

TOWARDS A PRAGMATICALLY-ORIENTED COGNITIVE FUNCTIONAL GRAMMAR¹

Lorena Pérez Hernández
Francisco Ruiz de Mendoza Ibáñez
Universidad de La Rioja

ABSTRACT

This paper contributes to the present debate which focuses on the development of FG into a discourse and pragmatic grammar capable of handling the interpretation of actual utterances and strings of utterances in real contexts. More specifically, it takes sides with those accounts which advocate a modular view of FG (Kroon 1997, Van der Berg 1998, and Vet 1998). It goes beyond them, however, in attempting to carry out this task in a way that is compatible with contemporary theories on the nature of both human conceptualization and the mental operations underlying linguistic processing. This leads to some significant modifications in the number and characterization of the modules which are required in the explanation of linguistic production and interpretation within the FG model.

KEY WORDS: Functional Grammar, cognition, pragmatics, discourse.

RESUMEN

Este artículo contribuye al debate actual acerca del desarrollo de la GF hacia una gramática discursiva y pragmática, capaz de dar cuenta de la interpretación de enunciados y series de enunciados en contextos reales. Más concretamente, toma partido con aquellos análisis que defienden una visión modular de la GF (Kroon 1997, Van der Berg 1998, and Vet 1998). Sin embargo, va más allá, al intentar llevar a cabo esta tarea de una manera que sea compatible con teorías actuales sobre la naturaleza tanto de la conceptualización humana como de las operaciones mentales que subyacen el procesamiento lingüístico. Esta posición conlleva modificaciones significativas en el número y caracterización de los módulos necesarios en la explicación de la producción y la interpretación lingüística dentro del modelo de la GF.

PALABRAS CLAVE: Gramática Funcional, cognición, pragmática, discurso.

¹ Funding for this research has been provided by the Spanish Ministry of Education and Culture. DGES grant No. PB96-0520. Correspondence to Department of Modern Languages. University of La Rioja. C/ San José de Calasanz s/n. 26004 Logroño. La Rioja. Spain. E-mail addresses: francisco.ruiz@dfm.unirioja.es and lorena.perez@dfm.unirioja.es



1. INTRODUCTION

The canonical theory of Functional Grammar (henceforth FG) was originally expected to live up to three standards of adequacy (Dik 1989: 13-14). FG should be “embedded within a wider pragmatic theory of verbal interaction” which includes the speakers and the context (pragmatic adequacy); it should “relate as closely as possible to psychological models of linguistic competence and linguistic behaviour” in order to reflect the production/comprehension dichotomy of language use (psychological adequacy); and it should “be capable of providing grammars for languages of any type” (typological adequacy).²

Typological adequacy has been amply observed from the beginning. Evidence based on data drawn from diverse languages has been fairly common in FG studies on language. As Siewierska (1991: 16) points out, “typology is one of the strong points of FG (...) In fact all the developments within the grammar owe much to cross-language studies.” In contrast, pragmatic adequacy has only recently been attended to. Hengeveld (1997) has developed the orthodox layered structure of the model by adding a higher discourse level, in what has come to be known as the *upward layering* or *discourse-as-product* proposal. An alternative to Hengeveld’s account is the so-called *modular view* outlined, with slight variations, by Kroon (1997), Van der Berg (1998), and Vet (1998). Finally, the commitment of FG analyses of language to the standard of psychological adequacy has been largely neglected. Kalisz and Kubinski (1997) carried out a thought-provoking, but still largely sketchy, comparison of FG and a model of language study based on a strong psychological commitment as is Cognitive Linguistics with a view to their potential integration. This, together with some isolated studies intended to provide the FG illocutionary component with the desirable psychological adequacy (see Pérez 1997, 1998/9; Ruiz de Mendoza 1999), has to date been the only attempt to comply with the original psychological commitment of the FG framework.

The proposals in this paper link up with current work on the development of FG into a discourse and pragmatic grammar capable of handling the interpretation of actual utterances and strings of utterances in real contexts. More specifically and for the reasons that may become apparent in the ensuing sections, it takes sides with those accounts which advocate a modular view of FG. It goes beyond them, however, in attempting to carry out this task in a way that is compatible with contemporary theories on the nature of both human conceptualisation and the mental operations underlying linguistic processing. This leads to some significant modifications in the number and characterisation of the modules which are required in the explanation of linguistic production and interpretation within the FG model.

² For an assessment of the degree of achievement of FG in relation to these three standards of adequacy, see Butler (1991, 1999).

The structure of the paper is as follows. Section 2 considers the shortcomings of some of the proposals which have been made to expand, modify, and improve the canonical FG theory into a discourse and pragmatic grammar. Section 3 explores the necessary components of a pragmatic cognitive FG. Finally, section 4 applies the findings reported in the previous section to the elaboration of two schemas for the production and interpretation of illocutionary acts. It will be shown that these schemas, which commit both to pragmatic and cognitive standards of adequacy, are free from the limitations of previous FG accounts of illocutionary performance.

2. MODULAR FG

The impossibility of explaining certain linguistic phenomena without considering extralinguistic (social, situational) information and units larger than the clause has prompted several attempts to further develop FG into a discourse grammar. A first group of proposals to this effect are built on the original clause-oriented layered structure (see Hengeveld 1997; Kroon 1997; Van der Berg 1998; Vet 1998). The solutions included in the second group advocate the integration of FG with different existing discourse models. Thus, Gulla (1997) attempts to bring together FG and Rhetorical Structure Theory, and Steuten (1997) argues for the advantages of the combination of FG and Discourse Analysis.

Within the first group of proposals, which is the one which we will be considering here, it is still possible to draw a distinction between the so-called *upward layering account* originally devised by Hengeveld (1997) and taken up by Crevels (1998), Jadir (1998), and Moutaouakil (1998), on the one hand; and the *modular accounts* put forward by Kroon (1997), Van der Berg (1998), and Vet (1998), on the other.³

Hengeveld's account, which is still largely underdeveloped, adds a third level of structure to the existing representational and interpersonal levels of the FG clause model. The additional *Rhetorical level* contains variables for the discourse as a whole (D), the type of discourse (T), and the moves (M) constituting the discourse. Figure 1 below schematises the hierarchical structure of discourse in Hengeveld's proposal.

This type of layered structure, which was taken from Van Valin (1990), was originally borrowed for the description of the clause. As pointed out in Pérez (1997, 1998), the treatment of illocutionary phenomena within the layered structure of

³ The modular approach has appealed to several researchers working within the FG framework. Some of them, like Bolkenstein (1998), Liedtke (1998) and Siewierska (1998), have also considered the issue of the division of labor between the pragmatic/discourse module and the grammatical module.



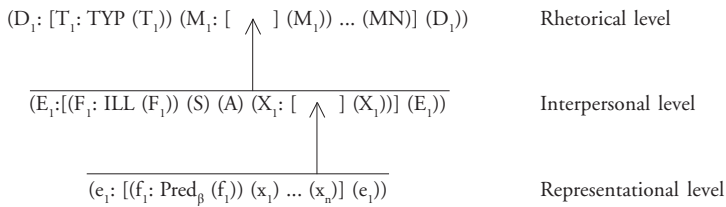


Figure 1. The hierarchical structure of discourse (adapted from Hengeveld 1997: 4)

the clause was already too risky and failed to explain some aspects of illocutionary performance, such as the existence of a continuum between codified and inferred illocutions.⁴ Attempting an extension of the layered structure to account for discourse phenomena seems even less feasible. As Kroon (1997: 27) has pointed out, the viability of Hengeveld's proposal depends on whether the highest unit of the layered clause structure (speech act) fully coincides with the lowest unit of a layered discourse structure (discourse act). Kroon (1997: 27) argues that this is not the case. While in the canonical theory of FG (Dik 1989, 1997) speech acts are defined in sheer intrasentential terms (speech acts), Kroon points out that the communicative function of the basic units of discourse (discourse acts) is determined by their position within a larger communicative structure. In view of this weakness of the upward layering solution, Kroon (1997: 30) puts forward an alternative *modular account*, in which "discourse structure and sentence structure are treated as separate, but strongly interrelated and analogous systems" as illustrated in figure 2.

