The Semantics and Focus Sensitivity of the Hebrew (unstressed) *stam*

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0. Introduction

This paper concerns the semantic-pragmatic effects, and the focus sensitivity of the Hebrew particle *stam*, as in (1)

(1)   stam yaSavti le-yado ve-   dibarnu

         stam I-sat   near-him and-we-spoke

         "I stam (merely) sat near him and we spoke together"

stam, which, as seen in (1), can be translated as the English *merely*,[1] is an operator which seems to associate with focus. Though in natural speech it appears both stressed and non stressed, in this paper we concentrate on the non stressed version.[2] In such cases, other elements in the sentence tend to be focused and *stam* associates with them. The goal of the paper is to account for novel observations concerning the interpretation, distribution and focus sensitivity of *stam*.

The main claim we make in this paper is that the nonstressed *stam* is a focus sensitive scalar exclusive, in the intuitive (though not in the formal) sense of Beaver Clark 2008. That is, similarly to *only, just* etc., it is used to weaken expectations in the common ground. Its specific effects (compared to e.g. *only*) is to <u>assert</u> the truth of its prejacent (*p* in *stam p*), and to presuppose that it is placed in a <u>low</u> position of a <u>nonentailment</u> scale of alternatives.

In section 1 we present some novel observations regarding the distribution and interpretation of *stam*. In section 2 we review Beaver & Clark's 2008 (B&C, henceforth) theory of exclusives. Section 3 develops an analysis of *stam*, which follows the intuitive approach of Beaver & Clark 2008 to exclusives, but at the same time (a) captures the special constraints on *stam* (relative to, e.g. *only*), and (b) overcomes some independent problems in B&C's original formal definition of *only*.

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[1] See section 4.1 below for a comparison between *stam* and *merely*.

[2] See section 6 for some comments on focused *stam.*

Section 4 examines some similarities and differences between *stam*, *merely* and *rak / only*. The association of *stam* with focus, in light of Beaver & Clark's 2008 QFC model of association with focus is discussed in section 5. Section 6 summarizes the paper and makes some directions for further research, concerning the semantics of exclusives and stressed version of *stam*.

1. The distribution and interpretation of *stam*: Some novel observations

The adverb *stam* seems very similar to the exclusive *rak* (*only / just*). In many cases they can be used interchangeably, as in (2):

(2)   *(What are you doing here?)*

ani stam / rak   [yoSevet]$_F$ po

I stam / only / just sit   here

"I am stam / only / just [sitting]$_F$ here"

But there are several distributional and interpretational characteristics which are specific to *stam*. In what follows, we present data regarding the felicity constraints on *stam*, its focus sensitivity, and the status of the prejacent in sentences with *stam*.

1.1 Felicity constraints

We observe three felicity constraints on *stam*. First, unlike *rak/ only, stam* does not easily associate with proper names and personal pronouns, as illustrated in (3) and (4) below

(3)   *(Who is it?)*

ze   rak / #stam [dani]$_F$

this only / stam   Danny

"It is only / #stam Danny"

(4)   hizmanti   rak / #stam [oto]$_F$ la-   mesiba

I-invited only / stam   him   to-the party

"I invited only / stam [him]$_F$ to the party"

But notice that with an appropriate contextual support, infelicitous sentences such as (3), can improve as presented in (5) below

(5)   *(Mommy! What's that's noise?)*

Al   tibahali! ze stam [dani]$_F$!

Don't get-scared this stam Danny

"Don't get scared! It's stam Danny!"

The second constraint on *stam* is that unlike *rak / only*, it does not easily associate with numerals, as in (6):

    (6)   le-rina   yeS   rak / #stam [Sney yeladim]$_F$

              to-Rina there only / stam two children

              "Rina has only / #stam [two children]$_F$"

The third felicity constraint on *stam* is its incompatibility with elements which are considered highly significant, special or important, as illustrated in (9) and (10):

    (9)   (*Context : Rina is going to get married. She went to town to arrange all sorts of things for the wedding. When she is back I ask her what she did in town):*

              rak / #stam kaniti   [simlat kala]$_F$

              only / stam I-bought dress bride

              "I only / #stam bought [a wedding gown]$_F$"

    (10)   rina   hi   stam [pkida]$_F$ / # [sara]$_F$

             Rina 3sg.fm.. stam clerk   /   minister

             "Rina is stam a clerk / # a minister"

Here too, contextual support can improve the felicity status of some of the infelicitous examples above. For example, (10) can improve in a context where being a minister is considered insignificant (e.g. in a conference where most speakers are prime ministers and presidents).

<u>1.2 Focus sensitivity</u>

(11a) and (11b) below seem to suggest that the placement of focus can lead to felicity differences with *stam*:

    (11)   a.   hi stam [dibra]$_F$ im   ha- nasi

                  she stam spoke   with   the-president

                  "She stam "[spoke]$_F$ with the president

         b.   # hi   stam   dibra   im [ha-nasi]$_F$

                  she   stam spoke   with the-president

                  "#She stam spoke with [the president]$_F$"

Notice that we do <u>not</u> get these felicity differences with *rak / only*, as can be seen in (12):

    (12)   a.   hi   rak [dibra]$_F$ im   ha- nasi

she only spoke with the-president

"She only [spoke]_F with the president"

b. hi rak dibra im [ha-nasi]_F

she only spoke with the-president

"She only spoke with [the president]_F

1.3 The status of the prejacent (*p* in *stam p*)

An important theoretical question concerns the status of the prejacent in sentences with *stam.* Clearly, as with *rak* and *only,* a sentence of the form *stam p* strongly implicates p:

(13) rak / stam kaniti [xulca]_F

only / stam I-bought shirt

"I only / stam bought a shirt"→ I bought a shirt

In (14) we apply the family of sentences test in order to check the status of this implication. The judgments of these suggest that whereas with *rak*, *p* survives in the family of sentences test, and hence seems to be presupposed, this is not the case for *stam*:

(14) *Context: Rina is going to town. We are talking about what we think she will buy there):*

a. hayom rina lo rak / stam tikne [garbayim]_F

today Rina not only / stam will-buy socks

"Today Rina will not only / stam buy [socks]_F"

b. rina rak / stam tikne [garbayim]_F hayom?

