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## Number-neutral indefinite objects in Brazilian Portuguese as a case of semantic incorporation

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This paper provides empirical evidence for a verb-noun construction in Brazilian Portuguese, which has not yet been analyzed in the linguistic literature. It is argued that certain indefinite direct objects, typically when adjacent to a particular group of verbs, are interpreted as incorporated structures, receiving non-quantified atelic activity readings. It is shown that despite being rather infrequent, speakers have quite robust intuitions about their structure and interpretation, treating them on a par with bare objects, for which semantic incorporation analyses have been proposed. Evidence is presented from an Acceptability Judgment Task, a Truth Value Judgment Task, and native speakers' metalinguistic comments. Following the incorporation approach of Carlson (2003), these number-neutral indefinites are compared to bare and weak definite direct objects and it is argued that they provide a new type of evidence for the analysis of weak indefinites proposed by Carlson (2003) and subsequent work, which is not found in other article languages. The paper also discusses the pragmatic effects of the construction in the context of related phenomena in Brazilian Portuguese and English.

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## 1. Introduction

The article system of Brazilian Portuguese has received considerable interest over the last decades, primarily, because despite being a full-fledged article system, the restrictions on bare (determiner-less) arguments differ considerably from other article languages of the Romance or Germanic type (cf. Wall, 2017, for a book-length discussion). In a sense, this paper introduces a construction that exhibits the opposite behavior: the use of the indefinite article in situations where other article languages do not permit it. Despite the presence of an article, these are nominal phrases that function semantically as incorporated direct objects, necessitating an analysis that does not regard them as standard verbal arguments.

(1) Vamos <u>assistir uma televisão jogar vídeo game</u> e depois <u>comer uma boa abobrinha recheada</u>.
③Além de jogar conversa fora.
(http://www.thepictaram.club/p/mesaextens%C3%ADvel, accessed 11.06.2018)
'Let's watch some TV, play some videogames, and after that eat some delicious, stuffed zucchini. Besides having some chitter-chatter.'

The three verb-object combinations in (1), from an open posting in an internet forum, propose three activities: TV-watching, video game-playing, and eating of stuffed zucchini. Two of the objects are preceded by the indefinite article, which does not appear to contribute anything to the sentence's semantics (for a detailed analysis of this sentence cf. Section 2.3 below). The indefinite article could be dropped, and the meaning would remain basically the same (ignoring possible pragmatic effects for a moment).<sup>1</sup> Crucially, other article languages would not allow for an article in configurations like \*watch a TV, and the interpretation of an indefinite object with food nouns, such as to eat a (nice) stuffed zucchini, would be that one unit of the food is participating in the event. In this case, one zucchini is being eaten, not only parts of one or several. In Brazilian Portuguese, however, according to a first intuition, no such restrictions seem to apply for certain verb-object combinations. These combinations all describe pure atelic activities. Just as jogar vídeo game ('play videogame') does not say anything about playing through complete games or the number of sessions to be played, the same holds for the other two indefinite objects. They can depict anything from partial events of 'zucchini-eating' or 'TV-watching' to multiple repeats of whole events. In other words, despite the presence of an indefinite article, these objects appear to be number-neutral.

Given that these constructions have not yet received attention in the literature, the main goal of this paper is to provide a first description of them and to corroborate the claims about

<sup>&</sup>lt;sup>1</sup> A reviewer suggests that modification might play a special role, cf. *uma boa abobrinha recheada* 'a good stuffed zucchini'. Perhaps *boa* would have to be dropped as well when the indefinite article is omitted (also in example (12b) below). This is plausible but the question must be left open for future research. Note, however that the zucchini example would work in analogy to the other ones if the noun were not preceded by *boa*.

the possible structures and interpretations empirically. Because these constructions cannot be searched for directly in corpora and do not appear to occur frequently enough for a manual extraction of a substantial amount of examples, an experimental approach integrating several approaches and data types has been developed to solve the empirical concerns. It is demonstrated using an Acceptability Judgment Task that, despite their apparent rarity, the constructs are entirely acceptable for native speakers, and it is demonstrated using a Truth Value Judgment Task that the interpretations presented here are available to the speakers.

To make the semantics of these constructions explicit, the paper follows the proposals in Carlson (2003) and subsequent work up to Klein et al. (2013) and analyzes them as incorporated weak indefinites. If the analysis proposed here is on the right track, these constructions are a new piece of evidence for an incorporation semantics of at least some weak indefinites. Following the Carlsonian approach and subsequent literature, the term *weak indefinite* is used descriptively here for property-type indefinite NPs (see McNally, 2020, for a discussion of the different contemporary interpretations of the weak/strong distinction).

Furthermore, the research investigates various pragmatic effects of the indefinite objects that their bare counterparts lack, as well as compares them to other constructions in the language that share some characteristics. In this regard, effects of communicative proximity or informality will be addressed experimentally as well as in cross-linguistic comparison with English *some* (Esposito & Potts, 2020) in the discussion in Section 4.2.

The paper is structured as follows: Section 2 introduces the phenomenon and the proposed analysis in more detail, carving out the empirical issues that must be addressed. Section 3 presents two experiments and their results together with data from metalinguistic interviews with native speakers that bear on the empirical issues. Section 4 discusses the results from the empirical investigations and some open questions before Section 5 offers some conclusions.

## 2. Number-neutral indefinite objects and semantic incorporation

Carlson (2003, 2005, 2006) and subsequent work argue for a semantic incorporation analysis of weak indefinite nominal phrases in object position. In this analysis, indefinite and bare nominal phrases that are not moved outside the VP in the derivation are not interpreted compositionally as the combination of the meaning of some verb and its argument but rather they are treated as denoting an event type. These verb + nominal (V+N) structures "give rise to a denotation that is within the denotation-type of verbs themselves" (Carlson, 2003, p. 200). In contrast to the standard analysis, the weak reading of the indefinite object in (2a) is not interpreted as an existentially bound variable as in (2b) but the whole VP would denote a dog-feeding event, and hence the sentence could be represented semantically (ignoring tense for the sake of illustration) as (2c).

(2) (a) Mary fed a dog.

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- (b)  $\exists x \operatorname{dog}(x) \land \operatorname{Mary} \operatorname{fed} x$
- (c) dog-feed(m)

Carlson (2003, pp. 201–204) discusses such event types and their meanings in more detail. For the present proposal, it is sufficient to say that verbs in this account denote eventualities (following Bach, 1986), and the set of eventualities is modeled as a complete joint semilattice structure, which is defined by the part-of relation. Thus, the meaning of *run* is part of the meaning of *move*, but the meaning of *laugh* is not part of the meaning of *eat*, etc. At this level, adding arguments to a verb results in a more specific denotation of eventualities. The denotation of *dog-feed* is part of the denotation of *feed*, for instance, but both are of the same event type and are modeled in the same lattice structure. Crucially, the interpretation is not that of a function applied to some argument. The meaning of *fed a dog* in (2a) is treated exactly as the meaning of a basic verb in the model.

However, as Klein et al. (2013) note, such weak indefinite interpretations are in many respects very similar to other indefinite interpretations (in contrast, for instance, to weak definites which are very different from regular definites, see Section 2.2 below). Klein et al. (2013, p. 191) suspect that this similarity might be the reason why incorporation-like interpretations for indefinite objects have not been identified elsewhere in the literature. In this paper, I will show and analyze data from Brazilian Portuguese that support object incorporation analyses, at least for some indefinite objects. Only weak interpretations of the object nominal phrase are given to these forms. Furthermore, they appear to be number-neutral, which sets them aside from other overtly indefinite nominal phrases. To the best of my knowledge, these cases have not been discussed before in the literature and I am not aware of other article languages that have corresponding constructions.

