Moeilijk is (not) difficult

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0. Introduction

Dutch adverbs such as *moeilijk* 'difficult(ly), with difficulty' and *slecht* 'badly' show some curious properties that their immediate English counterparts lack (other lexical items with comparable meaning and behavior are *kwalijk*, *lastig* and *bezwaarlijk*).¹ In many respects, these Dutch adverbs behave like weak negatives and are thus comparable to English *hardly* and *scarcely*. It will be argued that this behavior may be explained in terms of an aspect of the semantics of the adverbs under discussion: they are downward entailing. This explanation is challenged by the fact that the adverbs under discussion may license far fewer negative polarity items (NPIs) than one would expect on the basis of this semantics. Collocational effects play a role here. More specifically, it will be argued that *moeilijk* etc. may only modify the dynamic modality.

1. The basic facts

Adverbs such as *moeilijk* are, at least in their modal adverb usage (WNT IX, 995), negative according to a number of classical tests (Klima 1964, Kraak 1966, McCawley 1988, Van der Wouden 1994):

1. Just as in the case of indisputable negative words such as *nauwelijks* 'hardly', VP-deletion yields a negation in the second conjunct:²

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² Not everyone accepts sentence (1a). Note that I use the virtually non-existing *difficultly* in my glosses.

- (1) a Jan kan moeilijk 'nee' zeggen, en Frans ook niet Jan can difficultly 'no' say, and Frans also not 'Jan finds it difficult to say 'no', and neither can Frans'
 - b Jan kan nauwelijks 'nee' zeggen, en Frans ook niet Jan can hardly 'no' say, and Frans also not 'Jan can hardly say 'no', and neither can Frans'
- 2. *Moeilijk* etc. may license negative polarity items (NPIs):
 - (2) a Ik kan hem moeilijk uitstaan I can him difficultly stand 'I can hardly stand him'
 - b Ik kan het slecht verkroppen dat mijn auto gestolen isI can it badly stand that my car stolen is'I can hardly stand that my car has been stolen'

The set of NPIs that can be licensed by *moeilijk* is quite small: our database of NPI occurrences (Hoeksema 1994) contains only examples involving lexical elements such as *kunnen verkroppen* 'can bear', *te verteren* 'to swallow' and *meer* 'anymore'.³ It will turn out that (apart from *meer*) all NPIs that can be licensed by *moeilijk* involve what we will call 'dynamic modality', i.e., a meaning aspect of ability or possibility.

3. The modal particle *wel* can be used to deny explicitly and emphatically negative statements and statements containing *moeilijk*, etc.:⁴

- (3) a Ze kan moeilijk lopen maar wel goed zwemmen She can difficultly walk but good swim 'She walks with difficulty but she swims well'b Ze kan niet lopen maar wel goed zwemmen
 - b Ze kan niet lopen maar wel goed zwemmer She can not walk but good swim 'She cannot walk, but she swims well'

³ The complete list of NPIs triggered by *moeilijk* in the database is *kunnen verkroppen, te verkroppen zijn, weg te denken zijn, kunnen velen, te verteren zijn, kunnen thuisbrengen, te pruimen zijn* and *meer*. We only found *kunnen hebben* and *te rijmen met* licensed by *slecht*.

⁴ The particle *wel* does not discriminate negative expressions all by itself, as it can also be used to create a contrast between two positive statements, as in *ze is dom, maar wel lief* 'she is dumb, but kind'.

4. Just like undisputably negative elements, *moeilijk* can occur in double negation constructions with a denial reading (Van der Wouden 1994):

- (4) a We kunnen moeilijk niemand uitnodigen voor ons feest We can difficultly nobody invite for our party 'We can hardly invite nobody to our party (we must invite someone)'
 - b We kunnen niet niemand uitnodigen voor ons feestWe can not nobody invite for our party'We cannot invite nobody to our party (we must invite someone)'

5. In other cases, the combination of *moeilijk* and a(nother) negative element yields a litotes reading (Horn 1991, Van der Wouden 1995):

(5) a Je kunt moeilijk ontkennen dat dit belangrijk is You can difficultly deny that this important is 'You can hardly deny (= you must admit) that this is important'
b Je kunt niet ontkennen dat dit belangrijk is You can not deny that this important is 'You cannot deny (= you must admit) that this is important'

