable basis for defining the theoretical status of interpersonal lexemes, due to a general lack of concern with the lexical/grammatical distinction. This becomes particularly evident in the indiscriminate use of the catch-all terms "modifier" and "modification", by which the authors refer to articles, determiners like *some* and other grammatical markers like *even*, but also to numerals, "intensifiers" like *pure* and *utter* and clearly lexical adjectives like *platonic*, *knowledgeable*, *wealthy* or *sandy*.

As mentioned in the "Discourse Grammar" section, Heine (2013) appears to regard discourse markers as a separate class of linguistic expressions, distinct from both grammatical and lexical elements. Essentially the same perspective emerges in Norde and Beijering (2014), who explicitly argue that "discourse markers form a category of their own", i.e. they are neither lexical nor grammatical in nature (2014: 402). Other linguists, however, prefer to place discourse markers rather squarely within the domain of, alternatively, the lexicon or the grammar. For instance, Traugott (1995) and Brinton (1996: 64–65) regard the emergence of discourse markers as a subtype of grammaticalization, which of course entails regarding all such expressions as grammatical ones.

The opposite pole of the range of possible analyses of discourse markers, as regards the lexical/grammatical opposition, is represented by accounts such as Fraser's (1996, 1999), where all discourse markers are analyzed as lexical items with procedural meaning. In this way, the author explicitly points to the existence of such a thing as interpersonal lexemes. Fraser (1996), in particular, works out a functionally-based, four-way classification of English expressions with pragmatic meaning which he jointly refers to as *pragmatic markers*, and most of which are explicitly described as lexical elements (the only exception being the subclass of "structural basic markers", i.e. the different syntactic patterns that distinguish declarative, from interrogative, from imperative clauses). In this way, the structural and segmental resources that natural languages exploit for the expression of interpersonal and discourse-related meaning are broken down into more discrete, functionally defined categories. At the same time, the whole class is characterized in such a way that the pragmatic and semantic meaning of linguistic utterances would seem to be kept rigidly separate from each other:

pragmatic markers are not part of the propositional content of the sentence. They are separate and distinct. It follows from this that for a given lexical expression (e.g., *truthfully*, *amazingly*) in a particular sentence, there is no

overlapping of functions. When an expression functions as one type of pragmatic marker, it does not function as a part of the propositional content; and vice versa. (Fraser 1996: 169)

Fraser also emphasizes that "pragmatic markers signal messages that apply only to the direct basic message. They do not apply to any indirect messages which may be implicated by the direct basic message" (1996: 170). In this way, the grammatically relevant aspects of interpersonal and textual structure are neatly separated from the extra-grammatical realm of discourse pragmatics.

As far as the specific purpose of this paper is concerned, the main merit of Fraser's account is that most interpersonal or text-structuring devices are explicitly characterized as being either lexical or grammatical (or, in one case "hybrid"). What remains much less clear, however, is on what basis the large majority of Fraser's pragmatic markers are regarded as lexical rather than grammatical. For instance, polite requests like Can you ...? or May I ...? are classified as "hybrid" markers of the basic message's force. Now, since hybrid markers consist of a structural marker (in this case, an interrogative syntactic pattern) "in combination with certain lexical conditions" (1996: 177), Fraser's analysis would seem to suggest that, in these expressions, it is the use of a specific modal verb that provides the relevant "lexical condition". In turn, this entails the very doubtful assumption that modals must be regarded as lexical elements. Also note that syntactic markers of declarative/interrogative/imperative illocution are the only pragmatic markers of English which are explicitly referred to as being grammatical, rather than lexical in nature; other clearly grammatical markers of pragmatic meanings such as cleft constructions expressing contrastive focus, prosodic contours signaling emphasis or contrast and the illocution-marking or mitigating uses of modal verbs (e.g. May your wildest dream come true; How much will that be?) are left out of consideration. Yet other elements that most linguists would probably classify as grammatical ones, such as the conjunctions and, or and but are assigned to the lexical class of discourse markers with no further explanation. Note finally that, in some cases, the very assignment of certain expressions to the class of pragmatic markers is itself somewhat doubtful. For instance, adverbs like certainly, conceivably, evidently, indisputably, likely, obviously, presumably, arguably and most of the expressions that Fraser (1996: 188) labels "inferential discourse markers" are prototypical examples of proposition-oriented lexemes: although the notions expressed by such lexemes are strictly speaking not part of the proposition itself, their function is that of specifying the degree to which the speaker commits himself or herself to the truth of the proposition, or the mental process whereby he or she has arrived at entertaining that proposition. In other words, the scope of these lexical modifiers is precisely the propositional content of the utterance. Hence, given the definitional status of the notion of proposition for the delimitation of the domain of semantics—as opposed to pragmatics—it would seem natural to ascribe such expressions to the former domain.

Summing up, Fraser's approach certainly has the merit of distinguishing between grammatical and lexical expressions of pragmatic meaning, but unfortunately it does not provide any explicit clue as to where or how the border between the two categories should be drawn. As regards the semantics/pragmatics divide, this is explicitly formulated by the author with reference to the notion of proposition, but the way in which it is applied in the classification of actual expressions is not always straightforward. As a result, a full account of the status of interpersonal lexemes can hardly be developed on the basis of Fraser's typology of pragmatic markers.

Interim Summary

Summing up, either one or both of the following shortcomings may be discerned in the models surveyed in the previous sections, in the light of which none of these models seems to provide an adequate characterization of lexemes with purely pragmatic meaning:

- lack of explicitness or systematicity in defining the lexical/grammatical opposition, resulting in insufficient theorization of the distinction between lexical and grammatical expressions of pragmatic meaning;
- lack of explicitness or systematicity in separating between levels of analysis. This may concern (a) the separation between semantics and pragmatics (resulting in unclear criteria for assigning the function of a specific expression to one or the other component of linguistically encoded meaning); and/or (b) the separation between communicative function and syntactic structure (which leads to the deterministic assumption that intra- and extra-clausal status consistently correlate with semantic and pragmatic meaning, respectively).

Perhaps, among the theoretical frameworks considered so far, only CxG is more or less immune from both of these tendencies. However, as stressed in the "Construction Grammar" section, the fact that (at least some) constructional approaches claim to reject the lexical/grammatical and the semantics/pragmatics oppositions is obviously difficult to reconcile with the very notion of lexemes which conventionally contribute to the expression of purely pragmatic meaning.

Functional Discourse Grammar

General Features

Like its predecessor, Dik's (1997a, b) Functional Grammar, Functional Discourse Grammar (FDG) conceives of the grammatical system as a hierarchically organized, layered structure of units of analysis. The main difference between the two models is that in Functional Grammar this layered approach to the architecture of the grammar only applied to the underlying semantic structure of linguistic expressions, whereas with the emergence of FDG "the hypothesis [was] formulated that a similar degree of layering might be found at the Interpersonal Level [...]; and later, this led to the proposal that the FDG notion of layering could also link up with the already generally accepted hierarchical organization of morphosyntax and phonology" (Hengeveld and Mackenzie 2008: 41).

