

## REVIEW OF *THE FUNDAMENTALLY SIMPLE LOGIC OF LANGUAGE* (ROUTLEDGE, 2020)

Antonio Fábregas  
*Norwegian University of Science and Technology*

On the 23<sup>rd</sup> of July 1972, Bobby Fischer and Boris Spassky played their sixth match in the World Chess Championship. That match was crucial for Fischer because, so far, both Spassky and him had won two games each, with the fifth one ending on a draw. If the championship ended on a tie, the current champion would retain the title, and that happened to be Spassky. On that sixth match, Fischer played whites, so he opened. To everybody's surprise he did not start with his usual 1.e4, leading to a Ruy López or a Sicilian Defense, but with an unexpected Queen's Gambit in 1.c4. Spassky, certain that he would win because he was well-trained in the Tartakower defense, dismissed the first moves by Fischer as too easy and too simple. The result is that Fischer won that match and Spassky ended up losing the championship.

The lesson to be learned from this old story is equally simple: one should not confuse simplicity with absence of strategy, lack of planification or –even less– a simplistic approach to a problem. The monograph *The fundamentally simple logic of language*, by Luis H. González, is a prime example of the type of work that, through a deep understanding of the matter, is able to produce a simple explanation of a set of phenomena that is anything but simplistic.

The core idea of the book is transparent: whoever gets the inference of being interpretable as the verber of an event will project as the subject, period. If the verb does not license that type of inference, the participant that can be related to the result of the event as the verbed becomes the subject. Any other participant that may appear in the clause –in different versions of indirect objects– does not participate in a core theory of argument projection.

This apparently simple theory, in fact, constitutes a purely grammatically-internal alternative to linking theories that rely on logical entailments of any type, as I will try to argue.

### 1. Content of the monograph

This monograph contains six chapters that, through a clear progression, walk the reader through what eventually becomes a whole theory about argument linking and projection.

The essential idea of the monograph is close to what Jackendoff (1990) called the Action tier: thematic relations are reduced to a core set of notions where the three essential types of participants are identified as the verber, the verbed and the verbee. What González adds to this core idea is the proposal that these three concepts lie at the heart of human language in such a way that a proper understanding of their properties and relations with each other can provide a simple treatment of some of the core

phenomena in grammar, without the need to introduce more abstract theoretical contrasts.

The three types of participants are introduced and discussed in chapter 1. Each one of these participants is licensed through distinct inferences that are associated with the eventuality: the verber is the participant that can be inferred to initiate an eventuality, without any type of entailment related to whether that initiation is conscious or not and voluntary or not. As in Jackendoff (1990) and Ramchand (2008), the verber is a broader notion than the agent or the causer, and can be extended to instruments, means and even some experiencers. Correspondingly, the verbed is the entity that licenses the inference that somehow the event applies to it, affecting it or not, with a corresponding change in properties or not, much in the way that themes are treated in some other approaches but clearly different from what Dowty (1991) classified as a patient. Finally, the verbee (which is initially introduced as the beneficiary / maleficiary) always corresponds to a third participant, which prototypically receives something in the event, although the reception can be metaphorically or figuratively defined. In chapter 4, the more concrete notions of beneficiary and maleficiary are substituted by the more abstract term of verbee, corresponding to any entity that obtains good or bad effects from the eventuality.

Chapter 2 discusses issues that, collectively, are related to the problem of how to differentiate unaccusatives from unergatives, only that the terminology used in the chapter subtly introduces the concepts without making them opaque by using terms that have received different interpretations across theories and frameworks –the distinction itself is introduced in p. 39, chapter 3–. At a surface level, this chapter is used to emphasise that the participant roles of verber, verbed and beneficiary are logically distinct from the traditional grammatical functions by showing that subjects can be interpreted as any of the three roles.

