



# PHI-FEATURES AND NEUTER PRONOUNS: THE CASE OF *ISSO* IN BRAZILIAN PORTUGUESE

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## ABSTRACT

In this squib we propose a semantic analysis of anaphoric *isso* in Brazilian Portuguese in contrast with its deictic use, since *isso* has a different range of possible antecedents/referents for each use. Our analysis claims that *isso* lacks phi-feature and can have as antecedent only linguistic structures which also lack phi-features. We claim that this analysis also explains the fact that *isso* does not appear in descriptions, cannot be interpreted as a bound variable, and shows a “fact reading” in some contexts. Since most abstract entities reference are achieved via non-DP and non-NP structure, *isso* is a natural choice of anaphor in these cases, but as we show its uses are restricted by linguistic constraints.

**Keywords:** phi-features, demonstratives, agreement, semantics, indexicals

## RESUMO

Neste *squib*, propomos uma análise semântica para o *isso* anafórico em português brasileiro em contraste com seus usos dêiticos, pois o *isso* tem possibilidades diferentes de antecedentes/referentes em cada caso. Nossa análise afirma que *isso* não possui traços-phi e que pode ter como antecedentes somente estruturas linguísticas que também não têm traços-phi. Propomos que nossa análise também explica o fato de *isso* não aparecer em descrições, não poder ser interpretado como uma variável ligada, e apresentar uma “leitura de fato” em alguns contextos. Dado que a referência a entidades abstratas se dá na maioria das vezes por meio de estruturas que não são DP ou NP, o *isso* é uma escolha natural de termo anafórico nesses casos, mas, como mostramos, seus usos são condicionados por restrições linguísticas.

**Palavras-chave:** traços-phi, demonstrativos, concordância, semântica, indexicais

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## 1 INTRODUCTION

In this squib our aim is to offer an analysis for the differences between deictic and anaphoric uses of the demonstrative *isso* in Brazilian Portuguese, based on the phi-features associated with this item.<sup>1</sup> Our proposal is situated in the interface between syntax and semantics.

Namely, our aim is to offer an explanation to the contrast between sequences such as:

- (1) João comprou *isso*. — said while pointing at a smartphone.  
'João bought this.'
- (2) João comprou um celular novo ontem e ele/?? *isso* já quebrou.  
'João bought a new cellphone yesterday and it/this is already broken.'

We claim that *isso* lacks phi-features and that this characteristic restricts its possible range of linguistic antecedents in anaphoric uses but imposes no restriction in deictic uses. We also claim that the lack of phi-features triggers a particular kind of agreement. This squib is organized as follows: in the second section we present a (very brief) overview of the demonstrative system of Brazilian Portuguese; in the third section we present the relevant contrasts between deictic and anaphoric *isso*. In sections four and five we present different proposals for *isso*, that we will combine with a full analysis in section six. In the Conclusion we sum up the main points made in this squib.

## 2 A (VERY) BRIEF OVERVIEW OF THE DEMONSTRATIVE SYSTEM OF BRAZILIAN PORTUGUESE

According to most traditional grammars, Brazilian Portuguese has the following demonstrative system according to traditional grammars:

TABLE 1 — TRADITIONAL VIEW OF THE DEMONSTRATIVE SYSTEM

	near the speaker (this)	near the addressee (this)	away from both (that)
Feminine	esta	essa	aquela
Masculine	este	esse	aquele
?? neuter	isto	isso	aquilo

Source: elaborated by the author.

<sup>1</sup> This is a new version of the arguments I already made in Basso (2009).

However, in spoken varieties what is really found is a system in which ‘VstV’ and ‘VssV’ almost always merge into ‘VssV’, and the result is that there is no difference in these varieties between for instance *este* and *esse*; the same process can be seen in course in written varieties. The system is actually as shown in Table 2:

**TABLE 2 — ACTUAL DEMONSTRATIVE SYSTEM**

	near (this)	far (that)
feminine	<i>essa/esta</i>	<i>aquela</i>
masculine	<i>esse/este</i>	<i>aquele</i>
?? neuter	<i>isso/isto</i>	<i>aquilo</i>

Source: elaborated by the author.