#### 2.1. Semantic incorporation in Brazilian Portuguese (and beyond)

Research from the last decades has shown that contrary to other Romance and Germanic article languages, Brazilian Portuguese allows for bare singular nominal phrases in a wide range of configurations, including the subject position of episodic sentences, as in (3), sometimes even with definite/specific interpretations, as in (4). For a detailed discussion of the literature and proposals for alternative analyses to what is presented below, see Wall (2017, chapter 2).

- (3) Ontem, <u>rato</u> comeu a comida do cachorro.
   yesterday mouse eat.PRF.3SG the food of + the dog
   'Yesterday some mouse/mice ate the dog's food.' (Pires de Oliveira, 2012, p. 505)
- (4) Ela arrumou um rapaz, rapaz gosta muito dela.
   she arrange.PRF.3SG a boy boy like.PRS.3SG much of + she
   'She found a boy, the boy likes her very much.' (Wall, 2013, p. 236)

In many accounts, ignoring the somewhat special definite/specific interpretations such as in (4), bareness has been related in some way to number neutrality, analyzing BP bare nominal phrases as mass or kind-denoting expressions (Müller, 2002; Müller & Oliveira, 2004; Müller & Paraguassu-Martins, 2007; Paraguassu-Martins, 2010; Pires de Oliveira & Rothstein, 2011; Pires de Oliveira & Rothstein, 2013). As mentioned above, there is no consensus in the literature on the theoretical status of bare nominals in BP, but it would go beyond the scope of this paper to provide a thorough discussion as the one provided in Wall (2017). For the present purpose, number neutrality is assumed because it fits naturally into the Carlsonian incorporation proposal for weak indefinites.

The strong connection of bare nominal phrases to number neutrality has been corroborated by research on incorporation, where it has been shown that many article languages show semantic incorporation of a verb and an adjacent direct object when this occurs bare, whereas the presence of a definite or indefinite article usually blocks such readings (Klein et al., 2013; Stvan, 2009; Taveira da Cruz, 2008; see Wall, 2017, pp. 85–87, for an overview of the literature on Brazilian Portuguese).

- (5) (a) I'm drinking tea.(b) I'm drinking a/the tea.
- (6) Catalan (Espinal 2013, p. 72)<sup>2</sup>
  - (a) *Avui porta faldilla. #La hi vam regalar l' any passat.* today wears skirt it to.her past give the year last
  - (b) Avui porta una faldilla. La hi vam regalar l' any passat. today wears a skirt it to.her past give the year last 'Today she is wearing a skirt. We gave it to her last year.'
- (7) Brazilian Portuguese, Taveira da Cruz (2008, p. 42)
  - (a) Pedro não viu rato.
    P. NEG see.PRF.3SG mouse
    'Pedro didn't see any mouse/mice.'
  - (b) *Pedro não viu um/o rato.*P. NEG see.PRF.3SG a/the mouse 'Pedro didn't see a/the mouse.'

<sup>&</sup>lt;sup>2</sup> Espinal (2013) uses this example to illustrate the lack of referentiality of bare nominals in Catalan and the paper does not discuss incorporation at length. However, when referring to own related work, the following proposal is mentioned: "real BNs in object position denote not properties of individual objects but rather properties of kinds, which combine with the V by a semantic process of pseudo-incorporation" Espinal (2013, p. 91).

The semantically incorporated direct objects in (5a–7a) all contrast with the non-incorporated direct objects in (5b–7b) in not allowing for a referential interpretation and in only being interpreted existentially, not as generics. They are also number-neutral and therefore do not necessarily receive a singular interpretation.<sup>3</sup> When the event or the object nominal is interpreted as singular, this occurs due to context. In a contemporary ordinary discourse, for example, (6a) would most likely be read as meaning that the stated person is wearing one (unique) skirt today. However, the sentence would also be perfectly compatible with a situation where the speaker wants to highlight that all of the several outfits that the mentioned person is wearing today include a (possibly different) skirt, in contrast to (6b), which is about a very specific one. In 2.3, a series of overtly indefinite objects will be introduced that have very similar properties. Before that, it is important to mention that there are other overtly articulated objects that have been analyzed as semantically incorporated.

#### 2.2. Weak definites as incorporated structures

While cross-linguistic evidence for bare nominal semantic incorporation is quite robust, a special case has been highlighted, so-called weak definite nominal phrases. In these, overtly definite singular objects receive readings that resemble incorporated objects despite the presence of a definite article (Aguilar-Guevara, 2014, pp. 24–26; Aguilar-Guevara, Le Bruyn & Zwarts, 2014, among others). In (8), object NPs are not referring to a uniquely defined instance of the concept expressed by the noun in the context of the utterance.

- (8) (a) Victor takes the bus every day. (Aguilar-Guevara, 2014, p. 17)
  - (b) *Sie liest jeden Morgen die Zeitung.* (German) she read.PRS.3SG every morning DEF.FSG newspaper 'She reads the newspaper every morning.'
  - (c) Lola está en la cárcel.
    L. be.PRS.3SG in DEF.FSG prison
    'Lola is in prison.' (Spanish, Aguilar-Guevara, 2014, p. 29)
  - (d) Esco a bere il caffè al bar.
    go\_out.PRS.1SG to drink.INF DEF.MSG coffee at + the bar
    'I'm going out to have a coffee at the bar.' (Donnazzan, 2013, p. 69)

Going into the details of the properties of these special kinds of definites is not possible within the scope of this paper. While they all share certain properties, there are also cross-linguistic differences that have been discussed in the literature (see Leonetti, 2019, and references therein).

<sup>&</sup>lt;sup>3</sup> See Carlson (2006, pp. 37–40) for a more complete list and discussion of what he calls "stable properties" of semantically incorporated nouns.

One important trait is that only certain verb-noun combinations receive these interpretations. 'The newspaper' in *read the newspaper* can be interpreted as a weak definite but 'the book' in *read the book* not. These readings are not restricted to object positions; they can also appear as subjects or within prepositional phrases. It is vital to highlight that weak definites do not refer to a specific entity as objects for the purposes of this study. Klein et al. (2013) propose that they are interpreted as part of the event expressed by the verb. Sentence (8d) expresses the plan to go to the bar for 'coffee-drinking.' The meaning of (8c) is not that Lola happens to be in a prison for some random reason (visiting, working, etc.) but that she is imprisoned. Thus, the verb-noun combination gives rise to an enriched meaning. In (8a) and (8b), the bus and the newspaper may be or even typically are different ones every day, the verb-noun combination in these cases describes some sort of routinized activity. This might be part of the explanation why *read the book* does not receive weak definite readings. Klein et al. (2013) do not provide a detailed semantics for weak definites but rather sketch what such an analysis might look like within the Carlsonian incorporation approach. They propose that the interpretation of weak and regular definites differs as shown in (9).

