Intensified response particles to assertions and polar questions: The case of Hebrew *le-gamrey*

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Introduction and goal: Response particles, e.g. English *yes / no* and their cross linguistic correlates, have been dealt with in the semantic-pragmatic literature in some detail (1). Our goal is to shed light on the so far unstudied phenomena of <u>intensified responses</u>. To do that we examine here one 'intensified response' particle, the Hebrew ***le-gamrey,*** and compare it with Hebrew *ken* ('yes') and *naxon* ('right').
(1) A: *John is here / John is not here / Is John here?* B: *Yes* B': *No*
Data: <u>Fact 1:</u> *Le-gamrey* is the default intensifying degree modifier in Hebrew (= *completely / entirely / totally,* cf. Sassoon 2011), which felicitously modifies Upper-closed adjectives (cf. Kennedy & McNally 2005) but is odd with relative (open scale) ones, and non-gradable expressions (2):
(2) *ha-agartal le-gamrey male / #yakar / #nafal* ("The vase (is) completely full / #expensive / #fell down)
However, *le-gamrey* can also function as a response particle (***le-gamery_resp***), crucially, even to utterances with relative adjectives or non-gradable expressions (3B), where – unlike the response particles *ken* (*'yes'*) or *naxon* ('right') - it is paraphrased as "***I completely believe in what you asserted***".
(3) A: *ha-agartal male / yakar / nafal* ("The vase (is) full / expensive / fell down") B: *le-gamery_resp*.
<u>Fact 2:</u> *le-gamery_resp* also differs from *ken* (yes) when responding to negative declaratives, like (4). While in such cases *yes / ken* can either confirm that Danny is not a linguistic or that he is a linguist (cf. Farkas & Bruce 2010, Krifka 2013 and others), *le-gamery_resp* can only be understood as confirming that Danny is not a linguist. In that *le-gamrey* is similar to *naxon ('right')* (cf. Krifka 2013 on *right*):
(4) A: *Dani   lo balshan B: ken   /le-gamrey   / naxon*
     Danny is not a linguist.   Yes (he is /isn't)   / *le-gamery_resp* (he ~~is~~ /isn't) / *right* (he ~~is~~ / isn't)
<u>Fact 3:</u> On the other hand, *le-gamrey* differs from *naxon* ('*right'*), and is similar to *ken* (yes) in being a felicitous response to positive polar questions (5):
(5) A: *Dani   balshan?   B: ken   / le-gamrey   / ??naxon*
     Is Danny a linguist?   Yes   / *le-gamery_resp*   / ??*right*
Here too *le-gamrey_resp* yields an 'intensified response' ("I completely believe that Danny is a linguist").
To analyze these data we rely on three independently argued for claims / components:(a) The semantics of intensifying degree modifiers (e.g. Kennedy & McNally 2005) **(b)** Response particles as anaphoric (Krifka 2013) and **(c)** Claims that assertions are inherently gradable (Greenberg & Wolf 2018).
(a) Degree modifier *completely / le-gamrey*: We follow e.g. Kennedy & McNally 2005 in assuming that *completely* is a degree modifier, type $<<d,<e,t>>, <e,t>>$ which combines with a degree relation (e.g. a gradable adjective type $<d,<e,t>>$), and returns a predicate of individuals (type $<e,t>$)). It indicates that the degree the individual has on the (upper closed) scale associated with G is at the maximal endpoint. We will take Hebrew *le-gamrey* as in (3) to have this semantics too (cf. Sassoon 2011) (6):
(6) [[Completely]] = [[le-gamrey]] = $\lambda G. \lambda x.\exists d [d=max(S_G) \wedge G(d)(x)]$
(b) Response particles: We follow Krifka 2013, who takes the response particle *yes* to be a propositional anaphor. In conversations like (1), B uses *yes* to pick out the proposition asserted by *A (i.e.* the denotation of the TP *John's here*) and re-asserts it. Since negated sentences (like (4A)) introduce two possible propositional discourse referents (roughly <u>*Danny is a linguist*</u> and <u>*NEG Danny is a linguist*</u>), *yes/ken* can pick out either of these referents, resulting in the two possible readings in (4B). In contrast, *right* is only anaphoric to the speech act level, in this case to the assertion of the negated sentence.
(c) The speech act operator *ASSERT* as denoting a credence degree relation: We follow Greenberg & Wolf 2018 who argue that assertion speech acts are inherently gradable, and more specifically, that the entry of the compositionally active covert speech act operator *ASSERT* (see e.g. Cohen & Krifka 2014, Krifka 2014 Thomas 2014, Beck 2016), should be supplemented with a credence degree argument, similarly to what is suggested for modal adjectives in e.g. Yalcin 2007, 2010, Lassiter 2014, 2016 (cf. Ettinger & Malamud 2015, Farkas & Roelofsen 2017). E.g. assuming a Krifka 2014 dynamic style entry of *ASSERT* as type $<<s,t>, <c,c>>$,Greenberg & Wolf propose to add to it a degree argument, as in (7):
(7) *[[ASSERT]]$_{<<s,t>, <d,<c,c>>>}$ = $\lambda p. \lambda d.\lambda c. \iota c': c'=<c_{sp}, c_t, C_w \cap \{w: Assert (p) (d)(c)\}>$,*