The English translations suggested are only roughly approximations; there are important differences between English and Brazilian Portuguese demonstrative systems which are beyond the aims of this squib.

All the feminine and masculine demonstratives (DEM) can form descriptions (i.e., they can appear in the structural template DEM + NP such as in *esse menino* (‘this boy’) and *aquela menina* (‘that girl’)), they can also be used as pronominal forms (i.e., without an NP), and they have a plural form (DEM+/s/). All these demonstratives can be used with spatial adverbs in order to achieve, among other things, “precision” in finding their referents: *esse (NP) aqui* (‘this (NP) here’), *aquela (NP) lá* (‘that (NP) there’), *aquilo ali* (‘that over there’), etc.<sup>2</sup>

Differently from the other Portuguese demonstratives, the proximal demonstrative pronoun *isso* (as well as its distal counterpart, *aquilo*) does not have number or gender agreement and is invariable; therefore it is considered to be a “neuter pronoun”. Since *isso* cannot appear followed by an NP (*\*isso menino/a/s/*, ‘*isso boy/girl/s*’) it does not form descriptions.

Our aim in this squib is to provide a semantic analysis of *isso* which accounts for its deictic and anaphoric uses and interpretations. In the next section, we present some uses of *isso*.

### 3 (SOME) USES OF *ISSO*

*Isso* has a variety of uses in nowadays Brazilian Portuguese, beyond what is normally considered to be the canonical role of a demonstrative, for instance, it can be used as a positive answer to certain kinds of questions or to confirm information (3). Like other

<sup>2</sup> The combination with spatial adverbials can also be used as an evidence for the near/far features of the demonstratives because proximal demonstratives combine only with proximal spatial adverbs and distal ones combine only with distal spatial adverbs: *esse ?lá/?ali* (‘this (one) ?there’); *aquele ?aqui* (‘that (one) ?here’).

pronouns, *isso* has deictic, anaphoric and cataphoric uses. The cataphoric use, exemplified in (4) and (5), will not concern us in this squib:

- (3) Question: É pizza que a gente vai comer no jantar?  
 Answer: *Isso*.  
 Question: 'Is it pizza that we will have for dinner?'  
 Answer: '*This*.' (roughly, 'yes')
- (4) Preste atenção *nisso*: não vou pra festa!  
 'Pay attention/Listen to *this*: I'm not going to the party!'
- (5) Acontece que a donzela — e *isso* era segredo dela — também tinha seus caprichos (Geni e o Zepelim, Chico Buarque)  
 'So it happens that the lady — and *this* was her secret — also had her whims'

Interestingly this pronoun imposes different constraints on its referent (or antecedent) depending on being used deictically or anaphorically.

Deictically (i.e. used accompanied by a pointing gesture) *isso* can refer to a wide range of different kinds of entities from concrete entities (countable singular or plural, or massive) as in (6), to abstract entities, as in (7) (the translations show the intended interpretation):

- (6) (pointing to a chair, or pile of sand, or a piece of clothing, or books)  
*Isso* é meu.  
 '*This* is mine.'
- (7) (pointing to a white wall (i.e., its color), or a sunrise, or an arrangement of furniture)  
*Isso* é bonito.  
 '*This* is beautiful.'

When the predicate which combines with deictic *isso* displays grammatical gender (such as *meu* ('mine') and *bonito* ('beautiful')), the gender is always the masculine, which is arguable non-marked in BrP.

Anaphoric *isso* can have as antecedent different kinds of abstract entities: a proposition, an event, a fact, a speech act, and the very "phrasing" of an utterance (a *dictum*) as in (8a)-(8e), respectively, or a set of propositions as in (9):

- (8) João foi demitido.  
 'João was fired.'
- (8a) Eu não acredito *nisso*!  
 'I don't believe this!'
- (8b) *Isso* aconteceu ontem.  
 'This/It happened yesterday.'