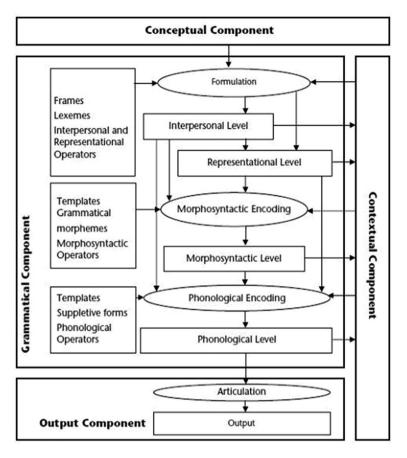


Fig. 2 General layout of FDG (Hengeveld and Mackenzie 2008: 13)

In keeping with the concern with psychological and pragmatic adequacy which already characterized traditional Functional Grammar (Dik 1997a: 12–14), FDG has a Grammatical Component as its core but assumes this to be triggered by a prelinguistic communicative intention developed in a Conceptual Component and to constantly interact with a Contextual Component in order to achieve contextually appropriate outputs. The aspects of the communicative intention which are directly relevant to the grammar of each specific language are translated into a pragmatic and a semantic structure through the grammatical operation of Formulation; these pragmatic and semantic structures are captured at the Interpersonal and the Representational Level respectively, and are in turn translated into a morphosyntactic and a phonological structure through the operations of Morphosyntactic and Phonological Level is passed on to the Output Component, which translates it into an acoustically perceivable output through the post-grammatical operation of Articulation. The general architecture of FDG can accordingly be represented as in Fig. 2, where the model is presented from the viewpoint of language production. It should be stressed, however, that this is a merely conventional choice: as pointed out by Hengeveld and Mackenzie (2008: 2), "the model could in principle be turned on its head to account

for the parsing of utterances" (see Giomi 2014 for details). Note that the language-specific primitives made use of in each grammatical operation are stored in separate partitions of a storehouse for the basic "building blocks" of linguistic structure jointly referred to as the Fund; the various primitives are retrieved by the relevant grammatical operation during the processing of concrete utterances. For the Formulation levels, these primitives include lexemes, which, like grammatical operators, can be split into interpersonal and representational ones.

Outline of the Formulation Levels

All four levels of the Grammatical Component are structured in such a way that each unit of analysis relevant to the level in question consists of a (configuration of) hierarchical lower unit(s). As regards the levels of Formulation, this hierarchical organization captures the fact, as is well known, the lexical and grammatical specifications occurring in linguistic utterances are not all equipollent but may differ in terms of their semantic or pragmatic *scope*. For instance, in the semantic organization of linguistic messages propositions are usually assumed to describe (sequences of) real or fictive situations, each of which is structured in terms of a predicate and a varying number of arguments: each of these units of semantic analysis may be subject to different types of qualifications (by lexical or grammatical means). For instance, a proposition may be said to be true or false, an event may be characterized in terms of its location in time and a predicate may be further specified with respect to, say, manner of action. The principle underlying this informal description is the same that informs the hierarchical structure of the Representational Level of FDG. In its maximal form, this may be represented as in (3) (adapted from Hengeveld and Mackenzie 2008: 142). Note that each layer of semantic analysis is identified by a separate variable (p for Propositional Contents, ep for Episodes, etc.) and is assigned an index so as to distinguish it from other occurrences of the same type of variable:

(3)		
$(\pi p_{1(+n)})$:	Propositio	onal Content
$(\pi ep_{1(+n)})$:	Episod	le
$(\pi e_{1(+n)})$:	Sta	te-of-Affairs
$(\pi \ f_{1(+n)}^{\circ}:[$		Configurational Property
(π ν	l(+n)-	any semantic category
	$(\pi \; f_{2(\texttt{+n})} \texttt{:} \blacklozenge (f_{2(\texttt{+n})}) \texttt{:} \; \sigma \; (f_{2(\texttt{+n})}))$	Lexical Property
(v ₁₍ .	$(v_{1(+n)}): \sigma(v_{1(+n)}))_{\varphi}$	any semantic category
] $(f_{1(+n)}^{c})$: $\sigma(f_{1})$	(+n) ^c)) _o	Configurational Property
$(e_{1(+n)})$: $\sigma (e_{1(+n)}))_{\varphi}$	Sta	te-of-Affairs
$(ep_{1(+n)}): \sigma (ep_{1(+n)}))_{\varphi}$	Episod	le
$(p_{1(\texttt{+}n)}) : \sigma (p_{1(\texttt{+}n)}))_{\varphi}$	Propositio	onal Content

In accordance with the principle of scope exemplified above, each layer of the Representational Level is provided with its own, layer-specific operators (general symbol ' π '), semantic functions (' φ ') and modifiers (' σ '). Operators and functions express grammatical qualifications of the variable to which they apply and differ from each other in that "the latter are relational, holding between the entire unit and other units at the same layer, while the former are not, applying only to the unit itself" (Hengeveld and Mackenzie 2008: 14). Modifiers, by contrast, are lexical strategies for providing further qualifications of a given variable. For instance, I have mentioned above that a proposition may be said to be true or false: accordingly, grammatical expressions of subjective epistemic modality (which specify the speaker's degree of commitment to the truth of the proposition) are analyzed as operators of the Propositional Content, and, correspondingly, adverbs like probably or *indisputably* are regarded as lexical modifiers of the same layer. An Episode consists of "one or more States-of-Affairs that are thematically coherent, in the sense that they show unity or continuity of Time (t), Location (l), and Individuals (x)" (Hengeveld and Mackenzie 2008: 157): Episodes may be located in time either by grammatical operators of absolute tense (e.g. English will or -ed) or by lexical modifiers like three years ago, recently or tomorrow. By contrast, individual States-of-Affairs may be located in relative time by relative tense operators (e.g. the English Anterior operator have V-ed) or modifiers like earlier or after lunch. And so on, down to the layer of Lexical Properties, which hosts the individual lexemes inserted at the Representational Level during the operation of Formulation.

As an example of a fully instantiated layer of the Representational Level, consider the formal analysis of the NP *the young girl*:

(4) (1 x_i : (f_i : girl (f_i)) (x_i): (f_j : young (f_j)) (x_i))_{ϕ}

In this representation, *the young girl* is analyzed as denoting a concrete entity of the class Individual (x_i) , whose head is restricted by a Lexical Property 'girl' (f_i) . Lexical Properties denote intangible properties that may be ascribed to specific referents: these referents may be concrete as in (4), but also more abstract entities such as a State-of-Affairs (e.g. *event*) or Propositional Content (e.g. *idea*). The (x_i) variable in (4) is thus to be read as "an Individual (x_i) such that (x_i) has the Property (f_i) of being a girl". This Individual carries an operator '1', i.e. Singular (expressed in English by lack of plural inflection) and is further restricted by a modifier *young*, which is again analyzed as a Lexical Property. Finally, the whole unit is assigned a semantic function, which will depend on the specific role played by the referent in question in the relevant State-of-Affairs (e.g. 'A(ctor)', 'U(ndergoer)' or 'R(ecipient)').

Let us now turn to the Interpersonal Level, which deals with what I have been referring to as linguistically encoded pragmatics. While the categories relevant to the Representational Level are descriptive in nature, the layers of the Interpersonal Level are characterized in interactional terms. This means that each interpersonal layer is meant to capture a different aspect of the interpersonal or discourse-structuring functions of linguistic utterances, such as the various rhetorical relations that may hold between chunks of discourse, the illocution of each Discourse Act or the grammatically relevant properties of speech participants (e.g. the social status of the interactants with respect to each other, which, in many languages, has consequences for the selection of an appropriate pronominal form, e.g. French *tu* vs. *vous*). The general structure of the Interpersonal Level is given in (5) (adapted from Hengeveld and Mackenzie 2008: 49):

(5)

(П $M_{l(+n)}$: [Move
(П А _{1(+n)} : [Discourse Act
(П F ₁ :	ILL (F_1) : Σ (F_1))	Illocution
(П Р ₁ :	(P_1) : $\Sigma (P_1))_S$	Participant 1 (Speaker)
(П Р ₂ :	$(P_2): \Sigma (P_2))_A$	Participant 2 (Addressee)
(П С ₁ ,	(+n): [Communicated Content
	$(\Pi T_{l(\texttt{+n})}: \bigstar (T_{l(\texttt{+n})}): \Sigma (T_{l(\texttt{+n})}))_{\Phi}$	Subact of Ascription
	$(\Pi R_{l(+n)}: [] (R_l): \Sigma (R_{l(+n)}))_{\Phi}$	Subact of Reference
] (C ₁	$(+n)$): $\Sigma (C_{1(+n)}))_{\Phi}$	Communicated Content
] $(A_{l(+n)})$: $\Sigma (A_{l(+n)})$	$_{n)}))_{\Phi}$	Discourse Act
$(M_{1(+n)}): \Sigma(M_{1(+n)}))_{\Phi}$		Move

Since the Interpersonal Level will be the focus of the last part of this paper, I will now illustrate this structure in some detail. Further exemplification will be given in the section "Interpersonal Lexemes in FDG".

