

On wh-denials featuring *quando* (when), *onde* (where) and *cadê* (where) in Brazilian Portuguese

The sentences in (1) are productive wh-questions in Brazilian Portuguese (BP). However, these sentences are ambiguous. On the one hand, they can be canonically interpreted as questions about the circumstances of an event (asking about the place (1a) and the time (1b) an event took place). On the other hand, they can also be interpreted as a *denial* of the presupposition uttered or inferred in the context. For instance, the presupposition that João broke up with Clara, in (1a), or that Marina took the math exam, in (1b), are both denied with the utterance of a sentence such as in (1).

- (1) a. Onde (que) o João terminou com a Clara?
 where (that) the João broke with the Clara?
 ‘Where did João break up with Clara?’ or ‘João didn’t break up with Clara!’
- b. Quando (que) a Marina fez a prova de matemática?
 when (that) the Marina did the exam of math
 ‘When did Marina take the Math exam?’ or ‘Marina didn’t take the Math exam!’

Goal: The paper attempts to analyze the *denial* interpretation of different wh-phrases in BP, assuming it to be a manifestation of a *metalinguistic negation* or a *denial* mechanism in BP, adopting the view by Horn (1985) according to whom denial is a means of rejecting a previous utterance or presupposition. The paper turns to the Cartographic approach and follows Kayne’s (2005) *decompositionality principle* in order to identify the categories involved in non-canonical wh-questions conveying denial in BP.

Data & main results: Unlike their canonical counterparts, denials *onde* and *quando* are only felicitous in contexts where there is a previous presupposition or implicature shared by the speakers. This has to do with the denial property described by Horn (1985) which requires a previous utterance or presupposition to be felicitous. This is suggested by (1’a,b), below, which are appropriate contexts for the sentences seen in (1a,b), respectively, to be uttered.

(1’) a. I know João and Clara and I had dinner with them yesterday. When someone says João and Clara broke up, I utter a sentence as (1a) to deny this presupposition, which I know to be wrong.

b. I took the math exam and I know that Marina was absent for it. If someone says that everyone in the class took the exam and succeeded in it, I can utter a sentence as (1b) to deny the presupposition that Marina took the exam.

It is important to mention that the sentences that convey denial are not restricted to wh-phrases: non-wh expressions like *uma ova* ‘my eye’ and *dez ‘ten’* can also convey this denial reading. However, it is not true that every wh-phrase can convey this reading. In this presentation, I restrict the analysis to sentences with *onde*, *quando* and *cadê*. Besides the pragmatic properties of sentences featuring these wh-words, structures with denial constituents involve a construction that differs from a simple negative or positive inversion of the sentence (i.e. a rhetorical question). For instance, *cadê* is a wh-phrase that only allows sentences with a *cadê* + *DP/NP* structure in BP, as in (2a). However, in denial sentences, structures with *cadê* pattern differently and necessarily involve a mandatory *que* complementizer and a potential — ungrammatical in canonical contexts — VP structure, as in (2b).

- (2) a. Cadê o Carlos?
 where the Carlos?
 ‘Where is Carlos?’
- b. Cadê que a Sol liga para vocês?
 where (that) the Sol cares for you.PLU
 ‘Sol doesn’t care about you!’

Another asymmetry related to *onde* and *cadê que* denial readings is their compatibility with circumstantial adverbs corresponding to the categories of *locative* (at the school) and *time* (last week), respectively shown in (3a,b):

- (3) a. Onde/cadê que o Tiago desenvolveu pesquisa na escola?
 where that the Tiago developed research at-the school?
 ‘Tiago didn’t do research at the school’

- b. Quando que a Marina correu uma maratona semana passada?
 When that the Marina ran a marathon week last
 ‘Marina didn’t run a marathon last week’

Furthermore, sentences featuring *onde*, *quando* and *cadê* are—unlike their canonical counterparts—grammatical when these wh-words express denial and cooccur with sentential negation (preverbal *não*) in BP. Besides being well-formed, there is an inversion of polarity in these sentences in BP as in (4). The well-formedness of (4) leads one to claim that denial wh-phrases are necessarily merged *above* NegP, since the cooccurrence of a denial wh-phrase (*onde*, *cadê*, *quando*) with sentential negation does not give rise to a violation of Relativized Minimality (RM) (Rizzi, 1990).

- (4) ONDE/CADÊ/QUANDO que a Maria não ficou preocupada com a nota na prova?
 Where/where/When que the Maria neg got worried with the grade on-the exam
 ‘Maria indeed gave a damn to her exam’s grade’

On the other hand, Wh-denials are ungrammatical in sentences that involve metalinguistic negation in BP—here morphologically realized by the *V-não* (‘V not’) structure in (5).

- (5) *ONDE/CADÊ/QUANDO que a Maria fez a tarefa não?
 Where/where/when that the Maria did the activity not
 (‘Maria didn’t do the activity’)

The ill-formedness of (5) can be explained by the fact that both elements target a projection where a focal feature gets valued in the left periphery—also see Teixeira de Sousa (2018) on metalinguistic negation and focal stress in BP. Denial *onde*, *quando* and *cadê* give rise to ungrammatical results whenever combined with other focalized constituents, as in (6).

- (6) *ONDE/CADÊ/QUANDO (que) O PEDRO comprou um carro novo? (não o Tiago)
 Where/ where/ when (that) THE PEDRO bought a car new (not Tiago)
 ‘It was Pedro who bought a new car (not Tiago)’

Another interesting data comes from the interaction of *wh denials* and mirative and evidential adverbials located in Cinque’s (1999) hierarchy. Unlike their canonical counterpart, these sentences are not grammatical in BP. (7) supports the contention that the wh-phrase is merged below Foc—but above Neg.

- (8) *ONDE/QUANDO/CADÊ que (surpreendentemente) o Vitor (surpreendentemente) noivou?
 Where/ when/ where that (surprisingly) the Vitor (surprisingly) got engaged
 ‘Surprisingly, Vitor didn’t get engaged!’

Conclusions: The data previously presented emphasizes that wh-denials structurally differ from their canonical counterparts, therefore being necessarily merged in a higher position in the structure—they are, for instance, compatible with negation, an unexpected pattern under locality considerations of the RM type if they were merged in a position c-commanded by Neg. I take wh-denials to be merged IP-internally (actually, in [Spec,MirativeP] with a further raising of the wh-denial to the specifier of FocP to value its focal feature. Finally, these elements select a whole utterance as a complement. Considering the inversion of polarity and the change of illocutionary force comparatively to a question, I assume the existence of a null \neg operator in Force^o, whereby the illocutionary force of an assertion can be determined. This is in line with Tsai’s 2008 conjectures for the Chinese denial *zenme* and also with Pan’s (2019) analysis for denial questions in Chinese.

Selected references: Cheung, L. Y.-L. 2008. *The negative wh-construction*. PhD Dissertation. UCLA. // Horn, L. (1985) Metalinguistic negation and pragmatic ambiguity. *Language*, 61(1), 121-174. // Pan, V.J. (2019). *Architecture of the Periphery in Chinese: Cartography and Minimalism*. London: Routledge. // Sousa, Raquel. "Onde que isso é uma interrogativa-wh?" : um estudo cartográfico sobre sentenças de denegação com onde e quando no PB– Mastering thesis- Campinas, SP: 2023. Tsai, W-T.D. (2008) Left periphery and how-why alternations. *Journal of East Asian Linguistics*, 83-115.