(9) (a)  $[_{VP} \operatorname{read} [_{NP} [_{Art} \operatorname{the}] [_{N} \operatorname{book}]]]$  -> read' (DEF (book')) (b)  $[_{VP} \operatorname{read} [_{NP} [_{Art} \operatorname{the}] [_{N} \operatorname{newspaper}]]]$  -> DEF (read' (newspaper') (Klein et al., 2013, p. 190)

According to this analysis, (9a) and (9b) are syntactically identical but (9b) has a different semantic structure. Carlson et al. (2013, p. 28), elaborating upon Klein et al. (2013) points out that weak indefinites could be interpreted along the same lines, giving both incorporated interpretations the compositional structure ARTICLE(V(N)), where definite and indefinite article contribute their usual semantics, however not by combining with the nominal but with the whole VP. This could be a starting point for a unified treatment of weak definite and indefinite incorporation and it is especially relevant to the Brazilian Portuguese data discussed in this paper, mainly for two reasons. The first and more obvious one is that in this incorporation account, weak indefinites are actually expected (Klein et al., 2013, p. 201), which is not the case in alternative accounts for weak definites. Thus, prima facie, the BP data fits most naturally into this account. The second reason is that, although not discussed at length in the present paper, the incorporation analysis also straightforwardly allows for a unified treatment of similar effects in more and less idiomatic V + N combinations. Gehrke and McNally (2019) provide an explicit account for determiner variation and modification in idioms, building on the ideas in Carlson (2003), among others. In their account, there is a compositional step for the content semantics of verb and noun 'before' the semantic contribution of the determiner is calculated. This point is crucial because in BP, highly idiomatic V + N expressions may have weak indefinite versions with similar effects on interpretation. The details of this problem must be left open for future investigation since this would go beyond the rather empirical focus of the present paper. For relevant examples of weak indefiniteness in idioms, however, see (17b) below and the stimulus materials in the Appendix, Section 1.

#### 2.3. Number-neutral indefinites

In the following, I will introduce a phenomenon that gives rise to weak and number-neutral interpretations in Brazilian Portuguese similar to many of the examples given above, but where the object nominal phrase is headed by an indefinite article. To the best of my knowledge, this phenomenon has not yet been described in the literature (but see Section 4.2 for discussion of possibly related constructions). Similar to weak definites, these number-neutral indefinite nominal phrases show a certain degree of idiomaticity or special selectional restrictions between nominal and verb, but they are not completely fossilized idiomatic expressions. Although the number of licensed nominals is generally limited, there is a certain range of systematic paradigmatic variability. Furthermore, some of the examples include idiomatic expressions that are generally constructed with a bare object. There, the addition of an indefinite article seems to have the same effect as in less idiomatic uses.

The following paragraphs provide a first (and possibly superficial) systematization of the examples observed thus far. Some of these V+N combinations are given in (10)–(12). The examples in (a) give the original attested quotation with an approximate translation. Examples (b) and subsequent ones isolate the relevant V+N combination and provide word-to-word glossing and translation.

- (10) (a) Tenho um vizinho insuportavel que resolveu abrir uma oficina aqui do lado...Toda hora fica uma bateção com martelo, serrando alguma coisa...aqui em casa a gente nao tem mais paz nem pra <u>assistir uma televisão</u> ... (Yahoo respostas, accessed 18.06.2018)
  'I have an unbearable neighbour who decided to open a workshop right here beside us. There is always some hammering or some sawing going on. Here at home we can't even watch some TV in peace.'
  - (b) *assistir uma televisão* watch.INF INDEF.FSG television

Example (10) is particularly clear since the sentence only makes sense when interpreted analogously to *assistir televisão* ('TV-watching'), there is no interpretation available where the indefinite article would be interpreted as quantifying the described event. It could be argued that some kind of vague event quantification might be involved, but this issue requires further study (cf. discussion in Section 4.1). However, for talking about units of TV-watching or of individual programs, other expressions must be used. In the following, reference to quantification is made in this stronger, non-vague sense. The only available interpretation here is that the insensible neighbor threatens any time span and event of TV-watching.

- (11) (a) Vamos <u>assistir uma televisão</u> jogar vídeo game e depois <u>comer uma boa abobrinha</u> <u>recheada</u>. Além de jogar conversa fora. (http://www.thepictaram.club/p/mesaextensível, accessed 11.06.2018)
   'Let's watch some TV, play some videogames, and after that eat some good stuffed zucchini. Besides having some chitter-chatter.'
  - (b) *comer uma boa abobrinha recheada* eat.INF INDEF.FSG good zucchini filled

As in (10), *assistir uma televisão* in (11) is not interpreted as quantified. A series of activities are proposed, one of which is TV-watching; another one is playing videogames. Regarding the last activity, the literal meaning of eating just one stuffed zucchini is possible in principle. However, it would be odd to prepare only one zucchini for a meal when several persons are involved, and stuffed zucchini are not served as entire vegetables but cut into halves and only coincidentally one might get both pieces of one previously entire zucchini. So, the natural interpretation, also in line with the other proposed activities, is simply zucchini-eating, without any specification of the number of individual vegetables.

(12) (a) Obviamente, os atletas são minoria no clube. Maioria são aqueles que o frequentam para pegar uma boa piscina de manhã ou bater uma pelada pela tarde, ou ainda jogar um basquete, correr na pista, <u>curtir uma sauna, uma sinuca, um boliche</u>, por aí vai a lista. (Revista Trip 69, 1999)

'Obviously, athletes are a minority in the club. The majority consists of those who come to have a nice time in the pool in the morning or for playing some football in the afternoon, or even for playing basketball, running, enjoying sauna, snooker, bowling, and so the list goes on.'

- (b) *pegar uma boa piscina* pick.INF INDEF.FSG good swimming pool
- (c) bater uma pelada beat INDEF.FSG bald.FSG
- (d) *jogar um basquete* play INDEF.MSG basketball
- (e) *curtir uma sauna, uma sinuca, um boliche* enjoy INDEF.FSG sauna INDEF.FSG snooker INDEF.MSG bowling

In (12), several number-neutral indefinite objects occur, some of them showing an elevated degree of idiomaticity. Thus, *pegar uma boa piscina* is not interpreted literally, namely that people come to pick out a good pool, which does not make sense in this context. Rather, the interpretation is that of *pegar piscina* 'stay at/in some pool'. The expression *bater uma pelada* is even more opaque and also exists in the form *bater pelada*, both expressing the activity of playing football, without necessarily implying a proper or unique complete game. The same holds for

the following activities where it is not said that people come to the club to go to only one sauna or play only one game of basketball, snooker, or bowling, but just that people practice these activities there. Thus, in examples (10)–(12), the object nominal phrases um(a) N never denote a quantified event or entity. While in some cases the literal interpretation does not make any sense at all, the activity may involve, or, for some verb + noun combinations even typically involve one entity, as for instance in the case of taking a sauna.

Furthermore, if contrasts like *bater pelada* vs. *bater uma pelada* were presented to some speakers, it is not inconceivable that they might have the intuition that the first case denotes the activity while the second one is a single match. Despite these observations, it will be claimed in this study that individual unit or entity interpretations arise because of the context (in a broad sense, possibly including world knowledge). The indefinite article may support or emphasize such interpretations, but it does not derive them. This can be shown with nouns denoting individual concepts in the sense of Löbner (2011). Such individual concepts like *sun, moon*, or *pope* are normally used with the definite article, whereas the use of the indefinite article is "incongruent" in Löbner's terminology and gives rise to type-shifting in the semantics. It is pragmatically odd to refer to the central star of our solar system or to the head of the catholic church with an indefinite article because this implies<sup>4</sup> that there is more than one entity in the domain denoted by this concept (e.g., # *a pope, a sun*). This is usually also the case with the Brazilian Portuguese article system. However, it is possible to use individual concept nouns with an indefinite article without giving rise to pragmatically infelicitous interpretations when an activity reading is intended, as in (13) and (14).

- (13)Enquanto você me espera по escuro, eu / Aproveito while you me wait.PRS.3SG in+DEF.MSG dark Ι seize oportunity.PRS.3SG para tomar sol da manhã um to take.INF IND.SGM sun of + DEF.SGF morning (Supercombo: Sol da manhã) 'While you wait for me in the dark, I / take the opportunity to bathe in the morning sun.'
- (14) feliz daquele que sabe admirar um céu happy that who know.PRS.3SG admire.INF INDEF.MSG sky (http://ceuepalavras.blogspot.ch/2017/11/blog-post\_15.html) 'Happy are those who are able to marvel at the sky.'

