

# Argument Structure and Semantic Function Assignment in Brazilian Portuguese

Roberto Gomes Camacho

[Universidade Estadual Paulista - Câmpus de São José do Rio Preto, Brazil](#)

[View MS Word Version](#)

## Abstract

This paper examines the semantic and syntactic function assignment in relation to pragmatic factors in a spoken corpus from Brazilian Portuguese, focusing the marked processes of sentence construction which involve perspectivization devices. Departing preliminarily from the functional postulate which asserts that grammar depends on three interdependent levels - syntactic, semantic and pragmatic - it intends to verify, on the one hand, the relevance of thematic structure to the determination of syntactic structure and, on the other hand, the influence of discourse procedures to the syntactic-semantic organization of sentences. The descriptive treatment of data leads to a theoretical evaluation of the functional model proposed by Dik (1989) em terms of the relation between Semantic Function Hierarchy and the Perspectivization Principle.

---

## 0. Introduction

The notion of semantic function (or thematic role) has received different theoretical statuses from literature according to the nature of the approach. An important aspect about this matter is the theoretical relevance that is exerted by the notion of semantic function in the explanation of syntactic facts: at the least, semantic functions are not but mere lexical indexes of the argument structure, whose nature is strictly syntactic (Chomsky 1981); at the most, they may correspond to the idea that the lexicon contains a conceptual structure constituted by formation rules which allow to combine primitive categories into more complex ones. It is from these concepts that the semantic functions are derived, that is, as particular configurations of the conceptual structure (Jackendoff (1987; 1990).

On the other hand, Dowty (1991) recognizes the relevance of the thematic roles in the syntactic phenomenon construction, but his viewpoint differs, for instance, from that assumed by Jackendoff. To Dowty, the thematic roles do not take part in the grammar; rather, they are derived from a real world semantics, as notions that are entailed by human actions which are finally represented by verbal predicates.

In addition to the fact of not adhering the principle of the syntactic, semantic and pragmatic subsystems, the functionalist viewpoint considers them so strongly interdependent that is the proper syntax that is primarily determined by pragmatic subsystem and secondarily by the semantic one. Though there are other functionalists, like Foley & Van Valin (1984), Givón (1984), who defend the same principle, the model adopted here is Dik's Functional Grammar (Dik 1989; 1997). It is possible to say that Dik's FG is a moderate functionalism: while postulating the importance of the pragmatic component and denying syntax autonomy, this model recognizes the possibility of occurring purely formal, or syntactic motivated determinations in grammar.

The FG base lies on an inventory of nuclear predications obtained by means of term insertion in the argument slots of verbal predicates. One of its most provocative aspects is that Subject and Object function should be considered to assign a perspective which the utterance form maps onto the level immediately higher than to the nuclear predication; in this level, termed 'core predication,' there may be satellite insertion. So to know the functions assigned to Subject and Object terms represents an important step to find out the predominant semantic function hierarchy in a particular language.

The diversity of theoretical positions in dealing with the relations between syntax and semantics is the direct result of the importance of semantic functions to the theory of language, but the reason to choose a functional treatment of these facts relies on the relevance devoted by the functionalist viewpoint to the reciprocal influences among syntactic, semantic and pragmatic dimensions. It is the inclusion of pragmatic factors that distinguishes the functionalist model from a formal one. To give an example, Dowty (op. cit.) and Jackendoff (op.cit) recognize the autonomy of the syntactic and semantic components in linguistic theory, but they give little theoretical relevance to the pragmatic dimension, which exerts a salient role in the relation between the argument selection and the semantic function hierarchy.

### 1. The Semantic Function Hierarchy

The original version of the Semantic Function Hierarchy (SFH) (Dik 1981: 76) given in (1) below represents a universal tendency in the syntactic function assignment; a cut-off point in the *continuum* would represent the assignment possibilities of a particular language.

(1) Semantic Function Hierarchy

	Ag	>	Go	>	Rec	>	Ben	>	Instr	>	Loc	>	Time
Sujeito	+	>	+	>	+	>	+	>	+	>	+	>	+
Objeto			+	>	+	>	+	>	+	>	+	>	+

From left to right the Subj and Object assignment becomes gradually more difficult and therefore the resulting constructions more and more marked. In Dik's FG, the accessibility of semantic function to syntactic ones applies to the core predication level, which corresponds to an expansion of the nuclear predication including level 1 satellites (Beneficiary, Instrument), which may also appear in the Subject Function. Further on, Dik considers that only exceptionally syntactic functions should be assigned to level 2 satellites (Location and Time) in order to account for the full range of Subject and Object assignment in Philippine and Bantu languages: In Kapampangan, a Philippine language, Subject can be assigned to Ag, A, Go, Rec, Ben, Instr and Loc terms. It is true, however, that, according to language type involved, Location may appear as an argument, as a level 1 satellite, or as a level 2 satellite (Dik 1989: 230-1). By this reason and in virtue of other subtle discrepancies in several different languages, Dik (1989: 234) considers that the HFS above mentioned needs to be refined and therefore he suggests the replacement of the two first positions by the two postulated respective set of Semantic Functions, which could work as A1 and A2 respectively, according to (2) below.

