

Not a light negation^{*}

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Abstract In languages like Dutch and German, certain instances of negation, such as negated indefinites, are ruled out in out-of-the-blue contexts, i.e. with the unmarked reading where negation outscopes an unfocussed indefinite (**Er kann nicht eine Fremdsprache*. ‘He speaks not a foreign language.’). Such instances are, however, fine in NPI licensing contexts. Schwarz (2004) and Schwarz & Bhatt (2006) argue that in such cases the negative marker is not a plain negation, but rather a homophonous marker of light negation, which they take to be an NPI. In this paper I argue, though, that this phenomenon can be explained by adopting standard pragmatic assumptions. In short, I argue that such instances of negation are bad due to the existence of some alternative expression that only conveys the unmarked reading. In the example above, the alternative expression contains a negative indefinite: *Er kann keine Fremdsprache*. (‘He speaks no foreign language.’). Uttering a less simple construction, such as the example above with the negated indefinite, will give rise to an implicature that states that the speaker does not intend such utterances with their unmarked readings, since the unmarked reading could have been conveyed in a simpler manner. This implicature, then, is suppressed in NPI licensing contexts.

Keywords: Negation, light negation, negative indefinites, implicatures, morphological blocking, split-scope effects.

1 Introduction

In languages like Dutch and German, certain instances of negation are ruled out in out-of-the-blue contexts. Examples of such instances, taken from Schwarz & Bhatt 2006, are presented below. The sentences in (1), which contain an indefinite DP, a definite DP or a disjunction of two DPs, cannot be negated by having the

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negative marker *nicht* immediately precede them, as is shown in (2). By contrast, example (3a) illustrates negation with a negative indefinite *kein* ('no'), when an indefinite DP is present. In (3b-ci), *nicht* appears in a position following a definite DP or a disjunctive expression. Alternatively, a disjunctive construction *weder ... noch* ('neither ... nor') can be used (cf. (3cii)).

- (1) a. Fritz kann eine Fremdsprache. German
 Fritz knows a foreign.language
 'Fritz knows a foreign language.'
- b. Fritz hat Frage 3 beantwortet.
 Fritz has question 3 answered
 'Fritz answered question 3.'
- c. Fritz hat Frage 3 oder 4 beantwortet.
 Fritz has question 3 or 4 answered
 'Fritz answered question 3 or 4.'
- (2) a. Fritz kann nicht eine Fremdsprache.
 Fritz knows not a foreign.language
 Int.: 'Fritz doesn't know a foreign language.'
- b. *Fritz hat nicht Frage 3 beantwortet.
 Fritz has not question 3 answered
 Int.: 'Fritz didn't answer question 3.'
- c. *Fritz hat nicht Frage 3 oder 4 beantwortet.
 Fritz has not question 3 or 4 answered
 Int.: 'Fritz didn't answer question 3 or 4.'
- (3) a. Fritz kann keine Fremdsprache.
 Fritz knows no foreign.language
 'Fritz doesn't know a foreign language.'
- b. Fritz hat Frage 3 nicht beantwortet.
 Fritz has question 3 not answered
 'Fritz didn't answer question 3.'
- c. i. Fritz hat Frage 3 oder 4 nicht beantwortet.
 Fritz has question 3 or 4 not answered
 'Fritz didn't answer question 3 or 4.'
- ii. Fritz hat weder Frage 3 noch 4 nicht beantwortet.
 Fritz has neither question 3 nor 4 not answered
 'Fritz answered neither question 3, nor 4.'

However, the examples in (2) all of a sudden become fine, once they are embedded in contexts that are generally known to licence Negative Polarity Items (NPIs), such as negative indefinites (e.g. (4)), polar questions (as in (5)) and certain conditionals (as in (6)).

- (4) a. Wir haben keinen angenommen der nicht eine Fremdsprache
we have nobody hired who not a foreign.language
kann.
knows
'We hired nobody who doesn't know a foreign language.'
- b. Wir haben keinen angenommen der nicht Frage 3
we have nobody hired who not question 3
beantwortet hat.
answered has
'We hired nobody who didn't answer question 3.'
- c. Wir haben keinen angenommen der nicht Frage 3
we have nobody hired who not question 3
oder 4 beantwortet hat.
or 4 answered has
'We hired nobody who didn't answer question 3 or 4.'
- (5) a. Kann Fritz nicht eine Fremdsprache?
knows Fritz not a foreign.language
'Doesn't Fritz know a foreign language?'
- b. Hat Fritz nicht Frage 3 beantwortet?
has Fritz not question 3 answered
'Didn't Fritz answer question 3?'
- c. Hat Fritz nicht Frage 3 oder 4 beantwortet?
has Fritz not question 3 or 4 answered
'Didn't Fritz answer question 3 or 4?'
- (6) a. Wenn Fritz nicht eine Fremdsprache könnte, wäre er durchgefallen.
if Fritz not a foreign.language knew, were he failed
'If Fritz hadn't known a foreign language, he would have failed.'
- b. Wenn Fritz nicht Frage 3 beantwortet hätte, wäre er durchgefallen.
if Fritz not question 3 answered had, were he failed
'If Fritz hadn't answered question 3, he would have failed.'
- c. Wenn Fritz nicht Frage 3 oder 4 beantwortet hätte, wäre er

if Fritz not question 3 or 4 answered had, were he
durchgefallen.

failed

‘If Fritz hadn’t answered question 3 or 4, he would have failed.’

