The Crosslinguistic Realization of *-Ever*: Evidence from Modern Hebrew

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1 Introduction

This paper brings forth novel data from Modern Hebrew (hereafter: Hebrew), demonstrating that the semantic primitive encoded in the English morpheme *-ever* can be realized via the negative marker of a language. Rather than contributing negative force, the negative marker in Hebrew free relatives (FRs) and until-clauses may serve as a free choice element (see Vlachou 2007 for a recent overview of the semantic literature on free choice items).

The paper is organized as follows: in section 2 I present the relevant data and observations which the analysis aims to account for. Section 3 establishes that the phenomenon of expletive negation (EN)[1] in Hebrew, where the negative marker seems to lack negative force, cannot be explained through existing accounts for other languages. Given that it carries semantic content, EN in Hebrew cannot be analyzed as an identity function, while its unique prosodic status suggests that it cannot be reduced to standard negation, as some accounts argue. In section 4 I maintain that Hebrew EN in fact corresponds to English *-ever*, and formalize this observation by applying von Fintel's (2000) analysis of English *whatever* to EN in Hebrew, both in FRs and until-clauses. The proposed approach illustrates the extent to which a given semantic primitive can vary in terms of its crosslinguistic realization, i.e., the morpheme *-ever* in English, the negative marker in Hebrew, and possibly subjunctive mood in Polish and Russian (Citko 2001). Moreover, although the distribution and behavior of EN seems to differ from language to language, and even within a given language there may be more than one subtype of EN (see Citko 2001), this new analysis of EN justifies a reexamination of accounts provided for other cases. In section 5 I argue that the analysis is not, however, applicable to all environments in Hebrew where the negative marker seems to lack negative force; specifically, I claim that apparent exclamatives involving the negative marker are negative rhetorical questions, functioning as exclamatives in terms of their illocutionary force. Accordingly, the negative marker in these forms does in fact serve its conventional function. Finally, in section 6 I address the diachronic aspects of this account, namely, how the negative marker came to have the function of *-ever*, by suggesting possible historical trajectories which may have crosslinguistic validity.

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[1] Other names found in the literature include pleonastic, redundant and paratactic negation. The latter term is used by van der Wouden (1994) and Zeijlstra (2004), a.o., since they consider this a special type of concord relation. However, such an analysis is not tenable for Hebrew (see below).

2 Expletive negation in Hebrew

The phenomenon of EN, in which a negative marker occurs without apparent negative force, is quite common across the languages of the world. However, the set of environments in which it is possible is nonetheless restricted, and different languages choose different subsets thereof. Thus, we can find EN after "negative verbs" (e.g., *fear*, *prevent*, *doubt*), *barely*, *almost*, *before*, *without*, *until* and *unless*, in comparative constructions, exclamatives and FRs, both as arguments and adjuncts (see Horn 1978, van der Wouden 1994, a.o.).

In Hebrew, the negative marker *lo* surfaces in three environments where it does not seem to contribute negative force to the sentence, and thus may prima facie be labeled EN[2]. Crucially, however, in all these cases and contra claims regarding other languages, *lo* does contribute semantic content. In this section I will describe two of these environments, while the third environment will be addressed separately in section 5. First, *lo* occurs in both argument and adjunct FRs: (1a) illustrates an argument FR without the negative marker and (1b) with the marker; (2) is an example of an adjunct FR including the marker.

(1) a. ma še-dani katav hitparsem ba-iton.
what that-Danny wrote was.published in.the-newspaper
'What Danny wrote was published in the newspaper.'

b. ma še-dani **lo** katav hitparsem ba-iton.
what that-Danny **NEG** wrote was.published in.the-newspaper
'Whatever Danny wrote was published in the newspaper.'

(2) ma še-**lo** ta'ase ata tikašel ba-bxina.
what that-**NEG** you.will.do you will.fail in.the-test
'Whatever you do, you'll fail the test.'