(2)

A1	>	A2	>	Rec	>	Ben	...
----	---	----	---	-----	---	-----	-----

Ag	Go
Pos	Rec
Fo	Bem
Proc	Instr
Æ	Etc

(Dik 1989: 234)

This new formulation allows to accommodate the full range of states of affairs postulated by FG accruing the Semantic Functions Pos, Proc, Fo e Æ, which were not included in the original version. Though this new formulation gives a multidimensional aspect to the SFH, the inclusion of the Semantic Functions Ben and Instr as members of the set A2 seems to be contradictory and questionable since in another part of the FG where Dik deals with the relation between states of affairs and Semantic Functions (1989: 103), he gives the schema in (3) below which includes the most usual combinations of Semantic Functions within basic nuclear predicates; these combinations would be formulated by means of the algorithm of (4).

(3) [1]	[2a]	[2b]
Agent	Goal [Exp]	Recipient [Exp]
Positioner		Location
Force		Direction
Processed [Exp]		Source
Zero [Exp]		Reference

- (4) a. Nuclear predicate frames never contain more than one instance of a given semantic function  
 b. In all predicate frames, A1 has one of the functions in [1];  
 c. In two-place predicate frames, A2 has one of the functions in [2a] or [2b];  
 d. In three-place predicate frames, A2 has the function in [2a] and A3 has one of the functions in [2b].  
 e. [-dyn] SoAs are incompatible with semantic functions implying movement (Direction and Source).

(Dik 1989: 103)

Although SFH in (3) gives a generalization of the postulate c contained in algorithm (4), it includes the semantic functions Location (the place where something is located), Direction (the entity towards which something moves/is moved), Source (the entity from which something moves/is moved) and Reference (the second or third term of a relation in reference to which the relation is said to hold).

According to Cornish (1994), the inclusion of Instr as a potential second argument in SFH contradicts Dik's postulate that this semantic function applies to satellites not to arguments. This critique does not hold because syntactic functions are assigned to the core predication, the second representation level in FG model, where it is possible to insert level 1 satellites. Level 1 satellites represent the involvement of additional participants (Beneficiary, Company); further specifications, (Instrument, Manner, Speed, Quality) and spatial orientation (Direction, Source, Path).

However even Dik recognizes (1989, p. 234) that in certain languages, like classical Greek and modern Hebrew, Subject and Object assignment is sensitive to the argument status of the specific semantic functions: the Subject Function may be only assigned to Rec terms in a reduced class of two-place predicates, like *boetho* (*help*) in Greek, in opposition to three-place predicates. Though in languages like Portuguese, the A2 of these predicates are represented as Go-Exp, in ancient Greek and modern Hebrew, this type of A2 is marked by dative, not accusative. Therefore, in order to

account for this morphological distinction and its correlative syntactic behavior, Dik (1989) assigns to the dative A2 the function of Rec not Go-Exp.

On the other hand, in Chichewa, a language of the Bantu family, the possibilities of Subject assignment to Rec in A2 and A3 are inverse to those of ancient Greek and modern Hebrew: A3 Recipients may be the Subj of passive constructions while A2 Recipientes can not (Trithart 1979 apud Siewierska 1991:109).

Adopting the same argumentative line, Dik has applied to the analysis of Ancient Greek and modern Hebrew and considering that only Bantu languages allow Subject assignment to terms lacking prepositions, Siewierska (1991:100) suggests a restructuration in Dik's SFH to accomodate the distinction between prepositioned terms and non-prepositioned terms in Rec function. This restructuration adds the set of A3 semantic functions to the hierarchy in (2) and the result is (5) below.

(5)

A1	>	A2	>	A3	>	Rec	>	Ben	>	Instr	>	...
Ag		Go		Rec								
Pos		Rec		Ben								
Fo		Bem		Instr								
Proc		Instr		Loc								
Zero		Loc		Dir								
		Dir		So								
		So		Ref								
		Ref										

As we proceed along the full range of semantic functions from A1 de Agent to Positioner and from there to Force, Processed and Zero, there is a correlative weakening of the functions assigned to Subject position and a simultaneous strengthening of the function contained in A2, particularly that of Goal [Experiencer]. In this case, it would be possible to see the full range of functions within position A1 as if they formed a hierarchy by themselves like in positions A2 and A3. This version makes more explicit the prediction that all argument semantic functions are more accessible to syntactic function assignment than non argument ones and that, among the semantic functions, those listed in A1 are more accessible to Subject assignment than those listed in A2, and those in A2 more than those in A3 (Siewierska 1991:110).

## 2. The scope of the analysis

In adopting a functionalist point of view to deal with the relation between semantic and syntactic functions as a general hypothesis, this paper finds its own support on the idea that an adequate grammar theory should be constituted by interdependent subsystems since the syntactic configuration of the linguistic expression is determined, not exclusively but in some relevant aspects, by the specific configuration of semantic and pragmatic dimensions.

In addition to acknowledge this type of interdependence, Dik (1989) postulate that the dimensions would be hierarchized, sharing with other functional models the priority of pragmatic component. So, the adoption of a discursive view implies to extend the traditional domain of linguistic analysis, which consists of semantic, syntactic, morphological e phonological rules, in order to include the complex pragmatic principles that govern the patterns of verbal interaction in which the rules are used. Therefore, semantics in a wide sense is seen as instrumental with respect to the communicative and interactional functions and syntax is also instrumental with respect to semantics (Dik 1989:3).

