

## **Modality and Relevance: Former President Lula's Tweets in a Semantics-Pragmatics Interface Based on Corpus Linguistics Methodology**

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### **Abstract**

*This paper proposes the articulation of a symmetrical process of interface between the properties of modality and relevance towards the component of semantics and pragmatics within natural language's system to underlie an analysis of the former president Lula's (Brazil) tweets within certain scope of time. Our main goal is, then, to, through corpus linguistics methodology, towards this specific ontology construction, examines the behavior of signification in what concerns to dependence/independence of context do the determinacy of meaning when it comes to the usage of modal operators.*

**Keywords:** Semantics; Pragmatics; Corpus Linguistics; Modal operators; Politics.

### **1 Introduction**

The determinacy of signification within natural language has been a theme which demands huge energy from linguists, philosophers, psychologists, logicians and advertising agents, which one in its own manner; concerning to linguistics properly, signification has not only been a problem within semantics scope, demanding interdisciplinary approaches in order to achieve a better understanding of this complex phenomenon, in linguistic terms and in other applications in which meaning plays a major role.

It's not difficult for us to assume that facing such an utterance as (1):

- (1) You may get sued for this. for some reason, for most of us, what would come to mind at first consists of a proposition as (2), instead of (3):
- (2) I will sue you for this, if I want to.
- (3) You'd better know that there's the possibility of you getting sued for doing such a thing as this.

This kind of phenomenon happens all the time during ordinary and daily conversations, in such a way that it is very often for A and B, during a dialogue, to insist in cancelling the implicatures (or whatever comes to the speaker's mind as a definition about the assumption that its companion may have made from the linguistic content offered), by saying something like "that's not what I meant" or "you got me wrong", and so on. In terms of linguistic science, or just Linguistics, this is what we may easily observe as a conflictive process of interface between semantics and pragmatics into the determinacy of signification within natural language. In this paper, we aim to analyze this kind of occurrence focusing on the former president Lula's tweets (@LulaPeloBrasil) from April 10<sup>th</sup> to May 10<sup>th</sup> in the year of 2017, relaying on the methodology of corpus linguistics to council the formal-semantics notion of modality in contrast with the cognitive-pragmatics notion of relevance, seeking for the modal operators that incur within the framework of possibility, deontic, epistemic and necessity.

### **2 Semantics and pragmatics: the perspective through modality and relevance**

Therefore, as semantics is concerned with linguistic content, the discipline disposes of the faculty of attributing content to the natural language, evaluating, as well, the truth values that can be assigned over a proposition, given the possible or the actual world of which such proposition speaks of.

This is, of course, one perspective by which semantics can be defined, as a formal one, by the way, which, through the modal operators, from classical logic, introduces the notion of modality to natural language. Even though in this perspective we are dealing with the content of some linguistic structure, the very roots of formal semantics rely on the notion of formal logic's definition of truth; on most formal semantics approaches, a proposition is considered true if and only if the set of states in the world of which it speaks of satisfies the truth-conditions expressed by the proposition. This, of course, affects the modality aspect, in such a way as (4)