The sentences in (2) are unacceptable with the intended or unmarked readings.¹ For instance, example (2a) is ungrammatical with the intended reading, in which a negation outscopes the indefinite without any additional focus effects. However, (2a) can be uttered felicitously when it either gives rise to a reading where the indefinite takes wide scope with respect to negation, or when the indefinite itself is focussed; in that case it may even receive two readings. These cases where marked readings arise are shown below:

- (7) Fritz kann nicht eine Fremdsprache die man in Frankreich spricht.
Fritz knows not a foreign.language that one in France speaks
 $\exists > \neg$: ‘Fritz doesn’t know a foreign language spoken in France.’
- (8) a. Fritz kann nicht EINE Fremdsprache; er kennt DREI.
Fritz knows not A/ONE foreign.language; he knows THREE
‘Fritz doesn’t know one foreign language, but three.’
b. Fritz kann nicht (einmal) EINE Fremdsprache.
Fritz knows not (even) A/ONE foreign.language
‘Fritz doesn’t even know one foreign language.’

In the case of a negated definite, the only reading that is available is one in which the focus is on the definite description:

- (9) Fritz hat nicht Frage DREI beantwortet, sondern Frage VIER.
Fritz has not question THREE answered, rather question FOUR
‘Fritz didn’t answer question three, but rather question four.’

Also, in the case of negated disjunctions, the sentence can be repaired once (some parts of) the disjunction receive focus as well.

The two questions that now arise are the following: (i) why is it that certain instances of negation are always available with a marked reading, but in NPI licensing contexts are also available with an unmarked reading; and (ii) why is it that the unmarked reading does not arise outside NPI licensing contexts?

¹ It may sound odd to refer to the reading that is absent outside NPI-licensing contexts as the *unmarked reading*; however, this is indeed the most salient reading once there is embedding in an NPI context. For this reason, and other reasons that will become clear in the remainder of this paper, I stick to the term *unmarked reading* here.

In the remainder of this paper I address both questions. First, in section 2, I discuss an earlier account of this phenomenon, proposed by Schwarz (2004) and by Schwarz & Bhatt (2006). I argue that this account, which takes the negative constructions in examples like (2) to be a special type of NPI containing so-called *light negation*, is incorrect. In section 3, I propose an alternative account that takes the blocking of the marked readings to be the result of an implicature that arises by virtue of the fact that the unmarked readings could have also have been yielded by alternative, and in some way simpler sentences. The fact that such implicatures generally dissolve in NPI licensing contexts accounts for the availability of these unmarked readings in NPI licensing contexts. Section 4 concludes.

2 Schwarz (2004), Schwarz & Bhatt (2006)

Schwarz (2004) and Schwarz & Bhatt (2006) argue that German has two lexically ambiguous, homophonous negative markers: a plain negative marker *nicht* that generally renders sentences negative, and a second negative marker *nicht*, dubbed *light negation* (after Ladusaw 1979), that is an NPI. For them, examples like (2), with intended unmarked reading, contain this light negation, of which the occurrence, being an NPI, is naturally restricted to NPI licensing contexts.

The idea that negative markers are ambiguous between a plain and a light variant stems from Ladusaw (1979), who argues that it is this negative marker that is involved in constructions as in (10):

- (10) a. *I am happy that you didn't see something.
b. I am surprised that you didn't see something.

As is well known, *something* is a Positive Polarity Item (PPI) and therefore banned from negative contexts, as illustrated in (10a). However, once the negated PPI is included in an NPI licensing context, as is the case in (10b), it is fine again. Krifka (1992) and Szabolcsi (2004) argue that this is due to some mechanism that changes negated PPIs into NPIs. If *not something* is indeed taken to be an NPI, the pattern in (10) directly follows. For Krifka and Szabolcsi, negated PPIs can thus be rescued.²

Ladusaw (1979) on the other hand, has a different view on PPI-hood. For him, a PPI can never been rescued: once a PPI is anti-licensed, it can no longer give rise to a well-formed sentence. This entails however, that *something* in (10b) can never be said to have been rescued. In order to account for the grammaticality of (10b), Ladusaw proposes that the negation here is not a regular negative marker

² See also Homer 2012 for a recent account of why negated PPIs may occur in NPI licensing contexts.

but rather this alternative light negation, which he takes to be an NPI that never anti-licenses PPIs. Since this light negation is an NPI, the negation in (10a) must be the regular negative marker, as light negation would be banned in this non-NPI licensing context.

For Schwarz and Bhatt, the data presented in section 1 confirm Ladusaw's proposal, since they see these data as additional evidence for the presence of a light negation marker alongside a regular one.

However, Schwarz and Bhatt's analysis faces a number of serious problems. First, their approach cannot account for the fact that the regular negative marker *nicht* may not be included in examples such as the ones in (2). Also, it remains unclear why such constructions still receive a marked reading, as the data in (7)-(9) show. One could potentially argue that inclusion of the regular negation is fine in examples such as (2), but that this regular negative marker can only give rise to the marked reading. However, it is unclear under this proposal why the regular negative marker would be subject to such a restriction and why the light negation marker would not be, especially given the fact that both denote a semantic negation.