On the base of these theoretical principles, this work examines the semantic function accessibility to syntactic function assignment in relation to pragmatic or discursive factors. So, marked constructions like argument promotion and demotion in relation to word order are focused here, that is, the type of constructions which involves the mapping of a vantage point onto the clause.

Considering firstly the validity of the theoretical starting point that grammar depends on three interdependent dimensions - syntactic, semantic and pragmatic - we intend to verify, on the one hand, the relevance of semantic structure to the determination of syntactic one and, on the other hand, the relevance of interactive-communicational processes to the determination of syntactic-semantic organization of clause constructions. At the end point, it is intended that the descriptive treatment adopted here will lead to an evaluation of Dik's functional model (1989) in terms of the relation between SFH and the notion of perspectivization.

The methodological procedure is limited to an initial analysis of canonical clauses of the cult spoken Portuguese on the base of a sample, relative to 5% of the so termed *minimal corpus* of Project of Spoken Portuguese Grammar<sup>1</sup>, which performs a total set of 916 clausal occurrences and afterwards it is done an analysis on the marked clauses.

The analysis of unmarked constructions forms only the background against which we intend to show the true proposal of this work, that is, first to examine the marked constructions in which the point of view mapped onto the states of affairs is not the more common and second to verify what kind of syntactic functions is exerting the main role in the linguistic game. A quantitative procedure is adopted when analyzing general data and a qualitative procedure when dealing with the marked constructions and its reflection on the perspective theory because this type of data shows low statistical representativity.

### 3. Quantitative measures: the HFS role on the canonical structures of BP

Considering firstly the relation between predication semantic types and the Subject/predicate order we observe that state predications predominate in the corpus: they constitute exactly half of all occurrences independently of the order type (458/916). SV (0) constructions also predominate showing a score of 88,5% (810/916) against 11,5% of VS(0) constructions. Action and Position predicates show a high score of SV(0) order; these are clauses whose A1 argument is represented by a controlling entity. The most interesting thing in these data is that SV(0) order predominance is generalized along all semantic types of clause structures and this fact characterizes it as a canonical structure of spoken Portuguese.

This canonical structure is also pragmatically determined as it is attested by the major incidence of given entities in the Subject position<sup>2</sup>. These results point to a significant predominant frequency of given referents in A1 position of the SV(0) constructions: 91,8% (594/647) in opposition to the score of only 8,1% (53/647) of new referents. In VS(0) clauses, the scores do not show such a polarity, although the amount of new referents is higher, 59,5% (59/99), than the amount of given referents: 40,4% (40/99). In this respect, it may be once more observed that Subj arguments of VS(0) clauses are aligned to the SV(0) pattern Object arguments in terms of information flow. The predominance of Zero semantic function shows a correlation between Subject syntactic function and Topic pragmatic function independently of semantic function assignment.

What would be the role of SFH in this framework? Let's observe now semantic function distribution, independently of clause ordering. The data referred to the distribution of semantic functions in relation to A1 e A2 arguments show the following hierarchy to A1 argument, identified here as the Subject syntactic position: Zero (49,2%) > Agent (30,0%) > Processed (12,0%) > Positioner (6,0%) > Force (1,5%).

It was necessary to eliminate stative [-dynamic] predications, whose scores amount to 464 SNs with Zero function in order to be possible to observe the data constituted only by event [+ dynamic] predicates; so the result is a statistical hierarchy in the following order: Agent (59,5%) > Processed (23,5%) > Positioner (12,0%) > Force (3,0%). If it is compared to the SFH in (2) above, we can observe that Zero in the total amount of SNs overlaps statistically that of Agents; the same is true to Processed SNs which overlap statistically the linear position of the function Force in the subhierarchy of event predicates.

The statistical hierarchy only permits infer that stative predicates have, for example, a much higher score than dynamic predicates in the entire corpus. If SFH is a principle of semantic organization which map onto the syntactic structures, the results so obtained may only mean that empirical data do not necessarily represent it because the statistical distribution is organized on

the base of the recurrence of categories, that is, token not type-categories.

From the total *corpus* of 916 cases the recurrent structures were deleted and this methodological procedure resulted in a statistical frequency of the use of type-structures; in this new sample, the following A1 hierarchy may be observed: Agent: 49,0% (113/233) > Zero: 24,0% (57/233) > Processed: 16,0% (36/233) > Positioner: 9,0% (22/233) > Force: 2,0 (5/233). As to the total score of SNs in A2 position, the corpus was reduced to 183 cases, after subtracting the monovalent predicates; we came up with the following results: Goal: 56,0% (103/183) > Reference: 40,0% (72/183) > Location: 3,0% (6/183) > Direction: 1,0% (2/183). The total score of A3 is reduced to only 21 cases, after subtracted the monovalent and bivalent predicates; again we came up with the following results: Location: 48,0% (10/21) > Recipient: 43,0% (9/21) > Direction: 9,0% (2/21).