Thus *Assert (p)(d)(c)* is true iff the output context c' differs from the input context c in that the speaker, c_{sp} believes that *p* <u>to a degree d,</u> at the time c_t. Greenberg & Wolf further propose that *ASSERT* can be modified by credence degree modifiers, e.g. by epistemic modal adverbs, like *possibly / probably* etc. (cf. Piñón 2006, Wolf & Cohen 2009, Wolf 2015) (8), or, when assertions appear to be unmodified (i.e. in their 'positive form') by a covert *POS* operator (9):

(8) a.   *[[possibly]]: λG. λp. λc. ιc': c'=<c_{sp}, c_h, c_t, C_w∩{w: ∃d d>0 ∧G(p)(d)(c)}>*

  b. *[[probably]]: λG. λp. λc. ιc': c'=<c_{sp}, c_h, c_t, C_w∩{w: ∃d d>0.5 ∧G(p)(d)(c)}>*

(9) *[[POS]]: λG. λp. λc. ιc': c'=<c_{sp}, c_h, c_t, C_w∩{w: ∃d d>standard(G,C)∧G(p)(d)(c)}>*

E.g. <u>John is probably a thief</u> yields the context c' which is just like the input context c except that the speaker's degree of credence in "John is a thief" is greater than 0.5. The apparently unmodified assertion of <u>John is a thief</u> is actually modified by the covert *POS:* it yields the context c' which is like the input c except that the speaker's credence in "John is a thief" is greater than the standard / norm / threshold of credence, which can vary between 'strict' vs. 'tolerant' contexts (cf. Potts 2006, Davis et al 2007).

Proposal: We propose that *le-gamrey*$_{resp}$ is an illocutionary degree modifier, which responds to an assertion of a proposition made in the previous discourse move, and re-asserts it with a degree of credence which is raised to the maximum possible, as in (10):

(10) *[[le-gamery$_{resp}$]] = λG. λp.λc. ιc': c'=<c_{sp}, c_h, c_t, C_w∩{w: ∃d d =max(S_G) ∧G(p)(d)(c)}>*

E.g. in responding to "The vase is expensive" (3), A's assertion is modified by the covert *POS,* yielding the context c' which differs from c in that A's degree of credence in the proposition "The vase is expensive" is at least as high as the standard of credence in the context. Then B's response- *le-gamrey$_{resp}$* - acts as a degree modifier of B's re-assertion of this proposition, and yields a context c' which differ from c in that B's degree of credence in it is now at the **maximal** endpoint of the credence scale.

An advantage of this analysis, then, is that *le-gamrey* has the same core operation in both (2) and in (3). In both it is a degree modifier, modifying a degree relation, and raising the degree to the maximum endpoint of the scale. The only differences concerns the nature of the scale (a scale of e.g. fullness in (2) vs. a scale of credence in (3)) and what the modified degree relation relates (individuals and degrees in (2), or propositions and degrees in (3)). In this sense, our proposal differs from Beltrama's 2018 account of *totally*. In the paper we show that *le-gamrey$_{resp}$* only expresses complete credence / certainty, as predicted in (10), and does not have some of the other discourse effects observed by Beltrama for *totally*.

Accounting for the data: Fact 1: *le-gamrey$_{resp}$* modifies *ASSERT*, which is inherently gradable (Greenberg & Wolf), associating with the upper-closed credence scale (Lassiter (2017)). Thus, it is felicitous even if the asserted proposition itself doesn't contain an upper-closed gradable expression (3). Since its job is to raise the credence of the previously asserted proposition to the maximum, we end up with a paraphrase "I completely believe in what you assert". Fact 2: Unlike *yes / ken* which can pick variable propositional anaphors, denoted by TPs, (Krifka 2013), *le-gamrey$_{resp}$* is similar to *naxon* ('right') in that it does not have access to the proposition, but only modifies the assertion speech act. Hence it can only confirm the maximal proposition asserted by A, which in (4A) is the negated one. Fact 3: Following Krifka 2015, a polar question is a request (from the hearer) to assert the questioned proposition or its negation (cf. Saureland & Yatsushiro 2015 de-compositional analysis of questions as requests of adding *p* to the CG). In responding with *yes* the hearer asserts the questioned proposition. We suggest that although both *naxon* ('right') and *le-gamrey* target speech acts (cf. fact 2), responding with *right* can only target the maximal speech act, here the whole question, yielding an interpretation paraphrased as "I agree that this is a question (i.e. a request for an assertion) that should be asked". This is odd, since B is thus deviating from A's conventional requests. In contrast, we suggest, *le-gamrey$_{resp}$* is felicitous since it can scope below the request operator, and target the (requested) assertion (cf. Sauerland & Yatsushiru 2015 on 'remind me' *again*, with similar scopal properties). Then, it asserts the questioned proposition with a maximal degree of credence, yielding the paraphrase "I am completely certain that Danny is a linguist".

For future research we suggest to e.**g. (a)** extend the analysis to other intensified responses, e.g. other intensified confirmations, like *Absolutely*! / *Sure!*, intensified denials, like *No way! Hell, no!.*, and 'intonational intensifications' like *YES!* (cf. Goodhue & Wagner 2018) **(b)** examine intensified responses

to other speech acts (e.g. to imperatives) **(c)** examine advantages of using other approaches to response particles to handle intensified responses (e.g. Farkas & Roelofsen's feature-based approach, Kramer & Rawlins 2009, Holmberg 2016 ellipsis approach, or Goodhue & Wagner 2018 'hybrid approach').