The Move is "the largest unit of interaction relevant to grammatical analysis" and may be defined as "an autonomous contribution to an ongoing interaction" (Hengeveld and Mackenzie 2008: 50). A Move may consist of one or more Discourse Act: these are defined as "the smallest identifiable units of communicative behaviour"; unlike Moves, Discourse Acts "do not necessarily further the communication in terms of approaching a conversational goal" (Kroon 1995: 65, cited in Hengeveld and Mackenzie 2008: 60), i.e. while a Move has a perlocutionary effect, a Discourse Act only has an illocutionary effect. As will be evident from these definitions, Moves and Discourse Acts are not intrinsically different types of communicative actions but represent two hierarchically different units in the organization of discourse. As a result, both Moves and Discourse Acts may contract the same types of *rhetorical functions* with respect to other Moves or Discourse Acts, e.g. Correction or Exemplification: such rhetorical functions may be expressed by grammaticalized discourse markers like well (as in I am fifty. Well, forty-nine) and like (e.g. There is so much we don't know about her. Like why was she in the mental hospital? GloWbE). On the other hand, the different discourse statuses of Moves and Discourse Acts may be revealed by the modifiers which typically apply to the two layers. For instance, an adverbial like to cut a long story short usually introduces "an autonomous contribution to the ongoing interaction" (i.e. a Move), whereas in addition typically indicates the status of a single "unit of communicative behavior" (i.e. a Discourse Act) within a larger argumentative chain, corresponding to a Move. However, for the reasons spelled out above, the distinction between modifiers of the Move and the Discourse Act is not as strict as at the other layers of the Interpersonal Level. Thus, whether a given modifier takes scope over a Discourse Act or an entire Move can only be determined in context.

The head of a Move or Discourse Act may only consist of a configuration of hierarchically lower units. A Move may contain one or more Discourse Acts, and a Discourse Act must contain at least two embedded units. The latter possibility obtains in expressive Discourse Acts consisting of a single interjection (e.g. *ouch, wow, damn*). Interjections are regarded as lexical specifications of the layer of Illocutions, that is, they will be inserted directly into the head of the relevant layer in their phonemic form. Since expressive Discourse Acts are not inherently directed to an addressee, in this case there is no need to represent a second Participant in underlying pragmatic structure; obviously, Expressives also do not convey any semantic content but are mere, self-contained expressions of the speaker's state of mind. Thus, an expressive Discourse Act will take the following, quite simple form at the Interpersonal Level (where the lexical interjections are given in orthographic rather than phonemic form for ease of reading):

(6) $(A_{I}: [(F_{I}: ouch/wow/damn (F_{I})) (P_{I})_{S}] (A_{I}))$

Since Expressives do not convey any semantic/ideational meaning, they need not be analyzed at the Representational Level. Accordingly, Expressives are represented at the Interpersonal Level as not containing a Communicated Content—which is the part of a Discourse Act that must be mapped onto a semantic configuration at the Representational Level. In this respect, Expressives are similar to Vocatives like *Hey!* and other Interactives that only consist of an interactional formula such as *hello*, *thanks*, *sorry* or *go to hell*. Formally, such Interactives only differ from Expressives in that the presence of the Addressee must of course also be reflected at the Interpersonal Level. Note, however, that non-vocative Interactives may also be expanded with a Communicated Content. For instance, *Thank you for not smoking* will be analyzed as in (7), where the Communicated Content corresponds to a Stateof-Affairs at the Representational Level.⁵ This analysis is warranted by the fact that the clause introduced by *for* may contain operators of the State-of-Affairs like the negator *not* or the Anterior tense marker *have V-ed* but not operators of the Episode or Propositional Content (e.g. absolute tense or subjective modality).

(7) IL: $(A_{I}: [(F_{I}: thank you (F_{I})) (P_{I})_{S} (P_{J})_{A} (C_{I}:-for not smoking-(C_{I}))] (A_{I}))$ RL: $(neg e_{i}: (f_{i}^{c}: [(f_{i}: smoke (f_{i})) (x_{i})_{A}] (f_{i}^{c})) (e_{i}))$

Vocatives, on the other hand, never express a Communicated Content but may contain an explicit specification of the Addressee, for instance by means of a lexical expression such as a proper name. In such cases, the head of the Addressee Participant will be restricted by this lexeme. The head of the Illocution may again be restricted by lexical means, as in (8), or by an abstract placeholder 'INTERP(ellative)' if no interjection is present:

- $\begin{array}{ll} \text{(8)} & \text{Hey Bert!} \\ & (A_{I}\text{: } [(F_{I}\text{: hey } (F_{I})) (P_{I})_{S} (P_{J}\text{: Bert } (P_{J}))_{A}] (A_{I})) \\ & (\text{Hengeveld and Mackenzie 2008: 79}) \end{array}$
- $\begin{array}{ll} (9) & \mbox{Bert!} \\ & (A_{I}:\left[(F_{I}:\,INTERP\,\,(F_{I}))\,\,(P_{I})_{S}\,\,(P_{J}:\,Bert\,\,(P_{J}))_{A}\right]\,(A_{I})) \end{array}$

With any other Illocution, the head of the Illocution will be restricted by the appropriate placeholder (e.g. 'DECL(arative)', 'INTERR(ogative)' or 'HORT(ative)'), both Participants will be explicitly represented and a Communicated Content will always be expressed.

The head of a Communicated Content may consist of one or more Subacts. As shown in (5), these are distinguished into Subacts of Reference and Subacts of Ascription. Like all other layers of the Interpersonal Level, Subacts are defined in actional terms: more specifically, a Subact of Reference is "an attempt by the Speaker to evoke a referent" and a Subact of Ascription represents "the Speaker's

⁵ IL=Interpersonal Level; RL=Representational Level. The dashes delimiting the orthographic rendering of the Communicated Content's head signal that this is a simplified representation, in which further embedded layers are omitted for ease of reading.

attempt to ascribe a semantic category" (Hengeveld and Mackenzie 2008: 88, 108). Typical operators of the Subact of Reference are (in)definiteness specifications; modifiers of this layer are first and foremost attitudinal adjectives like *poor/lucky*, *dear*, (*good*) *old* and the like (as opposed to the descriptive uses of the same adjectives, which have semantic rather than pragmatic meaning). Operators of the Subact of Ascription are for instance Approximation markers like the suffix *-ish*, as in *The color of my eyes is yellowish* (Keizer 2015: 88), which indicates that the lexeme to which it attaches is not an entirely appropriate characterization of the ascribed property; such grammatical expressions of Approximation have their lexical counterpart in modifiers expressing notionally similar meanings (e.g. *roughly yellow*), which, again, must be distinguished from the representational uses of the same lexemes (e.g. *roughly 300 pages*). Note further than any Subact may contract (a combination of) the *pragmatic functions* Topic, Focus and Contrast (as opposed to rhetorical functions, which are a property of Discourse Acts and Moves).