Rina only / stam will-buy socks today

"Will Rina only / stam buy [socks]_F today?"

c. yaxol lihiyot Se-hayom rina rak / stam tikne [garbayim]_F

can be that-today Rina only / stam will-buy socks

"Is it possible that today Rina will only / stam buy [socks]_F?"

To account for the specific properties of *stam* discussed above, we will start by assuming that *stam* is an exclusive in the intuitive sense of Beaver & Clark (2008) (B&C). In the next section we briefly review B&C's theory of exclusives and their definition of *only,* and then suggest a definition of *stam* which captures the underlying restrictions on *stam ,*and overcomes some independent shortcomings in B&C's definition of exclusives.

2. A review of Beaver & Clark's 2008 theory of exclusives

2.1 Scalar and non scalar exclusives

The traditional literature on exclusives often distinguished scalar and nonscalar exclusives (e.g. Horn 1969; Van Rooij 2002). In the following sentences (from Horn 1969), in (15a) *only* has a non scalar reading, and in (15b) *only* has a scalar reading:

> (15) a. Only Muriel voted for Hubert
>
> b. Muriel only voted for Hubert (she didn't campaign for him)

In contrast, B&C take all exclusives to be scalar, i.e. to exclude `higher or stronger alternatives on a scale. According to them, the difference between the apparently scalar exclusives and non scalar exclusives lies in the nature of the scale they evoke.

For the apparently **non- scalar** cases (as in (15a)) we have **an entailment scale,** in which each alternative entails the alternatives that are ranked lower. So in the case of (15a) the scale involved is e.g., *Muriel and Mary and Henry voted for Hubert → Muriel and Mary voted for Hubert → Muriel voted for Hubert*. Note that in such a scale, adding any other individual (with the relevant property) amounts to adding a <u>stronger</u> alternative.

For apparently **scalar** cases (as in (15b)) we have **a nonentailment scale,** in which members are ranked according to their importance or significance, but the alternatives do not (necessarily) entail other alternatives which are ranked lower. So in the case of (15b) the scale involved is e.g. *Muriel campaigned for Hubert –Muriel helped Hubert –Muriel voted for Hubert*, with no entailment relations.

B&C note that with a non entailment scale, using an exclusive still allows for the truth of other alternatives, as long as they are not stronger than the prejacent, p. In other words, on B&C's theory, with non entailment scales an exclusive can be used non exclusively (in the traditional sense), as it allows for the existence of alternatives other than p, as long as these alternatives are not stronger than p.

2.2 The status of the prejacent

A controversial issue addressed in B&C's theory is the status of the prejacent, p. Like others (Horn 1996, Ippolito 2008 Van Rooij & Schulz 2005), B&C assume that although *only p* strongly implicates *p, p* is not part of the conventional meaning of

only, and specifically – despite the traditional claims (e.g. Horn 1969), it is NOT presupposed by *only p*.

B&C show, among other things, that this is because there are cases where *p* does not survive under negation, as in (16) (B&C p. 236):

(16)   She's one of the first and really represents the country and isn't only some blond bimbo with no brains

(16) does NOT implicate that she is a blond bimbo with no brains. Hence, B&C derive the inference from *only p* to *p* **indirectly.** In section 2.4 we show how p is derived.

2.3. A new, discourse-based approach to exclusives

B&C offer a unified definition for all exclusives, focusing on their discourse function. Their intuition is that *only p* is a **mirative** particle, which weakens salient strong expectations in the common ground, and specifically that *only p* presupposes that the expected alternatives are stronger than *p,* and it asserts that *p* is, in fact, the strongest alternative which is true, so these stronger alternative expectations do not hold.

The existence of stronger expectations in the common ground is supported by the following contrast (B&C, p.252)):

(17)   a.   I really expected a suite, but only got a single room with two beds

        b.   #I really expected a single room with two beds, but only got a suite.

 To capture these intuitions, B&C follow Roberts' 1996 questions-based model and suggest the following definition:[3]

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[3] The definition above is simplified in two points. First, B&C take *only* to be a sentential focus sensitive operators, for which the following equivalence hold:

(i) $[_C X [O Y] Z] = [_S O [X Y Z]]$, where O is the exclusive and neither X nor Z is focused (i.e. Y is the focused element)

Formally, B&C define lower and upper bounding operators, MIN and MAX, in an information state σ and a proposition π:

(ii) $\text{MIN}_\sigma (\pi) = \lambda w. \forall p \in CQ_\sigma\ p(w) \rightarrow p \geq_\sigma \pi$ (the potentially open alternatives in the CQ which are at least as strong as π (i.e. equally strong or stronger)

          $\text{MAX}_\sigma (\pi) = \lambda w. \forall p \in CQ_\sigma\ p(w) \rightarrow \pi \geq_\sigma p$ (the potentially open alternatives in the CQ which are at most as strong as π (i.e. equally strong or weaker)

The operation of *only* is defined, then, as in (iii):

(iii)   Presupposition $(X [only\ Y] X) = \text{MIN}_\sigma (X\ Y\ z)^I$
                    $(X [only\ Y] X) = \text{MAX}_\sigma (X\ Y\ z)^I$

(18)   The presupposition of *only p*: The open alternatives in the CQ are at least as strong as *p*

The content of *only p* : The open alternatives in the CQ are at most as strong as *p*

Thus, the inferences that follow from (19) below (from B&C p.254), where an entailment scale is triggered, are these:

(19)   I only invited [Mary and Sam]$_F$

Presupposition: The open alternatives in the CQ ("I invited x") are at least as strong as "*I invited Mary and Sam*"

Open alternatives: {*I invited Mary and Sam", "I invited Mary and Sam and Susan", "I invited Mary and Sam and Susan and Bill"...}.*

Content: The open alternatives in the CQ ("I invited x") are at most as strong as "*I invited Mary and Sam*"

Open alternatives: {"*I invited Mary", "I invited Sam", "I invited Mary and Sam*"}

The combination of the presupposition and the content leaves only one open alternative, namely the prejacent :"*I invited Mary and Sam*". Thus, the truth of p is indeed derived, and the stronger alternatives are rejected because the implication is that "I invited Mary and Sam , and nobody else".