- (1) a. The government increased taxes. (verber subject)  
 b. Taxes were increased. (verbed subject)  
 c. Sandra Bullock was given an Oscar. (beneficiary subject)

In essence, through this simple method the author manages to show the reader that the grammatical function assigned to an element is sensitive to the effect of distinct syntactic operations, while the role is invariable once the predicate is defined. Therefore, the reasoning goes, the semantic role is logically previous, more basic and more central than the grammatical function. This is the reason why the system that the author proposes in order to understand clausal structure uses the semantic roles as the starting point, and from there builds a reasoning toward the identification of each one of the grammatical functions.

Given this, chapter 2 shows how the three roles are used in French and Italian to differentiate between different auxiliaries, following the tradition that goes back to Perlmutter (1978) in associating the *be* auxiliary to passives and passive-like structures. The two other types of structures that the chapter uses to play with the distinction between semantic roles and grammatical functions are some types of *se* structures in Spanish –which the author analysed in González (2022)–, double object constructions –dative shift– in English and passives in both Spanish and English.

Once one arrives to this point of the book, the book has established that sentences that have a verber will project the verber as the subject, and therefore that a verbed will not become a subject provided that the predicate has a verber –a general principle of argument projection that goes back to Gruber (1965)–. The observation is standard in the literature, but the originality in González' treatment of the problem becomes obvious in chapter 3: the author directly relates the projection to the presence of animacy, in what he calls 'animacy alignment'. Animacy alignment states that the typical matching between animacy and the profiling of the action is that verbers are animate and entities that are verbed are non-animate. In addition to the typical alignment, there are three additional atypical alignments (p. 26):

- (2) a. Non-animate verber, animate verbed
- b. Both verber and verbed are animate
- c. Both verber and verbed are non-animate.

These different ways of animacy alignment underlie a number of linguistic phenomena that González reviews, starting from the different types of psychological verbs and what the author calls 'the transitivity paradox'. The transitivity paradox refers to situations where the meaning of a verb is transitive –one interprets the existence of two participants– but the syntactic case treats them as intransitive because none of the arguments project as a direct object.

- (3) A las estudiantes les                    asustan los exámenes.  
       to the students    them.dat    frighten the exams  
       'Tests frighten students'

Interestingly, in these cases the verbs act as semantically transitive and license all types of verber-verbed entailments. González relates this to a rule of Dative Overriding that is active in languages like Spanish, German, Japanese or English, where the verbed gets marked as a verbee when it is as high in animacy as the verber –therefore, one of the atypical animacy alignments–, a rule that also explains *leísmo* and Differential Object Marking in front of animate verbed arguments in Spanish, and extension of the suffix *-ee* to direct object in English (*appointee, nominee, invitee...*).

From chapter 4 onwards, the book takes a more theoretical turn. Chapter 4 specifically addresses the problem of argument linking. The main piece in the puzzle is the Verber/Verbed Argument Selection Principle, which simply states that whichever argument passes the verber inference projects as subject, and the verbed is the object in a transitive or the subject in an intransitive or intransitivised one. With respect to the indirect object, the answer given in §4.5 is that indirect objects are not covered by a theory of argument realisation because they are easily omissible and their interpretation is obtained compositionally by attending to the other elements in the argument structure, which means that the theory should concentrate on the relation between the verb, the verber and the verbed.

Given this, the last part of the chapter focuses on intransitive verbs that take a mandatory dative, like *matter* in *It does not matter to me*, and elegantly derives the argument structure as follows: the verb is intransitive and lacks a verber, so the verbed must become the subject, and being intransitive, the additional argument projects as a

dative, which –by dative overriding– will be overwhelmingly animate and human. In other words, this is a re-formulation of Burzio's generalisation about agenthood and transitivity, only that starting from argument roles as the basic notion, not intermediated by syntactic positions.

