# Where does it mean?
## Case-Studies on the Epistemology of the Semantic-Pragmatic Divide

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## Abstract

Throughout most of the 20th century, Semantics and Pragmatics were understood to be related, but distinct fields of study. By the turn of the century, a substantial number of scholars put into question a strict division of the fields, arguing that context-dependency is fundamental for any theory of meaning in natural language. These scholars are called contextualists, and they stand in contrast to the minimalists that advocate for a strict division between Semantics and Pragmatics, affirming that most sentences in natural language can be assigned a meaning that is not context-dependent. In this thesis, I contextualize the debate, exploring common arguments in support of and against each theoretical framework, and defending contextualism. I also explore phenomena in Brazilian Portuguese that enlighten the ways in which pursuing a contextualist view of Semantics does not infringe on one's ability to engage in practical analysis and modeling of meaning in natural language. Finally, I explore how psycholinguistic research can provide insights into how meaning in language is actually processed by speakers.

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# 1   Introduction

A professor walks into a crowded room full of apprehensive students anxiously waiting for the results of their final exam. "Some of you have passed this class," says the professor. The disappointment in the eyes of many is clear, some break out in tears. As the professor starts handing the exams, however, the tears dry, and the room gets calmer. All the students had passed the class.

This anecdote may seem confusing at first, but the answer to the question of whether or not the professor lied has consequential implications to the very foundations of Semantics as a field of study. A minimalist would say that while the communication produced was deceiving, the sentence itself uttered by the professor was undeniably true,[1] after all, if all students passed the class, definitely some did. Semantically, the truth-conditions of the sentence were fulfilled, and therefore, the sentence's intrinsic meaning was verified. A contextualist, on the other hand, would argue that the professor likely lied, his communication deceiving the students, and that the meaning of the sentence itself cannot be divorced from the context and intentions that surround its utterance.

At the heart of the debate is the question of whether Semantics – the field studying the construction and composition of meaning in language – and Pragmatics – the field studying the rules that guide productive communication and the realization of meaning in the real world – can be divorced from one another. For a minimalist, they can, and sentences have intrinsic meanings that can be realized regardless of context. For a contextualist, this divorce is impossible, and the failure to fully consider the context of an utterance renders the meaning of the sentence impossible to evaluate. The main goal of this thesis is to explore the debate between these two schools of thought and argue in favor of contextualism.

In section 2, I present the framework and assumptions guiding the analysis and comparisons included in this thesis. In section 3, I present a detailed overview of the debate between minimalism and contextualism, including historical perspectives, the main tenets of both theories, and how each side challenges the other. Through these expositions, I present some of the language phenomena at the core of the debate and discuss the current literature. Although I support the idea that the conversation regarding these conflicting frameworks is in itself important, I take a decisively contextualist approach. In section 4, I make an argument for the feasibility of contextualist Semantic theories, by analysing two examples relating to pronouns and noun phrases in Brazilian Portuguese. I establish how minimalist

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[1]More precisely, the sentence has a base, or minimal, meaning that is true and does not depend on the context.

theories cannot account for the complexity of the phenomena at hand, while underscoring how a contextualist analysis is not only sound but can be done in a systematic way. In section 4, I also discuss psycholinguistics literature that show how pragmatic enrichment is intrinsic to natural language and can also be modeled and constrained.

## 2   The Goals of a Semantic Theory

Before discussing in detail the intricacies of minimalist and contextualist explanations for widespread language phenomena and their philosophical assumptions and implications, it is important to define the assumptions that will guide the analysis. The main assumption is, rather, the negation of a common one. Indeed, an argument often made to dismiss theories that are contextualist in spirit is that they would allow for the divide between Semantics and Pragmatics to be breached, and that would lead to its end altogether.[2] The assumption is that the divide between Semantics and Pragmatics is not only desirable but necessary. In this thesis, it is assumed that it is not clear that the separation of Semantic content and Pragmatic content is productive for Semantic study, if such a distinction is even found to exist.

The second assumption pertains to the goals that a Semantic theory should achieve. Any such theory should have the ability to both explain and predict the outcome of semantic phenomena encountered in natural language. In this manner, regardless of the definition used for the meaning of a sentence, or where this meaning is proposed to be created, the theory derived from the definition proposed should still be able to satisfactorily explain how a given sentence would be used and interpreted in real language. Of course, not even a minimalist would argue that the final interpretation of sentences are not highly influenced by contextual inferences and pragmatic processes, but a theory derived from their approach should still be able to argue where the pragmatic process separates from the semantic one, and what should be the meaning if only the semantic process was taken into account. But for any such separation in a theory to be deemed realistic, the Semantic content ought to still be related to the meaning interpreted by speakers and listeners at some step in the processing of the sentence.

With these two assumptions, any analysis of the meaning of sentences and phenomena from each framework should be able to be contrasted as to see which one is better suited to their explanation. In particular, it is expected that minimalism would generate more

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[2]As in Ball (2010).

economic[3] theories, since it does not account for contextual parameters, so a contextualist view of the phenomenon should provide a considerably more plausible explanation to be seen as preferable. After these theories are contrasted, an answer to the implicit question posed by the first assumption may then be answered, that is, if pragmatic and semantic content can be divorced or not.

## 3   Contextualism versus Minimalism

Throughout the 20th century, Semantics (and philosophy of language more generally) as a field of study had as its main interest the pursuit of formal theories of meaning. These theories mostly focus on the literal content of sentences and constructions, regardless of how closely related it is to the actual meaning processed by speakers. That is not to say that theories of meaning in language communication were not explored, but they were seen as distinct, acquiring their own label under Pragmatics. Indeed, the Gricean program[4] itself was based around the idea that *what is said* and *what is communicated* are two separated entities. By the early 21st century, however, enough scholars contested these divisions so that a considerable questioning of the separation of Semantics and Pragmatics is formed.

This movement is what is widely called contextualism: the idea that context-sensitivity is widespread in natural language and that any theories of meaning that do not account for such pervasiveness are frivolous. In opposition, there are the minimalists, seen as natural descendants from the previous theorists in formal semantics. They believe that it is possible to divorce semantics from pragmatics, and that it is impossible to attain a reasonable formal theory of meaning without this divorce. There is considerable diversity of theories among scholars within each side, but these guiding tenets point to some common characteristics that I explore next.