As can be gleaned from the translation, the difference between (1a) and (1b) corresponds to that between plain *wh* FRs and *wh-ever* FRs in English (e.g., Dayal 1997): (1a) is a definite description, while (1b) indicates indiscriminateness with respect to the identity of the FR referent. The latter also licenses a counterfactual entailment: *Danny could have written anything else and it would have been published*. An additional observation which will be relevant later is the fact that *lo* with the *-ever* reading in these examples cannot take stress, unlike standard negation[3].

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[2] There is a fourth environment in which the negative marker does not contribute negative force (Ivy Sichel, p.c.): in the complement of certain exclamative predicates, such as *lehitpale* 'to be surprised'. Unlike the other cases addressed below, here negation is necessary in the matrix clause; thus, this is arguably a different phenomenon, possibly overnegation (see Liberman 2004).

[3] If the negative marker is stressed in an argument FR, it can only be interpreted as standard negation. In the specific example of (1b) this would result in an awkward, if not infelicitous, sentence. Adjunct FRs are generally infelicitous if *lo* is stressed.

A second environment in which EN *lo* occurs is until-clauses: *lo* may be added to the plain until-clause in (3a), resulting in (3b).

(3) a. dani lo yišan ad še-ha-mesiba tatxil.
Danny NEG will.sleep until that-the-party will.start
'Danny won't sleep until the party starts.'

b. dani lo yišan ad še-ha-mesiba **lo** tatxil.
Danny NEG will.sleep until that-the-party **NEG** will.start
'Danny won't sleep until the party starts.'

The semantic contribution of the negative marker is less transparent here than in FRs, but nonetheless can be detected. First, note that specifying the time of the actualization of the until-clause when EN is present renders the sentence infelicitous:

(4) dani yamšix lišon ad še-ha-mesiba (*__lo__) tatxil
Danny will.continue to.sleep until that-the-party (*NEG) will.start
be-od ša'ataim.
in two.hours
'Danny will continue sleeping until the party starts in two hours.'

Second, in some cases of translation from English to Hebrew, translators choose to include the negative marker in the until-clause, despite the fact that its absence would not make the translation ungrammatical or incorrect:

(5) "adam še-ne'ešam be-avera plilit xezkato še-hu zakai, ad še-**lo** huxexa ašmato ka-xok be-mišpat pumbi."
"Everyone charged with a penal offence has the right to be presumed innocent until **NEG** proven guilty according to law in a public trial."
(Article 11 of the Universal Declaration of Human Rights;
http://www.unhchr.ch/udhr/lang/hbr.htm)

Third, the addition of the negative marker to an example like (6a) causes infelicity, as observed in (6b).

(6) a. ad še-hu met dani lo hitxaten.
until that-he died Danny NEG married
'Until he died, Danny didn't get married.'

b. #ad še-hu **lo** met dani lo hitxaten.
until that-he **NEG** died Danny NEG married
'Until he died, Danny didn't get married.'

The explanation for these observations will follow from the semantic content for the negative marker in such cases, to be postulated below. For now, it is important

to note that standard negation in the matrix clause is not necessary to license EN in the until-clause, as shown in (7), thus ruling out a concord-type analysis[4]. Also, as was observed in the case of FRs, if *lo* is assigned stress only the standard negation reading is available, assuming it is plausible for the specific sentence.

(7)	dani	yamšix	lišon	ad	še-ha-mesiba	**lo**	tatxil.
	Danny	will.continue	to.sleep	until	that-the-party	**NEG**	will.start

'Danny will continue sleeping until the party starts.'

3 Existing analyses of expletive negation

Within the formal literature, there exist two main approaches to cases of EN akin to the Hebrew examples provided above. On the one hand, there are researchers who argue that EN is truly vacuous in the sense that it contributes nothing to the semantics. An example of this type of approach is Espinal (2000), who derives the vacuity of EN in Spanish and Catalan through a syntactic analysis, whereby there is covert feature movement from the negative marker to a nonveridical head (e.g., *before*). The latter then checks and thus deletes the marker's negative features. An advantage of Espinal's approach is that it correctly models the locality constraint on EN, found in Hebrew as in Spanish and Catalan, according to which the "licensor" of EN (the nonveridical head in Espinal's terms) must be in the same clause as the negative marker; otherwise, only a standard negation reading is available. Thus, in (8), the negative marker in the lowest clause can only be interpreted as standard negation and an *-ever* reading is not available:

(8)	dani	lo	yašan	ad	še-yossi	amar	lo
	Danny	NEG	slept	until	that-Yossi	told	to.him
	še-ha-mesiba	**lo**	hitxila.				
	that-the-party	**NEG**	started				

'Danny didn't sleep until Yossi told him that the party had *(not) started.'