Another problem for this analysis is that there does not seem to be any additional evidence for the existence of a second negative marker *nicht*. As long as no independent evidence for the existence of a second homophonous negative marker is presented, any analysis for the facts presented in section 1 that does not have to allude to such lexical ambiguity is superior.

Finally, as Schwarz and Bhatt point out themselves, the distribution of negative constructions that appear to be subject to NPI licensing constraints does not completely coincide with the distribution of other well-known NPIs. In one particular type of context, namely non-counterfactual conditionals, such constructions are still bad, even though plain NPIs are generally licensed in such contexts. To illustrate this, Schwarz & Bhatt (2006) claim that in a discourse like (11), the expressions in (6) cannot be used as a continuation of the answer (although speakers that I consulted find these judgements hard to confirm).

- (11) A: Was glaubst Du warum Fritz durchgefallen ist?
 what believe you why Fritz failed is
 'Why do you believe Fritz failed?'
 B: Ich bin mir nicht sicher, aber ...
 I am me not sure, but
 'I'm not sure, but ...'

By contrast, in the consequents of counterfactual conditions, such negative NI-like constructions are fine again, even though consequents of counterfactual conditions do not license NPIs.

- (12) a. Wenn Fritz dumm wäre, könnte er nicht eine Fremdsprache.
if Fritz stupid were, could he not a foreign language
'If Fritz were stupid, he wouldn't know a foreign language.'
- b. Wenn Fritz dumm wäre, hätte er nicht Frage 3 beantwortet.
if Fritz stupid were, had he not question 3 answered
'If Fritz were stupid, he wouldn't have answered question 3.'
- c. Wenn Fritz dumm wäre, hätte er nicht Frage 3 oder 4 beantwortet.
if Fritz stupid were, had he not question 3 or 4 answered
'If Fritz were stupid, he wouldn't have answered question 3 or 4.'

As Schwarz (2004) and Schwarz & Bhatt (2006) point out, in these contexts where the distributions of plain NPIs and constructions like (2) do not overlap, the distribution of negated PPIs corresponds to the distribution of negated indefinites, definites and disjunctions.³ Schwarz and Bhatt take this to be further evidence against the Krifka/Szabolcsi type of analysis of PPI rescuing and in favour of an analysis in terms of light negation. However, it remains unclear under their proposal why the distribution of light negation deviates from that of plain NPIs, given that they take this light negation to be an NPI.

3 Proposal

In order to overcome the problems outlined in section 2, I propose a different analysis that, crucially, does not rely on the presence of a second, homophonous negative marker. Instead, I argue that all facts described above can be naturally explained by assuming that *nicht* is always a regular negative marker and that all unavailable readings are the result of the application of standardly adopted pragmatic principles.

The reasoning goes as follows: suppose that the examples in (2) may semantically give rise to both the unmarked readings and the marked readings (as in (7)-(9)). Nevertheless, another, minimally differing, expression may also give rise to the unmarked readings that are intended in (2) (such as the examples in (3)). Then, the set of all readings that the examples in (2) may give rise to form a superset of the readings that can be expressed by the examples in (3). Uttering a sentence like the ones in (2) may consequently give rise to an implicature that states that by uttering such a sentence, the speaker does not want to convey the readings of the expressions in (3), for if s/he had wanted to convey those, s/he would have used an expression like (3) instead. Since the unmarked readings of

³ On a terminological note: I distinguish the term 'negated indefinites' from 'negative indefinites'. The first refers to plain indefinites that are negated by an additional negative marker (e.g. *nicht ein* ('not a')); the second one to single morphological words, such as *kein* ('no').

the examples in (2) are the same as those of (3), sentences as in (2) can only be used to give rise to marked readings (as shown in (7)-(9)). However, as known since Gazdar 1979 and much subsequent work, implicatures are suppressed in NPI-licensing contexts. That means that in those contexts the implicature that blocks the unmarked readings of (2) no longer arises and that, consequently, in NPI licensing contexts expressions such as the ones in (2) can be used to convey their unmarked readings as well.

Of course, such an account raises a number of questions. First, the question arises as to what selects the alternative readings of the expressions in (2). And if these are indeed the examples in (3), why is it that exactly those examples count as alternatives of the ones in (2)? In order to address these questions, let us first have a look at the three types of examples in (2) and their alleged alternatives in (3). For the sake of exposition, these examples are repeated in (13)-(15) below.

- (13) a. *Fritz kann nicht eine Fremdsprache.
 Fritz knows not a foreign.language
 Int.: ‘Fritz doesn’t know a foreign language.’
 b. Fritz kann keine Fremdsprache.
 Fritz knows no foreign.language
 ‘Fritz doesn’t know a foreign language.’
- (14) a. *Fritz hat nicht Frage 3 beantwortet.
 Fritz has not question 3 answered
 Int.: ‘Fritz didn’t answer question 3.’
 b. Fritz hat Frage 3 nicht beantwortet.
 Fritz has question 3 not answered
 ‘Fritz didn’t answer question 3.’
- (15) a. *Fritz hat nicht Frage 3 oder 4 beantwortet.
 Fritz has not question 3 or 4 answered
 Int.: ‘Fritz didn’t answer question 3 or 4.’
 b. i. Fritz hat Frage 3 oder 4 nicht beantwortet.
 Fritz has question 3 or 4 not answered
 ‘Fritz didn’t answer question 3 or 4.’
 ii. Fritz hat weder Frage 3 noch 4 nicht beantwortet.
 Fritz has neither question 3 nor 4 not answered
 ‘Fritz didn’t answer question 3 or 4.’