### 3.1   Minimalist Tenets

The most extreme version on the "essentiality" of meaning, called literalism, asserts that the linguistic meaning of a sentence, is, always, the literal proposition expressed by that sentence.[5] Most minimalists, however, take a softer stance: they assert that pragmatic

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[3]In the computation sense, that is, it would necessitate the least number of parameters and operations from the original situation to explain the outcome.

[4]As in the concepts of the cooperative principle and conversational implicatures outlined in Grice (1975).

[5]Although there is some leeway for indexical elements to be explained, since those are necessarily context-dependent, yet fairly describable within linguistic formalism.

effects can and do influence language to a vast degree, but nevertheless, sentences[6] have intrinsic (or minimal) meanings that are not context-dependent, and which can be relied upon to evaluate their truth-conditions (Recanati, 2003). In this framework, minimalist tenets include propositionalism and the basic set assumption (Borg, 2007).

### 3.1.1 Propositionalism

Propositionalism refers to the idea that well-formed indexical-free language sentences express full, context-independent propositions, that is, that they possess truth-evaluable meaning in itself (Borg, 2007). These meanings would be the *minimal* meanings of the sentence, and they would be the object of study in a formal theory of semantics from a minimalist perspective. Implicit in this argument is the idea that these minimal meanings are sufficient to explain semantic phenomena in natural language and that it is (at least closely related to) the Semantic meaning as defined in Section 2.

(1)   John is ready.

This tenet has one notable dissenter among the minimalists: Kent Bach. In his 2006 paper "The Excluded Middle: Semantic Minimalism without Minimal Propositions" he argues that some indexical-free sentences in language, such as (1), denote no proposition whatsoever on their own, and therefore should not be of interest of a minimalist semantic theory. He calls this approach Radical Minimalism, or radicalism. It is a direct response to the attempt of solving the Incompleteness challenge to minimalism (see section 3.5.2). However, as pointed out by Borg (2007), this position is dangerously close to a contextualist perspective. Indeed, since we know that these sentences are used by language speakers, the idea that they do not denote propositions on their own would imply that their propositionality is contingent on the context in which they were uttered, a markedly contextualist perspective[7].

### 3.1.2 Basic Set Assumption

The Basic Set Assumption is the acceptance that there are certain parts of language that are intrinsically context dependent, but also the belief that they are very limited. For minimalists, this set contains exactly the indexical words, that is words that only make sense when they

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[6]A sentence here means any assertion that denotes a proposition, that is, that could be truth-evaluated under some Semantic theory.
[7]Bach's response is explored in section 3.5.2.

are indexed to some contextual element of the real world. These include pronouns and demonstratives such as *I, that,* and *those,* and tenses and modals, but it would not include words such as *boy, twelve,* or *green* (Borg, 2007). Since there is no fixed meaning for the word *I,* for instance, it has been clear for a long time that any sentence containing it would need a contextual element for its meaning to be evaluated. In particular, a formal theory of indexicals was developed by Kaplan to deal with these words in the realm of formal semantics (Kaplan, 1989). The limited size of this set is crucial for the minimalist program otherwise the number of sentences that do not have indexicals would represent a small proportion of language production, and the case for the pervasiveness of context-dependency would be very strong.

## 3.2   Contextualist Tenets

Contextualist tenets appear in opposition to the minimalist ones. That is, contextualists believe that some (or all) indexical-free sentences are not propositional unless there is a speech act that puts them into context. They also agree that the Basic Set of context-dependent expressions is much larger than what minimalists assume. Within these positions, however, there is a considerable range of perspectives to be considered. Often these different perspectives are divided into Moderate and Radical contextualist sides.

Interestingly enough, this division is often made by minimalists, when addressing different contextualist arguments. For Cappelen and Lepore (2005), the difference is that moderate contextualism asserts exactly that only *some* expressions in language that are not the traditional indexicals are in fact context-dependent, while radical minimalists assert that *every* expression in language is context-dependent. They ultimately argue that moderate contextualism is bound to descend into radical contextualism. For Borg (2007), however, the better way to distinguish between the two is that moderate contextualists argue for broader context-sensitivity in language but that is largely treatable under the same models used for indexicals, while radical contextualists argue that some context-sensitivity exists on a completely parallel plane, allowing this context-sensitivity to be relevant for the meaning even when there is no explicit syntactic trigger for it.

(2)   John is as strong as a bull.

This latter distinction, in particular, is related to the idea of free pragmatic enrichment in natural language. This concept refers to the idea that there are pragmatic effects acting on truth-evaluable sentential content that are not triggered by syntactic features (Recanati,

2010). For example, in sentence (2), while it could be the case that John is objectively as strong as a bull, that is, he could maybe win a fight against a bull, the usual interpretation is that this sentence just means John is very strong. For minimalists, the minimal meaning of the sentence is the literal one, and the processing of it as a metaphor is a secondary pragmatic process, that is not governed by Semantics. Proponents of free enrichment, on the other hand, argue that the metaphorical meaning *is* the proper meaning of the sentence, that is, the pragmatic process is primary and there is no meaning without it. Of course, the sentence could be interpreted literally, but in this situation this interpretation is the one that likely requires a secondary process to "demetaphorize" the sentence. The level of free enrichment allowed is varied among contextualists.

### 3.3    Consequences for the Goals of a Semantic Theory

With these sets of tenets in mind, it is natural to explore the consequences that each theory would have for the framework of analysis in this thesis, namely, how they would respond to the goals of a Semantic theory outlined in Section 2.

The obvious distinction comes as a response to the first assumption, since that is what guides the divergence between the two theories. Contextualists will reject the necessity (or really the existence) of a divide between Semantics and Pragmatics. Minimalists will defend that this distinction exists and is very important for the development of a Semantic Theory.

The second distinction is that contextualists believe that the meaning of sentences as processed by speakers is intrinsically context-dependent, and therefore the goal of a Semantic theory includes explaining these pragmatic systems and mechanisms. For minimalists, sentences have minimal meanings that exist outside of context, and that any context added to create communication is post-propositional (that is, it does not affect the truth-evaluable content of the sentence itself). In particular, they believe that pragmatic processes exist after the minimal meaning is processed by speakers. A consequence of these distinct views is that for minimalists, semantic meaning exists on the level of the sentence, while for contextualists semantic meaning only exists on the level of the utterance, that is, semantic content is speech act content.[8]

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[8]Here *uttered* and *speech act* are used to imply the use of a sentence in some situation. This includes sentences that are written, as long as they are inserted within some context.