However, there are also multiple problems with this type of analysis. For Hebrew it is clearly inappropriate given the semantic contribution of *lo* described in the previous section. Moreover, Español-Echevarría and Vegnaduzzo (2000) show that even in Spanish EN does not seem to be a pure identity function. In addition, the claim that the licensor is necessarily nonveridical is also inaccurate; see, for example, Sánchez-Valencia et al. (1994) for discussion of the veridicality of until-clauses. Accordingly, the properties of the licensor supposedly needed to check and delete the negative marker's features seem to be unsubstantiated.

A similar approach is advocated in van der Wouden (1994), where EN is claimed to be an identity function, and its distribution derived by the assumption

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[4] The absence of negation in the matrix clause does render the sentence more marginal, while using the verb 'continue' when negation is absent, as in (7), seems to improve it. I will not address this issue here.

that it is an NPI. Like Espinal's analysis, this theory runs into problems in light of data showing that EN is not semantically vacuous; furthermore, the account of EN's distribution is both too strong and too weak: it overgenerates, since EN is not found crosslinguistically under the universal quantifier, and undergenerates, because EN is found in non-downward-entailing contexts, such as after "negative verbs" (see Portner and Zanuttini 2000).

The second camp in the literature dealing with EN argues that it has the ordinary semantics of negation, which is "masked" by some other factor. Analyses of this type are provided in Abels (2002), Español-Echevarría and Vegnaduzzo (2000), Meibauer (1990), Muller (1991) and Portner and Zanuttini (2000). To take a simple example, Abels (2002) claims that EN under Russian *poka* 'until' is not vacuous, since *poka* has the semantics of 'while', which together with standard negation derives the meaning of 'until'. It is not obvious whether Abels' explanation indeed accounts for the Russian data. First, the truth conditions of 'while' with negation are not identical to those of 'until'; hence, clarification is needed regarding the behavior of Russian *poka* under negation. Furthermore, in a study on the acquisition of EN in Russian, Gavruseva and Grinstead (2004) found age differences in the interpretation of EN under *poka* but no difference with *poka* alone. This distinction is unexpected under Abel's analysis. As for attempting to apply this type of approach to the Hebrew data, it is doubtful that the observations in section 2 could be reduced to standard negation. Moreover, the fact that the negation and *-ever* readings differ in terms of their prosodic status, with only the former being able to take stress, suggests that the two are fundamentally different.

Given the problems associated with each of the existing approaches to EN, it seems that a third type of theory is required, in which EN is neither vacuous nor truly negative. Rather, it has a semantics of its own, which I will describe in the following sections. I begin by reviewing von Fintel's (2000) proposed semantics for English *whatever*, which is transparently the same element realized in Hebrew FRs through a *wh*-word and *lo*. I argue that the same *-ever* element is manifested in until-clauses through *lo*, and show how this explains the observations noted in section 2.

4 Expletive negation = *-ever* in Modern Hebrew

4.1 von Fintel's (2000) semantics for *whatever*

The basic intuition to be accounted for in *whatever* FRs is that in using *whatever*, the speaker indicates that all the different entities possibly described by the FR have the property denoted by the matrix clause, and he does not know or care what this entity is (von Fintel 2000). The former attitude on the part of the speaker gives rise to what are known as ignorance readings, as in (9), whereas the latter results in indifference readings, as in (10):

(9) There's a lot of garlic in whatever Arlo is cooking.

(10) I grabbed whatever tool was handy.