### ***Brazil must change its political class.***

must be treated as considering the necessity condition attributed to the value of the proposition. Or would it be deontic, by means of obligation? Or epistemic, given the cognition of whoever idealizes something as (4), expressed, then, as a belief? From all modal possibilities of meaning expressed by the modal verb (the so-called lexicalized problem between the monosemantic and polysemantic approaches), only possibility is not enrolled; however, three kinds of modality are geared towards the possibility of not only formal truth-conditions sustain different representations, but also different pragmatic interpretations being offered through a communicative-cognitive approach. As semantics and pragmatics are dealing with two different representational levels in natural language, once we assume that the utterance is the maximum realization of the usage of language, and its proposition, expressed towards the communicative intention of the speaker (a mental state), is able to express the truth-conditions of true or false over some state of the actual world or of a possible one, it seems that there's a match between the properties of context and possible worlds when it comes to consider meaning independent and dependent of context. It is based on this symmetric interface that we shall operate, in *sensu lato*. Assuming relevance as an innate property of human cognition, sustained by two principles, the well-known principles of communication and cognition, the different linguistic operations that may guide the interpretation towards the lexical entry depends on a non-linguistic operational process, concerned with the cost/benefit operational basis for a psychobiological purpose. As relevance theory is concerned with linguistic interpretation, the consistency with the principle of relevance assures that the most relevant interpretation is the one which comes to the mind within the configuration of least effort for inferential process versus wider contextual effect provided by the interpretation, which must affect and/or change the mental representation a speaker has about the world. Inferential pragmatic processes are, then, global as opposed to local, guaranteeing context selection for different interpretations towards the very same syntactic structure, for example; however, language itself, in its systems and complexity, is not innocuous for the determinacy of context-dependent signification, even in a communicative-cognitive approach, as we are going to see as we analyze our ontology delineation.

### **3 Ontology design and methodological determinacies**

For our corpus we collected, manually, the former president Lula's tweets from April 10<sup>th</sup> to May 10<sup>th</sup> in the year of 2017, applying the corpus (424 tweets) to the AntConc software, aiming to reach two (2) of the most frequent modality structures used by the politician during the stipulated period. Our proposal, then, is both qualitative and quantitative, as we are willing to evaluate particularly this occurrence in this given pattern. So, through the section of cluster/n-grams, we have found, both tied in a frequency of fourteen (14) occurrences, the modal structures "é possível" e "não pode", which, translated from Brazilian Portuguese to English, would be represented as "is possible" and "can't". However, if the specific term of search like "word" is unselected, we may get even more results, considering that "poder" is a verb in BP, a language that allows morphological flexions on the verbs according to tense, for example. For the relevance of the additional occurrences, we shall consider them as well, and, also, eliminate duplicated tweets. Thus, we shall dispose in here all the occurrences in *ipsis litteris* of both cases of modality, analyzing, above all, which are the semantics and pragmatics properties that emerge in some of them. So, considering:

#### **A) É possível:**

- 1) Nós vamos regulamentar os meios de comunicação. Não **é possível** 9 famílias mandarem nos meios de comunicação #6CongressoPT;
- 2) Tem gente que não suportou pobres com carro, computador. Mas provamos em 12 anos que **é possível** mudar a história do país;
- 3) **É possível** fazer o Brasil ser melhor e voltar a ter orgulho! #LulaNoRadio;
- 4) Já provei que **é possível** consertar esse país. Esse país tem que voltar a acreditar;
- 5) Não **é possível** mandar os empregos para o exterior e deixar os desempregados aqui no Brasil;