3. An analysis of *stam*

3.1 *stam* seems to be an exclusive in the intuitive sense of Beaver & Clark 2008
Following B&C's intuition regarding the function of *only*, we claim that intuitively, *stam* is an exclusive, whose main function is to mediate the flow of discourse. Thus, like *only, stam* seems to reject expectations in the common ground that something stronger than p holds, and it indicates that the strongest true alternative is p. Indeed, aimilarly to the situation with only, the presence of a stronger expectation, which the use of *stam* rejects, is reflected in the pair of sentences in (20a) and (20b):

(20)   a.   cipiti   le-swita, ve-basof   stam kibalti xeder yaxid
                I-expected   suite   and-eventually stam I-got room single

im miklaxat

 with shower

"I expected a suite, and eventually I stam got a single room with a shower"

b.   #cipiti le-xeder yaxid im miklaxat, ve-basof   stam kibalti

I-expected room single with shower and-eventually stam I-got

swita

suite

"#I expected a single room with a shower., and eventually I stam got a suite"

However, we cannot use B&C's definition of exclusives for *stam* for two main reasons. First, we think that there are independent problems with the definition, which hold also for *stam*. Second, *stam* is more restricted than *only* in two important points which the original definition does not capture: First, *stam* is only compatible with nonentailment scales. Second, the prejacent (p in *stam p*) has to be placed in a 'low' position on the scale.

In the following subsection we propose a definition of the semantics of *stam*, which is based on B&C's intuition concerning exclusives, but accounts for these two unique properties of *stam*. In section 3.3 we discuss the independent problems in B&C's definition and consequently propose in section 3.4 a revised definition of *stam*.

3.2 The two special restrictions on *stam*

The first restriction on *stam* is its compatibility with nonentailment scales only. This restriction accounts for a number of observations made above. For example, *stam* does not easily associate with numerals, as in (21) because numerals clearly induce an entailment scale, e.g. *{Danny has 4 children, Danny has 3 children, Danny has 2 children…},* and *stam* is restricted to non entailment scales.

(21)   le-rina yeS   #stam / rak [SloSa yeladim]$_F$

To-Rina there stam / only three   children

"Rina has #stam / only three children"

Another observation noted above that this restriction explains is *stam*'s incompatibility with proper names, as in (22):

(22)   *(Who is it?)*

ze rak / #stam [dani]_F

this only / stam Danny

"It is only / # stam [Danny]_F"

Focused *Danny* induces a set of alternatives. One possible set is e.g.,*{This is Danny; This is Yossi; This is Rina; This is Sarah}*. However, this set is not naturally a **scaled** set of alternatives, so this sentence is infelicitous with *stam.*

Another possible set is a scaled set, e.g., *{This is Danny, Yossi and Moshe, This is Danny and Yossi, This is Danny}*. But since scale of alternatives this is an entailment scale, it is perfect for *rak*, but incompatible with *stam.*

Notice, however, that contextual support can improve the status of *stam* in (22). That is, in a context where p can be considered part of a **nonentailment scale**, it is felicitous with *stam*. For example, consider (23):

(23) (imale, mi ze?) al tibahali, ze stam [Danny]_F.

Mommy who this don't get-scared this stam Danny

("Mommy, who is this?) Don't get scared, it is stam [Danny]_F."

In (23) the set of alternatives induced by focused *Danny* may be **scaled** according to the degree of frightening of its members, e.g., *{it is a monster, it is a thief, it is the principal, it is Danny...}*. Since this scale is a **nonentailment** scale, *stam* becomes felicitous.

The second restriction on *stam* is that the prejacent (p) is located in a low position of the (nonentailment) scale. This can account for a number of other observations made above. First, using *stam* implicates that the prejacent is insignificant. For example, the utterance in (24) implicates that buying a shirt is insignificant:

(24) *(What did you do in town today?)*

Stam kaniti [xulca]_F -

Stam I-bought shirt

"I stam bought [a shirt]_F" -

On the other hand, when *stam* associates with elements which are considered highly significant, as in (25), repeated here, the result is infelicitous or ironic. This is because the placement of *p* in a low position of the scale clashes with our real world knowledge that buying a wedding gown is highly significant:

(25) #Stam kaniti [simlat kala]_F

Stam I-bought dress bride

"I stam bought [a wedding gown]$_F$"

The second observation that this restriction accounts for is that the placement of focus can sometimes affect the felicity of the sentence. Consider again the contrast between (26) and (27):

(26)   hi stam   [dibra]^F im   ha- nasi

She stam spoke   with   the-president

"She stam [spoke]$_F$ with the president"

(27)   # hi   stam   dibra   im [ha- nasi]$_F$

She stam   spoke   with the-president

"# She stam spoke with [the president]$_F$ "

The different placement of focus in (26) and in (27) induces different sets of alternatives. For (26), where *spoke* is focused, the scaled set of alternatives is e.g., {she spoke with the president, she danced with the president, she kissed the president}. In this scale, speaking with the president, rather than engaging in some more significant activity with the president is ranked low, and therefore the sentence is felicitous. In contrast, the scaled set of alternatives induces by the focused element *president* in (27) induces a different set of alternatives, e.g., {She spoke with John, She spoke with the principal, she spoke with the minister, she spoke with the president}. Now on this scale, speaking with the president is ranked high, and thus infelicitous with *stam* in (27).

To formally capture the requirement that *p* is located in a low position on the scale, we can require that the number of alternatives stronger than p on the scale is higher than the number of alternatives below it, as in (28):

(28) $|\{p':p'>sp\}| > |\{p':p'<sp\}|$

We will now add the two requirements on *stam* to B&C's original definition of exclusives. This gives the following preliminary truth conditions for *stam p*:

(29)   Truth conditions for *stam p*: Version 1

Stam is a sentential focus sensitive element, compatible with a nonentailment scale:

Presuppositions:

a.   The open alternatives in the CQ are at least as strong as p

b.   p is located in a low position of the scale of alternatives

$|\{p':p'>sp\}| > |\{p':p'<sp\}|$

Assertion: The open alternatives in the CQ are at most as strong as p

3.3. Some independent problems in B&C's original definition of exclusives

The preliminary truth conditions in (29) seem to capture the two special restrictions on *stam*. However, further modification is needed because of two independent problems in B&C's definition of *only*, which hold for *stam* as well.