What is striking is that the alleged alternatives (now in the b-examples of (13)-(15)) do not form a homogeneous class. For expressions containing a negated indefinite the alternative contains a morphologically deviant element (*keine*

instead of *nicht eine*); for negated definites, by contrast, the alternative is a syntactic variant (*Frage 3 nicht* instead of *nicht Frage 3*); for negated disjunctions there are even two different alternatives, a syntactic one (cf. (15bi)) and a morphological one (cf. (15bii)). At the same time, as I argue in the remainder of this paper, the morphological alternatives are also syntactically different. Therefore the alternative expressions listed in (13)-(15) all count as syntactic alternatives.

I first discuss how this account works for negated indefinites (section 3.1) and then I show how the account extends to negated definites (3.2) and disjunctions (3.3).

3.1 Negated indefinites

Let us first focus on the syntactic structures of the two examples in (13). At first sight, the example in (13a) appears to be structurally ambiguous, i.e. it seems compatible with two syntactic structures: one in which the νP contains the indefinite and *nicht* takes the νP as its complement (i.e. (16a)), and one in which the negated indefinite forms a constituent that is part of the νP (namely (16b)):

- (16) a. [Fritz kann [nicht [νP [DP eine Fremdsprache] t_i]]]
 b. [Fritz kann [νP [DP [nicht eine] Fremdsprache] t_i]]

At the same time, it is less clear what the underlying structure is of the example in (16)(16b). This is due to the fact that it is problematic to think of *keine* as a plain negative existential quantifier, since *keine* is able to give rise to so-called *split-scope effects*. Split-scope effects (the original observation due to Jacobs 1980) involve instances of *keine* or other negative indefinites where some scope-taking element intervenes between the scope of the negation and the scope of the indefinite. An example is (17):

- (17) Du must keine Krawatte anziehen.
 you must no tie wear
 i. 'It is not required that you wear a tie.' $\neg > \text{must} > \exists$
 ii. 'There is no tie that you are required to wear.' $\neg > \exists > \text{must}$
 iii. 'It is required that you don't wear a tie.' $\text{must} > \neg > \exists$

The most salient reading of (17) is the first reading, where negation outscopes the modal, but where the modal in turn outscopes the indefinite. However, this reading does not directly follow if *keine* is taken to be a plain negative existential quantifier.

In order to solve this problem, two different types of approaches have been proposed. Within the so-called *decompositional approach* it is said that split-

scope effects result from lexical decomposition of the negative indefinite into a separate negation and an existential. Scholars differ whether this decomposition is the result of amalgamation (Jacobs 1980), incorporation (Rullmann 1995), syntactic agreement (Penka 2010) or a post-syntactic spell-out rule (Zeijlstra 2011).

Others have argued that negative indefinites are negative quantifiers but that these quantifiers do not only quantify over individuals, but also over kinds (Geurts 1996), properties (De Swart 2000) or choice-functions (Abels & Marti 2010). Quantification over non-individuals then entails the split-scope readings. Proposals along these lines are referred to as the *negative quantifier approach*.

Both approaches make different predictions of the underlying syntax of the examples in (13). Under the negative quantifier approach, *keine* is a determiner and the syntactic structure of (13b) should be similar to the one in (16b):

(18) [Fritz kann [_{VP} [_{DP} keine Fremdsprache] *t_i*]]

This approach makes no particular predictions about the underlying structure of sentences like (13a), however.

Under most of the decomposition analyses, (13a) and (13b) are both syntactically ambiguous. Under this approach a negative indefinite like *keine* consists of a negation and an indefinite part that for most accounts are subject to a string-adjacency requirement. In other words, the negation and the indefinite may form a constituent, but do not have to, as long as the negation and the indefinite are adjacent at PF. Most accounts make no clear predictions as to when an adjacent negation and an indefinite must be jointly spelled out as a negative indefinite. The underlying structures of both (13a) and (13b) are thus like in (19), the only difference being whether the negation and the indefinite are realized as separate words or not.

- (19) a. [Fritz kann [_{VP} \neg \exists Fremdsprache *t_i*]]
 b. [Fritz kann [_{VP} [_{DP} [\neg \exists] Fremdsprache] *t_i*]]

However, the decomposition analysis of Zeijlstra 2011 makes a different prediction. Under this analysis, negative indefinites such as *keine* are taken to be the output of a spell-out rule that states that if the negation and the existential stand in a sisterhood relation, they can and must be spelled out as a single negative indefinite. If the negation and the indefinite do not stand in a sisterhood relation, they must be realized separately. The spell-out rule for German *kein* is thus as in (20):

(20) [\neg \exists] \Leftrightarrow /kein/

Consequently, the structure in (19a) can only be the structure underlying (13a) and the structure in (19b) only the structure underlying (13b). Both (13a) and (13b) are syntactically unambiguous.