The head of a Subact is not usually restricted by lexical means, since the descriptive content of the corresponding expression is not a matter for the Interpersonal Level but can only be captured at the Representational Level. In contrast, most Referential Subacts are headed by Subacts of Ascription: this is because, in order to evoke a referent which is described in terms of a given property, the property in question must of course also be evoked (i.e. ascribed) at the Interpersonal Level. For instance, a simple nominal expression like *a horse* fulfils two interpersonal functions at the same time: it evokes a concrete Individual and ascribes the Lexical Property 'horse' to that Individual. This analysis is formalized in (10a), where each Subact is explicitly connected to the corresponding representational unit (operators of both levels are omitted for ease of reading). Similarly, if more than one property is ascribed to the same referent, the head of the corresponding Subact of Reference will be displayed as a configuration of equipollent Subacts of Ascription, as shown in (10b) for a white horse. This reflects the fact that the different statuses of the properties 'horse' and 'white' is not a matter for the Interpersonal Level but only emerges at the Representational Level, where the Lexical Property 'horse' restricts the head of the Individual (x_i) and the Lexical Property 'white' is analyzed as a modifier providing further information about that Individual:

(10) a. a horse

IL: $(R_{i}: [(T_{1})] (R_{i}))$ $| / (R_{i}) (R_{i}) (R_{i}) (R_{i})$ RL: $(x_{i}: (f_{i}: horse (f_{i})) (x_{i}))$

b a white horse

IL: $(R_I: [(T_I) (T_J)] (R_I))$ RL: $(x_i: (f_i: horse (f_i)) (x_i): (f_i: white (f_i)) (x_i))$

As is evident in these representations, the head of a Subact of Ascription is by default empty. The only exception is represented by the very specific case of semantically void lexical placeholders like English *thingummy*, which are only used when the speaker cannot promptly retrieve the appropriate representational lexeme from memory or does not want to use that lexeme for specific reasons (Hengeveld and Mackenzie 2008: 110–111). As regards Subacts of Reference, the only case in which

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the head of this layer may be restricted by lexical means is that of proper names (or, again, by a non-property ascribing placeholder substituting for a proper name, e.g. *Whatshisname* or *You-know-who*, see Hengeveld and Keizer 2011). As shown in (8)–(9), in fact, proper names are analyzed as lexical expressions of the Interpersonal Level: this is because proper names do not have a representational content of their own (they do not ascribe properties) but function as mere "tags" for uniquely identifiable referents.

Summing up, FDG postulates a strict separation between linguistically encoded pragmatics and semantics, and this is reflected in the division of labour between the Interpersonal and the Representational Level. Taken together, these two levels of analysis cover the whole range of semantic and pragmatic meanings that may receive explicit encoding in a given language; non-encoded (conceptual or discourse-pragmatic) meanings, on the other hand, are not a matter for the Grammatical Component but are part of the pre-linguistic communicative intention developed in the Conceptual Component.

The Lexical/Grammatical Opposition in FDG

That the distinction between lexemes and grammatical elements is not a blackand-white matter is nowadays accepted in most, if not all functionally-oriented frameworks. We already saw that in SFG the gradual nature of this distinction is reduced to a matter of delicacy of lexicogrammatical choices, while in CxG it is often explained in terms of abstraction, compositionality or schematicity (see sections "Construction Grammar" and "Systemic Functional Grammar"). FDG, by contrast, privileges a multifactorial approach on whose basis to assess the overall degree of grammaticality or lexicality of each (class of) segmental expression(s) of a language.

For English, Keizer (2007) identifies no fewer than twelve different criteria, some of which relate to the functional (i.e. interpersonal or representational) properties of linguistic expressions and some to their formal (morphosyntactic or phonological) properties. Each of these criteria assigns one point along the grammatical-lexical axis, so that, in the end, the degree of grammaticality of a given (class of) element(s) can be arithmetically calculated on the basis of how many pluses or minuses the element in question has been assigned. Table 1 reproduces Keizer's (2007: 44) "lexical-grammatical squish" for a number of selected (classes of) English expressions; the relevant criteria are formulated "in such a way that the more pluses, the more grammatical the element in question".

It should be borne in mind that some of the criteria which relate to the formal properties of linguistic expressions are by necessity language-specific. For instance, a criterion familiar from grammaticalization studies such as morphological bondedness does not make much sense for isolating languages—where bound morphemes are by definition rare or even virtually absent—nor for highly polysynthetic languages—where virtually all morphemes may occur as bound ones, regardless of their lexical or grammatical status. On the other hand, I would suggest that, even within one and the same language, not all functional criteria can

Class/ele-	Criterion												
ment	No ascriptive function	Mutually exclusive	Fixed position	Not modi- fiable	No predicate formation	Closed class	Increased frequency	Little or no seman- tic content	Pho- netically reduced	Syntactic No paradigm Focus/ Empha	No Focus/ Emphasis	Fusion	
lets	+	+	+	+	+	;+	+	+	+	+	+	I	11+/1-: 10+
that (compl.)	+	+	+	+	+	;+	+	+	+	;+	+	I	11+/1-: 10+
Articles	+	+	+	+	+	+	+	+	+	;+	I	I	10+/2-:8+
<i>of</i> (prep./ nom.)	+	+	+	+	+	+1	+	+	+1	;+	+	I	9+/1-:8+
Modals	+	+	+	+	+	;+	+	+	+	I	I	+1	9+/2-:7+
Demon- stratives	+	+	+I	+	+	+	dna	+I	I	+	I	I	6+/3-: 3+
Pronouns	+	+	I	+1	+	+	dna	+1	+1	+	I	+1	5+/2-: 3+
<i>in case</i> (conj.)	+	+	+	+	dna	+1	+1	+1	+	I	I	I	5+/3-: 2+
Numerals	+	+	+	i-	I	+	dna	+1	I	I	I	I	4+/6-: 2-
<i>in the</i> <i>event</i> <i>that</i> (conj.)	+	+	+	+	dna	+1	I	I	I	I	¢. I	I	4+/6-: 2-
sort- oflkind- of	+	ć I	I	+	dna	I	+	+I	+1	I	I	I	3+/6-: 3-
through (prep.)	+1	+	+1	+1	;+	+1	dna	I	I	I	I	I	2+/5-: 3-
under (prep.)	+	+1	+	ć-	+1	+I	dna	I	I	I	I	I	2+/5-: 3-

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be applied to all classes of linguistic items: at the very least, a distinction should be posited between criteria that are relevant to the Interpersonal and the Representational Level. The possibility of serving as the input for predicate-formation rules, for instance, is certainly useful for identifying lexemes with representational content, but cannot be applied to the lexemes inserted at the Interpersonal Level, because the very notion of predicate has no relevance to that level of analysis. The other way round, the lexical or grammatical status of an interpersonal expression may be assessed, among other parameters, by checking whether the item in question can occur as a holophrase. Interpersonal elements which restrict the head of the Illocution layer may usually stand on their own as isolated utterances (e.g. *sorry*, *hey* or *whatever*), whereas those which cannot occur in that position are in principle good candidates for being assigned fully grammatical status (e.g.'*cause*, *like*, *thus*).