The first problem has to do with capturing the intuitive observation, noted above, that the alternative expectations are **stronger** than the prejacent *p*. Remember that the presupposition of *only* proposed by B&C, and adopted for the semantics of *stam* in definition (29) requires that the open alternatives in the CQ are at least as strong as p. But now, Suppose we have the following scale, in which, crucially, the status of the underlined proposition (*I got a double room with a bath*) is equal to *I got a single room with a Jacuzzi*::

(30)

{ I got a double room with a jacuzzi

    I got a double room with a bath = I got a single room with a jacuzzi

    I got a single room with a bath

    I got a single room with a shower}

In this situation both (31) with *only* and (31) with *stam* are judged as infelicitous:

(31)   #I expected a single room with a Jacuzzi but only got a double room with a bath.

(32)   #Cipiti le-xeder yaxid   im   Jacuzzi aval stam kibalti xeder zugi

        I-expected room single with Jacuzzi but stam I-got   room double

        im ambatya

        with bath

        "I expected a single room with a Jacuzzi but stam got a double room with a bath"

However, B&C's definition of *only* in (18)*,* and the version applied to *stam* in (29) wrongly predict that these sentences are felicitous, since a proposition which is **as strong as *p*** is an open alternative, and hence the presupposition is met.[4]

Instead, we really want the definition to capture the fact that the expected alternatives are **stronger** than p. One way to capture that is to require that the alternatives in the scaled set (ALT_S) which are true in the 'expectation worlds' of a contextually salient interlocutor (I_c)) are stronger than p., as in (33):

> (33) $\forall w', p': [w' \in W_{Ic} \wedge p' \in ALT_S] \rightarrow [w'(p') \rightarrow p' >_S p]]$ ("For all alternatives p' and all words where the expectations of the contextually salient interlocutor are born out, if p' is true in the expectations worlds than p' is stronger than p").

The second problem with B&C's definition has to do with deriving the truth of the prejacent (p). Remember that B&C want to use the combination of the presupposition and the content to derive the truth of the prejacent (*p*), where the content requires that the alternatives in the current question are <u>at most as strong</u> as p. But this wrongly predicts that *only p* can be true if *p* is false, but an equally strong alternative is true. Consider, for example, (34):

> (34)   I only bought a shirt

Suppose that the following two facts hold: First, "I bought a shirt" is as strong as "I bought pants", i.e. it is considered equally significant in a nonentailment scale. Second, I bought pants and I didn't buy a shirt. In this situation (34) is considered false. However, the definition wrongly predicts that (34) is true: a proposition which is <u>as strong</u> as *p* is true.

This last problem is even more crucial for *stam* then for *only*. Remember that with *stam*, the prejacent fails to survive in the family of sentences (not only under negation). Hence *p* seems to be part of the assertion of *stam p*, i.e. part of its conventional meaning.

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[4] Notice that changing the presupposition to 'the alternatives in the CQ are <u>stronger</u> than p' will not solve the problem. First, such a change will block B&C's way to indirectly derive the truth of p. Second, in this case we will get a systematic clash between this presupposition ("The alternatives are <u>stronger</u> than p") and the assertion ("The alternatives are <u>at most</u> as strong as p"). This will wrongly predict that any sentence with *only* will either face a presupposition failure or falsehood.

3.4 Revised truth conditions for *stam p*

To sum up, then, we want the truth conditions for *stam p* to capture B&C's original intuition that the use of an exclusive rejects stronger expectations, and to avoid the problems in their definition. In addition, we want the truth conditions to capture the special properties of *stam*: Its restriction to nonentailment scales, the place of *p* in a 'low' position of the scale, and the asserted status of *p*.

We try to capture all of these in the following truth conditions:

(35) Truth conditions for *stam p*, revised version:

Stam is a sentential focus sensitive element, which induces a nonentailment scale of alternatives ALT_S:

Presuppositions:

1. $\forall w', p': [w' \in W_{Ic} \wedge p' \in ALT_S] \rightarrow ['(w' \in p') \rightarrow p' >_S p]]$ ("All alternatives which are expected by the salient interlocutor are stronger than p")

2. $|\{p':p'>_S p\}| > |\{p':p'<_S p\}|$ (p is located in a low position of the scale (The number of alternatives which are stronger than it is higher than the number of alternatives which are weaker than it))

Assertions:

3. $w_0 \in p$ (p is true in w_0)

4. $\forall p' [p'>_S p] \rightarrow [w_0 \notin p']$ (stronger alternatives than *p* are not true in w_0)

One may wonder, at this stage whether there is no redundancy in this definition, especially concerning the requirements that stronger alternatives than p are rejected, and that p is placed in a low position of the scale.

To show that this is not the case, and that *both* requirements are independently needed, consider first (36), in a context of an attempt to receive an extension permit

(36) hi rak / # stam [sganit ha-mankalit]^F, hi lo raSait laxtom.

She only stam vice the-director she not allowed to-sign

"She is only / #stam the [vice director]^F, she is not authorized to sign"

Being the vice director is ranked high on a nonentailment scale of professions, but there is a higher alternative, namely being the director. In this case, then stronger alternatives than p are rejected, but p itself is located in a high position of the scales. This is perfectly compatible with *rak (only)* but not with *stam.*

Similarly, compare the sentence 'rina *stam* pkida' ("Rina is stam a clerk") in the contexts in (37) and in (38):

(37)　　A: Rina is a senior secretary in your office, right?

　　　　B: lo, hi　　*stam*　　[pkida]^F.

　　　　　no, she is *stam*　[clerk]^F.

　　　　　"No, she is *stam* a clerk"

(38)　　Rina is a cleaning worker in your office, right?

　　　　B: #lo, hi　　*stam*　　[pkida]^F.

　　　　　no, she is *stam*　[clerk]^F.