### 3.4 Minimalist Challenges Against Contextualism

The minimalist critiques to contextualism come in various forms, approaches and assumptions. Indeed, just as each contextualist has a[9] slightly different perspective on the exact nature of meaning and context-dependency, each minimalist has slightly different critiques to each of these perspectives. Overall, however, all these critiques boil down to two main issues: (1) (Radical) Contextualism is not logically coherent, and (2) Contextualism is not necessary and indeed makes doing Semantics way more difficult, if not impossible. Here, I expose how these conclusions are obtained, in particular, by looking at the work of Cappelen and Lepore (2005) (henceforth, CL), and I address the first concern. The second concern is addressed in section 4.

The first consideration CL have is that moderate contextualism logically descends into radical contextualism.[10] I agree with this statement, as the types of context-dependency invoked by moderate contextualists include words such as *green* and *ready,* and the arguments for their necessary context-dependency can be put to use to argue about nearly every word in the same way.[11] So, given that moderate contextualism descends into radical contextualism, CL shift their attention to the latter. Some of their arguments against it are rebuttals of the arguments by contextualists against minimalism and are explored in the next sections. Their other main argument against radical contextualism, however, its that it is inconsistent with its own premises.

(3)    Radical Contextualism is false.

They explore the idea that, since propositions are intrinsically context-dependent, it should be theoretically possible to have a context in which the utterance of (3) is *true*, even if a contextualist would claim it to be *false*. Of course, the contextualist could argue that in every context this sentence is *false,* or that the very own word *false* has different meanings in different contexts. Ultimately, CL argue that this shows that the concept described by radical contextualists, such as *truth, content, express,* would all be governed by the same reasoning as above, and therefore the theory itself is ill-defined. While I think this argument has value, it ignores the fact that any semantic theory or framework exists within the guiding assumptions of what is the goal of that theory. In this thesis, these assumptions are outlined

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[9]Or several.

[10]In their view, the distinction is that the moderates advocate for some non-traditional words being context-dependent, while radicals advocate for all.

[11]These arguments are described in the next section.

in section 2. Nevertheless, a different set of assumptions – that is, in particular, a different context – could validate a denial of radical contextualism. The discussion then becomes what are the assumptions that one would like to make for their theoretical development. I believe the ones selected in this thesis are pertinent if the goal of a theory is to model natural language semantics, but it is possible people have different assumptions. This debate, however, needs to take place before the theories of meaning are even formulated, and in particular, one shall not hold a theory to assumptions that are foreign to its development. If one is to disagree with the assumptions of this thesis, that is a valid debate, but then any concerns with the conclusions reached on the thesis that stem from this disagreement are misguided. Similarly, radical contextualism can be false in some contexts, absolutely, even if it is well-defined in that context. It simply may subscribe to different assumptions. In this sense, the argument by CL does not really show that contextualism is inconsistent, it simply shows that even the assumptions in the formulation of a theory are a form of context.

## 3.5 Contextualist Challenges Against Minimalism

Now we turn to the contextualist challenges against minimalism. In particular, these are the reasons why contextualists believe minimalism is not enough to explain Semantics in natural language.

### 3.5.1 Context-Shifting

The first challenge refers to sentences in which the evaluation of the semantic content (that under minimalism is the minimal meaning) seems to shift depending on the context, even when indexicals are not present. For example, in sentence (4), suppose John is a 5'11 man that plays professional basketball.[12] When the context set of relevance is the fact that John is a man, this sentence is true, but when the context set is that he plays professional basketball, it is not true anymore. Nothing in the grammar has changed, nothing in the physical world in which the sentence was evaluated has changed, the only thing that changed was the context. Therefore, the rational conclusion is that the content of this sentence is dependent on context.

    (4)   John is tall.

There are a few ways minimalists can respond to this critique. For Cappelen and Lepore (2005), the arguments themselves should not be allowed, since they assume that semantic

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[12]Average height for men in the US is around 6', while in the NBA it is around 6'6.

content is speech act content, and they disagree with this assumption. Indeed, they say that context-shifting arguments are intrinsically reliant on the idea that the semantic theory should account for what speakers interpret from the *utterance* of the sentence, instead of the sentence itself. That does not mean they disagree fundamentally with the assumptions made in section 2, but rather that they claim that these shifts in context happen at a secondary level, that of the utterance, but that the intrinsic meaning can still be accessed by exploiting the commonalities between what speakers say in the utterance of a sentence to find its minimal, semantic meaning (CL, 2005). Although this is a sensible argument, it simply transforms the issue from context-shifting to free enrichment, as the question now is how do speakers actually process such sentences. It is hard to find an answer simply on the realm of theoretical semantics, but these concepts are discussed again in sections 3.5.2 and 4.2.

Other avenues that can be used by minimalists to answer this concern are assuming that more words than expected are indexicals, assuming these sentences are ambiguous, or assuming that there is some form of hidden syntax in the sentence that creates this phenomenon (Borg, 2012). The first case is strongly discouraged for many minimalists (such as CL), but it is acceptable to Borg since if these elements are still analysable as any other element of the basic set, then they still fit within minimalist theory, even if the actual scope of non-indexicals is then reduced. The issue, however, is that as CL argue, embracing the expansion of the Basic Set inevitably leads to it containing all elements of language, so minimal meanings become irrelevant. The ambiguity argument, on the other hand, simply defers the question from propositional semantics to lexical semantics, and it does not address how these ambiguities are not arbitrary but are strictly constrained by contextual factors (see section 3.6). The hidden syntax argument refers to the idea that a sentence such as (4) would actually have hidden syntax, and depending on the situation would actually be something such as (5) or (6).

(5)   John is tall for a male NBA player.

(6)   John is tall for a man.

There is a lot of skepticism about this argument even among minimalists such as Borg, and that is to be expected, since a closer look shows this to be absolutely no different from free enrichment: the idea that there are primary pragmatic processes that compose the meaning of a sentence at the same level as the overt elements.