Kroon's solution represents an improvement over Hengeveld's in at least two respects: (1) it includes concepts, such as *transaction* or *exchange*, which are crucial to an adequate treatment of discourse phenomena and which were not considered in Hengeveld's proposal; (2) it is sensitive to the lack of coincidence between the largest unit of the layered clause structure (speech act) and the lowest unit of the layered discourse structure (discourse act). Unfortunately, Kroon's modular account is largely unspecified. No attention is paid to the nature of the interface between the *grammatical* and the *pragmatic/discourse modules* and no description is provided of the nature, components, and functioning of the new discourse module. Its main interest derives from its having opened the debate between the *layering* and the *modular* approaches to the elaboration of the pragmatic/discourse dimension of FG.

In working with direct speech, Vet (1998) also contributes some evidence supporting the modular stance. In order to reach a correct representation of the

⁴ Only fully codified speech acts are accounted for by the layered FG theory. All other instances of illocutionary performance, whatever their degree of codification, are regarded as the object of pragmatics.

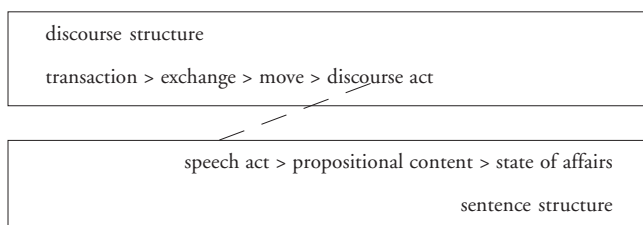


Figure 2. Kroon's modular approach (adapted from Kroon 1997: 30)

speaker's communicative intentions, illocutionary performance, and other discourse phenomena, Vet (1998: 2) also posits a separation between a pragmatic module and a grammatical module in the FG framework. More specifically and in contrast to the orthodox accounts in Dik (1989, 1997) and Hengeveld (1989, 1990), he argues that the output of the interpersonal level of the layered clause structure is simply an *utterance* and not a fully-fledged *speech act*. In Vet's account, the output of the uppermost layer of the clause (i.e. the utterance) consists of (1) some *utterance content*, which represents the information which the speaker wants to introduce into the interaction, and (2) one of the four basic illocutionary operators (i.e. Declarative, Imperative, Interrogative or Exclamative), which indicate the sentence type that is compatible with the speaker's communicative intentions regarding the information of the utterance content.⁵ Thus, in Vet's proposal, neither the speech act, nor the speech situation are accounted for within the layered clause structure or grammatical module, as he refers to it. On the contrary, it is suggested that they could be dealt with in a more appropriate way within the pragmatic module. Vet gives two reasons for this methodological decision. First, it makes it possible to do away with Dik's grammatical conversion processes, which do not fit well into a production model of language. It is argued that it is uneconomic to perform an initial illocutionary act which then needs to be converted through grammatical means into the one that the speaker really intends to convey. Second, it overcomes the main weakness of Dik's canonical proposal. To wit, the fact that the four basic types of illocutionary operators and the scarce number of grammatical illocutionary conversors identified to date (see Dik 1997: 240-251) run short of being capable of specifying the large range of illocutionary values which may be intended in uttering a sentence.

⁵ Cf. Risselada (1993), who also redefines the four basic sentence types in terms of their degree of compatibility with the performance of different illocutionary acts. Declarative sentences appear as the most supple in the sense that they have a high degree of compatibility with virtually any type of speech act. Interrogative and imperative sentence types display a lower degree of compatibility. Imperative sentences, for instance, cannot be used to make promises or ask questions.

Vet's proposals are particularly illuminating and they take Kroon's initial positing of a modular structure for FG a big step forward. Nevertheless, they still leave some questions unanswered, such as how situational and social information, on the one hand, and the speaker's intentions, on the other, will be organized within the pragmatic module. Moreover, Vet's account also creates some uneasiness because it seems to suggest that the tasks of illocutionary performance and interpretation are the object of the pragmatic module exclusively. In Vet's (1998: 15) own words:

In the alternative framework I will outline below, the speech act (REQUEST) and the representation of it do not pertain to the same module as the illocutionary operator (DECL). In my approach this is possible because DECL no longer characterizes a speech act, but an Utterance Content. In this model, the speech act is represented in the Pragmatic Module, whereas the utterance is represented in the Grammatical Module of the model.

Such a clear-cut division between the realms of pragmatics (inference) and grammar (codification) is not desirable from the point of view of cognitive economy. Linguistic codification is an efficient means of communicating one's intentions which minimises both the risk of misinterpretation and, more importantly, the amount of cognitive effort involved in the understanding of a given utterance. Furthermore, psycholinguistic studies aimed to establish the supremacy of either inference or codification in illocutionary production and interpretation have been largely inconclusive and contradictory (see Pérez 1999 for an in-depth discussion). The main conclusion which may be drawn from those studies is that speakers make use of both types of communicative resources (i.e. inferential means and codification) and may, on different occasions, rely on one of them more heavily than on the other depending on various factors, such as the amount of information that is activated contextually, the degree of explicitness with which the speaker wants to convey his intentions, etc. In contrast to this, Vet regards illocutionary performance as a purely inferential matter which is to be accounted for within the pragmatic module alone. This assumption will be argued against in sections 3 and 4 in dealing with what we will refer to as pragmatic strategies. As will be contended, a model with aspirations to reach a standard of psychological adequacy should be sensitive to this issue. It should be capable of explaining the fact that the language user has a choice between making his message more or less explicit (through codified means) or implicit (relying on the inferential capabilities of his interlocutor). Moreover, since this is not a binary choice, but a gradual option, a psychologically adequate model of language should also be able to determine the factors which account for the degree of implicitness of a given linguistic production.

Finally, a more elaborated version of a modular FG is found in Van den Berg (1998). In much the same vein as Kroon and Vet, Van den Berg postulates the existence of a pragmatic module which passes instructions to the grammar module to process semantic content. In addition to this, Van den Berg also recognizes a third module or *message module*, which takes care of the integration of the situational

and the semantic information. Van den Berg's pragmatic module consists of two managers:

- The *Social Context Manager*, which identifies and informs the speaker of the type of *social institution* or frame in which the interaction takes place, as well as of the *roles* and type of *discourse* that correspond to that institution. By way of illustration, the social institution of a *shop* would include the roles of *salesperson* and *customer*, and the discourse of *transaction*. In other words, the social context manager constructs a representation of social reality and makes it available to the language user.
- The *Move Manager*, which plans the appropriate conversational moves of the speaker in accordance with the state of the actualized social context.

Once the move manager of the pragmatic module has planned the discourse act which will realize the next move, it passes on instructions to the message module to construct a message frame. Likewise, the grammar module provides the message frame with the intended content by contributing the appropriate predicate frame. Finally, the instructions contained in the message frame, which include, among others, a predicate frame and an illocutionary operator (Declarative, Imperative or Interrogative), allow the expression rules to determine word order and intonation contour. Figure 3 taken from Van den Berg (1998: 89) schematizes the interaction of the different modules in the production of a request like *John, close the door!*

Van den Berg's model is to date the most elaborate of the modular FG proposals. The components and functions of each integrating module are clearly defined and the interface between the pragmatic and grammar module is neatly presented in the form of the message module. Nevertheless, Van den Berg's account is largely a production model. In this, it runs short of living up to the initial psychological commitment of FG, according to which both the production and the interpretation of messages should be accounted for. In Van den Berg's proposal, it is assumed that the process of language understanding is the reverse to the one sketched in figure 3 and no special attention is paid to its description (see Van den Berg 1998: 90).

Regarding illocutionary production, Van den Berg's proposals are not without problems either. In the performance of the request in figure 3, it remains to be explained how the sequence of addressee plus an unspecified illocutionary operator IMP yields as a result a request like *John, close the door!*, and not others of a similar form like *John, close the door; JOHN, close the door!; John, you close the door; Close the door, John*, etc. Furthermore, the question may be raised as to why the pragmatic module has contributed the IMP operator for the production of a request. It would have also been possible to pass on an INT operator to the message module, which would have resulted in a final request such as *Can you close the door, John?* or *Will you close the door, John?* Other subtle differences in the production of requests, like the amount of politeness required in the context under consideration, are also left unexplained. How may the message module, for instance, become sensitive to the fact