　　　　　"#No, she is *stam* a clerk"

In both (37) and (38) the prejacent is located in a low position of a nonentailment scale. But, whereas in (37) a stronger alterative is expected and rejected, in (38) a weaker alternative is expected and rejected, which makes the use of *stam* infelicitous. We can see, then, that both requirements are independently needed with *stam.*

4. More implications regarding the study of exclusives

4.1 *stam* and *merely*

As noted above, *merely* constitutes the most immediate translation of the Hebrew *stam*. Indeed, like *stam, merely* seems incompatible with numerals and proper names. For example, (39) and (40) with *merely* are not as good as the minimally contrasting sentences with *only*:

(39)　　(Who is it?)

　　　　It is only / ??merely me.

(40)　　John has only / ??merely 3 children

This indicates that, like *stam*, *merely* is also compatible with nonentailment scales only.

　　　　Notice, however, that it is not clear whether the placement of the prejacent in a low position of the scale, which is strongly required by *stam*, is also required by *merely.* In some cases, associating *merely* with significant entities leads indeed to odd results, as in (41):

(41)　　(What did Mary buy in town today?)

　　　　She only / ??merely bought a wedding gown

Similarly, Coppock & Beaver 2010 show that (42a), with *mere* is not as good as (42b), with *only*, in a context where $90K is considered a pretty good salary:

(42)　　a.　　　They said she would get $100K, but she only got $90K.

b.   #They said she would get $100K, but she got a mere $90K.

Coppock & Beaver take this contrast to indicate that "While *only* requires that the prejacent is weaker than the speaker expects (Beaver and Clark 2008), *mere* requires that the prejacent is just weak". This seems to be similar to the claim that the prejacent of *stam* has to be located in a low position of the nonentailment (significance) scale, made above. However, as explained above, we think that, at least with *stam*, this requirement is not enough, and that the prejacent of *stam* is required to be <u>both</u> low on the scale, as well as lower than what the speaker expects (see again section (3.4)). Further research should examine more closely whether the argumentation above with respect to *stam* holds for *mere(ly)*.

In addition, the requirement that the prejacent of *merely* is indeed in a low position of the scale needs further examination as well, given the rather fine status given by informants to sentences like (43) (cf. the infelicity with *stam* in (36) above):

(43) Mary is only / (?) merely the vice president. She cannot sign this form

<u>4.2 The type of scales that *stam / merely* are compatible with, compared to*, rak / only*</u>
As pointed out above, we think that the discourse based approach of B&C is in the right direction, but that their definition faces some problems. Developing an alternative semantics for *only* is beyond the scope of this paper, but we would like to make a suggestion concerning the observed differences between *rak (only)* and *stam (merely)*.

Remember that B&C 2008 proposed that *only* is compatible with both entailment and nonentailment scales . We agree with this proposal, but feel the situation is a bit more complex, and that actually *rak /only* prefer entailment scales. . One piece of data which motivates this proposal concerns fine grained differences between the exclusivity effects of *rak* (and *only*) and *stam*. At first sight, *stam* seems to induce an exclusivity effect, like *rak* and *only*:

(44)   *(What are you doing here?)*

        ani rak / stam yoSevet kan

        I only /   stam sitting here

        "I am only / stam sitting here"(<u>Implication</u>: and doing nothing else)

Similarly, adding an alternative after using a sentence with *rak, only* and *stam* seems contradictory and infelicitous:

(45)   *(What did you buy in town yesterday?)*

#stam /#rak kaniti   li   [garbayim]_F. kaniti   gam xulca

stam   only I-bought myself socks   I-bought also shirt

"I stam / only bought myself [socks]_F. I also bought a shirt"

However, there are cases where these exclusivity effects are not as strong as with *rak*, i.e. where we get a 'midway exclusivity effect' with *stam*. (46) is a case like this:

(46)   (*ma kanit ha-yom ba-'ir?*)

?stam / #rak kaniti   li   [xaca'it]_F. kaniti   gam xulca

stam / only   I-bought myself skirt   I-bought also shirt

"I stam / only bought myself [a skirt]_F. I also bought a shirt"

What can be the reason for such a difference? Above we claimed that *stam* is compatible with nonentailment scales. In such a scale buying a shirt is clearly stronger (more significant) than buying socks. Hence this alternative must be excluded, and adding it is infelicitous (as in (45)). In contrast, it is not clear that buying a shirt is stronger than buying a skirt. Hence the questionable status of *stam* in (46).

In contrast to *stam,* with *rak / only* we don't get this kind of variation. *Rak* is infelicitous in both (45) and (46). If *rak /only* were indeed compatible with both entailment and nonentailment scales (as B&C suggest) we would get the same differences with *stam*. But we don't.

What can explain this behavior of *rak/ only* is the assumption that although *rak / only* are clearly compatible with nonentailment scales (and hence can lead to 'scalar' readings, as in Horn's original example *Muriel only voted for Hubert*), in a context where both entailment and nonentailment scales are potentially available, it actually prefers an entailment scale. In such a scale no matter what you add, you end up adding a stronger alternative (e.g. "I bought a skirt and a shirt") and this leads to infelicity.

We propose, then, the following generalization:

(47)   a.   Whenever both scales are available, *rak / only* strongly prefers an entailment scale, whenever they are available.

        b.   In contrast (as we claimed before): *stam / merely* is only compatible with nonentailment scales.[5]

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[5] We note here that the fact that *rak / only* prefer entailment scales, and that *stam / merely* are incompatible with them seem to correlate with the survival / nonsurvival of the prejacent of these particles in the family of sentences, respectively. In particular, it seems that the fact, observed above, that the prejacent of *stam* does not survive in the family of sentences, and that that of *only* is usually

Notice that Coppock & Beaver 2010 independently make a similar observation by citing the difference between (48) and (49) where *mere* gives rise to a scalar reading (i.e. those created by using a nonentailment scale), as opposed to *only*, which prefers a nonscalar reading (created by using an entailment scale):

(48)   The mere thought of him sends shivers down my spine.
        [scalar, *non-scalar]

(49)   Only the thought of him sends shivers down my spine.
        [*?scalar, non-scalar]

5. The degree of association with focus of *stam*

Above we claimed that *stam* is a focus sensitive particle. We now want to examine the degree of its association with focus, in light of Beaver & Clark's recent nonmonolythic model of association with focus. In section 5.1vwe briefly review this model, and in particular with the degree of association with focus of *only* and *always,* and their Hebrew correlates *rak* and *tamid*. In section 5.2 we turn to the degree of association with focus of *stam*.