### 3.5.2 *Incompleteness*

The second challenge to minimalism is Incompleteness. It refers to sentences such as (7), in which it seems that the sentence itself, without any accompanying context, fails to have a meaning altogether. Indeed, if semantic meaning is to be truth-evaluable and context-free, as minimalists believe, such a sentence ought to have a truth-value once it is constrained to a given world. However, it seems impossible to obtain such a thing, since we do not know what John is ready for. He could be ready to go to school, but not ready to eat, he could be ready to graduate, but not ready to find a job. The meaning of the sentence is incomplete without a contextual piece, therefore this meaning is dependent on the speech act.

(7)   John is ready.

There are a few minimalist responses to this challenge. For Borg (2007), such an argument should not even be available to contextualists. She argues that, for an incompleteness argument to be made, the sentences that are said to not be expressing full propositions are defined exactly in contrast to what would then be the idea that most sentences do describe a proposition on their own, a core tenet of minimalism. This, however, seems to misinterpret the core of the incompleteness argument. The fact that some sentences seem to be meaningless without context does not mean that all the other ones are fully propositional outside of context, as they could have many accessible meanings from which the relevant one is impossible to choose in the absence of context. Indeed, this is the difference between incompleteness and context-shifting. While in some sense it could be said that the meaning of *ready* itself is shifting, and that is why a sentence such as (7) seems lost without context, the difference is that the truth-value of being, for example, *tall* does not translate to subsets of a reference set, while the one of being *ready* does. More precisely, being tall among men does not entail being tall among male basketball players. On the other hand, being ready to do all of some set *A* entails being ready to do the parts of *A* that compose the subset *B*. The relevance is then that absent some context, one could suppose the meaning to be related to the largest set of referents possible. While this is an unsatisfactory description of the meaning in both cases, for *tall* it fails because the actual proposition could have any number of truth-values depending on the set it is restricted to when used in some scenario, so this tentative meaning does not actually encode any relevant information for any real situation. For *ready,* the proposition would then have to be true for every single scenario, and so the tentative proposition itself is always false (no one is ever *ready* for everything possible), and therefore this tentative context-free meaning is also unsatisfactory. The key point, however,

is that these two situations, albeit similar, are different, so running an inappropriateness argument does not mean that every other sentence is propositional out of context, but simply that their lack of propositionality has a different source.

Another argument against this type of example is run by Bach (2006). As mentioned in section 3.1, he disagrees with many minimalists by saying that, indeed, these sentences are not propositional. He claims to be distinct from contextualists, however, in proposing that it is not that this sentence needs a context to denote a proposition, but that this sentence fails to denote any proposition whatsoever. It is not simply a case of *ready* needing a context to make sense, it is the case that this sentence fails to be truth-evaluable in any case. Of course, this sentence is still said by speakers, but he claims that when this is done the meaning actually uttered by speakers (e.g. *ready to go to school*) has no real correspondent in the sentence, and therefore is completely separate from the actual semantic meaning of the sentence. By running such an argument, however, Bach is really arguing that there is free pragmatic enrichment in sentences like this, since the meaning intended comprises of elements not grammatically present in the sentence. Whether this is the case or not, contextualism will be fine, since free enrichment as part of semantic meaning is coherent with the framework.

### 3.5.3 Inappropriateness

The third challenge is Inappropriateness. This challenge is mainly brought forward by radical contextualists as it exists in direct defense of free pragmatic enrichment. It refers to sentences that have an intended meaning that is not the literal one, but that is rather enriched, like in (8). The literal meaning of the sentence, as formed by the composition of its constituents, is that John has had breakfast at least once at some point in the past. Yet, in most contexts the actual meaning interpreted from this sentence is that John had breakfast today. Therefore, even if the sentence has no context-dependent elements,[13] its meaning still requires a contextual element to be fully realized.

(8)   John had breakfast.

The minimalist response to this challenge often challenges the very own legitimacy of such an argument under their assumptions. Indeed, they will simply defer that semantic

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[13]Technically, the tense is context-dependent, but both these interpretations take place in the past (and for the indexical theory of tense that is the reference point that matters). The issue here is more related to the fact that the sentence seems to take on added meanings that are not grammatically present, since the tense in English does not traditionally encode information such as *this morning*.

content is not speech act content, and therefore the minimal meaning is still there, even if it is more common for a different meaning to be interpreted (CL, 2005). Since they do not believe that free enrichment exists in language, their interpretation is that the pragmatic enrichment in this case happens after the semantic processing and should not need to be explained by the Semantic theory.

I find this response to be perfectly reasonable within the minimalist framework, and precisely because of that it reveals why minimalism leads to unsatisfactory theories of meaning. Indeed, if free enrichment is false, this added meaning could be simply interpreted as a secondary pragmatic process. However, it is not even clear there is a reasonable justification that this secondary process actually exists in the cognitive processing done by speakers (Bezuidenhout, 2010). Further, even if this minimal meaning existed in some step of this processing, how relevant would it be, given that any speaker within any reasonable situation interprets the enriched meaning of the sentence. If the meaning that is interpreted by speakers in the absolute majority of situations is considered to be outside of the scope of the Semantic theory, then this theory is not really a theory of natural language, but merely a theory of formal language itself. That is not to say that there is no value to theories of formal language, but that is not the claim traditionally made by most minimalists about the scope of their theories (CL, 2005; Borg, 2007).[14]

### 3.6  Lexical Semantics Correspondences

So far the discussion between minimalism and contextualism has been, in some sense, centered around the propositionality (or absence thereof) of different sentences and utterances. This is, of course, directly related to compositional semantics, but the nature of the elements bringing divergence in the interpretation of these theories is oftentimes specific words in these sentences. That is, there are intrinsic lexical aspects in this discussion as well. The situations that concern lexical semantics are somewhat distinct from the one in compositional semantics, but it is natural that a framework for theories of semantic composition would also have a say on the nature of lexical theories. Therefore, the debate between minimalism and contextualism also has a stake in this field.[15]

In this section we discuss two of the main phenomena present in lexical semantics:

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[14]Although they do differentiate semantic content from speech act content, and oftentimes do not see the communication process as the part that is necessarily important for Semantics, they still claim to be developing a natural language theory

[15]Interestingly enough, there are scholars that embrace contextualist views of compositional semantics while embracing minimalist-leaning approaches to lexical semantics (Vicente and Martínez, 2010).