As to A1 position, the results have shifted in the corpus of types: there is a major frequency of Agent terms in Subjec/Topic slot. But, terms bearing Zero and Processed function prevail in the Subject slot in opposition to the hierarchically highest semantic functions like Positioner and Force. In A2 position, characterized as prepositional or direct complement, arguments bearing Goal semantic function maintain its predominance over other semantic functions, but SNs bearing Reference function predominate over SNs bearing Location and Direction function. Reference is the non-affected non-effected second argument of an action predicate, as for instance *ler* (to read), and the second argument of controlled situation verbs in which the Subject is a Positioner. In A3 position, the SFH does not hold completely because of a higher frequency of Locations than Recipients. However, the scores present little significance.

SFH specifies the preferential order, or the semantic function accessibility to the Subject and Object syntactic function assignment and it also determines the relative frequency of the specific choices that are made both linguistically and cross-linguistically. However, this hierarchy or any one else embodies some predictions that may not be automatically transposed to the level of concrete predications, since the power of the association between a semantic function and Subject and Object functions in a given occurrence depends on the following relevant factors: "i) the range of semantic functions accessible to subject and object; ii) the impact of the personal hierarchy and the familiarity-based determinants of subject and object selection; iii) the nature of the predicate nature" (Siewierska 1991:111; also Dik 1989:235-9).

The first point is quite obvious: it is expected that the dependence between a Subject and an Object semantic function is inversely proportional to the number of semantic functions eligible to Subject and Object in the predication. It is necessary to observe that the majority of processive constructions present a lexically but not syntactically monovalent predicate, like (6a-c), or bivalent, like (6d), which perspective matter does not apply to:

- (6) a. as economias industriais européias e americana... e a união (EF-RJ-379)  
soviética queriam mais é que a Birmânia morresse...  
(and what the European and american industry economies... and the  
Soviet Union only wanted is that Burmane died.)
- b. por que tu disseste que achas que ali entra a compreensão? (EF-POA-278)  
(why did you say you think that the comprehension arises there?)
- c. a perspectiva essa da dogmática jurídica como é que ela funciona (EF-RE-337)  
(the perspective this of the juridical dogmatics how does it  
work)
- d. nos primeiros meses daquele trimestre como a UPC não sofre (D2-RJ-355)  
correção  
(in the first months of that quarter as the UPC is not subjected  
to correction...)

There are few cases of predicates that would be characterized by any selection between a causative and a processive construction, as it is observed in (7a-b).

- (7) a. A cozinheira assou os dois juntos  
 (The cook has baked the two together)
- b. os dois assam juntos (D2-POA-291)  
 (The two ones bake together)

On the other hand, the second and third points are closely related. It is known that some semantic functions are provided much more than others by such characteristics as humanity, animacy and familiarity that favor the Subject and Object selection, as it is shown by personal/animacy hierarchy (Silverstein 1976) in (8).

- (8) [P1, P2] > P3 human > animate > inanimate force >  
 inanimate

So, the possibility of a Goal function in comparison to an Agent function to be a candidate to Subject increases in the same proportion as the first entity is more familiar than the second one. This fact may be statistically confirmed in the relative distribution of SNs representing human, animate and inanimate entities. To show it, let's return to the data of the main sample that includes recurrent constructions.

First of all, it was deleted the abstract referents and those which lack animacy, like several cases of pronouns and anaphoric zeroes. The left data points to an inversely proportional relation between SVO and VSO constructions no matter the semantic nature of the given predication: there is a great frequency of human referents in the Subject arguments, 70,2% (486/692), against 28,7% of arguments that represent inanimate referents.

The facts are completely reversed in relation to VSO pattern: though the number of animate arguments is substantially reduced, the results point to a significantly higher frequency of inanimate A1: 77,0% (47/61) in opposition to the arguments that represent human referents: 18,0%. If the [+animate] [-human] NPs are added to this score, the total becomes even more significant. In this case, the semantic characterization of Subject argument in the SVO constructions looks like once more that of Object arguments: 87,3% (296/339) of A2 from SV(0) constructions and 77,7% (7/9) of the arguments from VS(0) constructions are also inanimate. These results show that SFH indicates only a preferred Subject/Object/Oblique assignment, which is determined by the influence of another discursively oriented hierarchy, that is, the personal/animacy hierarchy.

By virtue of a discursive orientation to first person, a Goal entity that is marked with the feature [human] exerting specially the function of Goal [Exp] is a strong candidate to non-controlled states of affairs which take an entity in the semantic function of Force, Processed or Zero as A1. The preference for (a) constructions disfavoring (b) constructions in (9) is one of the most common evidences to support the influence of the animacy hierarchy:

- (9) a. A empresa despediu o marido dela.  
 (The firm fired her husband)
- b. O marido dela foi despedido pela empresa.  
 (Her husband was fired by the firm)

The lexicalization of mental process predicates can be done by putting the experiencer/affected entity as A1 and the stimulus as A2, or the inverse, as it is seen in (10a-b).

- (10) a. O livro me impressionou.  
 (The book has impressed me.)

- b. Eu fiquei impressionado com o livro.  
(I got impressed by the book.)

The SFH would impose (10a) but because there is an action predicate the causer should precede the affected entity or causee. However, by virtue of the animacy hierarchy it is more common to invert the event order putting the Experiencer/affected in A1 position and stimulus/causer in A2 position.