6. Certain positive polarity items (PPIs) such as *allerminst* are (apart from echo and denial readings) incompatible with negations and *moeilijk* alike (Van der Wouden 1994):

- (6) a *Hij kan moeilijk allerminst tevreden zijn He can difficultly not-at-all satisfied be
 - b *Hij kan nooit allerminst tevreden zijn He can never not-at-all satisfied be
 - c Hij kan best allerminst tevreden zijnHe can well not-at-all satisfied be'Of course he can be not satisfied at all'

This meaning of *moeilijk* illustrated in (1)-(6) is not the only possible one: the word can also have a manner adverb reading 'in a difficult way'. In this reading, none of the above tests apply. The following example is ambiguous between the two readings:

- (7) Vestdijk schrijft moeilijkVestdijk writes difficultly
 - a 'Vestdijk finds it difficult to write, V. hardly writes'
 - b 'Vestdijk writes in a difficult manner, V's writings are difficult'

I will only deal with the a type reading here.

2. Explaining the basic data

Negative polarity items occur in negative contexts only, whereas positive polarity items are excluded from such contexts. Semantically, negative contexts are characterized by the possession of the set-theoretical property of downward entailingness (Ladusaw 1979, Van der Wouden 1994). A definition of downward entailingness is given below.

(8) A context X[] is downward entailing iff for any A and B, $A \subseteq B$: X[B] \Rightarrow X[A]

This definition tells us that downward entailing contexts allow reasoning from sets to subsets. Normally, sentences with *kunnen* 'can' are not downward entailing but the reverse, which is known as 'upward entailing'. Given that *zingen of dansen* 'sing or dance' denotes a superset of *zingen*, whereas *zingen en dansen* denotes a subset of it, the following illustrates this:

(9)	а	Ik kan zingen \Rightarrow	Ik kan zingen of dansen	-
		I can sing	I can sing or dance	
	b	Ik kan zingen en d	lansen \Rightarrow Ik kan zingen	
		I can sing and dar	I can sing	

The validity of the following reasoning patterns shows that the adverb *nauwelijks* 'hardly' turns such upward entailing contexts into downward entailing ones, and that the same holds for *moeilijk*:

- (10) a Ik kan nauwelijks zingen \Rightarrow Ik kan nauwelijks zingen en dansen
 - b Ik kan nauwelijks zingen of dansen \Rightarrow Ik kan nauwelijks zingen
 - c Ik kan moeilijk zingen \Rightarrow Ik kan moeilijk zingen en dansen
 - d Ik kan moeilijk zingen of dansen \Rightarrow Ik kan moeilijk zingen

This explains why *moeilijk* may license the occurrence of negative polarity items: *moeilijk* creates a downward entailing context, and that is exactly what negative polarity items need to occur felicitously.⁵ The downward entailingness of *moeilijk* likewise explains the ungrammaticality of the sentences in (7), given the fact that

⁵ Some negative polarity items require the context to possess additional logical properties: cf. Zwarts (1981, 1993) and Van der Wouden (1994).

positive polarity items abhor downward entailing environments.⁶ Litotes and denial are triggered by downward entailing contexts as well (Van der Wouden 1994), which explains the data in (5) and (6). Finally, given that many linguistic phenomena that seem to be governed by the presence or absence of negation are actually sensitive to downward entailingness, let us, for the sake of elegance, assume that this sensitivity to downward entailingness is the fundamental explanation for all phenomena that seem to be related to negation. In other words, let us assume that the fact that *moeilijk* and undisputable negations behave in a parallel fashion in all examples in section 1 is accounted for uniformly by the fact that both negations and *moeilijk* are downward entailing.

