But, scalar implicatures and covert quotation operators *

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Abstract

This paper deals with a cross linguistically productive, yet puzzling construction which we call *x but (really) X* (e.g. *John is always but (really) ALWAYS late*), which surprisingly combines contrast and strengthening. We examine, but reject, an initial analysis where the conjuncts of ***but*** in this construction are domain-based or degree-based scalar alternatives and where the second, semantically stronger conjunct rejects a scalar implicature of the first. We then develop a revised analysis where ***but*** is under the scope of a covert quotation operator (as in 'mixed quotations'). The analysis captures the 'metalinguistic' flavor of *x but X* and the contribution of the 'contrastive' semantics of ***but*** to the strengthening effect of the whole construction, and is shown to avoid over-generation risks.

0 Introduction

This paper deals with a construction which we will call *x but X* (following the terminology in Greenberg (2014), Shitrit (2015)). Here are two examples in Hebrew, where this construction is very productive and common:

(1) a. *kulam, aval (mamaS) KULAM higi'u*
everybody but really everybody arrived

"Everybody but really EVERYBODY arrived" (="Absolutely everyone arrived")

b. *Dani gavoha, aval (mamaS) GAVOHA*
Danny tall but really TALL

"Danny is tall, but really TALL" (= "John is very tall")

The sentences in (1) are characterized by the presence of a contrast particle *aval* ('but') - conjoining two expressions with the same lexical content, e.g. the two identical universal quantifiers *kulam* ('everybody') or the two identical gradable adjective *gavoha* ('tall'), with an optional adverb like *mamaS* ('really'). The second conjunct (henceforth *x2*) is accented and seems to be interpreted as 'stronger' or intensified relative to first conjunct (henceforth *x1*). In (1b), for example, *x2* is understood as "Absolutely everyone, with no exceptions" and in (1b) it is understood as 'definitely / very tall'. The overall effect of the construction is strengthening, as seen in the glosses.

This 'strengthening' effect of *x but X* seems rather clear, but the derivation of this effect, and in particular, the contribution of the contrast particle (*aval* - 'but') to the compositional interpretation of the construction is not clear at all, at least not immediately. Why is a contrast particle used in a 'strengthening' construction? Isn't there a clash between 'contrast' and 'strengthening' to start with?

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One could think that *aval* is not used in its original, contrastive meaning in (1), or perhaps that *x but X* has an idiomatic use, unique to Hebrew. But this does not seem to be the case, as many other language use a contrast particle to achieve similar strengthening effects in parallel *x but X* constructions, though their means for strengthening *x2* vary. While in Hebrew mere accentuation of *x2* is enough, and an intensifying adverb is optional, in French / English / German the construction is to a large extent natural only in the presence of the intensifying adverbial (*All, but really ALL*[1]*....* / *tout mais vraiment tout....* / *Alles aber wirklich alles*[2]*...*). Spanish, on the other hand, can use reduplication of *x*2 (*todo, pero todo todo...*), and, as Hoeksema (2007) reports, Dutch can use an additive particle *(ook)* with *x2* as in *Nooit maar dan ook nooit weer* (translated as "Never, absolutely never again").[3]

In what follows we will abstract away from these different strategies and concentrate on the core features of *x but X*, and in particular on the presence of the contrast particles (e.g. *aval, pero, mais, aber, maar, but,* henceforth ***but***) in it and their contribution to the overall effect of this 'strengthening' construction.

To do that we will start in section 1 by reviewing an initial analysis of *x but X* in Hebrew, developed in Greenberg (2014), Shitrit (2015), which uses a standard counter-expectational semantics for *but* (as in e.g. Winter and Rimon (1994), Toosarvandani (2014)) and analyzes the conjuncts in this constructions as domain-based or degree-based scalar alternatives. The analysis then derives the strengthening effect in *x but X* from assuming that the stronger conjunct, *x2* rejects a scalar implicature of the weaker *x1*. In section 2, however, we show that this initial analysis cannot hold, since in 'normal' *a but b* sentences *but* is systematically banned from being used to reject scalar implicatures when its conjuncts are scalar alternatives (cf. Winterstein (2013)). In section 3, then, we develop a revised analysis of the *x but X* construction, according to which it expresses metalinguistic contrast, where intuitively what is taken into account is not our knowledge of *x1* and *x2* (as in regular *a but b* sentences) but rather the knowledge that the speaker used *x1* and used *x2* to convey a single meaning. The intuition is formally captured by placing *but* (with its usual counter-expectational semantics) under an independently argued for, though covert quotation operator (cf. von Fintel (2004), Geurts and Maier (2003), Maier (2014, 2017)), and it is shown to avoid over-generation risks. Section 4 concludes and examines some general implications of the proposal and questions left open for future research.