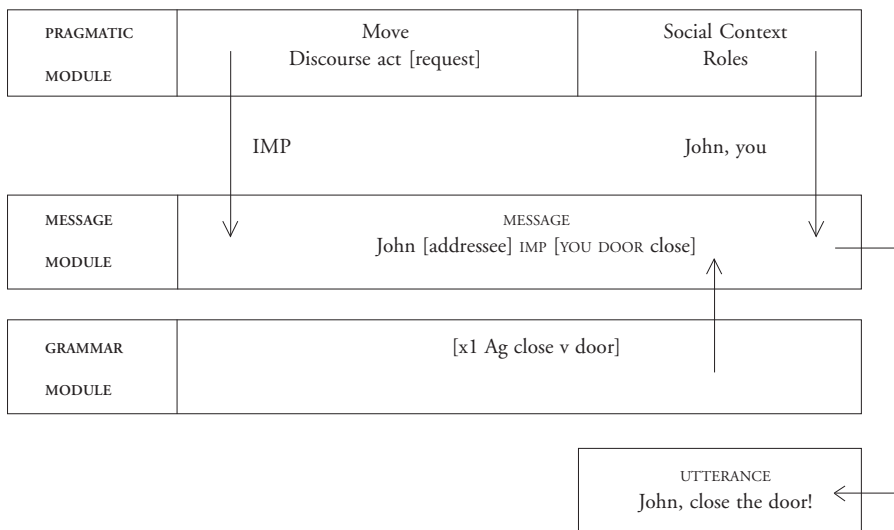


Figure 3. Production of a request according to Van den Berg's modular version of FG

that some requests require the use of mitigators such as past modals (*Could/would you...?*), negative modals (*can't/couldn't/won't/wouldn't you...?*) or the adverb *please*.² In sum, a basic illocutionary operator, like IMP or INT, does not seem capable of providing the message module with all the necessary information needed for the performance of a contextually adequate illocutionary act. In order to correctly perform a speech act in a certain context and at a given conversational stage, speakers need to have access to a set of organized information about the different illocutionary categories. They need to know how relevant social variables such as power, social distance, formality, cost of the act, and the like, affect the performance of a given illocution. In other words, the message module needs to receive information about the specific values taken by these social variables in a given conversational exchange, so that this module can build the message frame which will in turn be translated into the final message by the expression rules. In the following sections, it will be argued that information of this kind represents *knowledge* about social interaction and could, therefore, be organized in the form of *idealised cognitive models* (henceforth ICMs) of the kind proposed by Lakoff (1987). We shall further contend that these ICMs of social interaction should be located, together with Van den Berg's social context information, in what we will refer to as the *semantic module*. Since these ICMs represent idealised culture-bound knowledge about the world, they are best assigned to the semantics rather than to the pragmatics of language.

The question may be raised as to what the functions of the pragmatic module should be once it has been liberated from everything that is actually a matter of semantics. In our opinion, Van den Berg's move manager, which chooses the next correct move, could be one of those functions. Nevertheless, choosing the correct

subsequent act in a given conversational setting boils down to picking up that act which is *maximally relevant* in the current stage of the conversational exchange. Moreover, in order to choose the most relevant act, the speaker will have to consider data from both the current situational context and the valid rules of social interaction as specified in the ICMs of the semantic module. Bearing all this in mind, we shall argue that the pragmatic module consists of the general principles and strategies which guide the speaker's choice of the most suitable semantic and grammatical elements for the expression of his communicative intention in a way that is conversationally relevant. One of the general principles which integrates this newly defined pragmatic module is Sperber and Wilson's (1995) well-known principle of relevance. In the following section, we shall consider two more strategies which will also be managed by our pragmatic module, namely, the *information strategy* and the *text-context strategy* (cf. Ruiz de Mendoza and Ota 1997).

3. COMPONENTS OF A PRAGMATIC COGNITIVE FUNCTIONAL GRAMMAR

This section consists of a succinct presentation of the main components which integrate a Pragmatic Cognitive Functional Grammar. The interaction between each of these components will be illustrated in section 4 in relation to the issue of illocutionary performance.

3.1. SPEAKERS, COMMUNICATIVE VS. NON-COMMUNICATIVE GOALS, CONTEXT, AND SHARED BACKGROUND KNOWLEDGE

On the whole, there is not a significant departure from previous pragmatic or speech act models as regards some of these basic concepts that conform our model of communication. Let us however deal with each one of them in turn in order to make clear our particular stance on these matters.

In accordance with traditional pragmatic theories of language the importance of considering the language users (speaker and hearer) is no longer an issue but a well-accepted prerequisite to a sound study of language.⁶ Moreover, speaker and hearer are not seen as mere senders and receivers of the linguistic message. Rather they are considered along with all the implications that their human and social dimensions may have for the successful carrying out of the communicative event. More specifically, let us remember that the speaker's *non-communicative intentions* (what he wants to achieve) directly determine his *communicative goals* (the

⁶ See Leech (1983) and Levinson (1983).



way he will use language to achieve his non-communicative intentions). In turn, his communicative goals will play certain constraints on the type of pragmatic strategies that will be used to achieve them. In other words, the speaker's achievement of a communicative goal needs to be attempted according to the rules of correct social behaviour that typify his linguistic community, and which may vary depending on the relationship that links him to the addressee. In sum, the participants' specific social features and their intentions necessarily have a bearing on the final nature of the speech act. Because of this, it is important for an effective and cognitively adequate model of communication to account for the way in which such user-related knowledge is systematized in order to allow a quick and economic use of it in actual conversational exchanges. As has already been pointed out above, this systematization can be realized in the form of propositional ICMs.

By context we mean the full situational environment within which the conversational exchange takes place. It includes both the specific social features which characterize the participants in the conversation (e.g. relative power, social distance between them, etc.) and the nature of the situation that binds them (e.g. formal versus informal).

Finally, by shared background knowledge we understand the mutually manifest information that the speakers have about each other and about the context of the utterance.⁷

3.2. PRAGMATIC MODULE (PM)

The nature of our PM constitutes one of the main points of divergence from the existing FG accounts as well as from traditional pragmatic theories in general. We take this module to include those general universal language-independent principles (i.e. principle of relevance, as defined in Sperber and Wilson 1995) and strategies (i.e. information strategy and text-context strategy, to be defined below) which underlie our everyday communicative activities. These principles and strategies help us both to decide our next moves in conversation, and to determine the degree of implicitness necessary in their expression given the context of utterance. This results in a desirable cognitive economy in linguistic performance. Also, in accordance with our cognitive commitment to take into account both sides of communication (production and understanding), our pragmatic module includes two types of strategy, as formulated by Ruiz de Mendoza and Otal (1997). On the one hand, the *information strategy*, which guides language production. On the other hand, the *text-context strategy*, which is involved in language understanding. Let us see each of them in turn.

⁷ Mutual manifestness is a concept derived from Sperber and Wilson (1995). The speaker acts in such a way that he trusts that the addressee can make certain mental representations.

Information strategies are communicator's strategies. They constrain the production of a message according to two reverse options which are scalar in nature:

The explicit information strategy. Other things being equal, construct a message which is rich in explicit assumptions and poor in implicit assumptions.

The implicit information strategy. Other things being equal, construct a message which is rich in implicit assumptions and poor in explicit assumptions.

Verbal messages based on the explicit information strategy will tend to be as elaborate as needed for the purpose of conveying the intended effects. As a result the messages will tend to be unambiguous. The opposite may be the case when the implicit information strategy operates.

The strength of postulating the explicit and implicit information strategies lies in the fact that they allow speakers to keep a balance between the amount of the explicated and implicated information they convey through their contextualized expressions. This allows speakers to interact by presenting different perspectives of the state of affairs they are dealing with. The way they do this is constrained by the nature of the code and associated system of conceptual conventions as much as by the desire to achieve relevance, a desire which both speaker and hearer take mutually for granted since it lies at the basis of human communicative behavior.

Text-context strategies. These are reception strategies. Just like information strategies, they are scalar in nature. We shall distinguish two reverse options which we shall name the text and context strategies:

The text strategy. Other things being equal, supply minimum contextual information and rely maximally on textual features.

The context strategy. Other things being equal, supply maximum contextual information and rely minimally on textual features.

Contextual information is mental information —what Sperber and Wilson (1995) have aptly called the *cognitive environment*— in the sense that whether it derives from the hearer's background knowledge or from the context of situation, it has the status of a mental representation. In fact, before any situational information is brought to bear for interpretation it needs to be processed and accommodated to the hearer's background of assumptions. Situational features may strengthen, contradict, or combine with existing assumptions to yield implications, just as any other type of information. What is interesting is that situational information is in general processed prior to information derived from the message itself. A word of caution is needed here. Since communication is a dynamic process it may be the case that a certain piece of verbal information is processed independently of some specific situational clues. Then the hearer may realize that he needs more information to determine the meaning of the verbal message and turn to the context of situation in search of new assumptions to relate to the message. The hearer may keep jumping back and forth from one level of processing to the other. However,



the final interpretation (whether it is the one intended by the speaker) will be based on the interplay between the mental context, which consists of assumptions derived from the previous discourse, the context of situation, and encyclopedic knowledge.