Under this analysis, the semantic differences between (13a) and (13b) follow as well. (13b) can only give rise to a reading where negation scopes over the indefinite, since a wide scope reading of the indefinite is impossible. For that to happen the existential plus *Fremdsprache* should jointly move across the negation at LF, but such movement is illicit, since the existential plus *Fremdsprache* do not form a constituent. Also, (13b) cannot allow the existential to be focussed with the focus being associated to the negation, since the existential is part of a single word and word-internal focus is not possible either, as is known since Williams 1981. However, as the reader can verify, all these readings are possible for (13a), since here *eine* and *Fremdsprache* do form a constituent and negation can freely focus-associate to *eine*.

Adopting Zeijlstra's (2011) analysis for negative indefinites and split-scope, it is predicted that a sentence like (13a) gives rise to a set of readings that forms a superset of the set of readings that can be yielded by (13b). The next step in accounting for the fact that sentences like (13a) are only fine with the unfocussed reading where negation outscopes the indefinite in NPI-licensing contexts, is to show that outside such contexts, the marked reading must be blocked. The most straightforward way of doing so is to assume that by uttering (13b) it is inferred that the speaker is not committed to the truth of (13a).

A priori there are two possible ways of accounting for this. One way is to allude to Horn's division of linguistic labour, which states that a marked form always corresponds to a marked reading. This principle could potentially be handled in terms of the Gricean Maxim of Manner (as pointed out to me by Paul Portner (p.c.)). The question of course thus arises as to why (13a) would be a more marked expression than (13b). The most plausible candidate for this is morphological blocking: since it is possible to jointly spell out a negation and an indefinite by a simpler morphological element, there must be a reason not to do so. This automatically renders utterances containing morphologically more complex forms marked with respect to those containing simpler ones.

An alternative option would be to say that (13b) always entails (13a), but not necessarily the other way round, as the readings of (13a) are richer. Then one might argue that since (13a) is stronger than (13b), the interplay of the Gricean Maxims of Quantity and Quality makes an implicature arise that states that by uttering (13a) the speaker does not want to commit him/herself to the truth of (13b).

Although I do not want to a priori exclude the latter possibility, I do want to point out several problems that this latter approach faces. First, it would require that the computation of alternatives takes place prior to LF, since the

unidirectional entailment relation between (13a) and (13b) only holds if all the possible readings are taken into account, and not the reading that is generated at LF. However, standardly the selection of alternatives is computed at the level of LF.

Secondly, under this approach, the relative ordering of the negation and the indefinite no longer plays a role, since any sentence without a negative indefinite that is more ambiguous than the one with the negative indefinite should be blocked. This is, however, not the case. Both language-internally and language externally, once the adjacency relation between the negation and the indefinite is broken, the indefinites can be negated without any readings being blocked. For German, this is shown for cases where a preposition intervenes, as in (21).

- (21) Hans denkt nicht von eine Fremdsprache.
 Hans thinks not of a foreign.language
 ‘Hans doesn’t think about a foreign language.’

But also languages where the negation and the indefinite normally are not string-adjacent have no problem with negating an indefinite, even if the language has a special negative indefinite at its disposal. English is a good example of such a language, where both (22a) and (22b) are fine:

- (22) a. John didn’t read a book.
 b. John read no book.

Under the Horn-type of account, these examples are not problematic. Since no sentence is available where the negation and the indefinite could have been merged together as a single negative indefinite without changing the rest of word order, there is no way in which the examples (21) and (22a) are marked and consequently no unmarked alternative could give rise to a blocking effect.

To summarize, a negation and an indefinite must be realized as a single negative indefinite if they stand in a syntactic sisterhood relation; a sentence with a negated indefinite must be assigned a different syntactic structure than one with a negative indefinite. Since a negative indefinite is unmarked with respect to a negated indefinite, uttering a sentence with a negated indefinite instead of a negative indefinite in the same position comes along with an implicature that states that the speaker is not committed to the truth of a sentence where the negated indefinite would have been replaced by a negative indefinite.

The final step in our reasoning is then to show that this implicature does not arise once the negated indefinite is embedded in an NPI licensing context. But that should not come as a surprise, since it is a well-known fact that local implicatures are cancelled or at least suppressed under downward entailing operators and other operators (such as particular interrogatives) that are known to be able to license NPIs (cf. Gazdar 1979, Sauerland 2004a,b, Gajewski & Sharvit

2008, 2012 among many others). If this implicature is absent, the sentence with the negated indefinite should no longer be ill-formed under its unmarked reading. This then accounts for the exact distribution of negated indefinites in- and outside NPI-licensing contexts without alluding to an additional homophonous negative marker.

Moreover, this analysis makes an additional prediction that Schwarz (2004) and Schwarz & Bhatt (2006) do not make. Since the analysis proposed in this paper takes the blocking of the unmarked reading of a sentence containing a negated indefinite to be an implicature, which in principle should be cancellable, it is predicted that the blocking of the unmarked reading can be cancelled as well. This is indeed the case, as the data in (23) show:

- (23) A. Kann Fritz nicht eine Fremdsprache?
 knows Fritz not a foreign.language
 'Doesn't Fritz know a foreign language?'
 B. Nein, Fritz kann nicht eine Fremdsprache; er kann keine
 no, Fritz knows not a foreign.language; he knows no
 Fremdsprache.
 foreign.language
 'No, he doesn't speak a foreign language; he knows no foreign
 language.'

