Discourse Processes

Default Sarcastic Interpretations: On the Priority of Nonsalient Interpretations

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Findings from five experiments support the view that negation generates sarcastic utterance-interpretations by default.[1] When presented in isolation, novel negative constructions ("Punctuality is not his forte," "Thoroughness is not her most distinctive feature"), free of semantic anomaly or internal incongruity, were interpreted sarcastically and rated as sarcastic compared to their novel affirmative counterparts (Experiments 1 and 3). In strongly supportive contexts, they were processed faster when biased toward their noncoded (nonsalient) sarcastic interpretation than toward their noncoded but (salience-based) literal interpretation (Experiments 2 and 4). Experiment 5 reduces the possibility that it is structural markedness rather than negation that prompts nonliteralness. Such findings, attesting to the priority of sarcastic interpretations, are unaccountable by any contemporary processing model, including the Graded Salience Hypothesis.

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[1]We view "sarcasm" and "verbal irony" as interchangeable.

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INTRODUCTION

Can a novel utterance be easier to interpret sarcastically than literally in the absence of internal incongruity or contextual support? Most studies on sarcastic interpretations of novel utterances answer this question in the negative. They show that the interpretation of non-conventionalized sarcastic remarks depends primarily on contextual information and is harder to process than when intended literally. This is true even when a strongly supportive context is provided (e.g., Fein, Yeari, & Giora, 2015; Filik, Leuthold, Wallington, & Page, 2014; Filik & Moxey, 2010; Giora, 2003; Giora & Fein, 1999; Giora, Fein, & Schwartz, 1998; Giora, Fein, Kaufman, Eisenberg, & Erez, 2009; Giora et al., 2007; Kaakinen, Olkoniemi, Kinnari, & Hyönä, 2014; Pexman, Ferretti, & Katz, 2000). Only one study suggests that when embedded in strongly supportive contexts, novel utterances take equally long to process, regardless of whether they are intended literally or sarcastically (Gibbs, 1986b; but see Giora, 1995, for a critique).

Here, however, we provide unprecedented evidence attesting to the priority of sarcastic interpretations of some novel utterances over their literal alternatives. For sarcastic interpretations to manifest priority, they should spring to mind by default. Specifically, they should be the preferred interpretation of an utterance even outside of a specific context and even in the absence of any cues such as semantic anomaly or internal incongruency. Importantly, processing-wise, they should enjoy temporal priority; they should spring to mind first, whereas the literal alternatives should take longer to process, despite being supported by an equally strongly biasing context (see Giora et al., 2013; for initiations, see Gibbs, 1986a).

To explore the priority of sarcastic interpretations, we examine here negative constructions such as *Intelligence is not his forte* and *Agility is not his strong point*, where the grammatical subject (*Intelligence*, *Agility*)—a positive concept—is modified by the negative predicate (*is not his forte*, *is not his strong point*). We test the idea that although they are potentially susceptible to a literal construal, their primary interpretation is sarcastic, conveying an opposite (or a near opposite) of what is negated. (On sarcasm/verbal irony inviting an opposite or near opposite of a given concept, see, e.g., Giora, 1995; Giora et al., 1998; Grice, 1975; Veale, 2013.)

The following naturally occurring examples illustrate this point. In both (1) and (2), the negative utterances (boldface added) convey an interpretation (italics added) that is dissociated from and stands in contrast to what the negated concepts (*intelligence, agility*) mean. Specifically, in (1) the concept "intelligence" is contrasted by the use of the words "simple" and "retarded," which are complete opposites; in (2) the kitty's clumsiness—a far cry from "agility"—is made manifest by demonstrating his *falling off things, missing where he was meant to jump, running INTO things and generally been very dopey*:

(1) **Intelligence is not his forte**. But I say best of luck to this *simple* giant, he should follow his dream no matter how *retarded* it is.[2]

(2) **Agility is NOT his strong point**, let's make that clear. *He is forever falling off things, missing where he was meant to jump, running INTO things and generally been very dopey . . .*[3]

In light of these examples, we focus here on the following questions: Will such infrequent negative utterances be interpreted sarcastically even without contextual support? And when in a strongly biasing context, will they be processed faster when intended sarcastically than when intended literally? Five experiments answer these questions in the affirmative and show that (1) negation is an operator generating novel sarcastic interpretations by default (Experiments 1 and 3), thus allowing (2) for the temporal priority of sarcastic interpretations over literal counterparts (Experiments 2 and 4), (3) irrespective of their structural markedness (Experiment 5).

Default Utterance-Interpretation

In this article we introduce a new notion: *default sarcastic utterance-interpretation* (see also Giora et al., 2013). However, before discussing it, let us review the literature on default utterance-level interpretation, irrespective of nonliteralness. In pragmatics, the notions of default utterance-interpretation vary with regard to the relative dependency of the interpretation on contextual information (for a review, see, e.g., Jaszczolt, 2005, 2011; Levinson, 2000). In psycholinguistics, however, context dependency translates into temporal stages at which context may affect utterance-interpretation. Contextualist models such as the Direct Access View (e.g., Gibbs, 1986a, 1986b, 1994, 2002) and the Constraint Satisfaction Model (e.g., Campbell & Katz, 2012; Pexman et al., 2000) assume initial context effects on utterance-interpretation embedded in highly constraining context. Such strong contextual information should allow an utterance to be interpreted sarcastically immediately—as fast as or even faster than its literal interpretation. Other models assume initial *in*sensitivity to contextual information, even when strong.