In his analysis of *whatever* FRs, von Fintel (2000) builds on the work of Dayal (1997), in which *whatever* introduces universal quantification over epistemic alternatives, in Dayal's terms i(dentity)-alternatives—worlds which differ only in the denotation of the FR, in accordance with the speaker's beliefs (see also Giannakidou 1997, 2001). However, von Fintel argues that Dayal's definition does not ensure that only the denotation of the FR differentiates i-alternatives. Accordingly, and given a variety of other considerations which are beyond the scope of this paper, von Fintel eventually settles on a conditional semantics, meant to capture both ignorance and indifference readings:

(11) *whatever (w) (F) (P) (Q)*

a. presupposes: $\forall w' \in \min_w [F \cap (\lambda w''.\iota x.P(w'')(x) \neq \iota x.P(w)(x))]$: $Q(w')(\iota x.P(w')(x)) = Q(w)(\iota x.P(w)(x))$

b. asserts: $Q(w)(\iota x.P(w)(x))$

The conditional presupposition in (11a) states that in all the worlds w' in the modal base F differing from w in the identity of x, the proposition Q(P(x)) has in w' whatever truth value it has in w. In other words, a minimal change in the identity of the FR referent does not change the truth of the sentence. von Fintel accounts for the two possible readings through the type of modal base; thus, an epistemic modal base gives rise to an ignorance reading, while a counterfactual base derives an indifference reading. (12) and (13) illustrate the assertion and presupposition associated with each reading (see also Tredinnick 2005):

(12) There's a lot of garlic in whatever Arlo is cooking.
Assertion: There's a lot of garlic in the thing Arlo is cooking.
Ignorance Presupposition: In all of speaker's minimally different epistemically accessible worlds where Arlo is cooking something different, there's a lot of garlic in what he's cooking.

(13) I grabbed whatever tool was handy.
Assertion: I grabbed the tool that was handy.
Indifference Presupposition: In all of the minimally different counterfactual worlds in which a different thing was handy, I grabbed what was handy.

4.2 Applying von Fintel (2000) to Modern Hebrew

Given that Hebrew FRs of the type exemplified by (1b), repeated below as (14), seem to parallel their English counterparts, von Fintel's (2000) analysis can be directly applied to the Hebrew data, with *lo* as the Hebrew equivalent of *-ever*.

(14) ma še-dani **lo** katav hitparsem ba-iton.
what that-Danny **EN** wrote was.published in.the-newspaper
'Whatever Danny wrote was published in the newspaper.'
Assertion: The things Danny wrote were published in the newspaper.
Indifference Presupposition: In all of the minimally different counterfactual worlds in which Danny wrote different things, they were published in the newspaper.

Adjunct FRs, as illustrated in (2), can similarly give rise to ignorance and indifference readings, and thus the same account should be appropriate for such cases. The specifics of the formalization are beyond the scope of this paper.

Alert readers will notice that the examples given until now for Hebrew FRs only involved an indifference reading. Indeed, such examples are easier to find, and given a null context, the indifference reading will be the one preferred by speakers, if the ignorance reading is at all available. However, it is not the case that the latter is entirely impossible, as (15) demonstrates:

(15) (lo yodea ma ze, aval) ma še-dani
(NEG I.know what it but) what that-Danny
lo bišel meriax tov.
EN cooked smells good
'(I don't know what it is, but) whatever Danny cooked smells good.'

The fact that such readings are available, together with the empirical justification for a uniform analysis of both readings (Condoravdi 2005a), disfavors the approach proposed by Giannakidou and Cheng (2006), who treat them differently and consider the ignorance reading a non-modal, plain FR. I leave the issue of the preference for indifference readings for future research.

An additional noteworthy fact is that argument FRs can lack negation and still have the *-ever* component in their interpretation, rather than the semantics of a plain definite description[5]. Thus, (1a) is repeated in (16), where I note this possible interpretation, in addition to the plain FR reading which was already mentioned.

(16) ma še-dani katav hitparsem ba-iton.
what that-Danny wrote was.published in.the-newspaper
'What**(ever)** Danny wrote was published in the newspaper.'

However, this is not surprising or extraordinary; English plain *wh* FRs can also function as *wh-ever* FRs (Horn 2000):

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[5] This is contingent on the *wh*-word bearing prosodic prominence and/or an appropriate context. Similarly, adjunct FRs do not require negation, pace Izvorski (2000).