One likely reason why textual features are not interpreted until relevant contextual features have been processed is that textual features are seen by the hearer as inherently communicative. As such they are a complex form of behavior, and they take effort to process, generally more than situational information, if only because the former are intentional and may consequently involve heavier inferential activity (that is, the derivation of explicatures and implicatures). Then, if the hearer has a well-defined back-up set of contextual assumptions, he will initially rely heavily on them. If the context is a poorly-defined one, the hearer will most likely start off by relying on textual clues. But again, since communication is a dynamic process, the hearer may change his mind over and over again as to how to strike the balance between the two reception strategies. However, his behavior will never be chaotic, but guided by the search for relevance. In principle, the easiest form of processing, that is, the one that requires less effort, is the one in which textual processing is kept down to a minimum, since the context has already been established. As long as the hearer feels confident that he is deriving the right set of assumptions, this may be a safe procedure. But if the hearer finds any indication that something is going wrong, he may turn to the text in search of relevant clues. This procedure may be time-consuming and require more effort but it may also be rewarding in terms of contextual effects.

Postulating the existence of text and context strategies provides a framework within which to understand some phenomena related to the receptive processing of discourse. Skim-reading would be a case in point since it involves minimization of syntactic processing to the detriment of contextual activation as guided by lexical clues. The context strategy may also be used by some second language learners as a way of making up for grammatical deficiencies. The text strategy, on the other hand, may be required by complex forms of discourse where the meaning of a passage is not straightforward. The strategies may further lie at the base of some psycholinguistic phenomena. We shall mention two such phenomena, by way of illustration. Consider the following sentences:

- (1) The old man the boats
- (2) The flowers are being watered by the girl
- (3) The boy was hit by the girl.

Example (1) illustrates a parsing problem treated by the theory of transition networks (Goldstein and Papert 1977; Sanford 1985). According to these authors, syntactic parsing occurs lineally from one constituent to the next. This assumption is supported by the experiments carried out by Kramer and Stevens (see Rumelhart 1977). When subjects were asked to read aloud a sentence like (1), they would tend to make a pause between *man* and *the boats*, assuming that *The old man* constituted a noun phrase. Only when the end of the sentence was reached and no verb phrase

had been found, would the reader reanalyze the whole sentence in search of a different interpretation. It is clear that in his first analysis of the sentence, the reader was making use of the context strategy. Consequently, his understanding of the sentence was highly determined by his knowledge that the word *man* is more commonly used as a noun than as a verb. As no plausible interpretation could be reached in this way, he attempts a reanalysis based on the text strategy and pays greater attention to relevant textual clues.

Sentences (2) and (3) are examples of non-reversible and reversible passives respectively. In (3) both the girl and the boy could function as subjects of the sentence. On the contrary, if *the girl* were used as the subject, the meaning of the sentence would clash with our common sense knowledge. Slobin (1966) observed that the first instance of the two passive constructions is more easily understood and remembered than the second. The context strategy explains this fact. The lexical sequence *flowers-water-girl* allows us to infer the correct interpretation without having to pay detailed attention to the syntactic structure of the whole sentence. However, this is not the case with the sequence *boy-hit-girl*. While our knowledge of the world tells us that it is not plausible that the flowers water the girls, both *the girl* and *the boy* can function as the first arguments of the predicator *hit*. As was the case with example (1), it is the use of the context strategy that accounts for the fact that it is psychologically easier to understand and remember those instances of non-reversible passives.

The relationship between the PM and the rest of the modules of FG, in general, and of our speech act schemas (see section 4), in particular, will be shown to be bi-directional. On the one hand, all other components will have to obey the two pragmatic relevance criteria of cognitive economy and contextual effects. In addition to this general pragmatic constraint, the choice of a given pragmatic strategy, which is thought to better suit the speaker's communicative needs in a concrete conversational situation, will determine the nature of the realization procedures that are to instantiate the former strategy and the relative weight of the semantic and syntactic components involved. On the other hand, both syntax and semantics provide a range of grammatical constructions and of meaning possibilities respectively which can be exploited pragmatically. In this sense, the choice of a pragmatic strategy has to be made not only in accordance with the communicative needs of the speaker, but also taking into account the syntactic and semantic resources that the linguistic system makes available and their limitations.

3.3. SEMANTIC MODULE (HENCEFORTH SM)

When dealing with the role of the users in the study of language, we have stated that they should be understood not only as the sheer senders and receivers of the communicative message, but also as members of a society. We further pointed out that the social relationship that holds between the speakers and the rules of social interaction that characterize their cultural community, both may have significant implications in their communicative performances, influencing the choice of



the pragmatic strategies to be used and of the realization procedures used to implement them. Consequently, it is essential for a sound theory of language use to take these factors into consideration. We suggest that the knowledge about social relationships and correct interactional behavior for a given cultural community can be organized and systematized in the form of propositional ICMs of the kind proposed by Lakoff (1987), which are stored in our long term memory. It is important to realize that the knowledge we have about the users and their social dimension, even though it has traditionally been treated as the object of pragmatics, is nonetheless knowledge about the world, and because of this it is better handled within the semantic module of language. By way of summary, this module will consist of information of the following kind:

- social institutions, roles, and related transactions (that is to say, Van den Berg's social context)
- rules of social interaction
- information about illocutionary categories (information about the subtle variations which need to be implemented in the performance of a given illocutionary act in different interactional exchanges and situational contexts.

As a whole, we understand semantics in the traditional sense as that component of language which is concerned with the matching of linguistic forms with concepts. However, we depart from other orthodox semantic theories in several respects. First, as was noted above, we include in this semantic component the knowledge that has to do with social interaction and which had traditionally been dealt with within pragmatics. Second, our approach is constrained by our commitment to cognitive adequacy. As a result, we believe that the organization of semantic information obeys the requirement of cognitive economy. This results in the systematization of knowledge in the form of idealized cognitive models, radial structures, prototype categories, and whatever other mechanisms which, as shown by cognitive linguistics, are used by our minds in order to organize data in an effective and economical way (see Lakoff 1987, 1989; Lakoff and Johnson 1999). Finally, it should be noted that the relationship between the semantic and pragmatic components of our model also works in the opposite direction. As a result, the total number of form-concept pairings that make up the semantics of a given language provide a range of meaning possibilities which can then be exploited pragmatically.

3.4. GRAMMAR MODULE (GM)

The grammar module of our model of communication is roughly equivalent to the core grammar in the canonical FG framework. Thus, it includes the terms, predicates, predicate frames, operators, satellites and, in general, all the necessary phonological and morpho-syntactic resources which allow the actual realization of the choices made at higher levels of linguistic description (i.e. pragmatic strategies and semantic conceptualizations).



3.5. MESSAGE MODULE (MM)

We have taken the notion of message module from Van den Berg's model, given its usefulness as an interface between the higher modules (pragmatic, semantic, and grammar modules) and the lowest one (i.e. expression rules). As defined in Van den Berg (1998: 88-89), this module is responsible for the creation of a *message frame* which integrates all the information generated at the higher levels (pragmatics, semantics, and grammar).

3.6. EXPRESSION RULES MODULE AND REALIZATION PROCEDURES (RP)

The message frame passes on all the information generated by the upper modules to the expression rules module, so that the latter can construct the actual message.

Finally, RPs are the collection of language-specific expressions and linguistic resources which, in accordance with the restrictions imposed by the expression rules, instantiate the message frame. By way of illustration, consider the range of realization procedures that English has developed for the expression of politeness: question tags, the adverb *please*, use of past modals, hedges, etc.

In the following section we shall see how these components interact with one another to enable both the production and the understanding of speech acts.

4. ILLOCUTIONARY SCHEMAS WITHIN A PRAGMATIC COGNITIVE FG

4.1. A PRAGMATIC COGNITIVE FG SCHEMA FOR SPEECH ACT PRODUCTION

Figure 4 represents a pragmatic cognitive FG schema for speech act production. This section is devoted to its explanation.