5.1 Beaver & Clark's 2008 QFC model of association with focus

Unlike both semantic ('Weak') theories of focus (e.g. Rooth 1985, von Stechow 1989, Bonomi & Casalegno 1993) and pragmatic ('Strong') theories of focus (e.g. Rooth 1992, Schwarzschild, 1997, Roberts 1996, Geurts and van der Sandt 1999), Beaver & Clark 2008 proposed a non-monolithic model of association with focus, which divides the class of focus sensitive expressions into those with Conventionalized association with focus (e.g. exclusives, scalars, downtoners), which have focus sensitivity as part of their Semantics, and nonconventionalized ones, whose focus sensitivity is a pragmatic by-product. The latter are further divided into those with Quasi association (nonveridical operators like negation and possibility modals), and those with Free association (e.g. Qadvs. Generics, superlatives).

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shown to survive is related to the nature of the scale that these two particles are compatible with. This observation is further supported by the fact that all the examples of nonsurvival of the prejacent of exclusives in English that Beaver & Clark 2008 cite (as in (16) above) involve nonentailment scales. Cf. Coppock & Beaver who independently relate to this correlation and suggest an explanation based on B&C's original definition of exlusives. Since we do not adopt this definition, as argued above, we cannot adopt this explanation either. Further research needs to examine this issue in more detail.

The maim empirical motivation of Beaver & Clark's claims is the different behavior of the Conventionalized *only*, and the Free *always* (and their correlates in several European languages) with respect to a wide range of linguistic phenomena.[6] Below we illustrate this different behavior, using B&C's original examples, and furthermore show that the Hebrew correlates of *always* and *only*, namely *tamid* and *rak*, respectively, pattern like their English counterparts.

First, B&C show that *always*, but not *only*, can associate with prosodically reduced elements (e.g. nonstressed pronouns). Thus, whereas the version of (50) with *always* can mean both (50a) and (t0b), the version with *only* can only mean (50b):

(50)　People who grow rice always / only [eat$_F$] it

　　　a.　　Whenever they eat something, they eat rice (association with the pronoun)

　　　b.　　Whenever they do something with rice, they eat it (association with *eat*)

Similarly, in (51), the version with 'tamid' , but not the version with 'rak', can have the reading in brackets.

(51)　anaSim Se-[magadlim]^F orez rak /　tamid　[oxlim]^F oto

　　　　 people that.[grow]^F　　　rice only / always [eat]^F　　it

　　　 People who [grow]^F rice only / always [eat]^F it" ("People who grow rice eat only rice")

Another diagnostic has to do with association with presuppositions. In particular, when the sentence contains both a focused element and a presupposition trigger, *always,* but not *only* can associate with the presupposition. Thus, the version of (52) with *always* can have both readings in (a) and (b), while when *only* is present (52) can only have reading (a):

(52)　Mary always / only managed to complete her [exams]$_F$

　　　(a)　　Whenever Mary completed something, it was her exams (association with *exams*)

　　　(b) Whenever Mary took exams, she completed them. (association with the presupposition triggered by *complete*)

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[6]　All the examples below are taken from B&C 2008.

Similarly, *tamid* but not *rak* can associate with presuppositions. (53) with *tamid* has both the reading that whenever Rina took basic exams, she managed to pass them, and the reading that she always managed to pass the basic exams, but not other exams. In contrast, the version of (53) with *rak* has the reading that the only thing Rina managed to pass is her basic exams and nothing else, and mean that when Rina took exams, she only managed to pass and no more:

(53)   rina tamid / rak   hiclixa   la-avor et   [ha-mivxanim ha-bsisiyim]^F.

    Rina always only managed to-pass acc. The-exams the-basic

    Sela

    her

    "Rina always / only managed to complete her [basic exams]^F

Finally, *always* but not *only* can associate with extracted elements. This can be seen in the topicalization structure in (54), the WH relatives in (55), and the inverted WH clefts in (56). In all cases, the version with *always*, but not the version with *only* can have the readings in brackets, in which the particle associates with the extracted element:

(54)   fishsticks , I believe Kim always / only buys.

    (I believe that Kim buys fishsticks and nothing else.)

(55)   We should thank [the man]$_F$ whom Mary always / only took to the movies (Krifka 1992)

    (We should thank the man such that if Mary took someone to the movies, it was him)

(56*)*   Guinnes, is what I think Kim always / only likes to [drink]$_F$

    (Kim likes to drink Guinness, and nothing else.)

Here too, *tamid* and *rak* seem to behave like the English *always* and *only*, respectively. In the topicalization structure in (57), the WH-relative structure in (58), and the inverted WH cleft in (59), the versions with 'tamid' ,but not with 'rak', can have the reading in brackets:

(57)   sifrei tisa,   nire   li   Se-danny tamid / rak orex

     books flight,   seems to-me that-danny always / only edits

     "Airport novels, it seems to me that Danny always/only edits"

     (it seems to me that Danny edits airport novels and nothing else).

(58)   carix limco   et ha-pkidim Se-danny   tamid/rak   hizmin le-kafe

     need to-find acc.the-clerks that-Danny   always/only invited to-coffee

"We need to find the clerks whom Danny always/only invited for coffee" (We need to find the clerks such that if Danny invited someone to coffee, it was them).

(59) Guiness, ze ma   Se-danny   rak/tamid   maadif   [liStot]^F

Guiness, this what that-Danny   only/always prefers   to.[drink]^F

"Guiness, is what Danny only/always prefers to [drink]^{F,} (Danny prefers to drink Guiness and nothing else)

5.2 S*tam's* degree of association with focus

B&C dealt almost only with two focus sensitive particles, namely the conventionalized *only* and the nonconventionalized, Free, *always*, in English and in some other European languages. However, they suggested that their model covers all focus sensitive expressions cross linguistically. Above we showed that the behavior of *tamid* and *rak,* the Hebrew correlates of *only* and *always*, supports B&C's claim. However, more focus sensitive particles should be examined, in order to verify the generality and universality of the B&C's model.