(17) I'm free, to choose whom I please, any old time.
I'm free, to please who I choose, any old time.
("I'm free", M. Jagger & K. Richards 1965)

Having reviewed the relevant facts from FRs, the issue turns to until-clauses, where the equivalence with English is not transparent, given that English does not allow *ever* under *until*. Nevertheless, I claim that *lo* contributes the same semantic content in both environments, namely, that of a free choice element equivalent to *-ever*. The only difference between its realization in until-clauses and in FRs is that in the latter the minimal change across worlds in the modal base is in the identity of the FR referent, while in the former this change is in the time at which the event described by the until-clause takes place.

To begin the analysis, I follow Karttunen (1974) and much subsequent work in assuming the existence of two lexical items for *until*, punctual (also known as "NPI-*until*") vs. durative. For the basic semantics of punctual *until* I slightly modify the formalization given in Giannakidou (2002): the primary difference is that I assign the time at which the until-clause predicate holds the status of a definite description; note also the need to switch the variables used in order to match von Fintel's formalization.

(18) Scalar semantics for punctual *until*
$[[\text{not P until Q}]] = \lambda e \exists t[Q(t) \wedge P(e,t) \wedge \neg\exists t' \exists e' [t' \in C \wedge t' < t \wedge P(e',t')]]$
(Giannakidou 2002)

(19) Revised semantics for punctual *until*
$[[\text{not Q until P}]] = \lambda w_0.Q(\iota t[t \in C \wedge P(t)(w_0)])(w_0) \wedge \neg\exists t'[t' \in C \wedge t' < \iota t[t \in C \wedge P(t)(w_0)] \wedge Q(t')(w_0)]$

(20) combines the assertion in (19) with the presupposition provided by *lo*, which is similar in essence to that provided for FRs:

(20) *ad še-lo*$_{EN}$ *(w) (F) (P) (not Q)* – punctual
a. presupposes: $\lambda w_0 \forall w' \in \min_w [F \cap (\lambda w''.\iota t[t \in C \wedge P(t)(w'')] \neq \iota t[t \in C \wedge P(t)(w_0)])]$:
$Q(\iota t[t \in C \wedge P(t)(w')](w')$
$\wedge \neg\exists t'[t' \in C \wedge t' < \iota t[t \in C \wedge P(t)(w')] \wedge Q(t')(w')] =$
$Q(\iota t[t \in C \wedge P(t)(w_0)](w_0)$
$\wedge \neg\exists t'[t' \in C \wedge t' < \iota t[t \in C \wedge P(t)(w_0)] \wedge Q(t')(w_0)]$
b. asserts: $\lambda w_0.Q(\iota t[t \in C \wedge P(t)(w_0)])(w_0) \wedge \neg\exists t'[t' \in C \wedge t' < \iota t[t \in C \wedge P(t)(w_0)] \wedge Q(t')(w_0)]$

Given this semantics, we derive the following for the example in (3b), repeated below as (21): the sentence asserts that Danny will sleep at the time at which the

party starts (t), and there is no time (t') prior to this time at which Danny will sleep. It presupposes that in all of the minimally different worlds in which the party starts at a different time (t), Danny will sleep at this time and there is no time (t') prior to this time at which Danny will sleep. That this is the correct semantics will be shown following a similar formalization for durative *until*.

(21)

dani	lo	yišan	ad	še-ha-mesiba	**lo**	tatxil.
Danny	NEG	will.sleep	until	that-the-party	**EN**	will.start

'Danny won't sleep until the party starts.'

As I did with punctual *until*, my analysis for durative *until* will also involve a slight modification of Giannakidou's (2002) semantics: (22) is her original formulation, (23) is my version, and (24) includes the presupposition contributed by *lo*.