In order to figure out how we perform speech acts, we should consider what the motivation for us wanting to do so is. A reasonably good answer to this question has been offered by Dik (1989) within the framework of his Functional Grammar of language. Dik (1989: 256) believes that speech acts are performed basically to instruct the addressee to do something, whether this is to “add to his pragmatic information a certain propositional content” (Declarative speech acts), to “provide the speaker with the verbal information specified in the proposition” (Interrogative speech acts), to “perform the controlled state of affairs as specified in the proposition” (Imperative speech acts), or to “add to his pragmatic information that the speaker finds the propositional content surprising, unexpected, or otherwise worthy of notice.” It follows that speech acts are motivated by the *intentions* or *goals* of the speaker, whose fulfillment necessarily requires someone else's co-operation, namely, the addressee's. In general, such goals can be described according to different variables. Some are relative to the speaker and his intention, like the degree

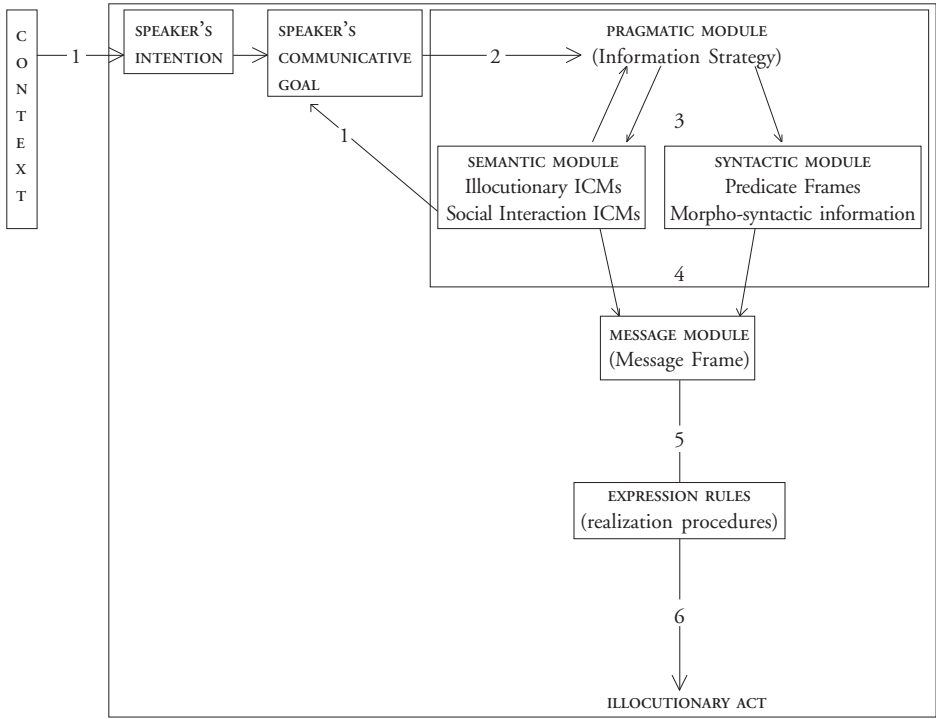


Figure 4. A Cognitive Pragmatic FG Schema for Speech Act Production

to which the former wishes a certain state of affairs to hold. This variable we shall label the degree of *directivity* of the speaker's goal.⁸ Others are relative to the nature of the effects that the speaker's goal may have on the addressee. We shall refer to this variable as *cost-benefit*.⁹ Thus, a given goal of the speaker may represent either a potential cost or a potential benefit for the addressee. The nature of the speaker's intention, defined according to the above variables, will make up a significant part

⁸ Verschueren (1985) introduced the term *directivity* in order to refer to the strength of the wish or wanting expressed by the speaker in his attempt to influence the hearer's subsequent course of action. This author tended to use this variable as a definer of directive speech acts themselves. However, we believe that *directivity* is more an attribute of the speaker's intention or goal than it is of the speech act proper. A speech act cannot be said to have a certain degree of directivity, but a speaker's intention can. It goes without saying that the relevance of the notion of directivity for the description of a speech act ICM is still important, since the degree of directivity of the speaker's intention will influence its communicative goal and consequently, the final form of his speech act.

⁹ The cost-benefit variable which we are making use of in our account is based on Leech's (1983) homonym pragmatic scale.

of the ICMs of speech acts. Different speech acts will differ as to the degree of directivity of the speaker's intention or as to its costly or beneficial nature.

Having an intention which we wish to communicate can be thought of as the starter which puts in motion the process of the performance of a speech act. Simultaneously, the speaker needs to consider the conditions of the context in which his illocution is going to be performed, as well as the features which characterize the addressee to whom he is going to address his speech act. In doing so, it is essential to bear in mind that both speaker and addressee are members of a certain linguistic and cultural community in which interaction is organized according to a number of rules of correct social behavior, which need to be honored. In order to know by which specific social rules we need to abide in the production of a given speech act, it is essential to take into account the context within which the illocution will be performed. It is from the context of the utterance that the key features of the relationship between speakers and of the nature of the interactional exchange can be drawn. In turn, these features will determine the rules of social interaction which have to be complied with in order to perform socially acceptable illocutions. The combinations at this stage can be endless. We can find a formal or informal context where either a symmetrical or asymmetrical power relationship holds between the participants, and where the social distance between them can range between the two extreme values of close relationships (e.g. relatives, friends, etc.) and strangeness. These combinations of features will be later on taken into account in the choice of a particular pragmatic strategy in the production of an speech act.

Furthermore, the importance of considering the speaker's intention within the context of the utterance can be justly understood only if we take into account that this is a *sine qua non* condition in order to determine the actual communicative goal of the speaker. It is essential to realise at this stage that the speaker's intentions or non-communicative goals and his communicative goals are not quite the same thing. To begin with, the speaker's communicative goal includes the achievement of his intention or non-communicative goal, but it is more complex than the latter because it is constrained by the rules of social interaction that apply to specific contextual features. By way of illustration, consider that a speaker who has the intention of getting the addressee to switch on the TV may attempt to achieve this non-communicative goal via a variety of different means which determine a number of communicative goals. For instance, he may try to get the addressee to switch on the TV by *ordering* him to do it. But he could also attempt to achieve his non-communicative goal by *requesting* him to do it, or even by *begging* him to do it. Ordering, requesting, and begging would be three different types of communicative goals each of which includes the speaker's intention of getting the addressee to do something. The choice of one of these speech act types as the final communicative goal of the speaker will be made after consideration of the nature of the speaker's intention, the relevant contextual features, and the knowledge of the principles of social interaction that apply to those features. First, the nature of the speaker's intention (i.e. its degree of directivity, for instance) influences the choice of a communicative goal. Thus, if the degree of directivity of the speaker's intention is important, for example, then he may choose to perform an act of begging, instead of an act of requesting,



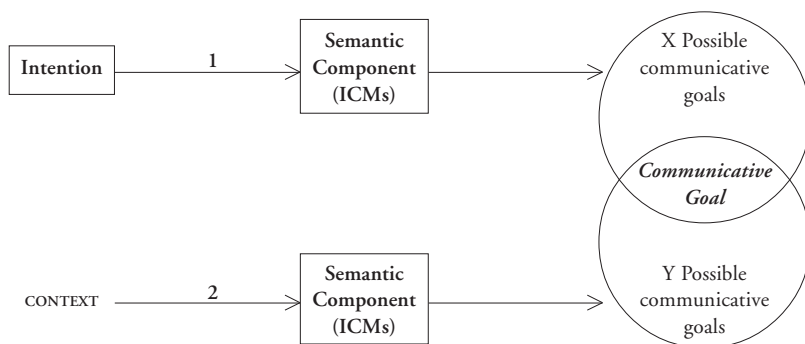


Figure 5. Determination of the appropriate communicative goal

given that the former is more insistent and thus may prove more effective in the fulfilment of his intention. On a second stage, the contextual features further specify the final choice of his communicative goal. If in the context under scrutiny the speaker has a more powerful social status than the addressee, then our rules of social interaction state that he is entitled to perform the act of ordering. On the contrary, if speaker and hearer are equals, then the former will have to choose between the acts of requesting and begging. It is extremely important to realize that in deciding what communicative goal will better help him to achieve his intention in a particular context of utterance, the speaker is aided by the interactional semantics component of the language. The ICMs of each kind of speech act, together with the ICMs of social interaction contain a vast amount of systematized ready-to-use information which is activated by the nature of the speaker's intention, on the one hand, and by the specific combination of contextual features that attain in each concrete case, on the other hand. As a result, the speaker need not go through a thorough reflection in order to decide which is the communicative goal that he should pursue. As we have seen, the nature of his intention automatically narrows down the number of speech acts which can be used to achieve such intention. Afterwards, the features which characterized the context of use help to pin down the right communicative goal through the activation of the corresponding ICMs. The full process of the determination of a communicative goal can be diagrammed as figure 5.