Once the criteria relevant to a given language and class of elements are identified, the next step is to decide where the line between lexical and grammatical elements should be drawn. For English, Keizer (2007: 47) suggests that a first boundary be placed somewhere between + 3 and + 7. Elements with a final score above or slightly below + 7 may thus be regarded as fully grammatical ones; those that get a score around + 3 are regarded as "secondary grammatical words" and, though not being as fully grammaticalized as the preceding, may still be represented as operators or functions at the Formulation levels. Conversely, items assigned a score below -3 will be understood as fully lexical expressions which may function either as heads or as modifiers. Needless to say, the overwhelming majority of English free words belong to this class. In between, there is a variety of items which Keizer (2007: 50–51) proposes to distinguish into "secondary lexical elements" and *lexical operators*: the latter are similar to grammatical markers in that they may not function as heads or modifiers, but resemble lexical items in that they will be inserted in their phonemic form at the relevant level of Formulation, rather than being represented by abstract placeholders such as "1" in (4) or "neg" in (7). For instance, at the layer of Subacts of Ascription, the difference between the fully grammaticalized Approximation operator *-ish*, a lexical operator like sort-of and a fully lexical modifier expressing the same notional category like roughly may be formalized as shown in (11a-c).⁶ Again, the lexemes roughly and *yellow* and the lexical operator *sort-of* are represented in orthographic rather than phonemic form for ease of reading:

(11)	a.	yellowish	b.	sort-of yellow	c.	roughly yellow
		IL: (Approx T _I)		IL: (sort-of T _I)		IL: $((T_I): roughly (T_I))$
		RL: $(f_i: yellow (f_i))$		RL: $(f_i: yellow (f_i))$		RL: $(f_i: yellow (f_i))$

⁶ Note that *sort-of* is regarded as a secondary lexical element in Keizer (2007: 48), but as a grammatical operator in Hengeveld and Mackenzie (2008: 112) and Keizer (2015: 89).

Linguists may of course have different opinions as to which criteria are or are not relevant to the lexical/grammatical opposition, and may also disagree about where exactly the boundary should be placed. But, in any case, a multifactorial approach such as proposed by Keizer offers the important advantage of providing a clearly defined set of parameters for distinguishing between lexical and grammatical elements. In addition, it allows even a highly formalized model like FDG to handle the gradual nature of the lexical/grammatical distinction, thanks to the notion of lexical operator.

Interpersonal Lexemes in FDG

The "Homeless" of FDG

In the "General Features" section, we saw that FDG draws a strict, principled separation between linguistically encoded pragmatics and semantics, on the one hand, and between lexical and grammatical elements, on the other. Now, as argued in the "Interim Summary" section, a lack of clarity or systematicity in one or both of these distinctions is precisely the reason why the status of lexemes with interpersonal or discourse-structuring functions has failed to be thoroughly modelled in other frameworks of functionalist orientation. It follows that FDG finds itself in an ideal position to bridge this gap. In fact, by analyzing lexemes with pragmatic meaning as either heads or modifiers of specific variables of the Interpersonal Level, FDG explicitly assigns to each interpersonal lexeme its own, well-defined role in the general structure of the grammar. This role may be contrasted, on the one hand, with that of grammatical markers of interpersonal categories—which likewise belong to the Interpersonal Level but are represented as operators or functions, rather than heads or modifiers; on the other hand, interpersonal lexemes are distinguished from lexemes with semantic content, which are inserted at the Representational rather than the Interpersonal Level.

All the same, the status of interpersonal lexemes in the current FDG model is not as *fully* recognized as the theoretical premises illustrated above would permit. Let us explain this by way of comparison. As noted in the "Outline of the Formulation Levels" section, all lexemes inserted at the Representational Level are analyzed as separate Lexical Properties, regardless of whether they are used as arguments, predicates or modifiers. I also mentioned that a Lexical Property may restrict the head of any other type of representational variable (with the exception of Configurational Properties, which by definition never take lexical heads), for instance a State-of-Affairs (e), Propositional Content (p), Time (t) or Location (l):

(12)	a.	event	b.	idea
		$(e_i: (f_i: event (f_i) (e_i))$		$(p_i: (f_i: idea (f_i) (p_i))$
	c.	period	d.	place
		$(t_i: (f_i: period (f_i) (t_i))$		$(l_i: (f_i: place (f_i) (l_i))$

What we never find at the Representational Level is a lexeme that is not analyzed as a Lexical Property.⁷ This means that, once a representational lexeme is retrieved from the Fund of primitives, it can never function as a "stand-alone" unit in underlying semantic structure but must necessarily restrict the head of a specific type of representational variable in order to be used in a concrete linguistic expression. This is not just a matter of notational convention but directly follows from the principle that semantic representation is organized as a layered structure, where each layer corresponds to a separate semantic category.

This principle is not specific to the Representational Level but is central to FDG's approach to linguistic analysis, at all four levels of grammatical representation. Indeed, neither at the Representational Level nor at the levels of Encoding do we ever find a unit expressed in phonemic or orthographic form which is inserted into the layered structure of the relevant level without forming (part of) the head of some type of variable. This, however, is precisely what happens systematically in FDG's current representation of lexical modifiers inserted at the Interpersonal Level, as can be seen for instance in (13)–(19) (all (adapted) from Hengeveld and Mackenzie 2008):

- (13) To cut a long story short, I'm still considering it, but I doubt very much I'll get there. (M_I: [(A_I:-I'm still considering it-(A_I))_{Concession} (A_J:-I doubt very much I'll get there-(A_J))] (M_I):-to cut a long story short-(M_I))
- (14) In addition, issues such as quality and a customer-oriented approach will be kept in mind.
 (A_I:-issues such as quality and a customer-oriented approach will be kept in mind-(A_I): in addition (A_I))
- (15) Frankly, why did you do it?
 (A_I: [(F_I: INTER (F_I): frankly (F_I)) (P_I)_S (P_J)_A (C_I:-why did you do it-(C_I))] (A_I))
- (16) I **promise** you sincerely that this is not a trick. (A_I: [(F_I: promise (F_I): sincerely (F_I)) (P_I)_S (P_J)_A (C_I:-this is not a trick-(C_I))] (A_I))
- (17) Reportedly/Unfortunately there was some history of threats of domestic abuse in the family.
 (C₁:-there is some history of threats of domestic abuse in the family–(C₁): reportedly/unfortunately (C₁)
- (18) I Caesar (P_I: [+S] (P_I): Caesar (P_I))_S
- (19) **old** Bill (R_I : Bill (R_I): old (R_I))

These examples illustrate the use of a number of interpersonal lexemes which I have not yet discussed from an FDG perspective, namely:

• performative predicates like *promise* in the head of the Illocution layer ("lexical basic markers" in Fraser's 1996 terminology);

⁷ The only exception is that of "pro-Propositional Contents" like *yes* and *no*, which are inserted directly into the head of a (p)-variable without heading a separate Lexical Property (Hengeveld and Mackenzie 2008: 146–150).

- illocutionary modifiers such as *frankly* and *sincerely* (roughly corresponding to Fraser's "manner-of-speaking markers");
- proper names used as modifiers of the layer of Participants, e.g. *Caesar* in (18);
- attitudinal and reportative modifiers of the Communicated Content like *unfor-tunately* and *reportedly* (roughly corresponding to Fraser's "assessment" and "hearsay" markers, respectively; note that reportativity is regarded as an interpersonal category in FDG, contrary to proposition-oriented evidential categories like inference and conjecture). Also note that the same notional categories may also apply to Subacts of Reference (19) or Ascription (e.g. *a fortunately slim publication, an allegedly defamatory article*, Hengeveld and Mackenzie 2008: 111).

Together with the analysis of further types of interpersonal lexemes presented in "Outline of the Formulation levels" (interjections, interactional formulas and the use of proper names in head position), this shows that the theoretical and formal apparatus of FDG is capable of modelling the various uses to which interpersonal lexemes may be put in linguistic interaction in a consistent and exhaustive way. On the minus side, I have pointed out above that the formal representation of interpersonal modifiers illustrated in (13)–(19) represents a real *unicum* in the context of the FDG model, namely in that no other linguistic unit is ever inserted at the relevant level of representation without forming part of a specific type of variable. There is no explanation for this inconsistency in Hengeveld and Mackenzie (2008) (nor elsewhere in the FDG literature), nor would there appear to be particular theoretical reasons why interpersonal modifiers should be treated differently from all other types of linguistic units.