(22) Scalar semantics for durative *until*

For α: $\lambda s\ [\mathbf{P}(s) \wedge \exists t\ \mathbf{AT}\ (s,t)]$; β: $\lambda t'\mathbf{Q}(t')$

$[[\text{until}\ (\alpha,\beta)]] = \lambda s \exists t \exists t' \exists t'''\ [\mathbf{P}(s) \wedge \mathbf{AT}\ (s,t''') \wedge \mathbf{Q}(t') \wedge t \subseteq t''' \wedge$
$\forall t''\ [[t \leq t'' < t'] \rightarrow \exists s'\ [s' \subseteq s \wedge \mathbf{P}(s') \wedge \mathbf{AT}\ (s', t'')]]]$

(Giannakidou 2002)

(23) Revised semantics for durative *until*

$[[\text{Q until P}]] = \lambda w_0.\exists t[t \in C \wedge \forall t''[t'' \in C \wedge t \leq t'' < \iota t'''[t''' \in C \wedge P(t''')(w_0)]$
$\rightarrow Q(t'')(w_0)]]$

(24) *ad še-lo*$_{EN}$ *(w) (F) (P) (Q)* – durative

a. presupposes: $\lambda w_0 \forall w' \in \min_w [F \cap$
$(\lambda w''.\iota t'''[t''' \in C \wedge P(t''')(w'')] \neq \iota t'''[t''' \in C \wedge P(t''')(w_0)])]$:
$\exists t[t \in C \wedge \forall t''[t'' \in C \wedge t \leq t'' < \iota t'''[t''' \in C \wedge P(t''')(w')] \rightarrow Q(t'')(w')]]$
$= \exists t[t \in C \wedge \forall t''[t'' \in C \wedge t \leq t'' < \iota t'''[t''' \in C \wedge P(t''')(w_0)] \rightarrow$
$Q(t'')(w_0)]]$

b. asserts: $\lambda w_0.\exists t[t \in C \wedge \forall t''[t'' \in C \wedge t \leq t'' < \iota t'''[t''' \in C \wedge P(t''')(w_0)]$
$\rightarrow Q(t'')(w_0)]]$

Accordingly, (7), repeated below as (25), asserts that Danny will sleep at all the times (t'') between a given time (t) and the time at which the party starts (t'''), and it presupposes that in all of the minimally different worlds in which the party starts at a different time (t'''), Danny will sleep at all the times (t'') between a given time (t) and this time.

(25)

dani	yamšix	lišon	ad	še-ha-mesiba	**lo**	tatxil.
Danny	will.continue	to.sleep	until	that-the-party	**EN**	will.start

'Danny will continue sleeping until the party starts.'

We can now return to the observations regarding EN in until-clauses from section 2, and confirm that the semantics proposed explains them. First, the fact that one cannot specify the time at which the until-clause takes place, as shown in (26) (=4), follows from the ignorance expressed by the use of EN. In the formalization employed here, this was modeled through the presence of an epistemic modal base.

(26) dani yamšix lišon ad še-ha-mesiba (*__lo__) tatxil
Danny will.continue to.sleep until that-the-party (*EN) will.start
be-od ša'ataim.
in two.hours
'Danny will continue sleeping until the party starts in two hours.'

Interestingly, this observation corresponds to Dayal's (1997) "namely" test for FRs: uniquely identifying the referent of an ignorance *wh-ever* FR results in ungrammaticality, as seen in (27). In von Fintel's (2000) formulation, this follows from the presupposition of the conditional operator, which in (26) requires variation in the speaker's epistemic state as to when the party will start.

(27) *Whatever Mary is cooking, namely ratatouille, uses onions.

However, it is also possible to supply a counterfactual modal base, resulting in an indifference reading. As is the case for FRs, this type of reading supports non-accidental generalizations ("essential link" in Choi 2007; see also Menéndez-Benito 2002); i.e., an interpretation whereby there is a principled relation between the entity described by the FR and the matrix clause, or in the case of until-clauses, between the event described in the matrix clause and that in the until-clause. This explains both the observation that the translator used EN in (5), repeated below as (28), and the fact that the addition of EN in (6b), (29b) below, resulted in infelicity. In the former case, the translator creates a statement stronger than simple temporal contingency by including EN. In the latter, the creation of a non-accidental relation between one's death and getting married is trivially unreasonable, and hence the sentence is infelicitous, while (29a), without EN, can be interpreted as merely indicating a temporal relation[6].