So, this analysis nicely predicts the behaviour and distribution of negated indefinites in languages like Dutch and German. However, the question is still open as to how this analysis extends to the cases of negated definites and disjunctions. This will be discussed in the next two subsections.

3.2 Negated definites

In section 3.1, the unavailability of the unmarked readings of negated indefinites in contexts that do not license NPIs was said to be due to the fact that it can be inferred that since the speaker did not select a less marked form (a negative indefinite instead of a negated indefinite), the speaker is not committed to the truth of that alternative expression. In this subsection, the question addressed is to what extent this line of reasoning applies to negated definites.

Let us start the discussion on negated definites by repeating the examples in (14) in (24). These examples contain the negated definite with its unmarked reading and the minimally different way that this unmarked reading can be grammatically conveyed.

- (24) a. *Fritz hat nicht Frage 3 beantwortet.
 Fritz has not question 3 answered

Int.: ‘Fritz didn’t answer question 3.’

- b. Fritz hat Frage 3 nicht beantwortet.
 Fritz has question 3 not answered
 ‘Fritz didn’t answer question 3.’

The examples in (24) differ from the minimal pairs in the discussion of negated indefinites in the sense that the alternative in (24) involves a word order difference, whereas the alternatives for the negated indefinites were morphologically different (although this morphological difference corresponded to a syntactic difference as well).

At the same time, the examples in (24) also differ in their semantics: as is known since Jackendoff 1972, for negation to associate to its focus, it must linearly precede it (see also Jaeger & Wagner 2003). Consequently, whereas in (24) *nicht* cannot be focus-associated to *Frage 3*, in (24a) *nicht* can. In fact, as discussed earlier, even in contexts that do not license NPIs a sentence like (24a) is fine with focus on *Frage 3*, as (25) shows:

- (25) Fritz hat nicht Frage DREI beantwortet (sondern Frage VIER).
 Fritz has not question THREE answered (rather question FOUR)
 ‘Fritz didn’t answer question THREE (but question FOUR).’

So what appears to be the case is that even though semantically (24a) is ambiguous between a focussed and a non-focussed reading of the definite, in contexts that do not license NPIs, only the focussed reading is available. Therefore the question arises as to whether it can be inferred that by uttering a sentence like (24a) instead of (24b), the speaker is not committed to the reading that (24b) yields and that for that reason, (24)(24a) can only yield a reading with focus on the definite. If that can indeed be inferred the entire distribution of sentences containing negated definites follows, since such an inference should follow from an implicature that is predicted not to show up in NPI licensing contexts.

That the absence of the non-focussed reading is indeed an implicature can be proven by the fact that this inference is cancellable, as the following example shows:

- (26) A. Hat Fritz nicht Frage 3 beantwortet?
 has Fritz not question 3 answered
 ‘Didn’t Fritz answer question 3?’
 B. Nein Fritz hat nicht Frage 3 beantwortet; er hat keine Frage
 No, Fritz has not question 3 answered; he has no question
 beantwortet.

Not a light negation

answered

‘Fritz didn’t answer question 3; he didn’t answer any question.’

The problem that arises now is that on the one hand, it appears that (24b) is a proper alternative of (24a), such that by uttering (24a) it can be inferred that the speaker is not committed to the truth of (24b); on the other hand, it is not clear what kind of an alternative (24b) is. Note that it does not suffice to say that (24b) is more informative than (24a), since this would entail that for any syntactic construction A any other syntactic construction B that yields a subset of the readings that A yields counts as an alternative and, as we discussed in 3.1, that would massively overgeneralize. The implicature cannot follow from the interplay between the Gricean maxims of Quality and Quantity.

However, this implicature can actually be derived from Gricean Maxim of Manner that states that a speaker should not be unnecessarily unclear. Now, if the speaker had wanted to unambiguously express an unfocussed reading involving the definite, s/he would have uttered the simplest way of doing so, with the negative marker in its canonical position at the vP boundary, below any definite expressions (which in German always scramble out of vP). By uttering (24)(24a) with the negation in a position where it could be used to focus-associate with the definite DP and which is actually the most salient way to have negation being focus-associated with the DP, uttering (24a) without intending a focussed reading of the definite DP would make the utterance unnecessarily vague.

Thus, as a result of the Maxim of Manner, it may be inferred that by uttering (24a), the speaker only intends to express a focussed reading of the definite, and all other readings can be inferred to be unavailable. Again, once an expression like (24a) is embedded under an NPI licensing context, this implicature is suppressed and the sentence can have the unfocussed reading as well.

3.3 Negated disjunctions

So, whereas the implicature that is responsible for the unavailability of the unmarked reading of negated indefinites most likely follows from morphological blocking (though it is not excluded that it results from the Maxim of Manner as well), negated definites are presumably bad with their unmarked readings outside NPI licensing contexts as a result of Manner only.

So now the question arises as to why negated disjunctions are only fine in NPI licensing contexts, since the minimally differing alternatives can be either morphological in nature or syntactic, as the data in (15), repeated below as (27), reveal.