*stability* and *polysemy*. The former refers to the idea that, even though words are used across a great variety of contexts, oftentimes they retain the same meaning, as the word *wall* in the phrases, *big wall, red wall, brick wall* (Vicente & Martínez, 2010). Polysemy on the other hand, refers to the idea that the same word can have vastly different senses in different contexts, but that these senses are still somewhat related. For example, one can *keep money* or *keep quiet*, and the meaning of *keep* in these two sentences is different, albeit there seems to be something in common among them (Vicente & Martínez, 2010). Any theory of lexical semantics should aim to account for both of these phenomena.[16]

On one side of the spectrum, there are hyper-contextual approaches to the field, which claim words are not related to any stable, context-independent mental structures (Travis, 2000). Polysemy comes naturally from this approach. On the other hand, stability is addressed by proposing that the word seems to have the same sense across different sentences precisely when the underlying context of these sentences is similar. One issue with such an approach is that by claiming that the similarity of underlying contexts is what produces stability it implicitly argues against itself. Indeed, the similarity in context that allows *wall* in sentences (9), (10), or (11) to have basically the same meaning is exactly that *wall* should refer to some obstacle-like, dividing entity in these cases. But this is precisely a form of assigning a mostly stable mental structure to *wall*.[17]

(9)   He jumped the red wall to enter the abandoned house.

(10)   He jumped the big wall to get to the train tracks.

(11)   He jumped the brick wall to hide behind it.

On the other side there is *atomism*, that proposes that words have a fixed, indivisible, atomic meaning (Fodor, 1998). This way, stability is natural, but polysemy is explained by proposing that the changes in meaning are actually derived from the process of composition itself, not from any intrinsic characteristic of the word. The existence of context-shifting in sentences, however, poses a challenge to this approach. On one hand, if one accepts the contextualist view that sentences have no minimal meaning in themselves, at least some words cannot have such minimal meaning either, otherwise standard composition rules would generate a minimal meaning for the sentence. This does mean, however, that

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[16]Of course, there are also words that can be ambiguous between mostly unrelated meanings, such as *bank* (the financial institution) and *bank* (the object), but these would be considered lexically distinct, albeit homophonic.

[17]Does this structure ever give the full meaning of any use of *wall*? No, but it is definitely related to these meanings.

there cannot be some one-to-one correspondence between words and "mental concepts," since if this was true, these concepts could be taken as the minimal meaning for each word (Vicente and Martínez, 2010). If one accepts a minimalist perspective that sentences do have a minimal meaning, this meaning should be uniquely determined by the word in the sentence and the rules of composition.[18] But if the rules are in themselves context-dependent, composition itself is not minimalist, and no sentences can have a minimal meaning.

The theory proposed by Vicente and Martínez (2010) rejects the atomist agenda, but still provides a manageable way of relating words to existing mental structures. It embraces decompositionalism – the idea that words themselves do not correspond to singular, indivisible mental structures, but that they can be decomposed into a cluster of different structures melded together. In this framework, the stability of the word comes from the fact that most of its uses are composed, in part, of the same structures, while the polysemy can be explained by the different structures that can be added depending on context, and thus shift its meaning. Furthermore, the theory is able to bypass the problems that atomism has when transitioning to compositional semantics, as the context-shifting in sentences is simply shifted to the words.

No true minimalist can embrace this theory, as it entails that the compositionality of sentences is necessarily dependent on context, since the components (words) themselves are so. One could still argue, however, that from a purely lexical perspective, words can still have a minimal meaning – the one obtained by taking only the structures that form the stable part of the word. The issue with this approach, however, is that it implicitly implies a hierarchy between the structures forming the mental representation of the word, with some being seen as fundamental and some as optional. The contextual structures, however, are not optional to the formation of the meaning, nor are they less important (indeed, they may be even more important). Moreover, any use of the word in natural language will contain these contextual elements. This way, while this minimal set of structures could be conceived as a type of formal meaning to the word, this pseudo-meaning is never truly realized in natural language itself.

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[18]There can still be ambiguity, but it would derive from ambiguity in the lexical items themselves or from the ordering or use of the rules.

## 4   The Feasibility of Contextualist Semantics

The debate explored in the previous section shows that there is merit to the contextualist view of Semantics, and that certain language constructions do not seem to lend themselves easily to a minimal explanation. However, the development of a Semantic theory should aim to be more than philosophically sound, but to also be able to analyze real-language phenomena with reasonable assumptions, using reasonable resources, and within a reasonable amount of time. This is the other critique often directed towards contextualist theories, or any theory that aims to integrate Semantics and Pragmatics: they are not practical. The aim of this section is to reject this critique, at least in part.

Although these examples will aim to convince the reader about the uses of contextualist models in real linguistic analysis, it is important to say that in many ways the solutions derived are approximations of what would be a full contextualist approach. The reason is that, in a way, the practicality critique is valid. If one was to account for every possible contextual reference to be included in the model, this set would be far too big[19] for reasonable analysis to be done. Therefore, the contextualist approach needs to limit itself to particular pieces of contextual information, deemed the most relevant, through which to find a satisfactory analysis of the situation at hand.

While at first this may imply that contextualism is ill-suited for the development of a Semantic theory, these adaptations are not nearly as foreign or limited as they may sound. Indeed, these approximations of an ideal theory to handle real-world data are pervasive through all the social sciences (and hard sciences too), other areas of Linguistics included. Statistical modelling, partial equations, economic forecasts, all rely on approximations of an ideal mathematical model that may be impractical (or impossible) to take in its totality, but whose approximations are enough to explain the situation at hand to the adequate level of precision. In Phonetics, often there is rich variation and diversity in the way speakers produce sounds that can be missed by broad transcriptions, and yet, these are often perfectly able to capture the relevant information to be studied. There is no reason to believe Semantics needs to be exempt from similar consideration: if one framework is better theoretically suited, its approximation can also be better suited for concrete analysis.

In this section, first I explore two particular cases related to pronouns in Brazilian Portuguese (BP).[20] I argue why they lend themselves better to a contextualist interpretation,

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[19]Possibly infinitely big.

[20]At first, one may think this may lead to inappropriate comparisons, since pronouns are indexicals, and

and proceed to analyse them accordingly, showing how it is possible to make predictions about them even when context is taken into account. Later, I discuss how Psycholinguistics can be used to deduce not only that the first meaning processed by speakers already takes context into account, but also how Pragmatic modulation is not a free-for-all, but has rules and constraints that can be modeled. This Psycholinguistic exploration also provides evidence for the nature of Semantic content as intrinsically context-dependent.