Chapter 5 develops the theory about psychological verbs that was briefly introduced in chapter 3, mainly focusing on Spanish facts. González convincingly shows that for a set of psychological verbs that allow the alternation with accusatives, the non-verber arguments are always verbed entities, irrespective of whether they project as accusatives or datives, with dative being an effect of dative overriding. In contrast, verbs like *gustar* 'like' in Spanish are instances of true verber-less predicates in Spanish, where the verbed becomes subject and the remaining argument must project as a verbee. The chapter also connects the relevant verbs with word order, noting that the increased animacy of the indirect object over the verbed argument combines with definiteness to prefer an ordering where these verbs start with the verbee rather than the verbed argument. Finally, the chapter discusses the case of helping verbs, whose internal argument is shown to be a verbee given the adopted theory.

The last chapter, chapter 6, presents a comparison of González' theory of argument projection with other semantically-based approaches; in contrast to Dowty's (1991) proto-role theory, in González' theory affectedness does not play any role on the definition, something that has positive consequences for the treatment of psychological predicates; I would also add that in González' theory, unlike Dowty's, the theta roles are not defined in a weak way, by comparison of entailment sets, but through purely internal grammatical notions –see below–, something that becomes apparent in the comparison with other theories. In González' approach, there is only one inference that must be computed, and speakers do not need to calculate relative proximity to a prototypical role through sets of entailments implied. Note that in a list of only five entailments for two proto-roles, computing all possible combinations would imply that speakers go over 2500 options to decide if an entity should project as a subject or not (Davis 2001).

Just like Dowty's proto-roles, Role & Reference Grammar's notion of macro-roles (Foley & Van Valin 1984) requires computation of alternatives, and so does any other approach which adds extra proto-roles (such as Primus' proto-recipient role) or modifies the sets of entailments that define proto-roles (such as Beavers 2010 or Ackerman & Moore 1999).

## 2. A purely internal grammatical theory of thematic relations

González emphasises several times in the monograph that one central property of his theory is its simplicity, which derives from the use of one single inference to identify the participant role, in contrast to the approaches based on proto- or macro-roles, where the computation becomes exponentially more complex and one cannot even directly associate the grammatical function to any of the inferences.

While I agree with this idea, in my opinion González' theory results original and innovative because of a second property that he does not highlight: it is, in fact, a purely internal grammatical proposal to identify thematic roles.

Since Gruber (1965), thematic roles have been problematic because (as Dowty 1989 clearly states) there is no real formal semantic theory about thematic relations. Theories define thematic relations as predicates that name relations between participants and eventualities. As predicates, those thematic relations must contain different entailments

that describe the relation. However, there is no agreement in the literature about which entailments should be used, with Dowty himself retracting to a position where one can at best define thematic relations in an approximate way, by comparison of which one of the elements looks closer to an ideal prototype.

As also repeatedly noted in the literature, part of the difficulty comes from the approach itself, that tries to identify which aspects of extralinguistic reality are being grammaticalised in some way within those thematic relations. Our perception of reality is a complex collection of concepts of different types, and in many cases we lack reliable tests to distinguish between our general world knowledge and the aspects of that world knowledge that eventually become part of a linguistic utterance in the form of some formal feature or even lexical information associated to individual items.

Any procedure that tries to arrive to the identification of thematic relations through those world-knowledge entailments will have to face that complexity, as well as a certain degree of uncertainty with respect to whether the entailments are really linguistically codified or part of our cognitive construal of the eventuality described by the lexical items.

In contrast, what González proposes in this monograph is a purely internal grammatical test. The second-ranked participant of a transitive verb is called the 'verbed', as a participial form, and the reason is simply that this is the participant which would become the natural subject of predication of the past participle, irrespective of whether it is affected or not –which ultimately is a world-knowledge property that, perhaps, some verbs grammaticalise in some languages–. The external semantic criterion is substituted with an internal grammatical criterion that directly associates the participant to the syntactic possibility of being the subject of a particular verbal form, the participle. The beauty of the criterion is that this grammatical option is blind to world-knowledge information, and can be fully derived from language-internal criteria. For instance, one can use nonce words, where by definition world knowledge will not play a role, and still identify *the dog* as the verbed in (4).