- (8c) Puxa, *isso* é terrível!  
'Gosh, this is terrible!'
- (8d) *Isso* é mentira!  
'This is a lie!'
- (8e) *Isso* é realmente um jeito estranho de descrever o que aconteceu...  
'This is a really odd way of describing what happened...'
- (9) Tendo dito *isso*, podemos continuar com a exposição.  
'Having said that, we can move on with the exposition.'

But anaphoric *isso* cannot normally have as antecedent an entity denoted by a nominal phrase (be it countable (singular or plural) (10) or massive (11)), or a quantified expression (12)-(13):

- (10) João comprou uma caneta/um lápis/dois cadernos. ?*Isso* custou caro/eram caros.  
'João bought a pencil/a pen/two notebooks. It was expensive/(they) were expensive.'
- (11) João bebeu água. ?*Isso* estava gelada.  
'João drank water. It was cold.'
- (12) João comeu todas as balas. ?*Isso* era de chocolate.  
'João ate all the candies. These were chocolate ones.'
- (13) João bebeu pelo menos duas cervejas. ?*Isso* estava gelado/a/s.  
'João drank at least two beers. It/This was cold.'

We also argue, based on the next examples that *isso*, differently from other pronouns, cannot be interpreted as a bound variable:

- (14) Toda semana um homem entra aqui, e ele sempre reclama.  
'Every week a man comes here, and he always complains.'
- (15) Toda semana acontece um acidente nessa rua, e *isso*, via de regra, complica o trânsito.  
'Every week an accident happens in this street, and usually it/this messes with the traffic.'
- (16) Todo dia o João faz um barulho na cozinha, e *isso* acorda seu filho mais novo.  
'Every day João makes a noise in the kitchen, and it/this wakes up his younger soon.'

The anaphoric pronoun *ele* in (14) has different interpretation according to the scope of *um homem* ('a man'): (i) a wide-scope reading: the same man every week, or (ii) a strict-scope reading: different men each week. But the same does not happen with (15) and (16) — the interpretation of *isso* is the same: it does not matter what is the scope of *um acidente* ('an accident') or *um barulho* ('a noise'). In both cases, what we have is a so-called "fact reading"

— “that happens an accident in this street every week” is the antecedent of *isso* in (15); and “that João makes a noise in the kitchen every day” is the antecedent of *isso* in (16).

We can compare (15) with (15a):

- (15a) Toda semana acontece um acidente nessa rua, e *ele*, via de regra, complica o trânsito.  
'Every week an accident happens in this street, and usually it messes with the traffic.'

For (15a), in which the pronoun *ele* appears, we have two interpretations: (i) a wide-scope reading: the same accident every week, or (ii) a strict-scope reading: different accidents each week.

What could explain the difference in the “referential range” between deictic and anaphoric uses of *isso*? Does it have to do with ontological restrictions, or linguistic ones? Does the same feature also explain the impossibility of descriptions for *isso*? In the next section we propose a possible (but ultimately wrong) alternative.

## 4 A FIRST EXPLANATION

Based on the contrast between the examples in (8)-(9) with the ones in (10)-(13), one could claim that *isso* is ontologically sensitive, that it is specialized for abstract entity anaphora. However, this hypothesis is not supported by Brazilian Portuguese (BP) data: *isso* cannot have nominalizations (17), nouns that refer to abstract entities (18), and nouns that refer to events (19) as antecedents:

- (17) [A chegada do João]<sub>1</sub> era esperada. ?[*isso*]<sub>1</sub> aconteceu no tempo previsto.  
'João's arrival was expected. It happened in due time.'
- (18) [A tristeza das pessoas]<sub>1</sub> era enorme. ?[*isso*]<sub>1</sub> era consequência do acidente de ontem.  
'People's sadness was enormous. It was a consequence of yesterday's accident.'
- (19) Ontem houve [um terremoto]<sub>1</sub> no Japão. ?[*isso*]<sub>1</sub> atingiu 7.5 graus na escala Richter.  
'Yesterday there was an earthquake in Japan. It reached 7.5 degrees in Richter scale.'