The situation is only apparently different with lexemes that restrict the head of interpersonal variables, e.g. performative predicates or interjections in the head of the Illocution layer and proper names in the head of a Participant or Referential Subact. At first glance, the occurrence of a lexical item in these positions would not appear to bring along the same type of theoretical problem as I have remarked for interpersonal modifiers, since an interpersonal lexeme occurring in head position does not arise in the middle of nowhere, as it were, but in a precise slot of the interpersonal hierarchy. Still, lexemes inserted directly into the head of Illocutions, Participants or Referential Subacts, without being formalized as a separate type of variable, are again treated differently from the lexemes of the Representational Level, which are consistently analyzed as Lexical Properties.

The differential analysis of interpersonal and representational lexemes is not only problematic from a theoretical viewpoint but also has unfortunate implications for explaining the grammatical properties of interpersonal lexemes. To start with, certain lexical expressions with interpersonal meaning may fall within the scope of other lexical or grammatical specifications. For instance, Keizer (2018: 75) notices that the illocutionary modifier *frankly* can in turn be "modified [...] by *quite* (very frequently), *very* and *just*":

- (20) a. We know very little about what works and quite frankly they do not want to be treated.
 - b. [...] **very frankly** our first and foremost job is not to advance social causes, however meritori ous they may be.
 - c. And what was questioned there was a case of one of the assumptions, but **just frankly** the other scientists didn't agree with one of his assumptions.

Abstracting away (for the moment) from the lexical or grammatical status of the elements *quite*, *very* and *just*, it is clear that no lexical item may ever undergo such operations as modification or the assignment of grammatical operators unless the item in question falls under a separate variable at the relevant level of Formulation. It follows that (20a–c) cannot be adequately modelled by FDG's standard approach to interpersonal lexemes, in which Illocution modifiers like *frankly* are inserted as bare lexical items into the relevant slot of the Interpersonal Level, without corresponding to any specific variable. As we will see in the next section, similar examples of modification or operator assignment are easily encountered with lexical modifiers of all layers of the Interpersonal Level.

Another type of evidence that casts doubt on the way in which interpersonal lexemes are currently formalized in FDG is the possibility of these items being coordinated with each other. Performative predicates, for instance, may be coordinated with other performative predicates, as in (21). Again, this entails that each of the coordinated elements must correspond to a separate unit in underlying interpersonal structure.

(21) I declare and direct that it shall be lawful for independent candidates, along with candidates sponsored by political parties, to contest presidential, parliamentary and local council elections. (GloWbE)

According to Hengeveld and Wanders (2007), the head of the Illocution layer may also be restricted by such conjoining expressions as *supposing*, *assuming* or *considering*. These connectives may be combined with modifiers like *for a moment* or *for the sake of the argument* (in their non-descriptive uses):

(22) Considering **for a moment/for the sake of the argument** that salaries are rising, we should try to reduce the production costs.

(Adapted from Hengeveld and Wanders 2007: 224)

In these structures, the scope of *for a moment* appears to be somewhat narrower than that of *for the sake of the argument*. The latter provides additional information about the status of the Illocution within the respective Discourse Act and is therefore interpreted as a modifier of the Illocution layer itself; by contrast, *for a moment* in (22) specifies the extent to which the Addressee is invited to draw attention to the following Communicated Content. Syntactically, that *for a moment* has narrower scope than *for the sake of the argument* is evident from the fact that the former modifier obligatorily occurs closer to the lexical head of the Illocution, suggesting that *for a moment* only takes scope on the lexeme embedded within the (F) variable, and not on the whole layer:

(23) a. Considering for a moment, for the sake of the argument, that...

b. *Considering for the sake of the argument, for a moment, that...

Proper names may also occur in the scope of narrow-scope operators or modifiers, which again would be impossible if proper names did not constitute a variable which can host such lexical or grammatical specifications. In (24a–b), the proper names *Kenny* and *Niki* fall within the scope of an operator Negation; (24b) also illustrates the possibility of proper names being modified by a lexical expression like *actually*. Note that such operators and modifiers are usually capitalized in writing, showing that they are understood as specifications of the proper name itself, and not as taking scope on the Individual corresponding to the NP at the Representational Level:

(24) a. A: Now gosh darn it fellas, my name is not Kenny. Kenny is dead.
 B: OK, Not-Kenny.
 (South Park, Season 6, Episode 1, aired 1997; dialogue excerpt available at https://www.youtube.com/watch?v=DdJwm8sAYLA&feature=youtu.be&t=6)
 b. The Greatest American Hero was frozen by Not Niki, who threatened to expose her as the NW Note of the New York and th

Actually Niki [...]. (GloWbE)

Finally, in (semi-)fixed referential expressions such as *Bonnie and Clyde* or *Tom and Jerry*, the coordinated proper names may be argued to constitute a single Subact of Reference togethe—or a single Participant, in the case of Vocatives like *Hey*, *Bonnie and Clyde!*. Coordinated proper names used in this way can therefore be represented as equipollent lexical fillers of an (R) or (P) variable at the Interpersonal Level.

Interpersonal Lexemes as Lexical Deeds

In the section "The "Homeless" of FDG" we saw that an adequate treatment of naturally occurring linguistic structures of the type of (20)–(24) is not possible unless lexemes with pragmatic meaning are formalized as full-fledged units of the Interpersonal Level. To overcome the problems posited by such constructions, I suggest that lexemes inserted at the Interpersonal Level be redefined as heads of a separate type of variable, which I will refer to as the *Lexical Deed*.⁸ This term is intended to capture the fact that, like all other layers of the Interpersonal Level, the insertion of a lexeme in a given position of pragmatic structure amounts to a communicative action that is performed by the speaker in an attempt to influence the addressee's information state. The symbol that I will be using to represent this newly introduced variable is 'D' (for "Deed"). This solution not only restores the parallel between representational and interpersonal lexemes but has the important advantage of allowing

⁸ Heartfelt thanks to Lachlan Mackenzie for suggesting this label to me.

FDG to account for the assignment of operators and modifiers to lexical items with pragmatic meaning and for the possibility of such lexemes being coordinated with each other. Let us see a few concrete examples.

As pointed out in the "Outline of the Formulation Levels" section, the head of a Move or Discourse Act may only be of the configurational type. This means that, at these layers, lexical items may only occur in modifier function. According to Hengeveld and Mackenzie (2008: 64), modifiers of the Discourse Act "may indicate the stylistic properties of the Discourse Act (e.g. *briefly*), or the status of the Discourse Act within the Move (e.g. *in addition*)". Although this is on the whole quite uncommon, it is not impossible for such modifiers to be in turn modified by other lexical expressions or to be assigned partially or fully grammaticalized operators. Consider (25a–b), where *fucking* is analyzed as an *Emotional Emphasis* operator after Mackenzie (2019) and *very* is regarded as a lexical item because it can itself occur in the scope of polarity operators (e.g. *not very briefly*) or be intensified by means of reduplication (*very very briefly*)⁹:

- (25) a. **In fucking addition**, he fucking did a sniper shot like he was in a video game! (https://kiss-novel.com/ability-wielders/chapter-14)
 - b. Very briefly, The Venus Project is an organization that proposes a feasible plan of action for social change, a holistic global socio-economic system called a Resource Based Economy [...].