- (27) a. *Fritz hat nicht Frage 3 oder 4 beantwortet.
Fritz has not question 3 or 4 answered

Int.: ‘Fritz didn’t answer question 3 or 4.’

- b. i. Fritz hat Frage 3 oder 4 nicht beantwortet.
 Fritz has question 3 or 4 not answered
 ‘Fritz didn’t answer question 3 or 4.’
- ii. Fritz hat weder Frage 3 noch 4 nicht beantwortet.
 Fritz has neither question 3 nor 4 not answered
 ‘Fritz didn’t answer question 3 or 4.’

However, the two readings in (27b) are not identical. Whereas (27bii) exclusively states that both question 3 and question 4 have not been answered by Fritz, the reading of (27bi) is weaker and states that at least one of the two questions has not been answered. In fact, the stronger reading is a possible reading for (27bi) as well, but this reading is harder to obtain, presumably as a result of morphological blocking by (27bii).

Sentence (27) is only fine when it receives a focussed interpretation of the entire disjunction or parts of it, and the exact reading thus depends on what exactly has been focussed. Unless the focus is on *oder* (‘or’), the focussed readings that (27a) yield do not require that both questions have been answered. Consequently, it is hard to assume that the availability of (27bii) is behind the fact that the unmarked reading of (27a) does not come up outside NPI licensing contexts. Rather, it seems that (27bi) is responsible for this.

If that is indeed correct, then it automatically follows that whatever is behind the exclusion of the unmarked readings of negated definites is also behind the exclusion of the unmarked readings of negated disjunctions. Since I tentatively assume that this is the result of the application of Grice’s Maxim of Manner, this then naturally extends to negated disjunctions.

4 Conclusions and open questions

The results thus far show that the unavailability of the unmarked readings of negated indefinites, definites and disjunctions follows from the fact that these readings are blocked by an implicature that states that those readings cannot have been intended by the speaker, as the speaker in that case would have selected a simpler alternative expression. As such an implicature is suppressed in those contexts that are known to license NPIs, the exact distribution of the facts presented in section 1 of this paper can be explained.

This shows that the phenomenon, taken by Schwarz and Bhatt to represent a special kind of negative marker, can actually be straightforwardly explained without postulating the existence of this second homophonous negative marker. It has also been shown this phenomenon is the result of an implicature triggered by virtue of competing alternative sentences.

At the same time, several questions remain open. First, it is not really clear which mechanism exactly underlies the selection of competing alternatives for sentences containing a negated indefinite, definite or disjunction. What is clear is that an implicature is triggered, but not how exactly this implicature is triggered. Whereas morphological blocking seems to underlie the triggering of the alternative propositions in the case of negated indefinites (the alternative proposition containing a morphologically simpler negative indefinite instead of a negated indefinite, which gives rise to a different set of possible reading), in the case of negated definites and disjunctions, the fact that only those constructions give rise to a focussed reading of the definite or disjunctions seems to invoke an implicature that the speaker cannot have intended an unfocussed reading. This also shows that what has been presented as a single phenomenon in the introduction of the paper only to some extent constitutes a single phenomenon. Negated indefinites, negated definites and negated disjunctions can all only give rise to their unmarked readings in NPI licensing contexts due to a particular implicature that arises, but they do so for different reasons.

Second, this paper shares with Schwarz 2004 and Bhatt & Schwarz 2006 the idea that the distribution of negated indefinites, definites and disjunctions must be limited to NPI licensing contexts, but Bhatt & Schwarz present some data that show that this distribution is not completely identical. Typical NPI licensing contexts, such as conditionals, do not license negated indefinites, definites and disjunctions, whereas consequents of counterfactual conditions do. As both types of contexts also allow rescuing of negated PPIs, they take this to be further evidence for the existence of light negation, though without showing why that appears to be PPI-rescuing is subject to these specific constraints.

The case of consequents of counterfactual conditions, however, also follows straightforwardly from the analysis presented in this paper. Let us look at the data again:

- (28) a. Wenn Fritz dumm wäre, könnte er nicht eine Fremdsprache.
if Fritz stupid were, could he not a foreign.language
'If Fritz were stupid, he wouldn't know a foreign language.'
- b. Wenn Fritz dumm wäre, hätte er nicht Frage 3 beantwortet.
if Fritz stupid were, had he not question 3 answered.
'If Fritz were stupid, he wouldn't have answered question 3'
- c. Wenn Fritz dumm wäre, hätte er nicht Frage 3 oder 4
if Fritz stupid were, had he not question 3 or 4
beantwortet.
answered
'If Fritz were stupid, he wouldn't have answered question 3 or 4.'

Counterfactual conditions always give rise to an inference that the antecedent does not hold in the actual world, i.e. by uttering the examples in (28) it is understood that Fritz actually is not stupid. Scholars have different opinions whether this inference arises as a result of an implicature, presupposition or is rather entailed by the antecedent, but regardless of the exact nature of this inference it follows that the sentence seems to make an additional claim about the actual world. Sentence (28a) clearly suggests that Fritz does speak at least one foreign language. But for this effect to arise, a proposition that takes Fritz to speak at least one foreign language must be part of the alternatives of the consequents and thus *eine Fremdsprache* must be focussed. This focus effect, as discussed earlier, cannot arise when the negated indefinite is replaced by a negative indefinite. Therefore, the inclusion of the negated indefinites in (28a), and for the same reasons, for the negated definite and disjunction (28b-c), is well-motivated.