Some informal stative predicates, like gostar (to like), amar (to love), odiar (to hate), querer (to wish) e temer (to fear), follow the first ordering type, preserving the experiencer as A1 and the stimulus as A2. Generally NPs in the most relevant positions represent human entities, or else the stimulus is a non-human entity; that is why the dominant pattern in which the Experiencer appears as A1 is frequently used. If there is the need of altering it by reason of topicalization, a passive construction which inverts the argument positions is preferentially chosen. So, both (11a) and (11b) are absolutely allowable:

- (11) a. José amou muito Maria na adolescência.  
(José loved Mary very much in adolescence.)  
b. Maria foi muito amada por José na adolescência.  
(Mary was loved by José very much in adolescence)  
c. José amou o pato no tucupi.  
(Joseph loved duck at tucupi sauce)

but the equivalent passive construction (11d) is not allowable in the same way:

- (11) d. O pato no tucupi foi amado por José.  
(The duck at tucupi sauce was loved by José.)

There are certain situations in which the selection of a point of view to be mapped onto the predication is a marked clause. In these situations there is a disarticulation between the natural sequence of a state of affairs and the order of argument and satellites in the predication. Voice alternatives are typical devices to map a point of view onto the event being described and these are the only situations that constitute projection of a perspective (Dik 1989). Cross-linguistic studies of voice variation show that, on the one hand, agentive passives are simply impossible in some languages and, on the other hand, that there is no construction that allows an agentive passive excluding at all an agentless passive (Givón 1979).

These cross-linguistic evidences suggest that agentive passives are considerably less natural than agentless passives and this fact is perfectly consistent in the perspective theory since an agentive passive inverts the argument selection of a transitive event, downgrading the Agent semantic function to a syntactic status of an oblique which maintains a relation of low centrality to the verb; in this case, it is the agentless passive that best accommodates to a situation of natural event reversion: as a NP in the Goal semantic function is promoted to Subject, the agentless passive is a less marked preferential structure, and so, a statistically more frequent construction than its agentive alternative in spoken Portuguese. The cases in (12) are good instances of these constructions.

- (12) a. fiquem sempre se perguntando como é que foi feito (D2-POA-291)  
(They are always questioning themselves about how this was made.)  
b. essas coisas têm que se(r) muito bem dosadas (D2-POA-291)  
(these things have to be very well dosed.)



There are much more extreme perspectivizing situations where the clauses involved may be considered marked constructions. In such cases the disarticulation between natural attention flow and linguistic point of view (DeLancey 1981) is motivated by an absence of the canonical Subject position. These types of construction seem to signal that the Speaker projects such a point of view onto the state of affairs so that they represent no more than simple verbalizations of a process by themselves, as it is showed by the following processive constructions (13a-b).

- (13) a. e os dois assam juntos (D2-POA-291)  
(and the two bake  
together)
- b. não deixa cozinhar o camarão (D2-POA-291)  
(Don't let the shrimp  
cook)

A question that naturally arises is that these cases are derived predicates obtained by a valence reduction rule (Dik 1989) and they can not be considered as a perspectivizing device, since there should be sameness of underlying predicate frame to both constructions in (13a-b) according to the proportional relation between active and passive clauses.

#### 4. Conclusion: some theoretical consequences

It is possible that the less satisfactory and the most controversial aspect in Dik's FG is the treatment devoted to the syntactic functions. The main reason of the critiques generally pointed to this aspect, specially by Siewierska (1991) stems from the fact that Dik recognizes, on the one hand, only two syntactic functions - Subject and Object - and, on the other hand, he adopts a very restrictive conception of perspective that should be seen as a frame within which these two functions are assigned. So, "although termed syntactic, the subject and object function are defined notionally in relation to a theory-specific interpretation of the notion *perspective*" (Siewierska 1991: 74).

Subject and object assignment requires an alternative choice within the underlying predication and moreover the exactly same state of affairs should be involved independently of each alternative choice. The requirement for the Subject assignment in nominative-accusative languages like Portuguese lies on the existence of a syntactic passive and the requirement for Object lies on the dative-shift construction which is present in English but not in Portuguese. Both passive and *dative-shift* construction represent the same state of affairs like its respective non-marked counterparts. The Subject assignment defines a primary perspective to the predicate interpretation: it signals that the state of affairs should be interpreted from the point of view of the term representing the Subject function. On the other hand, the Object assignment defines a secondary perspective or vantage point to the state of affairs; therefore languages that allow the selection between Goal and Recipient terms to assign Object function like English are best endowed as to perspective possibilities. As Portuguese does not exhibit dative-shift constructions this language is only endowed with the primary vantage point.

A means of questioning the perspective notion is to observe quantitative and qualitative differences of valency between active and passive constructions. Passive predicates are semantically bivalent like their active correspondent predicates, since the Agent argument remains present at least on the semantic structure; yet they are syntactically monovalent since when the Agent argument is actually expressed it appears as a prepositional phrase in an oblique function. As FG considers that Subject and Object assignment is done on a semantic base, the model is not capable of giving adequate support to this formal distinction. According to Dik (1981; 1989), the underlying structure of a clause requires a predicate which an appropriate number of terms should be applied to; so, predicates should represent proprieties or relations and terms should refer to entities; the result from this is a predication of which (14) is an example.