1 An initial analysis of 'x but X'

Shitrit (2015) proposes an analysis of *x but X* which has three ingredients. First, she adopts Greenberg (2014) suggestion that the conjuncts in sentences like (1) are scalar alternatives (cf. Fox and Katzir (2011), Katzir (2014)), which are domain-based or degree-based.[4] For example,

[1]Though examples with no accompanying adverbial are attested as well, as in (i) and (ii) (found on a Google search):
(i) *Always, but ALWAYS back up your SD card and files regularly*
(ii) *No one, but no one does childhood nightmares better than Roald Dahl*

[2]Thanks to Sven Lauer (p.c.) for this German data.

[3]Hoeksema (2007) discusses this construction in the context of parasitic licensing of NPIs, and calls it 'emphatic reduplication'. However, since this title can potentially cover other constructions (e.g. the 'salad salad' cases, discussed in Ghomeshi et al. (2004)), and does not reflect the contribution of the contrast particles, which is the focus of this paper, I keep the title *x but X*.

[4]See Kadmon and Landman (1993) on domain widening with *any* and Chierchia (2013) on degree-based and domain-based alternatives with covert *E(ven)* and *O(only)* (involved in the semantics of some NPIs). See also Greenberg (2016b), Greenberg and Orenstein (2016) on overt *even*-like and *only*-like operators over degree-based

in (1a) *x1* and *x2* are domain-based scalar alternatives, derived by assigning the covert domain variable D a 'default' (narrow) value and a 'wide' value, as seen in (2):[5]

(2) $[\forall x \in D_{default}$ arrived(x)] but $[\forall x \in D_{wide}$ arrived (x)] (where $D_{default} \subset D_{wide}$)

In (1b) the conjuncts are 'degree-based' alternatives, derived by assigning the covert standard variable in the positive form (cf. Kennedy and McNally (2005)) a default value and a 'high' value, as in (3):

(3) $[\exists d\ d \geq standard_{default,tall} \wedge tall(s,d)]$ but $[\exists d\ d \geq standard_{high,tall} \wedge tall(s,d)]$
where $standard_{high,tall} > standard_{default,tall}$

Second, Shitrit suggests, the contrast particle *but* in '*x but X*' has a regular counter-expectational semantics (cf. Winter and Rimon (1994), Toosarvandani (2014)), intuitively characterized in (4) and illustrated in (5):[6]

(4) *a but b* asserts the conjunction of *a* and *b* and presupposes that there is a cancellable implication of *a,* ('*r*') that *b* rejects (i.e. implies or entails its negation)

(5) a. *It was raining but we remained dry*
b. *It was raining but we took an umbrella*

Given (4), then, (5a) and (5b) assert that both conjuncts are true and presuppose that there is a proposition *r* (e.g. *We got wet*) which is implied by *a* (*It was raining*) and is rejected by *b*, i.e. its negation is entailed by *b* (in the case of *We remained dry* in (5a)), or implied by it (in the case of *We took an umbrella* in (5b)).

The third, and most important ingredient in Shitrit's analysis is the suggestion that in the case of *x but X,* the proposition *r* that *x1* implies and *x2* rejects is in fact a scalar implicature of *x1.* For example, the scalar implicatures which *x1* imply in (2) and (3) are *Everyone only in the default domain arrived* and *John is only at least as tall as the default standard*, respectively. Indeed, the stronger conjuncts, *x2*, reject these scalar implicatures, so the 'counter-expectational' presupposition of *but* is satisfied.

The suggestion, then, has the advantage of capturing the contribution of ***but*** to the strengthening effect of *x but X* and deriving it from the standard semantics of ***but*** and some minimal assumptions regarding the semantics of its conjuncts, and a general mechanism of scalar implicatures, with no further stipulative steps.

2 A challenge to the initial analysis

Despite the advantages of the initial analysis above, there is also a serious problem it faces. When we try to use regular *a but b* sentences to express rejection of scalar implicatures of *a*

and domain-based alternatives.