The question as to why such negated indefinites, definites and disjunction may not appear in a non-counterfactual conditional is not accounted for yet. The examples already presented in (6), one of them repeated below, may only give rise to a counterfactual interpretation of the antecedent.

- (29) Wenn Fritz nicht eine Fremdsprache könnte, wäre er durchgefallen.
 if Fritz not a foreign.language knew, were he failed
 ‘If Fritz hadn’t known a foreign language, he would have failed.’

There are two ways of interpreting these facts, though. One way is saying that noun-counterfactual conditions do not allow negated indefinites, negated definites and negated disjunction to yield their unmarked readings. The second way of approaching it is saying that conditionals, to the extent that they license NPIs (cf. Heim 1987), also allow negated indefinites, definites and disjunction, but still impose additional restrictions to their interpretation. Under this latter view such constructions are fine, even with their unmarked reasons, but still, in NPI licensing contexts, subtle pragmatic competition may take place between, say, a sentence with a conditional containing a negated indefinite and a negative indefinite. In other words, under that view, the primary implicature that rejects the unmarked readings for negated indefinites is suppressed, but as secondary or local implicature it may still play a role (albeit a much weaker one as is generally the case with secondary implicatures, cf. Panizza et al. 2009 for recent discussion). That would then open up a way to account for the data in (6)/(29). Such effects (which are also visible in other examples that Schwarz & Bhatt provide, could potentially underlie the counterfactuality inferences in (29) as well.

References

- Abels, Klaus & Luisa Marti. 2011. A unified approach to split scope. *Natural Language Semantics* 18, 435-470.
- De Swart, Henriette. 2000. Scope Ambiguities with Negative Quantifiers. In Klaus von Stechow & Urs Egli (eds.), *Reference and Anaphoric Relations*, 109-132. Dordrecht / Boston / London: Kluwer Academic Publishers.
- Gajewski, John & Yael Sharvit. 2008. On the calculation of local implicatures. In Charles Chang & Hannah Haynie (eds.), *Proceedings of the 26th West Coast Conference on Formal Linguistics*, 411-419. Somerville: Cascadia Press.
- Gajewski, John & Yael Sharvit. 2012. In defense of the grammatical approach to local implicatures. *Natural Language Semantics* 20, 31-57.
- Gazdar, Gerald. 1979. *Pragmatics: Implicature, presupposition, and logical form*. New York: Academic.
- Geurts, Bart. 1996. On No. *Journal of Semantics* 13, 67-86.
- Heim, Irene. 1987. A note on negative polarity and downward entailingness. In Charles Jones & Peter Sells (eds.), *Proceedings of NELS 14*, 98-107. Amherst: GLSA.
- Homer, Vincent. 2012. Domains of polarity items. To appear in *Journal of Semantics*.
- Jackendoff, Ray. 1972. *Semantic Interpretation in Generative Grammar*. Cambridge: MIT Press.
- Jacobs, Joachim. 1980. Lexical decomposition in Montague Grammar. *Theoretical Linguistics* 7, 121-136
- Jaeger, Florian & Michael Wagner. 2003. *Association with Focus and Linear Order in German*. Ms, Stanford University.
- Krifka, Manfred. 1992. Some remarks on polarity items. In Dietmar Zäfferer (ed.), *Semantic Universals in Universal Semantics*, 150-189. Berlin: Foris.
- Ladusaw, William. 1979. *Polarity sensitivity as inherent scope relations*. PhD Dissertation, University of Texas, Austin.
- Panizza, Daniele, Gennaro Chierchia & Charles Clifton Jr. 2009. On the role of entailment patterns and scalar implicatures in the processing of numerals. *Journal of Memory and Language* 61, 503-518.
- Penka, Doris. 2010. *Negative Indefinites*. Oxford: Oxford University Press.
- Rullmann, Hotze. 1995. Geen eenheid. *Tabu* 25, 194-197.
- Sauerland, Uli. 2004a. On embedded implicatures. *Journal of Cognitive Science* 5, 107-137.
- Sauerland, Uli. 2004b. Scalar implicatures in complex sentences. *Linguistics and Philosophy* 27, 367-391.
- Schwarz, Bernhard. 2004. *How to rescue negative polarity items*. Ms, University of Texas at Austin.
- Schwarz, Bernhard & Rajesh Bhatt. 2006. Light negation and Polarity. In Rafaella Zanuttini, Héctor Campos, Elena Herburger & Paul Portner (eds.), *Cross-*

- Linguistic Research in Syntax and Semantics: Negation, Tense and Clausal Architecture*, 175-198. Washington DC: Georgetown University Press.
- Szabolcsi, Anna. 2004. Positive polarity—negative polarity. *Natural Language and Linguistic Theory* 22, 409-452.
- Williams, Edwin. 1981. Argument structure and morphology. *The Linguistic Review* 1, 81-114.
- Zeijlstra, Hedde. 2011. On the syntactically complex status of negative indefinites. *Journal of Comparative Germanic Linguistics* 14, 111-138.

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