- 6) "Tem coisa q **é possível** mudar, mas sem abrir mão dos direitos do trabalhadores brasileiros. Do jeito q ela está sendo proposta, sou contra";
- 7) **É possível** resolver o problema da pobreza. Ninguém gosta de ser pobre. As pessoas querem viver dignamente. É possível. #LulanoRadio;
- 8) **É possível** transformar o Nordeste numa região rica, desenvolvida. A água é uma necessidade;
- 9) Não podemos ficar subordinados a uma ditadura de um pequeno grupo do Poder Judiciário. Não **é possível**;
- 10) Não cometi nenhum crime, espero que procuradores provem o contrário. O que não **é possível** é vazamento acontecer de dentro da sala do juiz;
- 11) Eu estou convencido que **é possível** este país voltar a ser feliz. Pode me bater. Quem nasceu como eu nasci e não morreu de fome, não tem medo;
- we observe eleven (11) tweets presenting the cluster “é possível”, one or more times, even though in some of them it appears preceded by the negation adverbial “não”, being equally interpreted as “it is not possible”. Now, considering:
- B) Não pode:
- 1) Mujica: "Ainda que nos roubem a esperança, **não podemos**<sup>1</sup> cair no ódio"#6CongressoPT;
  - 2) Mujica: "Um dos maiores problemas do país é a atomização política e partidária. **Não pode** haver 30 projetos de país" #6CongressoPT;
  - 3) Mujica: "Mesmo os grandes homens **não podem** substituir as colunas com gente do povo. Precisamos de coletivos, de partidos fortes";
  - 4) Esse país **não pode** ficar de quatro diante dos americanos como os vira-latas querem;
  - 5) Eu tô percebendo que esse desmonte do Brasil **não pode** continuar. Eu posso esperar até 2018, mas quem tá passando fome, não pode esperar;
  - 6) Uma nação **não pode** ser governada por alguém que não sabe governar. **Não pode** ser governada por alguém que não entenda a alma do nosso povo;
  - 7) Dilma: "**Não podemos** deixar que eles ganhem no tapetão. **Não podem falsificar** o processo eleitoral, impedindo Lula de ser candidato";
  - 8) Dilma: "**Não podemos** deixar que eles se consolidem no poder e para isso tem um jeito: eleição.";
  - 9) "**Não podemos** permitir que nossos três estaleiros se tornem sucata", diz prefeito de Rio Grande, Alexandre Lindenmeyer;
  - 10) A gente **não pode** negar a política porque não existe saída fora dela. Fora da política é nazismo, fascismo, ditadura #LulaNoRadio;
  - 11) Se eu não paguei, não tenho chave, se a empresa dá o apartamento como garantia de vários empréstimos que efetua, então **não pode** ser meu!;
  - 12) Temos que ter em conta que o juiz moro **não pode** julgar a quantidade de testemunhas, e sim a qualidade do depoimento.
  - 13) "O Brasil **não poderia** estar vivendo a situação que está vivendo. Para melhorar ele precisa ter um presidente eleito pelo povo. Pelo voto."
  - 14) "O nordeste **não pode** ser tratado como a pior parte do Brasil. Nordeste não é menos que nenhum brasileiro." #Lulanoradio;
  - 15) "O problema é que os empresários querem rasgar tudo que foi conquistado pelos trabalhadores. Isso **não podemos** deixar" #Lulanoradio;
  - 16) **Não pode** chegar na eleição, após a gente brigar muito, e a bancada ruralista eleger muito mais deputados que nós elegemos;
  - 17) Fora da política é o fascismo. É preciso é melhorar a classe política. Em 2018 isso pode mudar, mas **não pode** eleger um Cngresso como esse;
  - 18) **Não podemos** ficar subordinados a uma ditadura de um pequeno grupo do Poder Judiciário. Não é possível;
  - 19) Na hora que você os pequenos a dar mais um passo, tudo melhora. O que **não pode** é governar só cortando verbas e programas;

<sup>1</sup>Considering Portuguese is a flexional language, all occurrences are stressed.

20) O juiz tem que julgar com base em provas. O que **não pode** é manter uma pessoa presa mais de um ano, só perguntando sobre o Lula;

We have found twenty (20) tweets with the presence of “não pode”, considering the verbal flexions, not only the radical.

As we cannot analyze all the tweets in here, we shall pick no more than two from both sets based on the sum of popularity of them, considering the quantity of a) replies, b) retweets and c) likes. Considering this parameter, then we are geared to the analysis of A10 (1068 interactions) and A11 (865 interactions) in the first set, and also to the analysis of B18 (795 interactions) and B20 (792 interactions) on the second.

#### **4 Qualitative Analysis**

Thus, in A10, we seem to be in front of a notion of an unbearable situation according to whoever is sustaining this opinion under the authorship of the former president. This kind of interpretation is just finely achieved towards the modal structure, but not only; the previous statement consists of a declarative sentence containing a denial sense towards the negation phrase and a propositional attitude expressed by the verb “espero”, which is equivalent to “I hope”. Considering that the circumstances expressed by the tweet refer to former president Lula, we can imagine that he himself is the author of the utterance, or that is how he would like to be seen. Anyhow, the linguistic content, in terms of structure and content in the first sentence apparently leads, as a premise, to the conclusion contained on the second sentence, in which we may find the modal structure, expressing, more than possibility, because we feel able to believe that, yes, it is possible to happen what is expressed; what happens, however, is that, according to the former president, this kind of occurrence is unbearable, unacceptable, so the negation expressed is quite more deontic than anything else, even though, a weak implicature would lead us to interpret the modal as epistemic, in terms that it expresses a probability feared by the communicator, which he would rather deny the possibility of becoming true.