<sup>&</sup>lt;sup>4</sup> A reviewer suggests that the pragmatic effect would only arise when reference to the current pope is made and hence the incompatibility would not be grounded in the meaning of *pope* (and likewise for *sun*). In this perspective, some sort of implicature rather than an implication would be violated. However, Löbner (2011) argues that this perspective is incomplete and that the individual concept component is part of the meaning. When being used without this component, a type shift occurs and *pope* does not mean 'head of the catholic church' but for instance something like 'person that has occupied (or pronounced to occupy) the function of pope', which evidently is not an individual concept. Likewise, when *sun* is used to refer to some other astronomical object, the use is metaphorical and rather a synonym of 'central star of a planetary system', equally not an individual concept.

In (13), reference is made to the morning sun, not some particular morning sun which would be odd, and (14) does not refer to some sky among several but simply to the sky. Thus, the meaning intended by the verbal complex in (13) is that the person is involved in the activity of sun-bathing, and (14) addresses those persons that are able to engage in the activity of sky-marveling. Here the indefinite article again does not behave as expected in the regular composition but rather gives rise to an incorporated activity reading of the type IND(marvel'(sky'), or, informally 'some sky-marveling'. These examples seem to fall neatly into the "possible class of weak indefinites" hypothesized by Klein et al. (2013, p. 191). However, since these number-neutral indefinites have not been discussed in the literature yet, the rest of this paper is dedicated to better empirical coverage of them, combining different experimental methods.

For a first assessment of these unexpected uses of the indefinite article, there are at least three empirical issues that have to be addressed. First, it is not clear whether the anecdotic evidence presented in (10)–(14) constitutes a systematic trait of Brazilian Portuguese grammar or whether these are isolated and accidental uses. Second, it must be demonstrated that native speakers' interpretation of such sentences does not involve quantification over the nominal, as asserted above. Finally, if the indefinite article does not contribute to individuation or quantification, it is unclear what the indefinite article contributes to these phrases. The following section aims at providing first answers to all three questions.

Since the first question is basically about the acceptability of such constructions, an Acceptability Judgment Task (AJT) has been conducted. The AJT not only assesses the acceptability of these constructions in a controlled setting with controlled experimental stimuli, but it also tests a first hypothesis about the contribution of the indefinite article, namely that of creating communicative proximity or informality. Several native speakers that have been consulted with regard to the contrast between the bare and the indefinite number-neutral structures had reported this pragmatic effect. The second question is semantic in nature. A Truth Value Judgment Task (TVJT) was utilized to systematically separate the various quantificational interpretations from the number-neutral interpretations. Finally, a metalinguistic interview was conducted where all three issues were discussed openly with the experiment participants: the acceptability of the sentences, their meaning, and possible functions of the indefinite article.

## 3. Empirical evidence

This section describes three types of evidence that have been gathered in order to assess the empirical questions raised at the end of Section 2. First, an experimental AJT is presented that helps to verify whether speakers would accept sentences of the kind observed in spontaneous authentic data. The AJT also investigates if the degree of proximity or informality is a factor in the use of number-neutral indefinites vs. bare objects. While the findings demonstrate that speakers accept the phrases rather strongly, they are inconclusive when it comes to formality

as a determinant. Second, a TVJT has been conducted in order to contribute to the semantic question. This task was construed as a complement to the acceptability study in order to assess whether speakers really are able to arrive at the intended interpretation. Since the TVJT was part of an elicitation task, it is also possible to check whether and to which degree participants would produce the number-neutral indefinites. Finally, the results of a metalinguistic interview are reported from which speakers' introspective reports on a series of minimal pairs (indefinite vs. bare objects) are being discussed in order to corroborate the experimental findings and to better understand the function of the indefinite article in these sentences.

The same group of participants performed all three tasks in the order they are presented here, during the time span of at most three weeks.<sup>5</sup> Participants were not aware of the phenomenon under investigation during the AJT and the TVJT. During the interview, speakers were made aware of the interpretations at issue and received a debriefing about the conducted experiments during and after the interview. The participants received a monetary reward for their participation in the studies. All 44 participants (24 female; age range: 18–34 years; mean: 22.2; standard deviation: 3.4) were students from the Federal University of Rio de Janeiro, and all were living in the state of Rio de Janeiro for at least several years. None of them were students of linguistics, literature or closely related areas. All experimental materials are provided in the Appendix.

#### 3.1. The Acceptability Judgment Experiment

The AJT tested a series of overtly indefinite objects with the corresponding bare nominal constructions in neutral and rather informal sentences. These were tested against a set of filler items with different degrees of grammaticality. Thus, there are two rather structural questions tested in the experiment. The main hypothesis of the experiment was that the acceptability of indefinite objects would rise in rather informal sentences compared to neutral sentences. The second hypothesis was that if the structures with indefinite objects are available for the speakers, they should not receive very low ratings compared to the bare objects. Thus, a 2X2 factorial experimental design was implemented (informal/neutral x bare/indefinite). An example item with the four conditions is given in (15). For the informal sentences, the subject pronoun was manipulated, and the complex verb also was adapted systematically. Whereas the neutral sentences were constructed with the null subject, the informal sentences were constructed with the rather informal *a gente*. Furthermore, the complex verb in the informal sentences was built with the rather informal *ir* + infinitive construction, whereas the complex verb in the neutral sentences was built with the less colloquial *optar* 'to opt for' with first-person plural morphology.

<sup>&</sup>lt;sup>5</sup> All procedures were performed in accordance with the Declaration of Helsinki and they were approved by the Ethics committee of the Faculty of Philosophy of the University of Zurich.

- (15) Example of one experimental item of the acceptability study (Conditions 1–4)
   C1: neutral Nas férias, optamos por tomar sol de manhã.
  - C2: neutral Nas férias, optamos por tomar um sol de in + DEF.FPL holiday.FPL opt.PRS.1PL for take.INF INDEF.MSG sun of manhã. morning
  - C3: informal Nas férias, a gente vai tomar sol de manhã.
  - C4: informal Nas férias, a gente vai tomar um sol in+DEF.FPL holiday.FPL we go.PRS.3SG take.INF INDEF.MSG sun de manhã. of morning

Thirty experimental items were created according to the pattern in (15). Given that the attested examples only featured a reduced number of verbs, 10 verbs were chosen and combined with 30 object nouns. Thus, there are 30 different V+N combinations in the experiment but only 10 different verbs. The sentences were controlled for length (11–16 syllables). While three of the object nouns received further modification as in (15), the 27 remaining nominal objects occurred without further modification and many of them implemented the V+N combinations documented in (10)–(14) and similar ones. Furthermore, the experiment contained 30 further items that served as distractors, arriving at a total of 60 experimental items. The distractor items were canonical transitive sentences with the surface structure Subject - transitive Verb - direct Object.

These experimental items were distributed over six lists according to the Latin Square design. In principle, four lists would have been sufficient for the 2X2 design. To ensure a more reliable mapping of the implemented acceptability scale to different degrees of acceptability, two strongly ungrammatical sentences were created systematically with the materials of each experimental item and treated as two additional conditions in the distribution across the six lists. Thus, every participant saw each item once, and each condition was repeated five times with different linguistic material. The two ungrammatical conditions were not considered in the analysis of the results, but they appear in **Figure 1** below. The experiment was implemented in the internet-based experimental software OnExp<sup>6</sup> which randomized the items for each participant.