(14) give (Peter)(the book)(to Joseph)

It is possible to interpret the above predication as designating a state of affairs (SoAs) where an SoAs is "the conception of something that can be the case in some world" (Dik 1989: 46). Dik also postulates that "this definition implies that an SoAs is a conceptual entity, not something that can be located in extramental reality, or be said to exist in real world" (1989: 89). On a more abstract level, the fundamental structure of a predication is determined by the combinatory possibilities of the predicate; all of these combinatory possibilities are constituted by lexical items which fill the predicate slots; (15) below represents the predicate frame of give.

(15) give<sub>V</sub> (x1:<anim>(x1 ))Ag (x2)Go (x3:<anim>(x3))  
Rec

A predicate frame like (15) specifies the following types of information: the phonological form and the syntactic category of the predicate; the quantitative valency, symbolized by the variables x1...xn, which mark the argument slots; the qualitative valency, specified by the semantic functions of the arguments and by the selection restrictions imposed on them. As an underlying representation, the predicate frame in (15) accounts for the clause types like (16a-b).

- (16) a. João deu o livro a José.  
(John gave the book to Joseph.)  
b. O livro foi dado a José por João.  
(The book was given to Joseph by John.)

As to (16a-b), it is absolutely correct to say these sentences present the same SoAs. In doing so, it is assumed that these two expression forms have the same formal configuration on the underlying level; the difference between the two expression forms is that (16a) presents the SoAs from *João's* (John's) viewpoint and (16b), from *livro's* (book), so that it is exactly in the perspective variation that is located the difference between an active and a correspondent passive construction.

The clauses generally do not provide an exhaustive description of the SoAs which they refer to: informations like Time and Location are very frequently not mentioned; likewise Instrument and Beneficiary commonly do not present enough relevance to deserve explicit mention. Even so the absence of this information does not affect the sentence conditions of good formation:

- (17) Pedro deu o livro a José (às sete horas) (na biblioteca).  
(Peter gave the book to Joseph (at seven o'clock) (in the library))

Yet the absence of other constituents like the Subject puts (17) into an unacceptable sentence:

- (18) ? deu a o livro a José às sete horas na biblioteca.  
(? Gave the book to Joseph at seven o'clock in the library.)

The obligatory insertion of such constituents as *Pedro* (Peter) and the optional insertion of such constituents as *às sete horas* (at seven o'clock) and *na biblioteca* (in the library) represent the criterion used by Dik (1989) to distinguish arguments from satellites. This distinction plays an important role in the treatment of voice constructions because, as mentioned before on the semantic analysis of passives, the agentive constituent is optional in Portuguese and therefore it does not constitute a true argument but a true satellite.

The theoretical consequence of these facts is that Portuguese active and passive sentences, similarly to what Vet (1985) says about French, do not present the same underlying predicate frame, as says Dik (1978; 1989); rather the passive predicates may be formulated in the FG framework as a rule of predicate formation, that is, the result of a detransitivization process (Givón 1984). The formal difference between a passive construction and an impersonal one is found in the presence or in the absence of a agentive satellite in the correspondent predicate frame.

The main functional reason to passive voice in Portuguese and in many other languages is that this type of construction allows that a Patient constituent (Goal, in FG terms) fill the Subject/Topic slot of the clause. As to the agentive constituent, it happens to show a syntactic behavior of a typical satellite in the passive construction, as it is shown by (19a-b) and (20a-b) below:

- (19) a. Pedro construiu a cerca esta noite.  
 (Peter built the fence tonight)  
 b. ?Pedro construiu esta noite.  
 (?Peter built tonight.)
- (20) a. A cerca foi construído por Pedro  
 esta noite.  
 (The fence was built by Peter  
 tonight.)  
 b. A cerca foi construído esta noite.  
 (The fence was built tonight.)

From a syntactic viewpoint, the Agent term in the passive clause is identified as an optional constituent, or a satellite, while the Goal term *a cerca* (the fence) in both constructions is a true argument. In fact both the active and the passive constructions allow the same distribution of semantic functions; therefore they may be seen equivalent only from a conceptual viewpoint. From a syntactic viewpoint, however, the predicate does not preserve the same valential pattern; as these facts are applied to French, Vet (1985) postulates in his own analysis that the explanation to the syntactic correspondence between active and passive clauses lies on a rule of predicate formation which is also compatible to the FG framework<sup>8</sup>. This is the same explanation we postulate here to the similar Portuguese constructions.

The passive is typically formed by a rule of derived predicate formation which takes an active predicate with Agent and Goal arguments. The passive is a derived predicate because its formation rule shifts not only the predicate morphological form but also the syntactic status of the Agent argument which becomes a satellite and the syntactic status of the Goal argument which becomes the Subject, as it is showed in (21).

- (21) construirV (x1) Ag (x2) Go  
 > [ser construído]V (x2) Go (y1) Ag (x: argument;  
 y: satellite)

The problem with the FG perspective notion does not circumvent to the mentioned limitation but to the presumed identity between the states of affairs represented by sentences which are formed from different viewpoints (Siewierska 1991). The nuclear predication is the representation level that defines a certain state of affairs and since FG does not admit transformations of any kind, two or more predications may be qualified as manifestations of the same state of affairs only if they also manifest identical predicate frames in which both syntactic and semantic functions are represented (respectively quantitative and qualitative valency), besides category proprieties, selection restrictions and so on.