[5] Shitrit analyzes the construction as always conjoining two propositions, and as involving ellipsis as in (i):
(i) *Everyone ~~arrived~~ but (really) EVERYONE arrived*
Another option is to assume a cross-categorical analysis of *but,* similarly to that of *and* (as in Partee and Rooth (2008) and subsequent work). We will not try to develop these directions further here, and will henceforth use the term 'conjuncts' loosely, referring to the two arguments of *but*, whatever their type is.

[6] We ignore here the attempts to unify all uses of *but* (see, e.g. Jasinskaja (2012), Jasinskaja and Zeevat (2008), Umbach (2005), Toosarvandani (2014),Winterstein (2013) etc).

by *b*, the result is strikingly infelicitous. This is illustrated, for example, in the infelicity of sentences like (6) (noted by Winterstein (2013)), where *b* (*All students arrived*) rejects the well known scalar implicature of *a* (*Some students arrived*), namely the implicature that not all students arrived:

(6) #Some students arrived but all did

This picture is not limited to quantifiers but seems much more general. We get the same kind of infelicity in (7)-(10) as well:

(7) #I like John, but I love him
(8) #John is good but superb at math
(9) #You can but must leave now
(10) #This is possible but necessary

But, then, is systematically infelicitous when it appears with what we will call ***weak but strong*** constructions, whose second conjunct, which is a stronger scalar alternative to the first, rejects a scalar implicature of the first. An obvious question, of course, is what the reason is for this general ban on *weak but strong* constructions. This is not a question we will focus on in this paper.[7] Crucially, though, whatever the reason is, under the initial analysis above, this reason should equally apply to *x but X* sentences, as in (1), as well, since here too the second conjuncts (*x2*) are stronger scalar alternative of the first (*x1*), and here too *x1* implicates a scalar implicature that *x2* rejects. I.e. the initial analysis analyzes *x but* X sentences as *weak but strong* as well, and thus wrongly predicts it to be as infelicitous as (6)-(10).

Since this is not the case − *x but X*is productive and felicitous − we suggest that the initial analysis should be revised.

3 A revised analysis of *x but X*: *but* is under scope of a metalinguistic, quotation operator

3.1 The intuition

The revised analysis is inspired by an intuitive observation made in Greenberg (2014), Shitrit (2015), namely that the *x but X* construction has a 'metalinguistic' flavor. For example that (1a) can be paraphrased as *Everyone, and (when I say "everyone") I mean that EVERYONE, arrived!* Given this intuitive observation we propose that unlike what happens in normal *a but b* sentences like (5) above, what we consider with *x but X* is not the knowledge of *a (x1)* and *b* (*x*2), but rather the knowledge that the speaker uttered *a*, and that she uttered *b,* together with the fact that she used the two utterances to convey a single meaning. This is seen in the following paraphrases of (1a):

(11) a. By uttering *EVERYONE* I meant to reject the implication that what I meant by uttering *everyone* was something like "*Only everyone in the default, narrow domain,*

[7] See Winterstein (2013) for an argumentative explanation on the infelicity of (6), modeled using conditional probability (cf. Anscombre and Ducrot (1984), Merin (1999)). See also Greenberg (2016a) for a QUD-based + redundancy explanation (cf. Toosarvandani (2014), QUD-based semantics of *but* and Fox (2007), Shitrit (2015), Mayr and Romoli (2016) on redundancy constraints).

D_{default}." I actually used BOTH forms to convey the same thing, namely "Everyone in the wide domain, D_{wide}"

b. You might infer from my utterance of *everyone* (applied to *arrive*) that I meant that only everyone in the default domain, D_{default}, arrived, but this inference should be rejected: I meant the same thing as I mean when uttering *EVERYONE* (applied to *arrived*), i.e. that everyone in a wide domain, D_{wide}, arrived, i.e. that everyone, with no exceptions, arrived

As we will show below, the result of analyzing (1a) this way is that *x but X* is not a *weak but strong* construction, since its conjuncts are not scalar alternatives anymore. If this is so then whatever the problem is for *weak but strong* constructions (e.g. *#Some but all students arrived*), it will not be present with *x but X* sentences, hence accounting for their felicity.