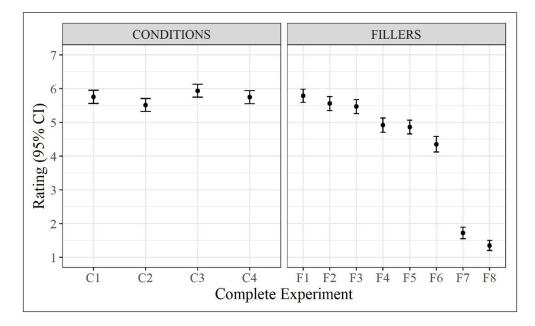
Participants had to rate each sentence individually on a seven-point scale, represented by the numbers 1 to 7. The question to be answered for each sentence was *Quão natural soa esta frase?* ('How natural does this sentence sound?'). Before the execution of the task, participants were given instructions with examples of unrelated sentences of different degrees of acceptability and

<sup>&</sup>lt;sup>6</sup> https://onexp.textstrukturen.uni-goettingen.de/.

there was an exercise phase before the experiment with eight items where they could practice the task before rating the experimental items.

The overall results of the AJT are presented in **Figure 1** below. The four experimental conditions are depicted on the figure's left side. As can be observed, C1–C4 have a high overall acceptability. The filler items are plotted to the right of the four conditions, in order of acceptability. The two conditions with the lowest acceptability ratings are the degraded versions of the experimental items. Fillers 01–03 are perfectly normal transitive sentences and Fillers 04–06 are also transitive sentences but with the direct object preceded by the preposition *a*, a construction rather infrequent in everyday speech but not impossible with some animate objects Cyrino (2017).

As can be seen, all critical items were rated rather high with mean ratings above 5. Thus, neither the bare incorporated sentences nor the overtly indefinite ones seem to be problematic for native speakers in general. Looking at individual items, only three received mean ratings below 4.5, all around 4, in the indefinite informal condition (C4). These items were *assistir uma televisão* (watch.INF INDEF.FSG TV), *fazer uma sauna* (make.INF INDEF.FSG sauna) and *escutar um rádio* (listen.INF INDEF.MSG radio). Being able to demonstrate the general acceptability of such sentences is the first important result.



**Figure 1:** Acceptability rating means and Confidence Intervals of the complete AJT. C1: bare, neutral; C2: indefinite, neutral; C3: bare, informal; C4: indefinite, informal.

Regarding the specific hypotheses tested in the experiment, a cumulative link regression mixed effects model with R (R Core Team 2012) was performed, using the package ordinal

(Christensen, 2019), which has been built specifically for the modeling of ordinal-scaled variables. The fixed effects included were: Np Type (bare, indefinite) and Formality (informal, neutral). Participants and Items were included as random effects. A full model was fitted, including both fixed effects. P-values for the individual fixed effects were obtained by likelihood ratio test of the model with the effect in question in contrast to the model without the effect in question. Both were found to have a strong influence (Formality: p = .027, Np Type: p < .001). However, no interaction was found (p = .82). Thus, while the indefinite conditions received higher ratings than the bare conditions, and informal language received higher ratings than neutral statements, no effect of formality specifically on indefinite objects could be observed. No prediction was made for the manipulation of indefinite vs. bare objects. Rather, the intent was to learn whether speakers would accept the indefinite versions at all, and how they would perform compared to the bare objects. The lack of an effect for informality on indefinite objects could be attributed to the experiment design. Perhaps the contrast between informal and neutral sentences was not substantial enough for the participants to notice. Looking at the global picture in Figure 1, however, an alternative hypothesis could be that the presence of the strongly degraded sentences made the scale rather coarse-grained, and not enough space was left for more subtle distinctions in the upper half of the scale. Note that there is a gap of more than two points on the scale between the last two filler conditions and the remaining ones. Therefore, perhaps the filler items made the measuring method insensitive with regard to the expected contrasts. Further studies are necessary to investigate this hypothesis.

To summarize, speakers accepted the constructions under investigation without serious reservations. However, even after carefully constructing the items, we cannot be certain that the speakers arrived at the intended interpretation when judging the sentences. As a result, a Truth Value Judgment task was required. This experiment is described in the section that follows.

#### 3.2. The Truth Value Judgment Task

The intuition underlying the incorporation analysis for the indefinite objects in (10)–(14) is that these nouns are interpreted as number-neutral and hence the combination with the verb results in an unquantified activity interpretation. Thus, *assistir uma televisão* can mean anything from watching one or several movies to shortly zapping through the program (possibly multiple times), and *jogar um basquete* equally can describe several games or just a couple of shots at the basket (which need not be temporally contiguous). This intuition was tested with a Truth Value Judgment Task. In this task, participants had to decide if a target sentence in a given context was true or false. These situations were designed to reflect the intended interpretation, which is either a repetition of the activity or atelic interpretations (or both). Thus, if speakers rejected the intended interpretation, they would have to declare these sentences as false in the given scenarios. A 2X2 factorial design was used for this study. The first factor was the presence vs. absence of the indefinite article in the object nominal phrases and the second consisted of two different types of context sentences that introduced the scenario in which the sentences had to be judged. One context reflected the atelic and/or iterative reading and the other described a situation in which the sentence was false because of some unrelated contradiction. An example is given in (16).

- (16) (a) Context sentence 1 (atelic, iterative activity): Nos fins de semana, o Sérgio evita todo o estresse e como muito vai à piscina duas ou três vezes por dia para se resfrescar.
  'On weekends, Sérgio avoids any kind of stress and at the utmost, he goes two or three times per day to the pool for refreshment.'
  - (b) Context sentence 2 (contradiction with respect to the target sentence):
    Os fins de semana são muito estressantes para o Sérgio porque são os únicos dias nos quais ele pode praticar natação.
    'Weekends are very stressful for Sérgio because these are the only days he has for swimming training.'
  - (c) Target sentence:

Nos fins de semana, Sérgio costuma relaxar e pegar (uma) piscina. 'On weekends, Sérgio usually relaxes at the pool.'

The two kinds of context in (16) are different in that in (16a) Sérgio is relaxed and in (16b) he is stressed because he has to train. Thus, (16b) is incompatible with (16c) which says that Sérgio usually relaxes on the weekends. As for the manipulation of the object nominal phrase, the bare nominal version is predicted to be compatible with Context Sentence 1 because it just expresses the activity *pegar piscina*. For the indefinite object version, if the interpretation is not of an incorporated construction but a quantified one, going several times to the pool would be incompatible with it and the target sentence is predicted to be judged as false. If, however, the verb-object combination is interpreted as incorporated and the nominal as number-neutral, the sentence is expected to be judged as true in Context 1.

The present TVJT was embedded in a larger elicitation task where participants had to produce 40 sentences in total. Eight of these were critical items for the TVJT. Six of the critical items introduced contexts where the activity was iterated and two implied incomplete events. The eight items in their different conditions were distributed over four lists according to the Latin Square design. The elicitation task was implemented with the Speech Recorder software (Draxler & Jänsch, 2004) which randomized and presented the stimuli and recorded the responses. Participants were instructed to form a complete sentence that repeated the target sentence, beginning with their judgment. Thus, the reaction to (16c) should be  $\acute{E}$ 

verdade dizer que nos fins de semana, Sérgio costuma relaxar e pegar (uma) piscina ('It is true to say that on weekends, Sérgio usually relaxes at the pool') or É falso dizer que ... ('It is false to say that ...'). Asking for a repetition of the target sentence had two reasons. First, it helped to ensure that participants rated the target proposition rather than another component of the background sentence. Second, repeating the sentence allowed us to see if speakers had issues with the indefinite article in these constructions and, for example, whether they changed or dropped it.

In total, 352 responses were recorded and transcribed (8 sentences by each of the 44 participants), resulting in 88 judgments for each of the four experimental conditions. The analysis of the transcription showed that 23% of the responses judged a different proposition (82 out of 352). These sentences were excluded from the analysis. 37% judged the correct proposition but used a different determiner or none in the indefinite object conditions. 63% of the responses were fully cooperative in the sense that the stimulus sentence was repeated correctly after the judgment. The results in **Table 1** summarize all responses that judged the correct proposition, irrespective of article use. **Table 2** provides more detailed information about the use of the determiners in the responses and the judgments per experimental item.