In the general speech act schema in figure 4, this process of determining the speaker's communicative goal is shown in a simplified way by means of the arrows numbered 1.

Once a communicative goal has been determined and entered into the pragmatic module, the suitable information strategy (explicit information or implicit information strategy) will be activated. The activation of one or the other will be constrained by certain principles of social interaction and general knowledge (ICMs) which are activated by both the nature of the intention and the relevant contextual features. By way of illustration, consider that the communicative goal of the speaker is the performance of a request. Because this is a production process, he will choose

to use an information strategy. If the degree of directivity of the speaker's intention is high, that is to say, if the speaker wants to reach his goal badly, then he will tend to use an explicit information strategy which assures him an effective, quick, and unambiguous communication of his goal. Other contextual factors, such as the lack of familiarity between the participants (small social distance) or the existence of an asymmetry of power between them may call for the use of an implicit information strategy instead, since this kind of strategy maximizes the indirectness of the message and, as a result, avoids imposition on the addressee. By avoiding imposition, the message comes off as more polite, which is a more appropriate way of requesting something when the above mentioned contextual characteristics hold. Finally, when one of the two kinds of information strategy has been chosen, further activations of the ICMs of social interaction and of certain aspects of the ICM of the speech act under consideration will determine the exact degree of explicitness or implicitness that is required in each concrete case. For instance, requests generally make use of the implicit information strategy. However, the degree of implicitness of each concrete instance of requesting will be determined by the relevant contextual features in accordance to certain ICMs of social interaction. To give just an example, one of these ICMs would state that the higher the social power of the addressee, the greater the need to be polite will be. Moreover, since one way of being polite is to be indirect, the higher the social power of the addressee, the more we will have to make use of implicit rather than explicit information strategies.

Let us stop for a minute the description of our speech act schema and dwell on the nature of the interaction between the different components that have been shown to take part in the process of the production of speech acts so far. As has been probably noted by the reader, our schema is not a linear one. On the contrary, it is usually the case that in the production of a speech act, the speaker's mind is constantly using various components at the same time. In order to determine the communicative goal, we need to turn from the intention and the context to the semantic component, then we move to choose a type of pragmatic strategy and in so doing, we need to make use of the semantic component and the contextual features again. This simultaneous use of the different components of language is symbolized in our diagram by the use of arrows which go back and forth from one component to another. It is important to realize that this concomitant and recurrent use of the different constituents of language is perfectly consistent with contemporary psychological models of language production like the one described by Anderson (1983).

Anderson (1983) has developed a cognitive model of production known as *Adaptive Control of Thought* (or ACT*).¹⁰ Such model consists of three different types of memory (working memory, declarative memory, and production memory). *Working memory* is a kind of short-term memory which contains information which the system can access currently. This includes both information which comes from

¹⁰ For a comprehensive guide to this and other psychological models, see Solso (1991).

the outside world (i.e. contextual features, stimuli, etc.) and information retrieved from declarative memory. *Declarative memory* contains the long-term knowledge we possess about the world. New information which accesses the system through working memory can end up stored in declarative memory. Likewise, chunks of the permanent information collected in declarative memory can be used temporarily for processing in working memory. Finally, *production memory* consists of the knowledge required to do things (i.e. procedural knowledge).

In Anderson's model, stimuli access the system via working memory from the outside world, go around the system, and then come out as performances or actions. A basic notion of Anderson's model is the idea that production processes constitute sets of conditional-action pairs, which he calls *productions*. Thus a production is simply a pair of IF-THEN clauses, where the IF part specifies the condition or conditions which need to be satisfied for the THEN part to be executed.

Let us see how our production schema is perfectly compatible with this psychological model and can explain the production of a certain speech act. Consider for instance the task of performing a request in a context in which the power relationship between the speakers is asymmetrical. To begin with, the stimulus (speaker's communicative goal of producing a request) together with the relevant features of the context where such goal shall be pursued will be stored in working memory. Then, productions will be built as the stimulus and the contextual features spin around the system activating chunks of both declarative and procedural knowledge. One of such productions (IF-THEN pairs) will be the following:

IF the speaker has a higher social power than the addressee,
THEN extreme the politeness of your speech act.

Note that in order to fill the THEN-slot of the production rule, we need to make use of the long-term knowledge about the principles of social interaction (ICMs) which are part of our semantic module and which we have stored in our declarative memory. A more detailed development of the production rule of the request under consideration is given below:

Step one

IF the goal is to request something from another person.
THEN the subgoal, according to the principles of social interaction stored in declarative memory (ICMs), is to be polite.

Step two

IF the subgoal is to polite.
THEN the speaker should make use of indirect or implicit rather than direct expressions, according to the knowledge stored in our declarative memory (ICMs).

Step three

IF the subgoal is to perform an indirect request.
THEN the speaker should make use of the implicit information strategy and of any of its corresponding realization procedures as stored in our production memory.

Once the appropriate degree of implicitness or explicitness of the speech act has been chosen, we shall only have to look for the specific predicate frame that realizes the speaker's intention. This predicate frame will be provided by the grammar module. The predicate frame, together with all the semantic information provided by the semantic module is gathered in the message module in the form of a message frame, which would roughly take the following form:

- *Contextual Information:*
 - POWER RELATIONSHIP BETWEEN SPEAKERS (ASYMMETRICAL)
 - DEGREE OF DIRECTIVITY (AVERAGE)
- *Type of pragmatic strategy:*
 - IMPLICIT INFORMATION STRATEGY
- *Type of illocutionary act:*
 - REQUEST (Costly to the addressee, Beneficial to the speaker)
- *Type of REQUEST needed in the current context according to rules of social interaction:*
 - POLITE
- *Predicate frame (simplified version):*
 - INT F₁ (S) (A) (e₁: Pres [switch (John) (TV)])

Finally, this information is passed on to the expression rules, which will construct the final message with the appropriate word order, intonation, and the right choice of realization procedures. Thus, by way of illustration, the INT operator will determine the correct word order, while the type of request (polite) will call for the use of a realization procedure which may instantiate this requirement (e.g. adverb *please*, past modal, etc.). As a result, our FG model would output a message like, for instance, *John, can you switch on the TV, please?*, *John, could you switch on the TV?*, or *John, do you think you could switch on the TV?*

If the context had permitted or required the use of the explicit information strategy (imagine a context in which there is enough familiarity and no power asymmetries between the speakers), then the INT operator would have been replaced by the IMP operator in the message frame. This would have resulted in a more explicit message like *John, switch on the TV, please.*

4.2. A PRAGMATIC COGNITIVE FG SCHEMA FOR SPEECH ACT UNDERSTANDING

Our schema for the understanding of speech acts follows is nearly, but not exactly, the converse of the production schema.

In contrast to Vet (1998), we believe that not all speech acts are left to be completely inferred by the addressee. That is to say, speech act interpretation is not always exclusively a matter of pragmatics. In most cases, the retrieval of illocutionary meaning is guided by certain linguistic cues which, almost in an automatic manner, yield a plausible initial interpretation of the speech act under consideration. Afterwards, and to a lesser or a greater degree depending on the levels of conventionalization of the expression involved, this initial interpretation will have

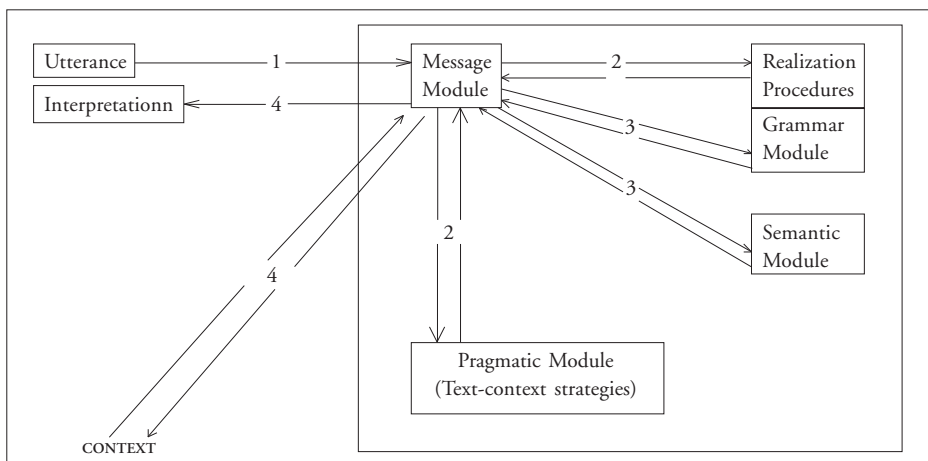


Figure 6. A pragmatic cognitive FG schema for speech act understanding

to be confirmed by analyzing its compatibility with the context in which the speech act has been produced. In this way, the recovery of the speaker's intended communicative goal turns out to be a more economic process in terms of cognitive efforts than it had been shown to be by those traditional theories of illocution based on sheer inference. Let us see the workings of our interpretation schema in more detail.