The Hebrew s*tam* seems to be a good candidate in this respect. First, if indeed it is an exclusive (as we proposed), then given the B&C's model we predict that it should be a conventionalized expression, i.e. pattern like *rak* and *only* in the tests above.[7] Moreover, testing the association of *stam* can yield clearer results than the results obtained with *only, always* and their Hebrew correlates. The reason is that, as seen above, there are constraints on the felicity of *stam*, e.g. incompatibility with elements which are considered 'significant', which are not present in the case of *only* and *always*.. Thus, we can predict that if in the tests above we will use 'significant'

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[7] Notice that B&C claim that the conventionalized / nonconventionalized association with focus can be predicted based on the semantic / pragmatic function of the given particle. In particular, only particles which are used to make a comment on the Current Question are conventionalized. Thus, according to B&C, *only* is conventionally associated with focus because it is used to make a comment on the Current Question. Our revised definition of *stam* above, however, is not phrased in terms of making a comment on the Current Question. Further research is needed, then, for examining whether (a) the definition of *stan* above can be independently shown to refer to the Current Question nonetheless and (b) More generally, if B&C's claim about the correlation between the lexical semantics of particles and their association with focus can be verified by the behavior of more focus sensitive particles cross linguistically (see e.g. Grubic & Zimmermann 2010 in this connection. See also Greenberg (in progress) on preliminary findings concerning the Hebrew particle *davka,* which seem to question this component in B&C's theory)

elements the result will be infelicitous. This, then, can show which element *stam* can or cannot associate with, in a clearer way than with *only* and *rak*

   To illustrate how this works consider first the association of *stam* with prosodically reduced elements. First, in (59) we see that *stam* only yields the reading in (a), i.e. cannot associate with the pronoun:

(42*)* anaSim Se- megadlim orez stam [oxlim]$_F$ oto

   People that-grow]   rice *stam* eat   it

   "People who grow rice *stam* [eat]$_F$ it"

   (a) They eat rice and do not do anything more significant with rice

   (b) #They eat rice and don't eat anything more significant /special

Moreover, if we replace the focused element in (59) with an element which is considered 'significant' (so *stam* cannot associate with it), as in (60), the sentence will become infelicitous. This even more strongly indicates that *stam* cannot associate with the unstressed pronoun:

(60)   #anaSim Se- megadlim orez stam osim mimenu [bosem]$_F$

    People who grow   rice *stam* make out-of-it perfume

   "People who grow rice *stam* make [perfume]$_F$ out of it"

 Similarly, like *only*, and unlike *always*, *stam* cannot associate with presuppositions. For example, (61) only has the reading in (a), and cannot have the reading in (b):

(61)   Rina stam hiclixa   laavor et   [hamivxanim habsisiyim]$_F$ Sela*.*

   Rina *stam* managed   to-pass acc. the exams   basic]   her

   "Rina *stam* managed to complete her [basic exams]$_F$"

   (a)   Rina managed to pass her basic exams but no other **more significant** exams (e.g. she did not manage to pass her final exams).

   (b)   Rina merely managed to **pass** the basic exams, but she didn't manage to score higher on these exams.

Again, trying to focus a 'significant' element ('final exams') while keeping the presupposition trigger 'insignificant' as before, will lead to infelicity with *stam*:

(62)   #Rina stam hiclixa la-avor et   [hamivxanim ha-sofiyim]$_F$ Sela

   Rina *stam* managed to-pass acc. the [exams final]$_F$ her

   "Rina *stam* managed to complete her [final exams]$_F$"

Let us turn now to the behavior of *stam* in extraction constructions. In topicalization and WH relatives, as in (63) and (64), *stam* seems to behave like o*nly* and *rak*, and

unlike *always* and *tamid*, in that it cannot be associated with the extracted element. This is seen from the fact that the only possible readings are (63a) and (64a), respectively:

(63) sifrei   tisa,   nire   li Se-danny   stam [orex]$_F$

Books flight, seems me that-Danny   *stam* edits

"Airport novels, it seems to me that Danny *stam* [edits]$_F$"

(a) Danny edits airport novels, but he is not engaged in any more significant activity regarding airport novels (e.g. writing airport novel)

(b) #Danny edits airport novels and not any other more significant genre',

(64) tsarix limtso et ha-pkidim   Se-danny stam   hizmin   [le-kafe]$_F$.

need to-find acc. the-clerks that-Danny *stam* invited   to-coffee

"We need to find the clerks whom Danny *stam* invited for [coffee]$_F$".

(a) 'We need to find the clerks whom Danny merely invited for coffee, and not to any more significant /expensive outing' (e.g. to the opera)

(b) #We need to find the clerks such that Danny invited them for coffee and not any other more important people'

Moreover, replacing the focused, nonextracted, element in (63) and (64) with a 'significant' element (*writes* instead of *edits* in (65)), and *opera* instead of *coffee* in (66)) yields infelicity with *stam*, This further indicates that *stam* cannot associate with the extracted element:

(65) #sifrei   tisa,   nire   li Se-danny   stam [kotev]$_F$

Books flight, seems me that-Danny *stam* writes

"Airport novels, it seems to me that Danny *stam* writes]$_F$"

(66) #tsarix limtso et ha-pkidim   Se-danny *stam*   hizmin [le-opera]$_F$.

need to-find   acc. The-clerks that-Danny *stam* invited to-opera

"We need to find the clerks whom Danny *stam* invited to the [opera]$_F$".

On the other hand, Unlike *only*, and like *always*, *stam* can associate with extracted elements in inverted clefts. First, (67) seems to have *both* readings in (a) and (b):

(67) margarina, ze ma   Se-rina   stam moraxat al [pita]$_F$

Margarine, this what that.Rina *stam* spreads   on pita

"Margarine, that is what Rina stam spreads on [pita]$_F$"

(a)   Rina spreads margarine on pita, and not any better/healthier spread (e.g. cream cheese)

(b)   Rina spreads margarine on pita and not on a more expensive / healthier type of bread (e.g. whole wheat).