Condition	Responses for 'true'
(a) Context 1, bare object	91% (61/67)
(b) Context 1, indefinite object	84% (53/63)
(c) Context 2, bare object	35% (25/71)
(d) Context 2, indefinite object	37% (25/68)

Table 1: Results of the TVJT.

The results show that there is a bias toward 'true' responses in the data, around 35% of the contexts intended to produce 'false' responses were judged as 'true.' One reason for that might be that participants could consider the sentence as true if the information was partly compatible. Perhaps in a case like (16), where the target sentence is incompatible with Context 2 because Sérgio cannot be relaxed and stressed at the same time, some speakers might have focused on the fact that in both cases Sérgio is involved in some activity in water and hence considered the target sentence as 'true.' Nevertheless, in more than two-thirds of the trials, participants were able to identify the incompatibile with the context sentences that induced an incomplete activity or iterative reading. Even though some speakers failed to get the intended reading in

Experimental item	Object NP in stimulus materials		Context sentence truth value	
	bare	indefinite	true	false
1: assistir (uma) televisão	0/19	11/15	15/17	10/18
2: jogar (um) basquete	0/20	8/19	18/18	9/20
3: pegar (uma) piscina	3/17	12/13 (1 def.)	13/14	3/16
4: tocar (um) funk	0/15	10/15	5/14	7/16
5: treinar (um) boxe	0/21	7/19	20/20	4/20
6: escutar (um) chorinho	0/16 (1 def.)	14/19 (1 def.)	18/18	6/17
7: curtir (um) samba	2/19 (1 def.)	8/17	17/17	2/19
8: fazer (uma) sauna	2/12	13/13	8/12	9/13
	Number of indefinite object responses		Number of 'true' judgments	

these trials, the large number of 'true' replies strongly suggests that speakers were able to reach the number-neutral interpretation of the indefinite object rather robustly.<sup>7</sup>

Table 2: Form of object NP and truth value judgments per experimental item.

The robustness of the availability of the number-neutral interpretation could be even higher as expected because, on closer inspection, the 'false' judgments are strongly concentrated on two out of five items (4 and 8, highlighted in grey in the 'true' column of **Table 2**). These items received 'true' judgments in 35% and 67%, respectively, while the remaining five items all were judged as 'true' in almost 100% of the trials. This suggests that the two particularly diverging items presented some additional problems, and the 'false' judgments here did not aim at the unavailability of the number-neutral reading of the indefinite object. Upon closer inspection, in these items, the context sentences indeed could be understood as incompatible with the target sentences for independent reasons. As for the NP type of the elicited direct objects, **Table 2** 

<sup>&</sup>lt;sup>7</sup> For the statistical test of the effect, a logistic regression mixed effects model with R (R Core Team 2012) was performed, using the package lme4 (Bates, Maechler & Bolker, et al., 2022). The fixed effects included were: *Np Type* (bare, indefinite) and *Context Type* (true, false). *Participants* and *Items* were included as random effects. A full model was fitted, including both fixed effects. P-values for the individual fixed effects were obtained by likelihood ratio test of the model with the effect in question in contrast to the model without the effect in question. From the fixed effects, *Context Type* was found to have a strong influence (p < .001), whereas no effect was found for *NP Type* (= .41).

shows that indefinite objects in the stimulus materials robustly elicited indefinite production (64% of observations), and that sporadically, even with bare object stimuli, indefinite objects were produced (cells highlighted in grey in the 'bare' column of **Table 2**).

To summarize, the TVJT offers support for the predicted number-neutral interpretation of indefinite objects in the tested constructions, resulting in pure activity readings that may be modeled as the outcome of semantic incorporation of the noun into the verb. This still leaves open the question of the indefinite article's role or contribution in these structures. The sections that follow give some preliminary hypotheses in this regard.

#### 3.3. The metalinguistic interview

The metalinguistic interview which concluded the experimental series had several additional purposes which are not relevant here (biographical information of participants, their linguistic attitudes, de-briefing, etc.). Toward the end of the interview, the minimal pairs of sentences were presented to the participants, and they were asked which of the sentence they preferred, whether one of the sentences sounded bad to them and if they accepted both, what the difference between the two versions was (if any). The minimal sentence pairs are given in (17), together with the general reaction with respect to the indefinite object versions.

- (17) (a) Aproveito para tomar sol de manhã.
  Aproveito para tomar um sol de manhã.
  'I take the opportunity to bathe in the morning sun.'
  (Version with indefinite article accepted and preferred by the majority)
  - (b) Nos fins de semana, o José sempre vai pegar onda.
    Nos fins de semana, o José sempre vai pegar uma onda.
    'José always surfs on weekends.'
    (Version with indefinite article accepted by the majority, preferred by many)
  - (c) A gente gosta de assistir televisão.
    A gente gosta de assistir uma televisão.
    'We love watching TV.'
    (Version with indefinite article accepted by many, bare object version preferred by the majority)
  - (d) Feliz aquele que sabe admirar o céu.
    Feliz aquele que sabe admirar um céu.
    'Happy the one who is able to marvel at the sky.'
    (Version with indefinite article accepted by some, definite object version preferred by the majority)

As can be seen in the reactions given above, even if presented in direct contrast with bare objects, the indefinite objects have been accepted and, in many cases, they were even the preferred option

in these constructions. For a majority of participants, furthermore, many of the minimal pairs were synonymous. Besides considering the sentences as synonymous, a very frequent reaction was that the indefinite objects were perceived as being part of informal and spoken language or more intimate communicative situations. When explicitly asked, participants mainly agreed that their interpretation of the indefinite object was number-neutral, admitting that it may denote numerous instances of the stated event or merely fragments of the event. Only rare reports of other interpretations were made. The cardinal interpretation, connotations of large or small quantities or duration times, and links to positively connoted events were among the occasional reactions. Some participants related the examples to a light verb construction (*dar uma x-ada*), which will be discussed in Section 4.

Summing up, the number-neutral interpretation has been corroborated and the association to informality appeared again, and it was even the strongest of the reported associations. These findings and also the more sporadic interpretations will be put in perspective with the results from the two experimental studies in the following section. In this section, the incorporated objects will also be discussed in a wider context of related constructions.

## 4. Discussion

At the end of Section 2.3, the main empirical issues regarding the number-neutral indefinite objects have been formulated in three questions. The first question was whether such uses were sporadic, accidental observations or whether they can be considered a systematic trait of Brazilian Portuguese grammar. The second question targeted the availability of the number-neutral reading, and the third question was about the contribution of the indefinite article and possible functions of it in the use of these constructions. This section first discusses these questions in light of the data obtained from the three studies described above. Since the data are not conclusive for the third question, it will be discussed in a wider context in the second part of this section.

#### 4.1. The status and interpretation of the 'incorporated' indefinite objects

Regarding the first two questions, the evidence from all three data types is overwhelmingly converging and points toward broad acceptability of the investigated phenomenon and the availability of the number-neutral readings. In the AJT, thirty lexicalizations of the construction were tested in a controlled environment including distractors. Speakers rated the sentences with indefinite objects consistently very high and made no notable difference between bare and indefinite objects. These very unconscious judgments are consistent with those made in the metalinguistic interview, in which participants were made aware of the contrast and could even signal a preference if they had one. In this case, the vast majority of the indefinite objects was readily accepted and, in some cases, even preferred over the bare object version. These findings suggest that the type of indefinite objects investigated here is not marginal or accidental in

Brazilian Portuguese, on the contrary, it might even be quite a productive trait of the grammar. The results do not provide evidence for unrestricted productivity, however, in the sense of allowing for free combinations of verbs and objects. Since the verb-object combinations were not created randomly in the study but were inspired by observed patterns, productivity can only be considered as partial. A plausible assumption would be that restrictions similar to those on weak definites also govern the availability of weak indefinites with number-neutral interpretations.