The base of this principle is that in Dik's GF (1989) states of affairs do not represent the experience as they exists in real world but a codified view of the reality that is construed by grammar. As a state of affairs is primarily defined in a nuclear predication, we may be presumed

that differences between states of affairs of the same type should be the product of differences in the predicate frame component parts and not in such other semantic proprieties as lexical choice, semantic features, categorial proprieties and selectional restrictions.

Only passive constructions where the agentive NP is obligatory are perfectly compatible with Dik's analysis of subject assignment. However, the vinculation of the passive to the subject assignment implies that only passives with no valency change are submitted to rules of subject assignment. Such an approach excludes some potential cases of subject assignment and perspective like adjectival or lexical passives (22a), which involve a shift of semantic function; reflexive passives (22b), where an argument reduction rule is applied; and by definition the impersonal passives (22c) in which the agent is not overt (Siewierska 1991).

- (22) a. a gente conhece pessoas que... ficam impressionadas (DID-POA-044)  
(we know people that...get impressed.)
- b. e a melhor maneira que ele encontrava para se defender era atacando (EF-RJ-355)  
(the best way he found to defend himself was attacking.)
- c. não se pode criar assim profissões ou cita(r) (DID-POA-044)  
profissões que sejam mais importantes ou (mais necessárias entende?  
(One may not create professions or mention professions that are more important or more necessary, do you understand?)

The FG model does not allow to include as perspective variation a great range of possibilities of alternance between different structural configurations of the same state of affairs:

In fact the only differences between predications which the notion of perspective is intended to capture are those involving the internal organization of semantic functions within a predicate frame. These permutations, if accompanied by the transfer of certain morpho-syntactic proprieties from one semantic function to another, are taken as defining subject and object assignment. Perspective in FG is thus solely a matter of the mapping between semantic functions and syntactic functions (Siewierska 1991:78).

On the one hand, the motivation for SFH is sought in the psychologically based prototypical directionality of the predicate, as De Lancey's concept of natural attention flow (1981) and, on the other hand, on Silverstein's personal/animacy hierarchy (Silverstein 1976). These two motivations are manifestations of Hyman's iconicity principle (1980). Even so according to DeLancey, natural attention flow refers cognitively to the actual development of events in the real world, and the temporal order is the base for perception of naturalness. The claim embodied in Dik' SFH, which may be translated as the Agent priority over all other semantic functions, is that the speaker exhibits a preference for representing situations and events verbally in close correspondence with the natural attention flow. Consequently the natural attention flow is the unmarked linguistic attention flow, that is, the preferred starting point for the linear mapping of linguistic expressions (Siewierska 1991:105).

Natural attention flow interacts in obvious way with several versions of personal/animacy hierarchy which is a reflexion of what is termed as 'Me-first principle' according to Cooper & Ross (1975), Silverstein (1976) e Lakoff & Johnson (1980).

Another less obvious contact point to Dik's reinterpretation of the Subject and Object functions is Fillmore's Case Theory (1968; but specially 1977). According to Fillmore, the verbalization of a predicate frame does not necessarily include all the relevant aspects of a situation but only a partial scene of it. The manifestation of this choice implies Subject and Object assignment. It is just in this point that Dik agrees with Fillmore: that the predicate frame represents a certain basic perspective to the state of affairs.

There is a disagreement point between Dik's FG and his sources of this to apply them to the set of facts covered by the notion of perspective becomes a matter of theoretical complexity. There is a fundamental difference between states of affairs and its linguistic expression in the way DeLancey (1981) works out the notions of natural attention flow and linguistic attention flow and Fillmore works out the notion of events in relation to the partial scenes represented in the predication. According to Dik, the predication is already an underlying logic-semantic linguistic entity, which is then verbally expressed; this view makes Dik's perspective a very restrictive concept. The event itself, as it is formed by our cognitive perception, may be verbally represented by several vantage points from which the different expression forms like (23a-f) below are derived.

- (23) a. João quebrou o vaso.  
 (John broke the vase.)  
 b. O vaso foi quebrado por João.  
 (The vase was broken by João.)  
 c. O vaso foi quebrado.  
 (The vase was broken.)  
 d. O vaso quebrou. / O vaso se quebrou.  
 (The vase broke.)  
 e. Quebraram o vaso.  
 (Someone broke the vase.)  
 f. Quebrou-se o vaso.  
 (The vase is broken.)

The predicate frames are order-free structures, though by a convention it reflects a priority which is determined by HFS; so, in a verb like *dar* (to give), the Agent is referred to as the first argument (A1); Goal is referred to as the second argument (A2) and Recipient, as the third argument (A3). It is a vantage of the theory because it implies that languages with quite different constituent ordering patterns can nevertheless be described in terms of same format of predicate frames. The expression rules are responsible for the form of the constituents, the order in which they are to be expressed and the prosodic contours (accent and intonation) which they have to be provided.

However what seems na advantage on a cross-linguistic viewpoint seems to be a disadvantage on another viewpoint. As the assignment of Subject and Object syntatic functions precedes the expression rules, only two or three-place predicate frames are covered by perspective which excludes the semantic correspondences shown in (23a-g).