(28) "adam še-ne'ešam be-avera plilit xezkato še-hu zakai, ad še-**lo** huxexa ašmato ka-xok be-mišpat pumbi."
"Everyone charged with a penal offence has the right to be presumed innocent until **EN** proven guilty according to law in a public trial."
(Article 11 of the Universal Declaration of Human Rights)

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[6] (29a) also shows that a wide scope *until* reading (Mittwoch 1977, Mittwoch 2001) lacking an actualization entailment is available in Hebrew. Still, it seems necessary to postulate a separate NPI-*until* (see Mittwoch 2001, Giannakidou 2002).

(29) a. ad še-hu met dani lo hitxaten.
until that-he died Danny NEG married
'Until he died, Danny didn't get married.'
b. #ad še-hu **lo** met dani lo hitxaten.
until that-he **EN** died Danny NEG married
'Until he died, Danny didn't get married.'

5 Apparent exclamatives

Before ending the review of EN environments in Hebrew, it is necessary to address an additional case in which negation seems prima facie to lack negative force, and which has indeed been treated as EN in other languages (e.g., Portner and Zanuttini 2000), namely, exclamatives. In Hebrew, *wh*-exclamatives are superficially identical to *wh*-questions, marked as different in their interpretation only by intonation. In addition, there is a set of what appear to be structurally identical constructions, distinct in form only in the appearance of the negative marker *lo*. Thus compare (30a), which is a simple *wh*-exclamative, and (30b), which seems identical apart from the inclusion of *lo*:

(30) a. ma asiti etmol!
what I.did yesterday
'The thing I did yesterday!'
b. ma **lo** asiti etmol!
what **NEG** I.did yesterday
'The things I did yesterday!'

However, as the translation shows, these constructions are not identical in meaning, unlike what Portner and Zanuttini (2000) claim in their analysis of EN in Paduan exclamatives. That is, (30a) and (30b) express an 'identity' vs. 'quantity' reading, respectively: (30a) cannot be used in a context in which the speaker did many unsurprising things, as exemplified in (31), while (30b) can; conversely, (30a) can be used in a context where the speaker did one surprising thing, (32), whereas (30b) cannot.

(31) Context: After working until 4:00 PM yesterday, I went to the doctor for an appointment. Later I did my grocery shopping, and when I arrived at home I did my laundry and mopped the kitchen floor. At 8:00 PM I attended a yoga class, subsequently went back home and left again after half an hour to meet with friends at a local restaurant.

(32) Context: I went bungee jumping for the first time in my life yesterday (and did nothing else that day).

Regardless of whether or not it is possible to apply the semantic analysis given above to cases like (30b), it is not necessary, since I argue that these forms

do not involve EN. That is, constructions like (30b) are not exclamatives in terms of their sentential force, but rather simply negative rhetorical questions which can function as exclamatives, i.e., have their illocutionary force. Accordingly, *lo* in these sentences is the conventional negative marker and there is no need for a conditional semantics of the type proposed in von Fintel (2000). Evidence for the non-exclamative status of (30b) comes from the fact that it can be used to answer a question (33), unlike standard exclamatives (34):

(33) A: tagid, ma asita etmol?
say, what you.did yesterday
'Say, what did you do yesterday?'
B: ma **LO** asiti etmol!
what NEG I.did yesterday
'The things I did yesterday!'

(34) A: How tall is Tony's child?
B: *How very tall he is!

(Zanuttini & Portner 2003:21)

(33) also illustrates that *lo* here can bear stress, as indicated by the uppercase font, unlike what was noted for EN in FRs and until-clauses, thus further supporting the claim that it is the standard negative marker.

Forms like (30b) seem to involve some type of universal quantification, as do negative rhetorical questions in other languages. That these constructions exhibit such quantification is a well-known fact, schematically illustrated in (35), which conveys that everybody knows English (for possible accounts of this phenomenon see Bhatt 1998 and Han 1998, a.o.).