The challenges we face now, then, are (a) how to capture the intuition in (11) a precise way, (b) how to show that, given this proposal, *x but X* sentences indeed escape the general ban on *but,* since its conjuncts are not scalar alternatives and (c) how not to over-generate metalinguistic uses of (6)-(10) above.

3.2 Quotation operators

To capture the intuition in (11) what we need is an explicit and transparent mechanism capturing the shift from utterances (of phonological strings) to meanings. Luckily, such a mechanism was already independently developed, to capture **mixed quotations** I.e. quotations which are syntactically and semantically incorporated into the sentence, but which still maintain the information that they are mentioned. Two examples are seen in (12), and we follow theories like von Fintel (2004), Winter and Rimon (1994), Maier (2014, 2017) who take them to be interpreted as in (13a,b):

(12) a. Quine said that quotation "has a certain anomalous feature" (Davidson (1979))

b. Bush said that the enemy "misunderestimated me" (Maier 2008)

(13) a. Quine said that quotation has what he referred to as a certain anomalous feature

b. Bush said that the enemy did what he referred to as misunderestimated me

Given these theories in a sentences like (12b) the quotation of the phonological string *misunderestimated me* is interpreted as the definite description in (14):

(14) ι A [refer (s, ***"misunderestimated me"***, A)]

In prose: The unique semantic object A (here a property), such that the source s (here Bush) referred to A by using the phonological string *misunderestimated me*. Then (12b) ends up with the intuitive interpretation in (15):

(15) Bush said that the unique property A that he (Bush) referred to by using the phonological string *misunderestimated me* is true of the enemy

Following the above mentioned theories we take ι in (14) to trigger a uniqueness presupposition, i.e. the presupposition that there indeed exists a unique property *A* that *s* (Bush, in this case) referred to by using the phonological string *misunderestimated me*[8].

[8]For simplicity we follow here von Fintel (2004) who takes the definite to pose a definedness condition. But

3.3 Analysis

We now propose that *but* in *x but X* is under the scope of a quotation operator, which is covert (i.e. not marked by quotation marks). (1a) (*Everyone, but (really) EVERYONE arrived*), for example, is analyzed as in (16):

(16) ι $GQ_{<<et>,t>}$ [[refer (s, 'everyone', GQ)] **but** [refer (s, 'EVERYONE', GQ)]] ($arrived_{<e,t>}$)

We continue to assume that *but* has its usual counter-expectational semantics in (1a) (see again (4) above). Given (16), then, (1a) asserts that the two conjuncts of *but* are true, i.e. that the unique GQ, such that the speaker referred to this GQ by uttering *everyone*, and she referred to this same GQ by uttering *EVERYONE,* is true of the property *arrived*.

In addition, there are two presupposition triggering operators here: ***but,*** triggering its counter-expectational presupposition, and the definite in the quotation operator, i.e. ι, triggering a uniqueness presupposition. Importantly, in the case of the felicitous (1a) we can now show that both presuppositions are indeed met.

First, for the counter-expectational presupposition of ***but*** to be met in (16), we need to show that there is a proposition r which is implied by *x1* and rejected by *x2*. We suggest that in our case r is the identity proposition in (17) (where *exh* is used as in Fox (2007), Chierchia et al. (2011)):

(17) r for (1a): GQ= λP. exh$\forall$x $\in$ $D_{default}$ P(x)

Indeed, learning that the speaker uttered *everyone* (and not *EVERYONE*) to refer to the unique GQ, we may draw the implication that she used *everyone* to refer to the exhaustified quantifier "Only everyone in the narrow domain", and learning she uttered *EVERYONE* to refer to the unique GQ, can be indeed taken to reject this implication.

Second, the presupposition of ι, requiring that there is a unique GQ that the speaker actually referred to by uttering *everyone*, and referred to by uttering *EVERYONE,* seems to be met in (1a) as well. We suggest that this unique GQ that speaker refers to is the one in (18):

(18) λP. $\forall$x$\in$$D_{wide}$ P(x)

That is, the idea is that the speaker actually referred to the same quantifier, namely "Everyone in the wide domain", both when uttering *everyone* and when uttering *EVERYONE*. This captures the intuitive paraphrase of (1a) in (11) above as: "and when I say 'everyone' I mean the same thing that I mean when I say 'EVERYONE'. I.e. eventually I mean that everyone in the wide domain arrive".