3. A problem

One of the classical tests for negativity (Paardekooper: n.d.) does not work for *moeilijk*: the negative polarity auxiliary verb *hoeven* 'need' cannot be licensed by *moeilijk*, *slecht* and the like, whereas it can be by negative adverbs such as *nooit* and even by weak negatives such as *nauwelijks* 'hardly':

- (11) a *Hij hoeft moeilijk huiswerk te maken He needs difficultly homework to make
 - b Hij hoeft nooit huiswerk te maken He needs never homework to make 'He never needs to do homework'
 - c Hij hoeft nauwelijks huiswerk te maken
 He needs hardly homework to make
 'He hardly needs to do homework'

It is a well-known fact that not all negative polarity items have the same distribution (cf. Van der Wouden 1994). One reason for this is that downward entailingness is 'not negative enough' for certain NPIs: these demand that the context possess additional logical properties. However, *hoeven* does not belong to this class of strong NPIs. But there are also additional syntactic and pragmatic constraints, constraints that are not too well understood. For example, *hoeven* and *meer* 'anymore' do not occur in the antecedent clause of conditionals, although it can be proved that this context is downward entailing: other NPIs, such as *ook maar* 'at all' are fine here:

⁶ Certain positive polarity items do occur in certain downward entailing contexts but eschew others, that have additional properties: cf. the references in the last footnote.

- (12) a *Als je huiswerk hoeft te maken, mag je geen tv kijken If you homework need to make may you no television watch
 - b *Als je koffie meer wilt, moet je het zetten If you coffee anymore want must you it make
 - c Als je ook maar iets hoort, moet je me bellen If you at-all anything hear, must you call me 'You must call me if you hear anything at all

A difference, however, between *hoeven* and *meer* is that *meer* can be licensed by *moeilijk*, whereas *hoeven* cannot (cf. (11a)):

(13) We moeten bijna weg, dus we kunnen moeilijk koffie meer zetten We must almost away, so we can difficultly coffee anymore put 'We are almost leaving, so we can hardly make coffe anymore'

The contrast between (11a) and (13) shows that the distribution of *hoeven* and *meer* is not the same, which implies that (the interplay of) different mechanisms must be held responsible for them. Moreover, the fact that the set of NPIs that can be licensed by *moeilijk* is quite small (cf. above) should make us suspicious of any syntactic explanation.

4. A solution

A way of solving the problem of *moeilijk* not being able to license the NPI *hoeven* is to say that we are dealing with a negative collocation here (Van der Wouden 1992). This, however, is not too enlightening, as it is hardly more than another term for incompatibility of two lexical items.

A more positive formulation is to say that the diminisher *moeilijk* is restricted to a certain class of verbs - as is very often the case (Bolinger 1972). This class clearly does not include *hoeven*. Moreover, it seems to be possible to give a specification of this class in semantic terms, which explains why *hoeven* does not belong to it. Observe that in all the above sentences with *moeilijk* we also find the verb *kunnen* 'can, be able to'. This will turn out to be relevant, although it does not mean that *moeilijk* may only function as a negative with this verb, as it has the same diminisher meaning with a number of other words and constructions. The following examples show that derived adjectives with the suffix *-baar* 'able', medial constructions, modal infinitive constructions, etc., may occur with *moeilijk* as well.

- (14) a Je kunt dit papier moeilijk beschrijven You can this paper difficultly write-on 'It is difficult to write on this paper'
 - b Dit papier is moeilijk beschrijfbaarThis paper is difficultly onwrite-able''It is difficult to write on this paper'
 - c Dit papier laat zich moeilijk beschrijven This paper lets itself difficultly write-on 'It is difficult to write on this paper'
 - d Dit papier schrijft moeilijk This paper writes difficultly 'It is difficult to write on this paper'
 - e Dit papier is moeilijk te beschrijven This paper is difficult to write-on 'It is difficult to write on this paper'

Interestingly enough, all Dutch sentences translate into the same English sentence. This suggests that all sentences in (14) have more or less the same meaning. A factor common to all these constructions seems to be that they express that something cannot be done, or only with difficulty. In other words, they all deal with a certain potentiality.

Potentiality is a form of modality: the sentences in (14) do not express the proposition that the paper is being written on, but rather give a sort of estimation of the possibility that it might be written on or the easiness with which that may occur. This type of modality, concerned with ability and disposition, is called 'dynamic modality' by Von Wright (1951: 28f). Palmer (1986: 12) doubts 'whether this should be included within modality at all', without any argumentation. This exclusion of dynamic modality from his discussion of modality probably results from Palmer's definition of the concept, which amounts to 'the grammaticalization of speakers' (subjective) attitudes and opinions' (1986: 16).

Dynamic modality, however, fits perfectly well in a slightly broader conception of modality. Consider, for example, the following definition (Kiefer 1994: 2515) (cf. also Bybee et al. 1994: 176 ff.):

The essence of 'modality' consists in the relativization of the validity of sentence meanings to a set of possible worlds. Talk about possible worlds can thus be construed as talk about ways in which people could conceive the world to be different.