Only an ontological sensibility is not sufficient to explain the unacceptability of the data in (17)-(19), since in all these cases there are reference to abstract entities. Note also that the pronoun *ela* (fem.; sing.) is perfectly acceptable in (17) and (18) with the intended interpretation and goes for *ele* (masc.; sing.) in (19). It is not clear how an ontological sensibility would explain (15) and (16), since accidents and noises could arguably be classified as abstract as well. So maybe *isso* is sensitive not to the ontology but to the linguistic structure. We explore this possibility in the next section.

## 5 *ISSO* AS A NEUTER PRONOUN AND THE ROLE OF PHI-FEATURES

We argue that *isso* is not specialized for abstract entity anaphora, but rather that it cannot have any DP- or NP-structure as antecedent, and that this feature explain both in (8)-(15) and (15)-(16). The reason for this, we claim, is a mismatch between the phi-features (i.e., the semantic features, taken as presuppositional, involved in nominal (gender, number, definiteness) agreement and anaphora<sup>3</sup>) of (some) the antecedent structures and the lack of them by *isso* (this fact is behind the intuition that *isso* is neuter).

Since most of abstract entity reference is achieved by means of non DP- or non NP-structures (at least in BP) but by means of sentential or VP-structures, *isso* is a natural choice of anaphor in these cases — both *isso*, and non DP- and non NP-structures agree in lacking phi-features. But when an abstract entity is referred to by means of a DP- or NP-structure, as in (17)-(19), *isso* cannot be the anaphor due to a phi-feature mismatch — DP- and NP-structures have phi-features and *isso* does not. Let's consider again examples in (8a) and (17):

- (8) João foi demitido.  
'João was fired.'
- (8a) Eu não acredito *nisso*!  
'I don't believe this!'
- (17) [A chegada do João]<sub>1</sub> era esperada. ?[*Isso*]<sub>1</sub> aconteceu no tempo previsto.  
'João's arrival was expected. It happened in due time.'

The antecedent of *isso* in (8a) is not a DP or NP structure, but the whole sentence (8), which provides the proposition taken as the referent of *isso* in (8a). *Isso* does not work as an anaphor in (17) because the antecedent *a chegada do João* is a DP with [fem.; sing.] as its phi-features, resulting in a mismatching. It is necessary to have a matching in lacking phi-features between *isso* and the structure which provides its antecedent.

Moreover, if *isso* were simply insensitive to phi-features we should expect that it could have antecedents denoted by any kind of linguistic structure — a simple insensibility to the phi-features of the linguistic structures which denotes the relevant antecedents would not explain why *isso* cannot have any structure as antecedent, and the anaphoric behavior of *isso* would be same as the deictic *isso*. But since this is not the case, we argue for an agreement in not having phi-features. Finally, since in deictic uses the referent is not a linguistic structure it will obviously have no phi-feature and the use of *isso* will be acceptable if not preferential.

This hypothesis explains the data we have seen so far, and also the contrast between (8)-(9) and (10)-(13), and the unacceptability of (17)-(19). In fact, have we have seen so far explain what portion of the linguistic structure acts as an antecedent for *isso*, i.e. structures which carry no phi-features; in the next section, we will explore how *isso* achieves its referent from a certain portion of linguistic structure.

<sup>3</sup> Cf. Rezac (2011), Sauerland (2008), Sudo (2012), Harbour (2008), Heim (2008), among others.