(4) Catherine is drogging the dog.

The same goes for the verber notion, although here the test may be partially affected by the fact that *-er* is a derivational affix that may not always be able to productively produce a form with any base –in some cases, the equivalent may be blocked by the existence of another non-derived formation, as in *stealer*, which is odd for some speakers given the existence of *thief*–. Again, this is a purely internal grammatical criterion that is blind to whether that participant is willing or not, conscious or not, animate or not, etc. With the obvious limitations that any test based on derivational morphology has, this is again a criterion that shifts attention from external semantic requisites and replaces them with a linguistically internal test.

### 3. Conclusion

That internal linguistic test is what I take to be González 1.c4 move, the move that opens the monograph. Most monographs talking about the definition of thematic relations open with the semantic equivalent of 1.e4, which is the acknowledgement that identifying the entailments that compose each one of the distinct thematic relations is a complex matter, and then proceed to discuss different options. The deceptively simple

opening move of González in this monograph, on the contrary, avoids that set of problems altogether because it presents an alternative that is based on purely internal grammatical facts. Once that opening movement is made, the rest of the match proceeds in an apparently simple way, which in fact is the development of the different predictions that the pure grammatical approach makes.

Once the move is made, it is of course always possible to think of alternative continuations that make the diagnostics more precise, perhaps avoiding the problems of using a derivational suffix, but that is secondary because it will always be a property of any scientific work that it can be made more precise as knowledge accumulates. What I take to be the main legacy of this monograph is the proposal that criteria to identify theta roles should always be grammatically internal.

Antonio Fábregas  
Department of Language and Literature  
Faculty of Humanities  
Norwegian University of Science and Technology  
NTNU  
Trondheim, Norway  
antonio.fabregas@ntnu.no

## References

- Ackerman, F. & J. Moore (2001). *Proto-properties and grammatical encoding: A correspondence theory of argument selection*. Stanford: Center for the Study of Language and Information.
- Beavers, J. (2011). On affectedness. *Natural Language and Linguistic Theory* 29, pp. 335–370. <https://doi.org/10.1007/s11049-011-9124-6>
- Davis, A. R. (2001). *Linking by types in the hierarchical lexicon*. Stanford: Center for the Study of Language and Information.
- Dowty, D. R. (1989). On the semantic content of the notion 'thematic role'. In Barbara Partee, Gennaro Chierchia & Ray Turner (eds.), *Properties, types and meanings, vol. II*. Dordrecht: Kluwer, pp. 69-130. [https://doi.org/10.1007/978-94-009-2723-0\\_3](https://doi.org/10.1007/978-94-009-2723-0_3)
- Dowty, D. R. (1991). Thematic Proto-Roles and Argument Selection. *Language* 67, pp. 547-619. <https://doi.org/10.1353/lan.1991.0021>
- Foley, W. A. & R. D. Van Valin, Jr. (1984). *Functional syntax and universal grammar*. Cambridge: Cambridge University Press.
- González, L. H. (2020). *The fundamentally simple logic of language*. Oxford: Routledge. <https://doi.org/10.4324/9781003139225>
- González, L. H. (2022). *Understanding and teaching reflexive sentences in Spanish*. Oxford: Routledge. <https://doi.org/10.4324/9781003214090>
- Gruber, J. S. (1965). *Studies in Lexical Relations*, Doctoral dissertation, MIT.
- Jackendoff, R. S. (1990). *Semantic Structures*. Cambridge (Mass.): MIT Press.
- Perlmutter, D. M. (1978). Impersonal Passives and the Unaccusative Hypothesis. *Berkeley Linguistic Society* 4, pp. 157-189. <https://doi.org/10.3765/bls.v4i0.2198>

Ramchand, G. (2008). *First phase syntax*. Cambridge: Cambridge University Press.