Whatever the exact status of dynamic modality may be, the notion of potentiality or ability seems to be highly relevant in understanding the distribution of *moei*-

lijk.⁷ When modifying the verbal expression *in staat zijn* 'be able', that refers to the same modality, *moeilijk* has the same type of meaning as with *kunnen*.⁸

(15) Hij is slecht/moeilijk/nauwelijks in staat om de fles te laten staan He is badly/difficultly/hardly able to the bottle to let stand 'It is difficult for him not to drink'

If it is indeed the case that *moeilijk* is restricted to modification of the dynamic modality, we start to understand why it cannot function as a trigger for *hoeven*, as this verb typically denotes deontic or epistemic modality (Klooster 1984). Probably, the semantic properties of *moeilijk* are appropriate (in terms of downward monotonicity) to license *hoeven* in principle, but the adverb cannot modify this verb anyway.

An independent argument that incompatibility of modalities is the reason why *moeilijk* cannot license the NPI *hoeven* is the fact that *moeilijk* cannot modify other deontic or epistemic verbs and expressions. Consider the following examples (replacement of *moeilijk* by *niet* or another true negation makes them grammatical):

- (16) a Je moet dit probleem *moeilijk/niet oplossen You must this problem difficultly/not solve 'You must(n't) solve this problem'
 - b Gij zult *moeilijk/niet doden Thou shalt difficultly/not kill
 'Thou shalt (not) kill'
 - c Ik mag nooit/*moeilijk naar de filmI may never/difficultly to the movie'I am (never) allowed to go to the movies'
 - d Je bent nauwelijks/niet/nooit/*moeilijk verplicht om dat te doen You are hardly/not/never/difficultly obliged to that to do 'You are hardly/not/never obliged to do that'

⁷ Certain usages of *moeilijk* may be described in terms of possible worlds semantics (Kratzer 1977). For example, in the following example one might say that *moeilijk* says that the number of accessible possible worlds is small compared to a certain standard (after Kratzer 1981):

Jan kan moeilijk de moordenaar zijn

John can difficultly the murderer be

But in this sentence, *moeilijk* means something different than in the rest of this paper: the meaning of the complete sentence is 'it is (rather) improbable that John is the murderer', and this is a different type of meaning, so we are dealing with another type of modality.

⁸ For a reason I do not know, some of my informants judge this sentence better in the literal sense ('he has to take up the bottle') than in the idiomatic one ('he usually drinks').

5. Another problem, and some sort of a solution

Having solved the problem of why *moeilijk* can function as a negative in certain environments but not in others, we might take a look at another problem. Why do English difficult(ly) and bad(ly) differ from their Dutch counterparts in that they cannot function as negatives? In other words, why are the literal translations of the above examples with *moeilijk* and *slecht* ungrammatical?

I suggest that the answer should be looked for in a combination of lexical semantics and collocational effects. Let us first concentrate on bad(ly), which is the easier of the two. Note that this adverb appears as a verb modifier, just like *moeilijk*. Its function, however, is radically different:

(17) I need your love (so) bad(ly)

This sentence means 'I need your love very much', in other words, *badly* functions here as an intensifier rather than a minimizer (Bolinger 1972).⁹ This usage appears to be restricted to predicates expressing 'need' and 'want'; with other verbs we get a manner adverb reading, as in *he kissed her badly*. Intensifiers are not downward entailing but upward entailing, and therefore *badly* will never be able to license any negative polarity item.

The case of difficult(ly) is a little bit more complicated. In principle, this lexeme can license NPIs such as *any*, as the following examples show.¹⁰

- (18) a It's difficult to tell if anything is happening.
 - b ... it becomes logically difficult to place any responsibility for the creation of children on the shoulders of men.

But *difficult(ly)*, which is rare anyhow, cannot function as a verb intensifier or verb diminisher the way *moeilijk* and *badly* can (Bolinger 1972): sentences in which *difficult(ly)* modifies a verb are ungrammatical (at least under the intended reading):¹¹

⁹ Cf. the usage of *wreed* 'cruel' as a general purpose intensifier in Flemish dialects of Dutch: *De dochter was wreed schoon gekleed* 'the daughter was cruelly (i.e., very) beautifully dressed'.