## 4.1 *A gente* and other Brazilian Portuguese Pronouns

The first case study is that of null direct object pronouns in BP.[21] As opposed to most other Romance languages, Portuguese, and BP especially, allow the omission of the direct object in a sentence in which the object can be reconstructed in some way (e.g. through context) (Schwenter & Silva, 2002). Furthermore, Schuwenter & Silva argue that there are definable semantic/pragmatic constraints followed by these null objects, precisely, that they are only allowed whenever the object is inanimate or nonspecific (or both), like in (12) or (13), but not (14).[22]

(12) *Ela queria        um carro. Comprou        0̸. [carro = (-spec, -anim)]*
     She wanted-3Ssubj a   car.   Bought-3Ssubj.
     'She wanted a car. She bought one.'

(13) *Ela queria        um pai. Encontrou.[um pai = (-spec, +anim)]*
     She wanted-3S.subj a   dad. Found-3S.subj.
     'She wanted a dad. She found one.

(14) *Ela queria        seu pai. Encontrou        *0̸/ele. [seu pai = (+spec, +anim)]*
     She wanted-3S.subj her dad. Found-3S.subj him.
     'She wanted her dad. She found him.'

On one hand, both the minimalist and the contextualist theories can accommodate this type of restriction. Even further, this is exactly the type of controlled contextual influence that can be formalized, and therefore supports the goals of a minimalist approach. The situation

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therefore are one of the few parts of language universally agreed to be context-dependent. While this is true, there are still meaningful distinctions in the approach to the topic from each theory's point of view, since once the pronoun itself is indexed, a minimalist would see it as acquiring a minimal meaning while a contextualist would still expect context to dictate how it composes with the rest of the sentence. Furthermore, a particular example, *a gente*, is itself a composed construction, and therefore the way it is indexed also offers meaningful contrast on the power of both frameworks.

[21]Throughout this section, any judgments listed as *mine* were obtained from myself (male, 20) and other 4 speakers (male and female, between the ages of 16 and 54) all from the city of Rio de Janeiro, Brazil.
[22]The following data is mine, with inspiration taken from the format used by S&S.

becomes more interesting if the experience of the sentence is reversed, however. That is, instead of analyzing a sentence as if one were to say it, and then judge its grammaticality, we instead present the sentence to a listener already constructed, that is, with the information that this sentence was indeed produced, and then observe how the interpretation changes to incorporate this information.

(15)  *Eu sinto que ele é  meu amigo. Eu amo  ∅.*
     I    feel   that he  is my   friend. I    love.
     'I feel that he is my friend. I love [this friend].'

In a situation such as that of sentence (15), if the direct object was overt, the most common interpretation is that it would be indexed to *meu amigo*. Therefore, in the minimalist approach, the minimal meaning of the sentence is defined based on this indexation. Therefore, since *amigo*, absent further context, is assumed to be a person (therefore it is +anim), when presented to a speaker with no context, the sentence with the omitted pronoun will often be marked as ungrammatical. However, when the information that this sentence was indeed uttered is given to a listener, the sentence will have to pass as grammatical, since it was indeed said, and the way this is licensed is that the interpretation of *amigo* will automatically switch to something that is (-anim),[23] even though that is less common. For instance, the most common interpretation given by the consultants is that the loving refers to the feeling of having a friend itself. If, however, this sentence is presented as part of a bigger context in which there is some reference to an object, there is also the interpretation that the speaker was referring to the object as a friend instead. For example, if the speaker had previously mentioned how their computer is helpful for them to do schoolwork, the *amigo* could be interpreted as referring to the computer instead, licensing the sentence.

The takeaway is that the grammaticality of the expression depends precisely on the condition of its utterance, or even more precisely, on the condition that it was indeed uttered. This presents a direct challenge to the minimalist idea that semantic meaning is constructed on a level below speech act, since the meaning here is fundamentally dependent on the condition of the existence of a speech act.

The second phenomenon that exposes contrasts between the two theories is that of the pronoun *a gente*. Literally meaning *the people*, this expression started being formalized as part of the language after the 1970s, starting around the region of Rio de Janeiro, and spreading quickly through the territory (Zilles, 2005). Since then, it has also been found

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[23]It could theoretically switch to (-spec) instead, but since this specificity is more related to the possessive *meu* this seems to not happen.

in other Portuguese varieties. It is an interesting case study because it shows how prone to linguistic variation Brazilian Portuguese is as opposed to other dialects, but also the influence it holds since Brazil holds by far the most Portuguese speakers in the world. In the vast majority of contexts, *a gente* is semantically 1st person plural pronoun, but its agreement conditions are incredibly sensitive. By origin, it should acquire 3rd person singular feminine agreement, since this is the agreement the expression *the people* has. However, the expression can have a variety of agreements that change the meaning observed by speakers, as seen in the following sentences.[24]

(16) *A gente está cansada.*
We are-3SG tired-SG-F.
'We are tired.' [Here, we refers to a group of all women]

(17) *A gente está cansado.*
We are-3SG tired-SG-M.
'We are tired.' [We refers to a group with at least one man]

(18) *A gente está cansada.*
The people are-3SG tired-SG-F.
'The people are tired.'

In (16) and (17), a gente has its more recent standard meaning, though its agreement changes depending on the referent. In (18), it acquires its old meaning, meaning the sentence is ambiguous. This means a gente agreements cannot be only explained by its inner *phi*-features, a traditionally used way of deciding syntactic agreement. Indeed, a new set of features, called *sigma*-features, is required to explain this agreement, and these features encode the pragmatic information that differentiate between the sentences above (D'Alessandro, 2004).

D'Alessandro defines *sigma*-features as a set of properties that a (pro)noun (or NP) can have parallel to its *phi*-features. Traditionally, *phi*-features include gender, number, and person, and are encoded as part of the syntactic nature of the NP itself. For example, in English, *they* has a *phi*-set of $\Phi(\text{They}) = \{$Third person, Plural, Any gender$\}$. The *sigma*-features set of an NP work similarly, except that the encoded information is now pragmatic, based on the potential referent of that word. For instance, *they* in English could have either singular or plural *sigma*-number, so $\Sigma(\text{They}) = \{$Third person, Plural OR Singular, Any gender$\}$.