## 6 DISCURSIVE DEIXIS AND FACT READING

How does *isso* work as an anaphor? We claim that phi-feature agreement is responsible for the selection of the linguistic material which will carry the antecedent of *isso*, but not also that the specific referent will be selected in accordance with the predicate which accompanies *isso*. That's why in the examples (8a) to (8e) *isso* can have such a wide range of referents:

- (8) João foi demitido. / 'João was fired.'
- (8a) Eu não acredito nisso! / 'I don't believe this!' → proposition
- (8b) Isso aconteceu ontem. / 'This/It happened yesterday.' → event
- (8c) Puxa, isso é terrível! / 'Gosh, this is terrible!' → fact
- (8d) Isso é mentira! / 'This is a lie!' → speech act
- (8e) Isso é realmente um jeito estranho de descrever o que aconteceu... → *dictum*  
'This is a really odd way of describing what happened...'

As Webber (1991, p. 2) argues:

Sections of text, i.e., strings of words, can be neither [i.e., events, propositions, speech acts, etc.]. On the other hand, sections of text can have such events or actions associated with them. [...] sections of text can provide referents for demonstrative pronouns.

Following Webber's (1991) ideas, based on Nunberg (1979, 1995), we propose that in the interpretation of anaphoric *isso* what is involved is a case of "deferred ostension": pointing to a segment of linguistic structure to extract a referent (which does not need to be directly mentioned). So the interpretation of *isso* involves the identification of a portion of linguistic structure which does not have phi-features, and from this structure *isso* "extract" the relevant referent based on the predicate associated with it. That is why one and the same structure can provide different referents which will match the different predicates associated with *isso*.

Our analysis also accounts for the "fact reading" sometimes available for anaphoric *isso*:

- (20) João comprou o carro dos seus sonhos. *Isso* custou caro.  
'João bought his dream car. This was expensive.'
- (21) João comprou o carro dos seus sonhos. Ele custou caro.  
'João bought his dream car. It was expensive.'



- (22) Um terremoto atingiu a costa da China. *Isso* foi uma tragédia.  
'An earthquake hit the coast of China. This was a tragedy.'
- (23) Um terremoto atingiu a costa da China. ?*Isso* atingiu 8 na escala Richter.  
'An earthquake hit the coast of China. It reached 8 degrees in Richter scale.'

In (20) the antecedent of *isso* is not the car itself, but the fact that João bought it, which can be rendered by a sentential structure such as *that João bought his dream car* (in the same lines, *custar caro* ('be expensive') does not apply to the price of the car but to the fact of buying it). This fact is even more salient if we compare *isso* in (20) with *ele* in (21): in this case, the singular masculine pronoun *ele* ('it') clearly refers to the car (and the predicate *custar caro* has the car as its argument). A similar analysis applies to (22): what was a tragedy is not the earthquake itself but the fact that it hit the coast of China. If the predicate associated with *isso* can only be applied to an entity denoted by a linguistic structure which carries phi-features, such as *to reach 8 degrees in Richter scale* and *um terremoto* ('an earthquake') in (23), *isso* does not work and the discourse is odd.

We claim that the availability of this "fact reading" is constrained by noteworthiness criteria (i.e., pragmatics issues involved in the definition of a predicate or of a referent relevant to the conversational purposes) such as the ones proposed by Nunberg (1995, 2004) for cases of deferred ostension, and can be explained by the mechanism of "discourse deixis" as proposed by Webber (1991). Certainly there is much more to be said but we argue that our analysis is on the right track because it explains the data at hand and because it is based on ideas independently motivated.

## 7 CONCLUSION

In a nutshell, deictic *isso* can refer to any kind of entities without restrictions, and anaphoric *isso* can have as antecedent only entities denoted by linguistic structures which do not have phi-features — since *isso* lacks phi-features it agrees with linguistic structures which also lack them. The proper antecedent of anaphoric *isso* is achieved by a mechanism of "discourse deixis" in which the predicate associated with *isso*, together with noteworthiness criteria, constrain the possible referent to be "extracted" from linguistic structures. Our hypothesis explains the behavior of *isso* and the "fact reading" associated with it. Also our analysis elucidates the role of being neutral regarding phi-features.

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