The TVJT showed quite clearly that number-neutral interpretations are available. Overwhelmingly, participants judged both sentences with bare as well as indefinite objects as true in contexts of iterative or incomplete events. For most items, the 'true' judgments were even categorical and what looks like variation in the overall judgments has been identified as problems with two specific items that received very low judgments for independent reasons. Again, it should be highlighted that the indefinite objects in these sentences were treated very similarly to the bare object sentences. Furthermore, in the metalinguistic interview, participants confirmed the availability of the number-neutral readings. Concerning the reported alternative readings, it should be noted that they happened extremely infrequently and that not all are incompatible with the number-neutral interpretation. As a result, connotations of longer or shorter duration intervals do not contradict a reading of pure activity. However, those interpretations that would contradict a pure activity reading, such as the cardinal interpretation or big or small numbers of events, are manifestly contradictory among themselves. One plausible explanation would be that some few speakers felt forced to come up with ad hoc interpretations in trying to motivate the contrast between the bare and the indefinite objects here. The observation related to positively connoted activities could be explained by the fact that most, if not all examples described such activities. Hence, the generalization was correct, but not necessarily specific to the indefinite objects. The alternative would be that such readings might indeed exist marginally, but they were not readily available in these sentences for the vast majority and further research would be needed to examine them.

Finding answers for question three turned out to be more difficult than for the first two. On the one hand, the previous intuition that indefinite objects were in some sense marked as informal or uses of more intimate spoken communication has been repeated by many participants in the metalinguistic interview, but on the other hand, no effect for informality had been found in the AJT, making the results inconclusive. As already suggested in the presentation of the results of the AJT, the absence of evidence cannot be taken as evidence for absence, and some possible reasons for the lack of an effect have been put forward. Because the informality connotation emerged as the most powerful 'extra' meaning in the metalinguistic interview, this intuition should be given more consideration. Two areas of further inquiry are briefly sketched in the next section by examining potentially relevant phenomena in Portuguese and English.

#### 4.2. Pragmatic and constructional sources for the informal flavor

This section discusses some phenomena from Portuguese and English that might be relevant for a better understanding of the pragmatic effect of the number-neutral indefinite objects as they might indirectly shed light on the reported sensation of informality associated with this construction. First, it is important to keep in mind that configurations as those presented in Section 2.3 have not been reported in any article language and do not seem to be possible in these. As an illustration, compare the contrasts between English and Brazilian Portuguese in (18)–(20).

- (18) (a) play basketball; \*play a basketball; but: play some basketball
  (b) *jogar basquete*; *jogar um basquete* (Brazilian Portuguese)
- (19) (a) watch TV; \*watch a TV; but: watch some TV
  (b) assistir televisão; assistir uma televisão (Brazilian Portuguese)
- (20) (a) eat stuffed zucchini; #eat a stuffed zucchini; but: eat some stuffed zucchini
  (b) comer abobrinha recheada; comer uma abobrinha recheada (Brazilian Portuguese)

As with other article languages, European Portuguese also does not seem to have such indefinite objects with number-neutral readings. Colloquial Spanish has the construction in (21), featuring an indefinite object. However, this seems to be highly idiomatic. The verb has to be *echar*, and omitting the indefinite article leads to degraded acceptability, bare and indefinite do not seem to be interchangeable here.

(21) echar <sup>?</sup>(un) futbolín; echar <sup>?</sup>(un) padel throw INDEF.MSG tabletop football; throw INDEF.MSG padel 'play some tabletop football/some padel'

Examples (18)–(20) repeat the idea that Brazilian Portuguese indefinite articles may appear in configurations where other article languages only allow for bare objects. In English, at most a mass quantifier like *some* may yield similar readings. Interestingly, English *some* has another use which also is reported to have informal and 'affective' connotations.

(22) (a) I met a friend.

(Esposito & Potts, 2020, p. 22)

- (b) I met some friends.
- (c) I met some friend.

According to Esposito and Potts (2020), (22c) has this affective connotation, while neither (22a) nor (22b) have it. The authors point out that this additional effect only appears on *some* when the indefinite article would be a 'competitor' in the sentence. Being truth-conditionally equivalent sentences, the authors suggest a pragmatic account for the relevant readings of (22a) and (22c); in their case *some* as the more marked form would signal lack of engagement in the relevant modes of identification. The competition between English *a* and *some* in (22) is surely of a

different kind than the one between the bare and the indefinite objects in Brazilian Portuguese in (18b)–(20b). Note that under an incorporation analysis, the bare and the indefinite object would, in any case, have the same semantics, and under such an analysis a pragmatic account for the role of the indefinite article in these sentences could be motivated along the line of reasoning in Esposito and Potts (2020). The specifics of such a pragmatic account must be investigated further. For the time being, the incorporation analysis could provide a solid foundation for a clearer understanding of the pragmatic contribution of the indefinite article in these constructions.

A further source of the informal flavor of the number-neutral indefinite objects might be a somewhat similar and very productive light verb construction, which has also been associated with the indefinite bare singulars by some participants in the metalinguistic interviews. The light verb in this construction is always *dar* ('give'), and its general form is that in (23a). Into this general form, either verbs or nouns can be inserted (23b, c), however, depending on the word class, the construction has different properties.

- (23) (a) *dar uma X-ada* 
  - (b) dar uma olhada / ... secada (na roupa) / ... pensada give.INF INDEF.FSG look-ada dry-ada (in + DEF.FSG clothing) think-ada (no assunto)
    (in + DEF.MSG issue)
    'have a look / dry the clothes / think about the issue'
  - (c) dar uma garfada / ... colherada / ... mochilada give.INF INDEF.SFG fork-ada spoon-ada backpack-ada 'to fork X / to spoon X / to hit X with a backpack'

Crucially, the construction derived with a noun (23c) does not show signs of incorporation, whereas the verbal one (23b) does. For instance, it is possible to replace the indefinite article in (23c) with numerals and by this to count the uses of the fork, spoon, or backpack. This is not possible with the verb-based construction in (23b), according to the literature (Figueiredo Silva, 2002; Lisboa de Liz, 2005). Furthermore, the nominal versions can be passivized without problem, which is evidence that they are regular arguments of the verb. Again, this is not possible for the verbal versions. Thus, in (23b) we have another construction in Brazilian Portuguese that seems to have an incorporation semantics and that features an indefinite article. Such similarities between this construction and the indefinite objects discussed here might produce associations between them in the minds of the speakers. And given that the construction in (22c) is highly productive in spoken language but not in written language it might 'feel' more informal, and this association could be passed over to the indefinite object constructions. Again, investigating the precise relationship between the construction in (23b) and the indefinite objects remains work for the future. Finally, I would like to emphasize that the two alternative sources of informal flavor are not mutually

exclusive and that they both may contribute to the pragmatic effect. The first source would be a pragmatically interpreted markedness effect, and the second would be a usage-based association of the construction with the settings of its recurrence and that of similar and very productive ones.