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[24]The following data is derived from D'Alessandro (2004); though the judgments are mine and often different.

In English, in the case of *they,* the *phi*-features always rule the syntactic agreements. In particular, *they* can be used to refer to a singular person, but even in that case its agreements still follow its *phi*-number, being plural.[25] The data for *a gente*, however, indicates that to not be the case in BP, otherwise there would be a contrast in grammaticality between (16) and (17). Here, although the *phi*-gender of *a gente* is feminine, the *sigma*-gender accepts both feminine and masculine[26] interpretations. Therefore, (16) and (17) are both grammatical, since they merely realize the different sides of the possible gender agreement.

*Sigma*-features are intrinsically pragmatic, but a minimalist could argue that this is mere case of indexicality, that is, that the pronouns are indexed differently, so the context indeed matters. If this was the case these sentences would always be grammatical (with the respective intended meaning). However, (18) shows that this cannot be the full explanation. Indeed the difference between (16) and (18) is that while (16) would be the default interpretation if a women produced that sentence, (18) would be it if a man produced that sentence. Indeed, if a man had produced (16) it would be judged ungrammatical. This means that even if the group being referred to as *a gente* was the same in the two cases, who the speaker itself was would create difference in the grammatical judgments, that is, *a gente* would also need a *sigma*-speaker feature, that encodes who is the one uttering that sentence. This feature is not restrictive in the potential values it holds, but once it is defined it does restrict the sentences that can be formed. But this is not a feature that depends on the set indexed by *a gente,* and therefore it is intrinsically context-dependent in a way that transcends the exceptions allowed in minimalist theory.

The minimalist could then argue that these different occurrences of *a gente* are indeed completely different lexical items. But in this case, the only basis to differentiate between the two first sentences and the third is a *sigma*-feature. But a *sigma*-feature is also all that differentiates the first two sentences. Sure enough, they are different *sigma*-features being contrasted, but functionally, there is not external reason as to why one of them would generate a different lexical item and not the other. This means that this argument would lead to each use of *a gente* above to be classified separately, but it is clear that (16) and (17) fulfill the same lexical purpose as a pronoun.

This phenomenon is a prime example of how context-dependency exists in language not only widely, but also in many different levels within a sentence. It also, however,

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[25]Some speakers find acceptable to say things such as *They like themself,* instead of the traditional *They like themselves*, indicating that there may be a trend towards a bigger influence of *sigma*-features in English in the future.

[26]A situation with mixed or neuter gender would agree as the masculine in BP.

shows that there can be productive analysis incorporating context, without losing predictive power. Indeed, if one is happy using *phi*-features in their analysis, it should be no different computationally to incorporate *sigma*-features as well.

## 4.2 Psycholinguistic Methods

We have established that contextualist theories can better explain several phenomena in natural language. Moreover, they can also be sufficiently specialized as to reasonably encode the types of pragmatic information present in the model and relevant to the situation being studied. A minimalist could still argue, however, that all these contextual processes are secondary to the actual semantic meaning, even though certain sentences seem to not function without them. Accepting this perspective would definitely raise concerns about the relevance of any theory, since such a theory would lose much of its predictive power on the interpretation of sentences.

However, even if the consequences of this view were of no concern, this point would still not hold if we take semantic meaning to be the one first processed by speakers. Indeed, there is strong evidence from experimental Psycholinguistics that supports the idea that the meaning of sentences as interpreted by speakers is influenced by context-dependency immediately after this context is presented to the speakers (Bezuidenhout, 2010). A particular case-study explored by Bezuidenhout is that of discourse relations: the relationship between consecutive utterances in a conversation. For example, sentences (19) and (20) could present a discourse relation of EXPLANATION, something that becomes clear in a construction such as (21).[27]

(19)   John likes Mary.

(20)   Mary's eyes are pretty.

(21)   John likes Mary because Mary's eyes are pretty.

Bezuidenhout argues that these relations can explain many of the constraints happening in phenomena involving, for example, disambiguation, pronoun resolution[28], and free enrichment. Exploring the argument for free enrichment, for instance, we have that the

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[27]Connectives oftentimes are used to make the discourse relations explicit, but they are *not* what makes them exist.

[28]This refers to sentences when the pronouns used could have a number of possible different referents, such as in some of the examples for *a gente* (although the specific situations discussed as examples by Bezuidenhout are different).

relationships between the sentences in (22) and (23)[29] are EXPLANATION and VIOLATED EXPECTATION, respectively. The crucial point, however, is that the change in relation really only changes the "meaning" of one of the words: *local*. In (22), it means *local to Brockton,* while in (23) it means *local to Toronto*. This distinction is surely interesting, but more so is the indication that the discourse relation by itself carries information about which part of the sentence to come is the most context-dependent (Bezuidenhout, 2010). This means that these pragmatic relations are not only systematic, but also constrain specific elements in sentences, meaning an analysis of sentential elements based on pragmatic processes is possible (even if a little harder than considering just "minimal" meanings).

(22)   John was in Toronto and planned to take the train to Brockton because he wanted to visit some of the local pubs before returning to the US. He had a lovely time in Brockton.

(23)   John was in Toronto and planned to take the train to Brockton, but he wanted to visit some of the local pubs before returning to the US. So he never got to see Brockton.

These arguments agree with the findings of Sperber and Wilson (2002), that pragmatic modulation is more than simply "mind-reading." Their theory mainly focuses on the idea that language meaning processing is not merely an inferential task based on the assumption of rational communication that occurs in the same way as say, standard first-order logical processing, but that the human brain must have evolved to have particular sub-modules in its cognitive reasoning dedicated to the understanding of language. Such discussions are well beyond the scope of this thesis, but the process that led to their conclusion does reveal two interesting facts. The first is that there are pragmatic processes that are intrinsic to language, such as the assumption of relevance of the information being passed (Sperber and Deirdre, 2002). In particular, this aligns with the idea that the meaning first processed by speakers already contains context-dependent elements (since the relevance assumption then decides which different contextual elements are used in the processed meaning of the sentence).[30] The second point is that if these modules specialized for language comprehension exist in contrast (or in addition) to the general logical processing modules, a theory of formal

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[29]These are extracted from Bezuidenhout (2010).