(GloWbE)

Applying the proposal that interpersonal lexemes be formalized as Lexical Deeds, and the above analysis of the elements *fucking* and *very*, (25a–b) can be represented as in (26a–b). Note that the fact that *fucking* in (25a) occurs within (and not outside) the modifier phrase in the linear order of constituents is regarded as a merely syntactic property of this type of expressions: from a functional point of view, it is clear that the Emotional Emphasis operator takes scope over the whole Lexical Deed *in addition*, as illustrated in (26a). As regards the lexical intensifier *very*, I follow Keizer (2020a) in distinguishing between interpersonal and representational grading. The former is regarded here as a category relevant to the layer of Lexical Deeds, expressing reinforcement or attenuation of the communicative action performed as the lexeme in question is inserted at the Interpersonal level. Representational grading applies to Lexical Properties—the semantic counterpart of Lexical Deeds—and expresses "degree or precision" (Keizer, 2020a; see also Hengeveld and Mackenzie 2008: 230–231, 235).

(26) a. (A_I: [...] (A_I): (EmoEmph D_I: in addition (D_I)) (A_I))
b. (A_I: [...] (A_I): (D_I: briefly (D_I): (D_I: very (D_I)) (A_I)) (A_I))

⁹ As pointed out by Van de Velde (2007: 227) and García Velasco (2013: 88), it is often unclear whether *not* in *not very A/Adv* takes scope over *very* or the whole sequence *very A/Adv*. In fact, which interpretation is foregrounded in each case depends on the context of utterance.

At the layer of Illocutions, lexemes can occur either as heads or as modifiers. Several interjections (27), interactional formulas (28) or conjoining expressions (29) that may restrict the head of the Illocution are available for lexical modification and/ or the assignment of operators. Note that *bloody* is again analyzed as an Emotional Emphasis operator (the alternation with *fucking* being essentially a matter of register), whereas *so* is represented as a bare Emphasis operator:

(27) We either get it, or we get eliminated. Bloody hell—Is it really that freaking difficult? (GloWbE)

 $(F_I: (EmoEmph D_I: hell (D_I)) (F_I))$

(28) a. So sorry life in Cleveland Park is such a downer, seems like the whole world is against you.
 (GloWbE)
 (F. (F. -1, P. (GloWbE))

 $(F_{I}: (Emph \ D_{I}: sorry \ (D_{I})) \ (F_{I}))$

b. Actually, you're right. I was a bit out of line there. Terribly sorry for that. (GloWbE)
(F₁: (D₁: sorry (D₁): (D₃: terribly (D₃)) (D₁)) (F₁))

(29) Assuming for a moment that is true, don't you think that is exactly how it should be? (GloWbE)

 $(F_{I}: (D_{I}: assume (D_{I}): (D_{I}: for a moment (D_{I})) (D_{I})) (F_{I}))$

As shown in (21) above, two performative predicates may occur in coordination structures within one and the same Discourse Act. Again, this is only possible if each performative predicate heads a separate variable, namely a Lexical Deed. Since no more than one Illocution variable may be present within a single Discourse Act, the two Lexical Deeds corresponding to the coordinated performative expressions must be analyzed as equipollent units that jointly restrict the head of the Illocution layer, as illustrated in (30):

(30) I declare and direct that...

 $(F_{I}: [(D_{I}: declare (D_{I})) (D_{J}: direct (D_{J}))] (F_{I}))$

Needless to say, coordination is not possible when the Illocution of the Discourse Act is specified by a grammatical placeholder like DECL, INTERR, IMPER, HORT (etc.). Accordingly, the structural or segmental markers that indicate such abstract illocutionary values are by definition incompatible with each other.

As we saw in section "The "Homeless" of FDG", modifiers of the Illocution layer are "manner-of-speaking" adverbials of the type of *frankly/sincerely* (etc.) and *for the sake of the argument*.¹⁰ As shown in (20a–c), such lexemes may again be

¹⁰ When occurring as extraclausal constituents, such adverbials may be analyzed as separate Discourse Acts with subsidiary status, rather than as modifiers of other layers (Keizer 2018, 2020b). The same goes for the adverbials in (13)–(15), (25) and (33) below. In any case, insofar as their meaning is interpersonal and not representational, the lexemes in question are still Lexical Deeds.

modified by other lexical expressions or occur in the scope of grammatical or semigrammatical grading operators. In (31a–b), *quite* and *just* are represented as lexical operators because, on the one hand, they may in turn be negated by the fully grammaticalized operator *not*, but unlike *very* in (25b) they may not be intensified via reduplication; in addition, they differ from fully lexical grading expressions like *at least* (see below) in that they obligatorily precede the item they apply to. In (31c), *really* is analyzed as an emphatic modifier of the Lexical Deed *to be honest* (cf. *a really nice example, a really expensive tie,* where *really* modifies a Subact of Ascription—Hengeveld and Mackenzie 2008: 111; Keizer 2015: 87).

(31) a. quite frankly

 $(F_{I}: [\ldots] (F_{I}): (quite D_{I}: frankly (D_{I})) (F_{I}))$

- b. supposing, just for the sake of the argument, that... (F₁: (D₁: suppose (D₁)) (F₁): (just D_j: for the sake of the argument (D_j)) (F₁))
 c. To be really honest I was scared and I felt very sick that first day.
- (GloWbE) (F_I : DECL (F_I): (D_I : to be honest (D_I): (D_J : really (D_J)) (D_I) (F_I))

Like performative predicates, illocutionary modifiers may also be coordinated, as for instance in (32):

(32) But honestly and respectfully, I don't think that you have a very good understanding of the field. (GloWbE)

 $(F_I: DECL (F_I): [(D_I: honestly (D_I)) (D_J: respectfully (D_J))] (F_I))$

As in the case of Moves and Discourse Acts, the head of a Communicated Content may only consist of a configuration of one or more hierarchically lower units namely, one or more Subacts of Reference and/or of Ascription. Communicated Contents can however be modified by lexical means. As shown in (33a–b), it is not quite exceptional for Lexical Deeds that modify a Communicated Content to occur in the scope of further lexical or grammatical specifications (note that the grammaticalized intensifier *most* in (33a) is represented as '+', following the convention introduced by Mackenzie (2001) for the representational uses of degree words). Coordination of two Lexical Deeds that modify the Communcated Content is probably less common, but by no means ungrammatical, as illustrated (33c):

epltalk's original report has been backed up by the actions of setanta: removing the games from their own schedules, and (at least reportedly) replying to inquiries with statements like "ESPN now has the rights to those games".
 (GloWbE)

 $(C_1 : [\dots] (C_1): (D_1: reportedly (D_1): (D_1: at least (D_1)) (D_1)) (C_1))$

c. Admittedly and unfortunately, there is no straightforward, quick fix solution [...]. (GloWbE)

 $(C_{I}: [\ldots] (C_{I}): [(D_{I}: admittedly (D_{I})) (D_{J}: unfortunately (D_{J}))] (C_{I}))$

Note that, unlike *most*, the grading expression *at least* is not represented as an operator but as a Lexical Deed modifying another Lexical Deed (*reportedly*). This analysis is motivated by the fact that this adverbial enjoys a certain degree of syntactic mobility (cf. *at least reportedly/reportedly at least*) and may in turn occur in the scope of other modifiers or grammatical operators (e.g. *at the very least*, where *very* is not an intensifier but a lexical expression of the interpersonal category "exactness", see Keizer 2015: 88).