Surface structures, like (23a) and (23d), present different predicate frames or underlying structures if they are based on predicate formation rules. Any feature of a predicate frame given as input may be affected by a predicate formation rule and by this reason the main results from a predicate formation rule are the following: i) extension or reduction of the quantitative valency; ii) effects on the states of affairs designed by the predicate; iii) other localized effects as argument semantic function shifts (qualitative valency), semantic shift of the predicate and of the predicate syntactic category.

It is just a predicate formation rule by valency reduction and argument shift given in (24) that explains the relation between a transitive clause like (24a) and its processive counterpart like (23d):

- (24) input: predv (X1)Ag (X2)Go  
 output: predv (X2)Proc

The predicate formation rule in (24) deletes the underlying agentive term (qualitative valency reduction) and simultaneously transforms an action predication into a process one. As a result of this change, the underlying Goal argument also shifts occupying the first argument slot and then it

is undergone by a semantic change from Goal to a Processed argument (qualitative valency shift).

Although the validity of (5) above is warranted by a set of linguistic and cross-linguistic generalizations, Portuguese data here discussed shows that the SFH predictions must be counterbalanced by several other semantic-pragmatic factors which characterize the predicate in each specific language. In addition to the set of semantic functions which is accessible to Subject and Object functions we must also take in account not only the impact of the personal/animacy hierarchy and the familiarity-based determinants of subject and object selection like topicality, given/new relation, definiteness, referentiality (Chafe 1976) but, above all, idiosyncratic factors like personal preference and emotional involvement, under the scope of Kuno's (1976) and Kuno & Kaburaki's (1977) empathy hierarchy.

## About the Author

Dr Camacho lectures in the Departamento de Estudos Lingüísticos e Literários at UNESP: Universidade Estadual Paulista - Câmpus de São José do Rio Preto.

Email: [camacho@tll.ibilce.unesp.br](mailto:camacho@tll.ibilce.unesp.br)

## Footnotes

1 The research universe is a representative sample from the minimal corpus of Project of Spoken Portuguese Grammar; the minimal corpus is compounded by the following interviews: from Porto Alegre: EF-278, DID-045, D2-291; from Rio de Janeiro: EF-379, DID-328, D2-355; from São Paulo: EF-405, DID-234, D2-360; from Recife: EF-337, DID-131, D2-005; from Salvador: EF-049, DID-231, D2-098.

2 In the treatment of the data, we do not take in account some given and new subcategories as suggested by Prince (1981). So, an inferrible term, for instance, was computed as given.

## References

Chafe, W. (1976) Givenness, contrastiveness, definiteness, subject, topics and point of view. In: Li, Ch. (ed). *Subject and topic*. New York: Academic Press.

Chomsky, N. (1981) *Lectures on Government and Binding*. Dordrecht: Foris.

Cooper, W. E. & Ross, J.R. (1975) Word order. In: Grossman, R.G. et al (eds.) *Papers from the parasession on functionalism*. Chicago: Chicago Linguistic Society.

Cornish, F. (1994). Integrating argument structure, clause semantics, grammatical functions and micro-discourse: The Functional Grammar perspective. - Review article on *Functional grammar* by Anna Siewierska. *Lingua*. 94 (4): 245-264.

DeLancey, S. (1981) An interpretation of split ergativity and related patterns. *Language*. 57 (3): 626-57.

Dik, S. (1989) *The theory of Functional Grammar* (Part I: The structure of the clause). Dordrecht: Foris.

Dowty, D.R. (1991) Thematic Proto-Roles and argument selection. *Language*. 67 (3): 547-619.

Fillmore, C. (1968) The case for case. In: Bach, E., Harms, R. T. (Ed) *Universals in linguistic theory*. New York: Holt.

Fillmore, C. (1977) The case for case reopened. In: Cole, P., Sadock, J. M. *Syntax and Semantics*. v.8. New York: Academic Press.

- Foley, W.A. & Van Valin JR., R.D. ( 1984) *Functional Syntax and Universal Grammar*. Cambridge: Cambridge University Press.
- Givon, T. (1984) *Syntax a functional-typological introduction*. Amsterdam: John Benjamins.
- Givon, T. (1979) *On understanding grammar*. New York: Academic Press.
- Haiman, J. (1980). The iconicity of grammar: isomorphism and motivation. *Language*. 56: 515-540.
- Jackendoff, R. (1987) The status of thematic relations in linguistic theory. *Linguistic Inquiry*. 18 (3): 369-411.
- Jackendoff, R. (1990) *Semantic structures*. Cambridge, Mass.: MIT Press.
- Kuno, S. (1976) Subject, theme and the speaker's empathy-a reexamination of relativization phenomena. In: Li,Ch (ed.) *Subject and topic*. New York: Academic Press.
- Kuno, S., Kaburaki, E. (1977) Empathy and syntax. *Linguistic inquiry*. 8: 627-72.
- Lakoff, G. & Johnson, M. (1980) *The metaphors we live by*. Chicago: Chicago University Press.
- Prince, E.F. (1981) Towards a taxonomy of given/new information. In: Cole, P. (ed) *Radical pragmatics*. New York: Academic Press.
- Siewierska, A. (1991) *Functional Grammar*. London: Routledge.
- Silverstein, M. (1976) Hierarchies of features and ergativity. In. Dixon, R.W.M. (ed.) *Grammatical categories in Australian languages*. Canberra: Australian Institute of Aboriginal Studies.