(35) a. Who doesn't know English?
b. $\neg\exists x$ [x doesn't know English] =
c. $\forall x$ [x knows English]

6 Diachronic aspects and remaining issues

I have argued that in Hebrew, the marker *lo* can serve both as the standard negative marker and, in FRs and until-clauses, as a marker equivalent to the *-ever* morpheme familiar from English. An obvious question this proposal raises is how this type of divergence in meaning was made possible from a diachronic point of view. Unfortunately, Hebrew is not informative in this respect, since EN in FRs was apparently calqued from Russian and/or Yiddish (Blanc 1956). Note that this does not entail that EN in these languages plays the same role as it does in Hebrew, since it is possible that speakers misanalyzed the original forms. Moreover, EN in until-clauses is a puzzle: although it occurs in Russian and Yiddish, and could thus be assumed to be a similar calque, it also appears in Mishnaic Hebrew texts (circa 200 AD), an example of which is provided in (36).

It is not clear whether the use of the negative marker in (36) is in any way related to the situation we find in current-day Hebrew.

(36) "ad še-**lo** hukam ha-miškan hayu ha-bamot mutarot..."
until that-EN was.built the-tabernacle were the-altars allowed
"Until the tabernacle was built, the altars were allowed…"
(Mishnah: Kodashim: Zevahim: 14.4)

Hebrew is not alone, however, in exhibiting EN in such environments, and hence it is important to ask whether the analysis proposed here is correct for other languages, and if so, whether a diachronic story could be told regarding these languages. On the one hand, the distribution and behavior of EN seems to differ from language to language, and even within a given language there may be more than one subtype of EN (see fn. 2; also Citko 2001 regarding Russian). Furthermore, even in languages in which EN appears in FRs and until-clauses, as in Hebrew, previous analyses have not attributed the *-ever* meaning to the negative marker (e.g., Citko 2001). On the other hand, the latter analyses may simply be misguided; moreover, some of the findings noted in previous sections seem to carry over into other languages: for example, the distinction in (29a) vs. (29b) is also found in Spanish (Laia Mayol, p.c.; see also Español-Echevarría and Vegnaduzzo 2000). Thus, a diachronic scenario explaining the addition of an *-ever* meaning to the negative marker is at least worth considering. Such a scenario would arguably include a first stage in which the universal quantification of negative rhetorical questions like (30b) is reanalyzed as a conditional presupposition of the type found in *-ever*, through a conversational implicature: using universal quantification implies that the speaker does not know the individual members of the set quantified over or is indifferent as to their identity[7]. Since the negation in negative rhetorical questions is not originally expletive, the fact that it seems to be the most common crosslinguistically and is found even in English (e.g., *What you won't do for love!*), is predicted under this account. In a possible second stage, the negative rhetorical questions evolved the sentential force of exclamatives, rendering the negation opaque (on the functional affinity between rhetorical questions and exclamatives see, e.g., Rohde 2006). In addition, discourse sequences of negative rhetorical questions and declaratives could have been subject to grammaticalization, giving rise to adjunct FRs, which underwent further clause integration to become argument FRs (Haspelmath & König 1998, Leuschner 1998). Again, the role of negation becomes opaque, as expected. As noted above, this sort of diachronic trajectory is not plausible for Hebrew, and so I leave it to future research to assess its validity vis-à-vis other languages.

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[7] This theory would have to take into account the fact that *wh-ever* FRs can also yield non-universal interpretations (e.g., Jacobson 1995). In addition, it seems that only certain cases of universal quantification across languages develop ignorance/indifference readings. I leave this issue for future research.

In addition to the diachronic aspects which the analysis proposed here raises, there are a number of lingering questions which I will mention as issues for further research. First, it is not clear what accounts for the distribution of the *-ever* reading; for example, for the fact that it is not available with *ad* when the latter is interpreted as 'by the time' rather than 'until' (see Eilam and Scheffler 2006). A broader theoretical issue is whether or not the free choice component of meaning contributed by *lo* should be regarded as a presupposition, as von Fintel (2000) suggests for *-ever*. Given the lack of filtering effects with this putative presupposition and the impossibility of canceling it via denial, Condoravdi (2005b) offers an alternative view.

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