Moreover, even if we replaced the focused element with an expression which is considered 'significant', (with which *stam* cannot associate), namely *whole wheat bread* instead of pita, the sentence remains felicitous. Hence, in this test *stam* behaves like *always* in that it can associate with the extracted element:

(68)   margarina, ze ma   Se-rina   stam moraxat   al [lexem male]$_F$

margarine, this what that-Rina *stam* spreads- 3.f.sg. on bread whole

"Margarine, this is what Rina *stam* spreads on [whole wheat bread]$_F$"

To sum up, empirically, the behavior of *stam* in B&C's tests is not completely uniform: In most tests it behaves like the exclusive *only*, i.e. as a conventionalized focus sensitive expression. But in one test, namely association with inverted elements, it behaves like the nonconventionalized *always*. Further research is needed, then, in order to examine the behavior of *stam* in this respect more closely.

6. Summary and directions for further research

In this paper we examined the semantics, pragmatics and focus sensitivity of the particle *stam* in Hebrew. We made some novel observations concerning the distribution and interpretation of *stam*, and proposed that they can be accounted for by assuming that *stam* is similar to *only* in being a focus sensitive exclusive in the intuitive sense of Beaver & Clark 2008, but that it has additional constraints, namely its compatibility with nonentailment scales of alternatives and the 'low' position of the prejacent in the nonentailment scale. We also pointed out two independent problems in B&C's formal definition, which lead us to further modify the truth conditions of *stam*, thus capturing the asserted status of the prejacent, and the fact that the presupposed expectations are stronger than the prejacent. Finally, we suggested that whereas *stam* and its English correlate *merely* are indeed compatible with nonentailment scales only, *only / rak* strongly prefer entailment scales whenever they are available.

With regards to Beaver & Clark's theory of association with focus, we showed that *stam* behaves similarly to *only*, i.e. as conventionalized, in most of the constructions testing degree of association with focus. Thus, the association with

focus of *stam* seems to support the claim that *stam* is indeed an exclusive. This result seems compatible with Grubic & Zimmermann's 2011 findings concerning the association with focus of exclusives in Ngamo (West Chadic).

The main direction for further research concerns the appropriate definition of exclusives like *only /rak* and *merely / stam*, which will keep the general intuitions of B&C's 2008, and at the same time avoid the problems with their formal definition, discussed above. In particular, an examination of various kinds of exclusive particles cross linguistically should lead to an examination of the necessary conditions for being an exclusive (rejecting 'stronger' expectations?), and at the same time the parameters alongside various exclusive particles can differ e.g. the nature of the scale (entailment, nonentailment, various kind of nonentailment scales?), the position of the prejacent in the scale (high? Low? Neutral?), the status of the prejacent (asserted? Not asserted? Etc.). Orenstein (in progress) is now extending the present study to other exclusive expressions in Hebrew like *be-sax ha-kol, bilvad* and the slang expression *kula*. The result of this examination will hopefully provide more precise answers to these questions. Notice that Coppock & Beaver independently raise these questions too, and suggest two more parameters which may distinguish exclusive particles from one another namely scope (sentential, as with *only*, or nominal, as with *mere* and *sole*), and whether the alternatives differ w.r.t. a property (*mere*) or an individual *(sole)*.

A final direction for further research has to do with the semantic and distributional differences between the nonstressed *stam*, discussed above and its stressed counterparts. One such difference can be seen in (69) and (70):

(69) <u>Nonstressed *stam*</u>

ze ma   Se-kanita   lahem la-   xatuna? ze stam [Saon]$_F$

this what you-bought. them to-the-wedding? it stam [watch]$_F$

"This is what you bought them for the wedding? It is stam a [watch]$_F$"

<u>Implication:</u> Buying a watch is not enough. You should have bought a different, more significant, present, e.g. a dish washer.

<u>Alternatives</u> (indeuced by the focused *'watch'*): { This is a watch, This is a diamond ring, This is a dish washer, This is a car...}

(70) <u>Stressed *stam*</u>:

ze ma   S-ekanita   lahem la-xatuna? ze [stam]$_F$ Saon

this what bought-2.f.sg.) them to.wedding? it [stam]$_F$ watch

"This is what you bought them for the wedding? It is [stam]$_F$ a watch"

Implication: Buying a watch of this sort / quality is not enough. You should have bought a watch of a better quality / a more special watch etc.

Alternatives: (induced by the focus on *stam*): {This is a low quality / insignificant watch, This is high quality / special watch}

Thus, as with the nonstressed *stam,* with the stressed form too the effect of *stam* is to locate *p* in a low position of a significance (nonentailment) scale. The difference between the two versions lies in the set of alternatives: With nonstressed *stam* the alternatives to *p* are induced in the usual way by replacing the focused element with an element of the same semantic type (Rooth 1985, 1992, 1996). In contrast, with stressed *stam* the alternatives to p are identical to *p* except for the higher significance / quality of a relevant expression in the sentence.

The effect of stressed *stam* on verbs is similar. (71) has two possible readings:

(71)   rina [stam]$_F$ rakda

Rina stam   danced

"Rina [stam]$_F$ danced"'

Reading 1: Rina danced in an insignificant / non-special manner

Reading 2: Rina danced with no special reason

In both readings it seems that the prejacent (*rina danced*) is placed in low position of a set of alternatives. In reading 1 the alternatives differ in the level of significance or special manner of dancing. In reading 2 they differ in the level of significance of the reason for dancing.

Apart from attempting to make the interpretations with stressed *stam* more precise, and to examine the kind of scales which are appropriately involved it, the main question to answer is what is exactly the mechanism involved in the interpretation of stressed operators. In particular, assuming that in the case of (70) and (71) too we have a scaled set of alternatives, how are these alternatives induced? Previous theories which examined stressed operators are e.g. Krikfa 1998, which examined focused additives, and proposed that they are associated with contrastive topics, Beck 2006, which examined focus on *again*, and proposed that this kind of focus triggers an alternative operator to *again*, and finally Krifka's 1998 distinction between stressed and nonstressed polarity sensitive items, as correlating with semantically 'weak' and 'strong' polarity items. Further research should examine

which of these theories, if any, is relevant for the analysis of stressed *stam* as well, and whether any of them can apply to other cases of stressed / nonstressed focus sensitive operators in Hebrew (e.g. *davka, bixlal, mamamS* etc) and possibly in other languages as well.

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