As we approach A11, we face the statement concerning the apparent possibility attributed, by the communicator, for Brazil “to be happy again”. Of course, we shall interpret this kind of predicative as a figure of speech, personification to be more precise, in such a way that it leads us to infer that, according to the author of the utterance, nowadays the country could be widely assumed as sad, or something (negative) similar to this condition; furthermore, the use of “voltar”, which means something like “returning to some state it’s already been before” indicates that Brazil has been in a positive state before. So, in this case, the indication of possibility is quite stronger than before, because the usage of the modal operator in here really suggests a possible world in which, through some operation, a change of state may happen. However, considering the use of the adjective “convencido”, which we may understand as “convinced of X”, we are, then, authorized to imply that this kind of possibility, according to the communicator, would be even stronger than other possibilities, attributing, thus, a strong sense of belief to the assumption. Analyzing, now, B18, we have a structure that is similar to A10: some scenario, developing the value of a premise, consisting of some assumptions according the communicator beliefs’, which derives in some statement that follows the indignity of the one involved in the communicative act towards what has been exposed previously. Ironically, B18 is the same tweet as A9, consisting, then, in an imbrication between the most frequent modal uses inside a singular post. In the beginning of the sentence, the communicator indicates, by the verbal tense, that we are dealing with some assumption which occurs in the present; as we have the default idea of possibility, the notion of present tense itself contradicts the very semantic aspect attributed to possibility: if it’s already happening, then it is possible, after all. Thus, the modal sense being applied in this situation is far more deontic than compromised with possibility itself, aiming to stablish a notion of authority: what is allowed and what mustn’t. The second modal occurrence summarizes the idea contained in the previous assumption, emphasizing the notion of “impossibility” towards the given context expressed by the tweet; as it summarizes the notion of unbearable statement expressed by the first proposition, we have, once again, a deontic modal sense. Last but not least, B20 follows more or less the same pattern of B18, as it states, in the present tense, some proposition over the possibility/impossibility of a phenomenon; however, as we’ve exposed before, such an occurrence in the present is no longer a possibility anymore; having said this, we may analyze “o que não pode”, which can be understood as “what cannot be done”, as a statement over a certain situation, evaluated as unacceptable, so it could be classified more precisely as in a deontic meaning rather than a possibility one.

It, also, establishes a connection between the analyzed proposition and the first of the first sentence, which, through “o juiz tem que”, affirms something as “X has to/must”, which, similarly, indicates the notion of obligation, under a certain set of rules.

### **5 Conclusions**

So, in this paper we attempted to approach the classic debate between semantics and pragmatics towards the ontological delineation of modality seen in the sphere of use in natural language. Through corpus linguistics, we could, then, analyze, more precisely, what actually there is to be seen within the framework of language under the communicative-cognitive perspective, seen as more than conventionalized systems, but not denying its pertinence. Also, it is important to us, as researchers, to understand in such a better way how Linguistics as a multiform science can be constantly performed, understood and applied. As mathematics, Linguistics can play a unmeasurable role within the development of another scientific and non-scientific fields, gathering art and technology, social sciences and natural or formal ones, exactly because language, artificial or natural, permeate all human activities, including political matters. In fact, under this specific scope, language, through semantics and pragmatics, plays a major role to help to describe and explain communicative issues inherent to this kind of phenomenon. This paper, so, offers some perspective to enlighten this kind of approach, specially through an interdisciplinary manner.

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