¹⁰ Data from our corpus (cf. Hoeksema 1994).

¹¹ If *difficult(ly)* in the examples is replaced by *with difficulty*, the sentences are grammatical, but the prepositional phrase can then be read as a manner adverb only.

- (19) a *She walks difficult(ly)
 - b *She can walk difficult(ly)
 - c *She must walk difficult(ly)

It is not completely clear to me why only certain elements of this class of adverbs with a comparable meaning can be used as degree modifiers for verbs, and why others cannot. Processes such as fossilization and grammaticalization (or gramma-tization, as in Bolinger 1972) certainly play a role.

Interestingly enough, the adverb *hardly* used to have 'difficultly' as one of its meanings. According to the OED (V, 89), meaning 6 of the adverb is 'not easily, with difficulty'. Here are some of the examples that are given to illustrate this usage:

(20) a Very hardly can we discerne the thinges that are vpon earth (1535)b Easily provoked and hardly pacified (1766)

Note that both examples involve dynamic modality again. However, this use of *hardly* is characterized as 'obsolete', the current meaning of the adverb being 'barely, only just; almost not; not quite; scarcely'. Here are some old examples of this usage:

- (21) a It hardlye agreeth with the principles of Philosophie and common experience (1553)
 - b Being so little (as hardly the finnesse cannot be seen) (1601)
 - c When Day broke I could hardly believe my Eyes (1689)

The first example shows that this usage is not restricted to modification of dynamic modality. Thus, *hardly* has lost that part of its lexical meaning that involves difficulty, thereby extending its usage possibilities outside the realm of predicates expressing possibility or ability, but it has kept its downward entailing character. The result is a general purpose weak negation.

The Dutch counterpart of *hardly*, *nauwelijks*, has undergone the same evolution. According to the WNT (IX, 1645), the oldest meaning of *nauwelijks* is 'with great difficulty; in such a way, that the activity almost failed'. Here are some old examples:¹²

¹² The occurence of the extra (paratactic) negation *not* in (21b) and *en* in (22a) show that *hardly* and *nauwelijks* are downward entailing, even if they mean 'with difficulty' (Van der Wouden 1994).

- (22) a ... en konden wy nauwlijcks des boots machtigh worden (1637) not could we NAUWELIJKS the-GEN boat-GEN powerful become 'We could hardly/only with difficulty master the boat'
 - b Och broeder, naulijx zijtge ontkomen (1666)O brother, NAUWELIJKS aret-thou escaped'O brother, thou hast escaped only with difficulty'

Again the examples involve ability and/or possibility, i.e., dynamic modality. Just as was the case with *hardly*, the meaning component expressing difficulty is lost, but the downward entailingness of *nauwelijks* is still present. The result is again a general purpose weak negation that is able to modify many more predicates than the more meaningful *moeilijk*.

The conclusion I draw from the discussion of these tiny differences between Dutch and English is that any theory about collocations will be a theory about possible collocational systems (cf. Van der Wouden 1994: 204). Stated at a rather abstract level, such a theory will define the borderlines within which the various types of collocations may occur. Part of this theory will be, that adverbs meaning 'difficult(ly), with diffliculty' may be verb modifiers. Whether or not the combinations within these borderlines will indeed be collocational cannot be predicted, nor can the exact form the collocational combinations will take be known beforehand. But still, collocational combinations make sense. Collocations are compositional post hoc: once the form and meaning of a certain collocation are known, the combination is hardly surprising anymore.

6. Conclusion

This exercise in lexical semantics has tried to shed some light on the unexpected fact that the Dutch adverb *moeilijk* 'difficultly' only sometimes functions as a negation. I have argued for an explanation in terms of incompatible modalities: as *moeilijk* only modifies along the dynamic modality axis, it cannot be combined with the negative polarity verb *hoeven* which typically expresses epistemic or deontic modality. The fact that the English counterpart of *moeilijk*, *difficultly*, cannot function as a verb modifier in this sense has been explained in terms of collocational effects: i.e., as a quirk of the lexical system of English. A short detour through the history of *hardly* and its Dutch counterpart *nauwelijks* showed that there is no fundamental grammatical difference between English and Dutch here, but only slight variation in lexical meanings.

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