In addition, and unlike the initial analysis of *x but X* reviewed in section 2, the fact that such sentences are not infelicitous as the ones in (6)-(10) is not problematic anymore. This is because in this revised analysis the conjuncts are not scalar alternatives, so *x but X* is actually not a *weak but strong* construction. For example *refer (s, "everyone", GQ)* is not a scalar alternative to (it does not entail) *refer (s, "EVERYONE", GQ)*. Hence, the general ban on *weak but strong* constructions is not violated with *x but X* sentences, explaining why they are not infelicitous.

Finally, the analysis does not over-generate metalinguistic readings of infelicitous sentences like (6)-(10). To see why this is the case, consider two scopal options for analyzing sentences

see Winter and Rimon (1994), Maier (2014, 2017) who develop a dynamic, DRT-based analysis for coping with cases where the presupposition is cancelled or accommodated.

like (6) (*#Someone but everyone arrived*), namely putting *but* under a quotation operator (as we did for *Everyone, but EVERYONE*) or putting *but* above the quotation operator. Crucially, with both options we end up with a problematic result.

Consider the first option for analyzing (6), where *but* is under the quotation operator, as in (19):

(19) $\iota GQ_{<<et>,t>}$ [[(refer (s, "someone", GQ)] but [refer (s, "everyone", GQ)] (arrived$_{<<et>,t>}$)

(19) asserts that the unique Generalized Quantifier such that the speaker referred to this GQ by uttering *someone* and the speaker referred to this same GQ by uttering *everyone*, is true of the property denoted by *arrive*. We suggest that in this case the uniqueness presupposition triggered by the definite fails. In particular, whereas with (1a), analyzed as (16) (*Everyone but EVERYONE arrived*) we can indeed assume that there is a unique quantifier that that the speaker who utters both forms is eventually referring to, this does not seem to be the case with (6), analyzed as (19). Here there seems to be no reasonable unique GQ that the speaker referred to this GQ by uttering *someone*, and referred to this same GQ by uttering *everyone.*

If we try the second option and put *but* above the quotation operator the result is (20):[9]

(20) $\iota GQ_{<<et>,t>}$ [[refer (s, "someone", GQ) but $\iota GQ_{<<et>,t>}$ [refer (s, "everyone", GQ)]] (arrived$_{<e,t>}$)

(20) asserts that the unique Generalized Quantifier such that the speaker referred to this GQ by uttering *someone,* and the unique Generalized Quantifier such that the speaker referred to this GQ by uttering *everyone,* are both true of the property denoted by *arrive.*

Here, unlike (19), there can be two distinct GQ that the speaker refers to. However, this interpretation fails as well. We assume that the second conjunct in (20) - the unique Generalized Quantifier such that the speaker referred to this GQ by uttering *everyone* - denotes the GQ in (21) (we abstract away from domains now):

(21) $\lambda P.\forall x\ P(x)$

The first conjunct- the unique Generalized Quantifier such that the speaker referred to this GQ by uttering *someone* - can have one of the two denotations in (22):

(22) a. $\lambda P.\exists x\ P(x)$ (i.e. at least someone)

b. $\lambda P.$ exh $\exists x\ P(x)$ (i.e. only someone)

Crucially, in either of these two interpretations, (20) comes out infelicitous: If (22a) is chosen, we end up, once again, with an infelicitous 'weak but strong' case, since $\lambda P.\exists x\ P(x)$ (*at least one)* and $\lambda P.\forall x\ P(x)$ (*everyone*) are scalar alternatives where the second is stronger than the first. If, on the other hand, (22b) is chosen, we end up with a contradiction in the assertion, since *only someone arrived and everyone arrived* is contradictory.

Thus, unlike (1a) (*Everyone but EVERYONE arrived*), sentences like (6) (*Someone but everyone arrived*) cannot be given a felicitous metalinguistic interpretation. This holds for all cases in (7)-(10) as well. We are left with a standard *weak but strong* interpretation of such sentences, which, as we noted above, is generally banned, hence their infelicity.

[9] Here we will have to take *but* to denote cross categorical conjunction. See footnote #4 above.