## **5.** Conclusion

This paper has cast some light on a verb-object configuration of Brazilian Portuguese which has not yet been discussed in the literature, and which does not seem to occur in other article languages. In this configuration, the object NP is interpreted as number-neutral, despite being headed by an indefinite article. A first description of the verb-object configuration was given, and an incorporation semantics has been proposed for it, following the analysis of Carlson (2003) and subsequent work on weak indefinites. Since these examples show very clearly that a standard function-argument compositional analysis of verb and direct object, where the indefinite object would be interpreted as an existentially bound variable, is inadequate for these configurations, these data from Brazilian Portuguese provide evidence that at least for some overtly indefinite objects an incorporation semantics is necessary. Given that the construction is not very frequent and that it has not received much attention to the present, several empirical issues had to be addressed. The results of the empirical investigation showed that this is not some sort of rare accidental use or even some performance issue but that speakers do recognize the configuration consciously and accept it to the same degree as its bare counterpart. Furthermore, the results demonstrated that number-neutral readings are easily achieved and that these are precisely the interpretations that speakers primarily hold for these indefinite objects, putting them on a par with their bare counterparts once more. Finally, it has been suggested that there is a pragmatic difference between the bare and the indefinite incorporated objects, and two sources for the pragmatic effect have been suggested, one in terms of markedness and one usage based.

Being this a first exploration of the number-neutral indefinite objects in Brazilian Portuguese, many questions had to be left open and need to be addressed in future research. From the empirical perspective, better documentation and if possible, a robust corpus analysis would be desirable. Furthermore, more rigorous empirical evidence on their behavior is required to better comprehend the pragmatic concerns at hand. While the provided AJT was inconclusive on this point, it was suggested that a revised design could produce interpretable results. From the theoretical perspective, the incorporation analysis must be explored in greater detail, especially its interaction with the pragmatic factors. From a more general perspective, I hope that the new evidence for incorporation of indefinites contributes to further developing such accounts and broadening their range of application. Finally, it goes without saying that original experimental results are always in need of replication.

## Appendix

#### 1. AJT stimulus Materials

Nas férias, optamos por assistir (uma) televisão. Nas férias, a gente vai assistir (uma) televisão. Nas férias, optamos por assistir (um) futebol. Nas férias, a gente vai assistir (um) futebol. Nas férias, optamos por assistir (uma) novela. Nas férias, a gente vai assistir (uma) novela. Nas férias, optamos por fazer (uma) limpeza. Nas férias, a gente vai fazer (uma) limpeza. Nas férias, optamos por fazer (um) tricô. Nas férias, a gente vai fazer (um) tricô. Nas férias, optamos por fazer (uma) sauna. Nas férias, a gente vai fazer (uma) sauna. Nas férias, optamos por jogar (uma) sinuca. Nas férias, a gente vai jogar (uma) sinuca. Nas férias, optamos por jogar (um) basquete. Nas férias, a gente vai jogar (um) basquete. Nas férias, optamos por jogar (um) videogame. Nas férias, a gente vai jogar (um) videogame. Nas férias, optamos por pegar (uma) onda. Nas férias, a gente vai pegar (uma) onda. Nas férias, optamos por pegar (uma) chuva. Nas férias, a gente vai pegar (uma) chuva. Nas férias, optamos por pegar (uma) praia. Nas férias, a gente vai pegar (uma) praia. Nas férias, optamos por tomar (um) banho de rio. Nas férias, a gente vai tomar (um) banho de rio. Nas férias, optamos por tomar (um) descanso. Nas férias, a gente vai tomar (um) descanso. Nas férias, optamos por tomar (um) sol de manhã. Nas férias, a gente vai praticar (um) ioga.

Nas férias, optamos por praticar (um) boxe.

Nas férias, a gente vai tomar (um) sol de manhã.

Nas férias, optamos por curtir (um) samba. Nas férias, a gente vai curtir (um) samba. Nas férias, optamos por curtir (um) cinema. Nas férias, a gente vai curtir (um) cinema. Nas férias, optamos por curtir (um) boliche. Nas férias, a gente vai curtir (um) boliche. Nas férias, optamos por escutar (um) rádio. Nas férias, a gente vai escutar (um) rádio. Nas férias, optamos por escutar (um) chorinho. Nas férias, a gente vai escutar (um) chorinho. Nas férias, optamos por escutar (uma) fofoca. Nas férias, a gente vai escutar (uma) fofoca. Nas férias, optamos por dar (uma) força aos vizinhos. Nas férias, a gente vai dar (uma) força aos vizinhos. Nas férias, optamos por dar (uma) aula. Nas férias, a gente vai dar (uma) aula. Nas férias, optamos por dar (um) suporte. Nas férias, a gente vai dar (um) suporte. Nas férias, optamos por tocar (um) baião. Nas férias, a gente vai tocar (um) baião. Nas férias, optamos por tocar (um) disco. Nas férias, a gente vai tocar (um) disco. Nas férias, optamos por tocar (um) funk. Nas férias, a gente vai tocar (um) funk. Nas férias, optamos por praticar (uma) natação. Nas férias, a gente vai praticar (uma) natação.

Nas férias, optamos por praticar (um) ioga. Nas férias, a gente vai praticar (um) boxe.

#### 2. TVJT stimulus materials

Item	Context 1	Context 2			
1	Aos sábados, o Rodrigo geralmente fica um bom tempo no sofá diante da televisão, mas ele geralmente não assiste programas inteiros. O que ele faz é zapear.	Aos sábados, o Rodrigo geralmente vai ao cinema.			
	Target sentence: Aos sábados, o Rodrigo adora assistir uma televisão.				
2	Aos domingos, o Pedro sempre se encontra com seus amigos de basquete. Eles geralmente não fazem jogos completos mas praticam diferentes estratégias e situações do jogo.	Aos domingos, o Pedro e seus amigos de basquete se encontram no bar para conversar.			
	Target sentence: Aos domingos, Pedro sempre vai jogar um basquete com seus amigos				
3	Nos fins de semana, o Sérgio evita todo o estresse e como muito vai à piscina duas ou três vezes por dia para se resfrescar.	Os fins de semana são muito estressantes para o Sérgio porque são os únicos dias nos quais ele pode praticar natação.			
	Target sentence: Nos fins de semana, Sérgio costuma relaxar e pegar piscina.				
4	A sexta-feira é o dia preferido do Ronald porque é o dia no qual ele se encontra com seus amigos no clube onde ele pode tocar e escutar a sua música preferida a noite toda.	Todas as sextas tem um show de funk no clube preferido do Ronald e ele sempre vai lá para ver o show.			
	Target sentence: Todas as sextas, Ronald pode ir ao clube para tocar um funk.				
5	Às segundas-feiras, Márcio tem sempre o mesmo programa: Treinar boxe durante duas horas de manhã, duas de tarde, e duas de noite.	Às segundas-feiras, Márcio sempre assiste um programa com lutas de boxe ao vivo.			
	Target sentence: Às segundas-feiras Márcio tem o hábito de praticar um boxe.				
6	No bar preferido do Natanael diferentes músicos tocam canções de chorinho ao vivo todas as terças-feiras, e o Natanael nunca falta e sempre fica até a última música.	No bar preferido do Natanael diferentes músicos tocam canções de chorinho ao vivo todas as quintas-feiras, e o Natanael nunca falta e sempre fica até a última música.			
	Target sentence: Às terças-feiras, Natanael sempre vai ao bar para escutar um chorinho.				

(Contd.)

Item	Context 1	Context 2	
7	Amanhã vai ter shows de samba no parque desde a manhã até a noite e o Flávio pretende ficar o dia todo ali e não perder nenhum momento. Target sentence: Amanhã, o Flávio vai ao po	e o Flávio parque desde a manhã até a noite e o li e não perder Flávio pretende ficar o dia todo ali e não perder nenhum momento.	
8	O Gabriel vai passar duas semanas de férias na Finlândia e pretende ir à sauna todos os dias. Target sentence: O Gabriel vai aproveitar as	O Gabriel vai passar duas semanas em um congresso na Finlândia e pretende ir à sauna todos os dias. férias na Finlândia para fazer sauna.	

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## **Competing interests**

The authors have no competing interests to declare.

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