As can be observed in figure 6, the interpretation of any utterance starts off with the recognition of the realization procedure by means of which it has been performed. The degree to which such realization procedure represents a conventional device for performing a certain type of speech act will further determine the kind of pragmatic strategy that should guide the understanding of the illocution under scrutiny. Because this is a schema for understanding, the general pragmatic strategy to be used is the text-context strategy. Nevertheless, the degree of implicitness of the message under consideration will determine which of the two strategies is needed. The text strategy states that other things being equal, the hearer should supply minimum contextual information and rely maximally on textual features for the interpretation of the utterance. On the contrary, the context strategy holds that the hearer should rely minimally on the information provided by the text and, therefore, that he should attempt the correct interpretation of the utterance by means of supplying maximum contextual information. Consider the following utterances:

- (4) Can/could you pass the salt, please?
- (5) Could you pass the salt?
- (6) Can you pass the salt?
- (7) This hamburger would need some salt.

Sentences (4)-(7) are some of the possible expressions that can be used to convey a request for the addressee to pass the salt. They only differ as to their degree of implicitness. (4) represents an explicit unambiguous instance of request. (5) and (6) both have a preferred reading as requests in unmarked contexts, though, for reasons that will become apparent below, the request interpretation is more readily accessible in the case of (5) than in the case of (6). Finally, (7) only conveys a request implicitly. As a matter of fact, properly speaking (7) does not qualify as a realization procedure in the sense that we have defined these implementation devices. We shall see later on that this does not necessarily mean—and most of the times it does not mean—that the interpretation of (7) as a request is based on sheer inference. But let us proceed in order and explain first how the interpretation of sentences (4)-(7) as requests is reached.

Sentence (4) exemplifies a codified type of realization procedure for the performance of requests. The use of the politeness mitigator *please* renders the preceding interrogative sentence an unequivocal instance of request. In this case, the hearer need not make use of the context pragmatic strategy given that the textual features of the message already provide enough positive and unmistakable evidence that the sentence qualifies as a request. The interpretation of the intended illocution is, therefore, reached in an automatic effortlessly fashion. That is to say, this kind of interpretation process is characterized by displaying a maximum degree of cognitive economy.

The understanding of examples (5) and (6) as requests is also facilitated by the fact that these sentences are instances of realization procedures for the performance of this kind of speech act. In contrast with example (4), the realization procedures in (5) and (6) are only conventional and not fully codified devices for the implementation of requests. This means that in more marked contexts, the same kind of sentence (i.e. *Can/could you VP?*) can also be used to instantiate a different kind of illocution (i.e. an interrogative speech act). However, in most everyday life unmarked contexts they are almost straightforwardly used as requests. Moreover, it should be noted that the level of conventionalization is higher in the case of (5) than in that of (6). While it is reasonably easy to find a context in which (5) could be understood as a simple interrogative sentence instead of as a request, this task gets more complex when we consider the *Would you VP?* types of requests. In any case, the initial understanding of both (5) and (6) has to be assessed and confirmed in a second stage by means of considering whether such interpretation is relevant and compatible with the context in which the sentence has been uttered. In this process of assessing the correctness of the initial interpretation of the utterance as a request, the addressee can also make use of the information stored in the ICMs of the semantics module. To give just an example, if the social distance between the speakers is large, the ICM of social interaction will dictate that the politeness of the speech act should be maximized. Given that one way of maximizing politeness is to be indirect (i.e. to use implicit rather than explicit devices in the production of the message) and that indirectness and politeness are two of the defining features of the ICM of requesting, the interpretation of the sentences (5) and (6) as requests will thus be further validated.

It is important to emphasize the fact that the understanding of (5) and (6) as requests, due to the conventional nature of the realization procedures involved, is not as direct and unequivocal as that of example (4), which on the contrary was based on a



codified means of implementation. However, because of this same reason, the interpretation of sentences (5) and (6) yields a richer amount of contextual effects. Upon interpreting a conventional request, the addressee will not only retrieve the intended non-communicative goal of the speaker, but also several other subtle pieces of information, such as the fact that there is an implicit effort on the part of the speaker to maximize the indirectness and, consequently, the politeness of his speech act. Implications of this kind are absent from the request interpretation of a sentence like (4) above.

Finally, we are left with the understanding of requests like (7), which we shall reproduce below for our convenience:

(7) This hamburger would need some salt.

As was advanced above, this kind of request is not based on either codified or conventional realization procedures. As a result, its interpretation requires a higher amount of cognitive effort and the derived contextual effects are also wider. Nevertheless, we reject the traditional view (i.e. Searle 1975; Bach and Harnish 1979; Dik 1989) on the interpretation of utterances of this kind, according to which their request reading would be reached in a purely inferential manner. On the contrary, it is our intuition that the understanding of such implicit illocutions is somehow aided by both short-term contextual information and the long-term knowledge stored in the ICMs of the semantic module. The steps taken in the understanding of utterances like (7) as requests are the following. Upon hearing the utterances, the addressee realizes that, if understood in a literal way by considering its textual features alone, the resulting interpretation is not compatible with the expectations raised by the context of the utterance. Therefore, the addressee realizes that he needs more information to determine the meaning of the verbal message and turns to the context of situation in search of new assumptions to relate to the message. In such a way, he will comprehend that since the hamburger is not salty enough and, given that there is a salt-cellar on the table near him, the speaker's intention is very probably to let him know that he wants him to pass the salt. If the assumptions drawn from the context do not still suffice to determine the intended meaning of the utterance, the hearer may also turn to the long-term information collected in the ICMs of the semantic module. One of the ICMs of social interaction will inform him that it is polite to do something to upgrade any situation which is negative to others. In turn, the ICM of requesting will tell him that politeness is one of the defining features of requests. As a result, given that the speaker has informed him that there is one such negative state of affairs (i.e. that the hamburger needs more salt), he will be able to grasp that the intended illocutionary force of utterance (7) is that of a request. A word of caution is needed here. We are not stating that the interpretation of implicit speech acts (i.e. those not based on codified or conventional realization procedures) necessarily follows the three steps presented above and in the same order. Only step one (i.e. the realization that the literal meaning of the utterance is not relevant in the current context) is needed. Afterwards, the hearer may make use of either contextual or encyclopedic information or of both of them as suggested above. Furthermore, he may keep jumping back and forth from the

level of contextual processing to that of textual processing and vice versa until he is certain to have found the correct, most relevant reading of the utterance. In any case, it should be emphasized that the final interpretation will be the result of the implications drawn from the message (textual features), on the one hand, and the contextual information and encyclopedic knowledge stored in the ICMs of the semantic component (contextual features) on the other hand.

Before we end this section devoted to the description of a schema for the understanding of speech acts, we shall remind the reader of the workings of yet another kind of device which together with the text-context strategies, or rather, when these strategies fail to determine a relevant speech act interpretation, can also be made use of in attempting to grasp the speaker's communicative intention. We are referring to *negotiation strategies*. This type of strategy is characterized by requiring at least two conversational turns and the active involvement of the speaker in the interpretation process. Moreover, negotiation strategies are used only in those cases where there are interpretation difficulties. They would be activated when both text and context pragmatic strategies had failed to provide the addressee with a relevant interpretation of the speaker's utterance. When a situation such as this occurs, a repair request will be made by the addressee with the aim of achieving either explicitation or corroboration on some or all of the aspects of the communicative environment, namely the form of the message, the nature of the interlocutor's communicative goals, the cognitive environment shared by the participants, the interlocutors' assessment of each other's cognitive environments. The use of explicitation or corroboration procedures will depend on the nature of the knowledge gap that needs to be fixed in order to reach a relevant interpretation. If the speaker already has some evidence of which the correct interpretation should be, he will use a corroboration strategy to confirm his assumption. On the contrary, if he completely lacks the information, he will ask for an explicitation of it.