Let us now turn to proper names, which as we already saw may occur in various slots of the Interpersonal Level. Consider first the use of proper names as heads of Referential Subacts: again, proper names used in this way can be negated (if only in a mocking way), modified by lexical means or coordinated with each other to form a single Subact of Reference. These three possibilities are illustrated and formalized in (34)–(35).¹¹

- (34) The Greatest American Hero was frozen by **Not Niki**, who threatened to expose her as **Actually Niki** [...]. a. $(R_1: (Neg D_1: Niki (D_1)) (R_1))$ b. $(R_1: (D_1: Niki (D_1): (D_1: actually (D_1)) (D_1)) (R_1))$
- (35) the story of **Bonnie and Clyde**

 $(R_I: [(D_I: Bonnie (D_I)) (D_J: Clyde (D_J))] (R_I))$

Adjectival modifiers of the Referential Subact may likewise occur in the scope of further lexical or grammatical specifications, for instance grading operators like the suffix *-est* in (36a) and negators like *not so* in (36b). This may happen regardless of whether the modified Subact of Reference is headed by a proper name or an empty Subact of Ascription (corresponding to a common noun with semantic content inserted at the Representational Level). Note that *not so* in (36b) is analyzed as a single Negation operator: this is not only consistent with the fact that both words are included within brackets together in the original text but also reflects the fact that neither word can be used on its own, with the intended meaning, in the relevant context (in fact, both *my not poor kids* and *my so poor kids* would most naturally trigger a representational reading of the adjective *poor*, i.e. one in which the speaker makes reference to the financial situation of the family).

¹¹ Note that Lexical Deed negation is different from Referential Subact negation. The latter type of negation may be observed in such sentences as *He is not Mr Bergoglio, he is His Holiness the Pope*, where "one Subact of Reference 'Mr Bergoglio', is replaced by a more appropriate one 'His Holiness the Pope'" (Hengeveld and Mackenzie 2018: 40).

(36) a. My dear wife, I have received your kind and welcome letter of the 20th of March which is the greatest happiness I have enjoyed ever since the day I have parted my dearest Mary.
 (GloWbE)

 $(R_I: (D_I: Mary (D_I) (R_I): (+D_J: dear (D_J)) (R_I))$

b. I have a matching library of films and my (not so) poor kids have been watching Disney films since they were born.
(https://www.luxuriousglitter.co.uk/post/my-top-4-disney-film-favourites)
(R₁: (T₁) (R₁): (Neg D₁: poor (D₁)) (R₁))

As shown in (8)–(9) above, Hengeveld and Mackenzie (2008) have it that proper names used as heads of the layer of Participants, as typically happens in vocatives, are inserted directly into the relevant slot without forming a separate interpersonal variable. This analysis incurs the usual consequences deriving from the lack of recognition of interpersonal lexemes as a distinct type of variable, being unable to account for the possibility of proper names used in this way being negated or coordinated with each other, as in (37a–b). Once again, the problem disappears as soon as each proper name is represented as a separate Lexical Deed:

(37) a. OK, Not-Kenny.

 $\begin{array}{l} (P_J: \left(\text{Neg } D_I; \text{Kenny} \left(D_I \right) \right) \left(P_J \right) \right)_A \\ \text{b.} \qquad \text{Hey, Bonnie and Clyde!} \\ (P_J: \left[\left(D_I; \text{Bonnie} \left(D_I \right) \right) \left(D_J; \text{Clyde} \left(D_J \right) \right) \right] \left(P_J \right) \right)_A \end{array}$

As regards the modifiers of the Participant layer, note that these must not necessarily be proper names as in (18) above but may be any expression whereby the speaker indicates "a facet of him/herself or of the Addressee that is relevant to the Illocution" or "select[s] a particular Addressee" (Hengeveld and Mackenzie 2008: 85). With grammatical expressions like *there* in *you there*, no modification or operator assignment of the relevant type is allowed (cf. **you not-there*); with lexical expressions, however, the usual operations become possible. This is shown in (38), where the negated Lexical Deed *non-friend* is used as a modifier of the Addressee Participant¹²:

 $\begin{array}{ll} \text{(38)} & \text{You betrayer, you non-friend!} \\ & \text{(OpenSubtitles corpus)} \\ & \text{(P_J: [+ A] (P_J): (R_I: (Neg D_I: friend (D_I)) (R_I)) (P_J))_A} \end{array}$

The whole expression *non-friend* is analyzed as a Subact of Reference, so as to do justice to the possibility of modifying NPs apposed to a Participant by means of the same types of interpersonal adjectives that may be attached to other referential expressions (e.g. *dear* in *I assure you dear readers, that due to this problem—I hope to marry either a Christian or a Jewish man.* GloWbE). Also note that the head of the Participant is restricted by an abstract feature [+A(ddressee)] (see Hengeveld and Mackenzie 2008: 118): this might appear redundant, since a subscript 'A' is also

¹² http://opus.nlpl.eu/OpenSubtitles-v2018.php. See Lison and Tiedemann (2016) for description.

appended to the whole layer. The redundancy, however, is only apparent, since that subscript indicates *the Participant function* 'Addressee' (and as such it is also there when the head of the Participant is restricted by lexical means, cf. 37a–b); by contrast, the function of the abstract feature [+A] is that of triggering the use of the second person pronoun *you*,¹³ which, as a grammatical element, cannot be inserted in its final form at the Interpersonal Level, as is done in Hengeveld and Mackenzie (2008: 85).

Finally, let us briefly consider the case of lexical placeholders like *thingummy*, whereby the speaker signals her/his inability or unwillingness to ascribe a specific semantic category. As pointed out in the "Outline of the Formulation Levels" section, these are the only possible lexical fillers for the head of a Subact of Ascription; these expressions are also the only interpersonal lexemes which will not be analyzed as Lexical Deeds. The reason for this is that, unlike the other lexemes considered in this section, lexical placeholders cannot be assigned modifiers or (semi-)grammaticalized operators of the type relevant to the layer of Lexical Deeds, nor can they be coordinated with other interpersonal lexemes. In this respect, they are in fact similar to the "pro-Propositional Content" *yes* and *no*, which, as explained in footnote 7, are the only representational lexemes that are not analyzed as Lexical Properties in Hengeveld and Mackenzie (2008).

Conclusions

In this paper, I have argued that the status of lexemes with interpersonal and discourse-organizing meanings is not adequately recognized in most functionally-oriented linguistic frameworks. I have claimed that this is due to a generalized undertheorization of (a) the distinction between separate levels of grammatical analysis and/or (b) the distinction between lexical and grammatical elements. The theory of Functional Discourse Grammar, by contrast, was found to be in an optimal position to fill this gap, thanks to its strict separation between an Interpersonal and a Representational Level and to its principled, multifactorial approach to the lexical/grammatical opposition.

However, the potential afforded by these theoretical premises is not fully exploited in the formal analysis of interpersonal lexemes endorsed by the FDG model as it currently stands: while lexemes with semantic content are consistently analyzed as Lexical Properties at the Representational Level, lexemes with pragmatic meaning are assumed to be inserted in the middle of interpersonal structure without heading a variable of their own. For this reason, I have suggested that all lexical expressions of the Interpersonal Level—with the only exception of lexical placeholders of the type of English *thingummy*—be represented as heads of a separate type of interpersonal unit, for which I propose the term Lexical Deed. From a strictly theoretical viewpoint, the advantage offered by this proposal is the elimination of the undesirable asymmetry between interpersonal and representational lexemes that exists in the current model. It is clear, however, that any refinement of an established

¹³ Cf. (18) above, where the feature [+S] triggers the pronoun *I*.

model may only be said to represent a real theoretical advance if it also increases the actual explanatory power of the model. In this regard, it has been shown that the introduction of the Lexical Deed allows FDG to straightforwardly account for some important grammatical properties of interpersonal lexemes which cannot be made sense of with the tools offered by the standard model, namely, the possibility of these lexemes being coordinated with each other, being modified by other lexical expressions and being assigned fully or partially grammaticalized operators of various interpersonal categories.

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Data Availability All corpus and internet data cited in this research can be accessed via the URLs indicated in the paper. The sources for data from previously published works are also properly identified on first mention.

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

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