[30]There are definitely cases in which speakers communicate irrelevant information on purpose. It must then be possible to "override" this relevance assumption, but this does not detract from the fact evidence points to it being present in the meaning as it is first processed.

language should not be necessarily equivalent to a theory of natural language.[31] Indeed, Sperber and Deirdre comment on the fact that it is common for small children to fail simple "first-order false-belief tasks,"[32] but still be able to process much more complex sentential meaning, with all its inferences and dependencies.

# 5    Conclusion

There are many reasons one would want to place a distinction between semantic and pragmatic content in natural language. At the very least, it is very convenient to be able to constrain the realm of relevant features in one's analysis to purely formal ones that are already embedded grammatically in the sentence. This approach, however, fails to fully explain the diversity of language phenomena that have context-dependency as a fundamental part of their construction. Separating Semantics and Pragmatics leads to explanations that fail to account for the way humans communicate using natural language, and thus there will always be productive sentences that are anomalous in such frameworks. Furthermore, there is strong evidence that even when secondary pragmatic processes are dismissed, the processed meaning of sentences is intrinsically context-dependent, and that any meaning that is constructed as a context-free precursor to this processed one is artificial.

Therefore, minimalism has many shortcomings when explaining the richness of natural language semantics, but there is a silver lining to the framework. Indeed, although it does not account for the many of the ways language is actually used and meaning is processed by speakers, minimalism can still hold as a satisfactory model for building theories of formal language, in which lexical items are indeed strict and compositionality principles fully describable. There is an undeniable connection between formal and natural language and recently, there seems to be sympathy even among traditional minimalists that this may be the goal of their theories after all (Borg, 2012). As for semanticists interested in comprehensive accounts of how meaning is formed, modified, and processed by listeners and speakers in natural language? Context is fundamental to any such theory. In ideal scenarios, it

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[31]Since formal language is completely contained within the realm of "standard" logical procedures, it should be able to be fully processed in a logical module.

[32]These are tasks that attempt to assess the child's ability to distinguish between their beliefs and the beliefs of others. For example, a child is presented with a shoe box and asked what is inside the box. They will likely say "a pair of shoes." However, one opens the box and reveals that instead there is candy. The child is then asked what does their friend that is not in the room would say is inside the box. Most often, small children say "candy," showing a difficulty to differentiate between what they believe/know and what others do. In particular, this differentiation relies on purely "standard" logical reasoning.

provides full, coherent accounts of how meaning is constructed, processed, and changed in communication. In more concrete scenarios, it provides satisfactory explanations even when the analysis is restricted to a limited number of relevant contextual elements. So when asked where the meaning used by people speaking every day all around the world lives, the only reasonable answer is that it lives exactly in the same place as the people themselves: in context.

# References

Bach, Kant. "The Excluded Middle: Semantic Minimalism without Minimal Propositions [Review of Insensitive Semantics, by H. Cappelen & E. Lepore]." *Philosophy and Phenomenological Research*, 73(2), 435–442, 2006.

Baptista, Luca and Rast, Erich. "Introduction." *Meaning and Context*, edited by L. Baptista and E. Rast, Peter Lang Verlag, 2010.

Ball, Brian. "What is Semantic Content?" *Meaning and Context*, , edited by L. Baptista and E. Rast, Peter Lang Verlag, 2010, pp. 79-110.

Bezuidenhout, Anna. "Contextualism and Information Structure: Towards a Science of Pragmatics." *Meaning and Context*, edited by L. Baptista and E. Rast, Peter Lang Verlag, 2010.

Borg, Emma. *Pursuing Meaning*. Oxford University Press, 2012.

Borg, Emma. "Minimalism and the Content of the Lexicon." *Meaning and Context*, edited by L. Baptista and E. Rast, Peter Lang Verlag, 2010.

Borg, Emma. "Minimalism versus contextualism in semantics." *Context Sensitivity and Semantic Minimalism: Essays on Semantics and Pragmatics*, edited by G. Preyer and G. Peter, Oxford University Press, 2007.

Cappelen, Herman, and Lepore, Ernie. *Insensitive Semantics: A Defense of Semantic Minimalism and Speech Act Pluralism*. Ocford: Blackwell Publishing, 2005.

D'Alessandro, Roberta. "Syntactic and Pragmatic Features: a Case Study." *Leitura*, no. 33, 2004.

Falcato, Ana. "The Contextualist Fight Against Minimalism." *Meaning and Context*, edited by L. Baptista and E. Rast, Peter Lang Verlag, 2010, pp.255-268.

Fodor, Jerry. *Concepts: Where cognitive science went wrong.* Oxford University Press, 1998.

Grice, Herbert P. "Logic and conversation." *Speech acts.* Brill, 1975. 41-58.

Kaplan, David. "Demonstratives: An Essay on the Semantics, Logic, Metaphysics, and Epistemology of Demonstratives and other Indexicals." *Themes fro Kaplan,* edited by Almog, J., Perry, J., and Wettstein W, Oxford University Press, 1989.

Schwenter, Scott A., and Silva, Gláucia. "Overt vs. Null Direct Objects in Spoken Brazilian Portuguese: A Semantic/Pragmatic Account." *Hispania*, vol. 85, no. 3, 2002, pp. 577–586.

Recanati, François. *Truth-conditional pragmatics.* Oxford: Clarendon Press, 2010.

Recanati, François. "Literalism and Contextualism: Some Varieties." *Contextualism*, edited by G. Preyer, Oxford University Press, 2003.

Recanati, François. *Literal Meaning*. Cambridge University Press, 2003.

Sperber, Dan, and Deirdre, Wilson. "Pragmatics, modularity and mind-reading." *Mind & Language*, 17, no. 1-2, 2002, pp. 3-23.

Travis, Charles. "Insensitive Semantics." *Mind and Language*, v. 21, 2006, pp. 39-49.

Travis, Charles. *Unshadowed Thought: Representation in Thought and Language*. Cambridge, MA: Harvard University Press, 2000.

Vicente, Agustín and Martínez-Menrique, Fernando. "Lexical Concepts: From Contextualism to Concept Decompositionalism." *Meaning and Context*, edited by L. Baptista and E. Rast, Peter Lang Verlag, 2010.

Zilles, Ana M. S. "The Development of a New Pronoun: The Linguistic and Social Embedding of a Gente in Brazilian Portuguese." *Language Variation and Change*, vol. 17, no. 1, 2005, pp. 19–53.