5. CONCLUSION

In this paper we have attempted to elaborate FG so as to enhance its explanatory power regarding pragmatic and discourse aspects of language use. Our proposal follows the lead of those of Kroon (1997), Vet (1998) and Van den Berg (1998) in being of a modular nature. It departs from previous accounts, however, in its view of the number and nature of the modules that it includes. We have included a *semantic module*, which contains the relevant information about social/cultural variables and speech act categories; and we have redefined the *pragmatic module* as the one which guides the speaker's decisions in the construction and understanding of the message by means of general communicative strategies (*information and text-context strategies*). This makes our model sensitive to the existence of difference degrees of codification in the performance of speech acts. Furthermore, it makes it possible to overcome some shortcomings of previous models, such as the exclusion of codified resources in illocutionary performance in Vet's (1998) model, or the underspecified nature of the message frame in Van den Berg's (1998) account (see section 2).



WORKS CITED

- ANDERSON, J.R. *The Architecture of Human Cognition*. Cambridge, Mass.: Harvard UP, 1983.
- BACH, and HARNISH. *Linguistic Communication and Speech Acts*. Cambridge, Mass.: MIT P, 1979.
- BOLKENSTEIN, A.M. "What To Do with Topic and Focus? Evaluating Pragmatic Information." *Functional Grammar and Verbal Interaction*. Ed. M. Hannay and A.M. Bolkenstein. Amsterdam: John Benjamins, 1998. 193-214.
- BUTLER, C. "Standards of Adequacy in Functional Grammar." *Journal of Linguistics* 27 (1991): 400-515.
- "Nuevas perspectivas de la Gramática Funcional: los estándares de adecuación de la teoría." *Nuevas perspectivas en Gramática Funcional*. Ed. C. Butler, R. Mairal, J. Martín Arista, and F.J. Ruiz de Mendoza. Barcelona: Ariel, 1999. 219-256.
- CREVELS, M. "Concession in Spanish." *Functional Grammar and Verbal Interaction*. Ed. M. Hannay and A.M. Bolkenstein. Amsterdam: John Benjamins, 1998. 129-148.
- DIK, S.C. *The Theory of Functional Grammar. Part I: The Structure of the Clause*. Dordrecht: Foris, 1989.
- *The Theory of Functional Grammar. Part 2: Complex and Derived Constructions*. Ed. K. Hengeveld. Berlin, New York: Mouton de Gruyter, 1997.
- GOLDSTEIN, I., and S. PAPERT. "Artificial Intelligence, Language and the Study of Knowledge." *Cognitive Science* 1 (1977): 84-123.
- GULLA, J.A. "Combining Functional Grammar and Rhetorical Structure Theory for Discourse Representation." *Discourse and Pragmatics in Functional Grammar*. Ed. J.H. Connolly, R.M. Vismans, C.S. Butler, and R. A. Gatward. Berlin, New York: Mouton de Gruyter, 1997. 75-91.
- HENGEVELD, K. "Layers and Operators." *Journal of Linguistics* 25 (1989): 127-157.
- "The Hierarchical Structure of Utterances." *Layers and Levels of Representation in Language Theory*. Ed. J. Nuyts, A.M. Bolkestein, and C. Vet. Amsterdam: John Benjamins, 1990. 1-23.
- "Cohesion in Functional Grammar." *Discourse and Pragmatics in Functional Grammar*. Ed. J.H. Connolly, R.M. Vismans, C.S. Butler, and R.A. Gatward. Berlin, New York: Mouton de Gruyter, 1997. 1-16.
- JADIR, M. "Textual Cohesion and the Notion of Perception." *Functional Grammar and Verbal Interaction*. Ed. M. Hannay and A. M. Bolkenstein. Amsterdam: John Benjamins, 1998. 43-58.
- KALISZ, R., and W. KUBINSKI. "Functional Grammar vs. Cognitive Linguistics: An Attempt at Discovering Similarities and Differences." *Working Papers in Functional Grammar* 64 (1997).

- KROON, C. "Discourse Markers, Discourse Structure and Functional Grammar." *Discourse and Pragmatics in Functional Grammar*. Ed. J.H. Connolly, R.M. Vismans, C.S. Butler, and R.A. Gatward. Berlin, New York: Mouton de Gruyter, 1997. 17-32.
- LAKOFF, G. *Women, Fire, and Dangerous Things: What Categories Reveal About the Mind*. Chicago: U of Chicago P, 1987.
- "Some Empirical Results about the Nature of Concepts." *Mind and Language* 4.1-2 (1989): 103-129.
- LAKOFF, G., and M. JOHNSON. *Philosophy in the Flesh. The Embodied Mind and Its Challenge to Western Thought*. New York: Basic, 1999.
- LEECH, G. *Principles of Pragmatics*. London: Longman, 1983.
- LEVINSON, S.C. *Pragmatics*. Cambridge: Cambridge UP, 1983.
- LIEDTKE, F. "Illocution and Grammar: A Double Level Approach." *Functional Grammar and Verbal Interaction*. Ed. M. Hannay and A.M. Bolkenstein. Amsterdam: John Benjamins, 1998. 106-128.
- MOUTAOUAKIL, A. "Benveniste's *récit* and *discours* as Discourse Operators in Functional Grammar." *Functional Grammar and Verbal Interaction*. Ed. M. Hannay and A.M. Bolkenstein. Amsterdam: John Benjamins, 1998. 25-42.
- PÉREZ HERNÁNDEZ, L. "FG, Illocution, and Cognition." *RESLA* 12 (1997): 7-25.
- "A Cognitive Revision of FG Treatment of Illocution." *RESLA* 13 (1998/1999): 207-223.
- "A Cognitive Study of Directive and Commissive Speech Acts in English." Diss. Universidad de La Rioja, 1999.
- RISSELADA, R. *Imperatives and Other Directive Expressions in Latin: A Study in the Pragmatics of a Dead Language*. Amsterdam: Gieben, 1993.
- RUIZ DE MENDOZA, F.J. "La ilocución y la gramática." *Nuevas perspectivas en Gramática Funcional*. Ed. C. Butler, R. Mairal, J. Martín Arista, and F.J. Ruiz de Mendoza. Barcelona: Ariel, 1999. 99-171.
- RUIZ DE MENDOZA, F.J., and J.L. OTAL. "Communication Strategies and Realization Procedures." *Atlantis* 19.1 (1997): 297-314.
- RUMELHART, D.E. *Introduction to Human Information Processing*. New York & London: Wiley, 1977.
- SANFORD, A.J. *Models, Mind and Man*. Pressgang: Glasgow UP, 1985.
- SEARLE, J.R. "Indirect Speech Acts." *Syntax and Semantics. Vol. 3: Speech Acts*. Ed. P. Cole and J.L. Morgan. New York: Academic Press, 1975. 59-82.
- SIEWIERSKA, A. *Functional Grammar*. London and New York: Routledge, 1991.
- "Polish Main Clause Constituent Order and FG Pragmatic Functions." *Functional Grammar and Verbal Interaction*. Ed. M. Hannay and A.M. Bolkenstein. Amsterdam: John Benjamins, 1998. 243-266.
- SLOBIN, D.I. "Grammatical Transformations and Sentence Comprehension in Childhood and Adulthood." *Journal of Verbal Learning and Verbal Behavior* 5 (1966): 219-227.
- SOLSO, R.L. *Cognitive Psychology*. Boston: Allyn and Bacon, 1991.
- SPERBER, D., and D. WILSON. *Relevance, Communication and Cognition*. Oxford: Basil Blackwell, 1995.



- STEUTEN, A.A.G. "Business Conversations from a Conversation Analytical and a Functional Grammar Perspective." *Discourse and Pragmatics in Functional Grammar*. Ed. J.H. Connolly, R.M. Vismans, C.S. Butler, and R.A. Gatward. Berlin, New York: Mouton de Gruyter, 1997. 59-74.
- VAN DEN BERG, M. "An Outline of a Pragmatic Functional Grammar." *Functional Grammar and Verbal Interaction*. Ed. M. Hannay, and A.M. Bolkenstein. Amsterdam: John Benjamins, 1998. 77-106.
- VAN VALIN, R. "Layered Syntax in Role and Reference Grammar." *Layers and Levels of Representation in Language Theory*. Ed. J. Nuyts, A.M. Bolkenstein, and C. Vet. Amsterdam: John Benjamins, 1990. 193-231.
- VERSCHUEREN, J. *What People Say They Do with Words: Prolegomena to an Empirical-Conceptual Approach to Linguistic Action*. Norwood, N.J.: Ablex, 1985.
- VET, C. "The Multilayered Structure of the Utterance: About Illocution in Functional Grammar." *Functional Grammar and Verbal Interaction*. Ed. M. Hannay and A. M. Bolkenstein. Amsterdam: John Benjamins, 1998. 1-24.