4 Conclusion and directions for future research

The challenge we dealt with in this paper is how to give a compositional interpretation of a cross linguistically productive, yet puzzling construction - *x but (really) X* (e.g. *John is always but (really) ALWAYS late)* - with a surprising interaction of contrast and strengthening. We examined, but rejected, an initial analysis where the conjuncts of *but* in *x but X* are scalar (domain-based or degree-based) alternatives and where the second and semantically stronger conjunct rejects a scalar implicature of the first. We then developed a revised analysis of the construction, based on the idea that this construction expresses metalinguistic contrast, and captured it by placing ***but*** under the scope of a covert quotation operator (independently developed to capture 'mixed quotations'). We showed that this analysis indeed captures the contribution of the 'contrastive' semantics of ***but*** to the strengthening effect of the whole construction, that it does not run into the problem with the initial analysis and that it does not over-generate.

Besides explaining the puzzling interaction between contrast and strengthening in this construction, the analysis provides support for the linguistic relevance of metalinguistic operations, and more specifically, for the contribution of quotation operators to the compositional interpretation of a wider set of sentences than have been initially considered in the literature on quotations. More research is needed to examine the behavior of the construction with respect to other features of mixed quotations such as indexical and language shifts, cancellation and / accommodation of the uniqueness presupposition of the quotation operator, 'unquotation', etc. (cf. Maier (2014, 2017), Shan (2010) and others). An interesting question is why speakers use the *x but X* construction to start with, instead of a simple intensified form (e.g. *John is always, but ALWAYS late*, instead of the simpler *John is ALWAYS late*).[10] The productivity of the construction, though, seems to indicate that it does serve a certain purpose, perhaps that of indicating a more total exclusion of exceptions and / or self correction.

An important puzzle for future research concerns Hoeksema (2007) and Shitrit (2015) obesrvations (about Dutch and Hebrew, respectively) that *x but X* is much more common with universal quantifiers (and gradable predicates) than with existential quantifiers. In English too there are hardly any attested occurrences of *Sometimes but really sometimes...* as opposed to *Always but really always....* We note, though, that *Sometimes, but only sometimes...,* with an explicit exclusive, instead of an intensifying adverb (and / or accentuation) is much better and much more commonly attested. We leave the examination of these patterns to future research.

Another question is whether the above analysis of *x but X* can cope with cases like (23):

(23) a. Obama, but (really) OBAMA called me (cf. Shitrit 2015)

b. The night guard must close both, but (really) BOTH doors[11]

On the surface these cases seem to differ from those in (1) since they do not seem to involve any scale, domains or degrees. But perhaps they can be analyzed as potentially scalar after all. The intuitive effect in (23a) can be that the speaker really means that Obama, and not, e.g. one of his secretaries called, which can be paraphrases with an intensified 'self' ("Obama, but (really) Obama himself, called me"). This can be perhaps modeled by assuming the operation of a covert *even* operator in the construction (cf. Charnavel (2015)), and then, indirectly, mapping the conjuncts to a scale of e.g. importance / prestige (cf. Greenberg (2015, 2017) for a semantics of *even* which encodes such mappings). In the case of (23b) we

[10]Thanks to Emar Maier (p.c.) for this point.

[11] Thanks to Andreas Heida (p.c.) for this example.

seem to get a higher commitment effect, which can be paraphrased as "The night guard must close both door, and I am completely serious about this! No joking!". This can be naturally uttered in a situation where the night guard many times forgets basic things, or interprets our instructions lightly. A potential direction for accounting for such cases is manipulate degrees of commitments or credence the speaker has towards *p,* as in a 'gradable' modeling of the *ASSERT* speech act operator, developed in e.g. Wolf (2015), Greenberg and Wolf (2017). More research, though, should examine this direction. Finally, the proposed analysis raises interesting questions concerning the status of the implicated proposition *r* in *x but X*. The derivation of this implication seems similar to the way the derivation of 'real' scalar implicatures is usually described: The speaker uttered *everyone* and did not utter *(really) EVERYONE*, so we conclude that she uttered *everyone* to the refer to the exhaustified of the quantifier, i.e. to "Every in only the default / narrow domain, and not in the wide domain". However, since the conjuncts of ***but*** in this case are not scalar alternatives, i.e. neither of the alternatives is more informative / stronger than the other, the mechanism generating this implication does not seem to be covered by current approaches to scalar implicaure: Neither a 'pragmatic', neo Gricean mechanism, relying on the maxim of Quantity, nor a 'grammatical' mechanism (cf. Chierchia et al. (2011)), relying on the presence of an exhaustive operator in the syntax of the first conjunct. Future research, then, should examine the way such 'semi scalar implicatures' are generated.

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