The idea that context might have no initial effect on utterance processing, even when strongly supportive, is extended by modularity-based views. Cases in point are the Standard Pragmatic Model, termed also the Literal-First Model (e.g., Grice,

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[2]http://nhlplayersaccordingtowikivandals.tumblr.com/post/84251486869/hal-gill-philadelphia-flyers (retrieved on May 23, 2014).

[3]http://www.trotonline.co.uk/forum/archive/index.php/t-10767.html (retrieved on January 5, 2013).

1975; Searle, 1979; see also Levinson, 2000), and the Graded Salience Hypothesis (Giora, 1997, 1999, 2003, 2011; Giora et al., 2007). According to the Standard Pragmatic Model, default utterance-interpretation is literal; it is derived on the basis of the literal meanings of the utterance components, irrespective of context. Literal utterance-interpretation is assumed to enjoy temporal priority unconditionally: Literal interpretations will always be activated and always first (on the priority of literal meanings, see Carston, 2010; Carston & Wearing, 2011).

According to the Graded Salience Hypothesis, the notion of default utterance-interpretation is not literalness-based but *salience-based*; it is derived compositionally, on the basis of the "salient" meanings of the utterance components, regardless of context or degree of (non)literalness (Giora, 1997, 1999, 2003; Giora et al., 2007). Salient meanings and salience-based interpretations need not be literal, then. Instead, for a *meaning* to be "salient," it must be listed in the mental lexicon and rank high on prominence due to cognitive (e.g., prototypicality) or usage-based factors (e.g., familiarity, frequency, conventionality), irrespective of degree of (non)literalness. A case in point is the literal "financial institution" meaning of *bank* or the nonliteral "shame" meaning of the conventional nonliteral collocation *curl up and die*. However, coded meanings scoring low on such factors are "less-salient," irrespective of degree of (non)literalness. A case in point is the coded, literal "riverside" meaning of *bank* or the coded, nonliteral "syntactic" meaning of *tree*.

In contrast, a meaning or interpretation that is not listed in the mental lexicon is "nonsalient"; it is novel or derived, regardless of degree of (non)literalness. A case in point is the literal meaning of *selfie* (which, although quite common by now, may still be unfamiliar to the uninitiated); or take the compositional interpretation of the conventional metaphor *food for thought*, which, unlike its metaphorical meaning, is not coded in the mental lexicon (as a unit) but has to be constructed (Mashal, Faust, Hendler, & Jung-Beeman, 2008). Consider, further, the literal interpretation of *Know Hope*,[4] which suggests we get acquainted with hope (while questioning the underlying salient literal meaning of *no hope*). Another example is the utterance *This one's really sharp*, intended sarcastically when referring to an unintelligent person (Colston & Gibbs, 2002). Here, the novel nonsalient sarcastic interpretation activates the salient metaphorical ("intelligent") meaning of *sharp* while rejecting it in favor of an opposite alternative ("stupid," "slow").

Nonsalience, then, is also a matter of degree. Although *Know Hope* is a novel collocation, its nonsalient interpretation is based on the salient meaning of its lexical components. This novel interpretation is therefore considered here "salience-based." In contrast, the sarcastic interpretation of *This one's really sharp* is not based on the coded meanings of the utterance components. Although

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[4]http://www.flickr.com/photos/idanska/247228762/ (retrieved on April 3, 2011).

referring to an unintelligent person, it involves assigning a new meaning to *sharp* that is removed from its coded (metaphorical) meaning. This sarcastic inference results in an utterance-interpretation that is not "salience-based" but "nonsalient."

Processing-wise, salient meanings (and hence salience-based interpretations) are highly accessible and impervious to initial context effects. Thus, even when embedded in a context supportive of a nonsalient rather than a salience-based interpretation, utterances' salience-based interpretations cannot be blocked; they get activated initially, regardless of degree of nonliteralness (as shown by Giora, 2011; Giora et al., 2007; see also Récanati, 1995). Nonsalient interpretations (e.g., noncoded sarcasm), however, should lag behind, even when compatible.

Default Nonliteral Utterance-Interpretations

Recall that we focus here on default nonliteral utterance-interpretations of certain negative constructions (*Thoroughness is not her forte*, *Agility is not her most distinctive feature*). We weigh their *nonsalient* sarcastic interpretation (e.g., *She is shallow*; *She is sluggish*; see examples (3) and (4) below under Predictions) against their salience-based (here) literal alternatives (e.g., *She is quite thorough but there are other things she is better at*; *She is quite agile but others are more agile than her*; see examples (5)–(8) below under Predictions). Whereas the Graded Salience Hypothesis predicts the temporal priority of salience-based interpretations over nonsalient ones, the view of default nonliteral utterance-interpretation invites different predictions. It maintains that some (e.g., negative) constructions, conforming to the conditions of default nonliteral interpretation (see the next section), will be interpreted and rated as nonliteral by default. Consequently, they will be processed faster in contexts biasing them toward their nonsalient (e.g., sarcastic) interpretation than toward the salience-based (here literal) interpretation.

Conditions for Default Nonliteral Interpretations

For a nonliteral utterance-interpretation to be favored by default, it must be derived under conditions that guarantee that utterances are potentially ambiguous between literal and nonliteral interpretations a priori so that a preference is allowed (see Giora, Fein, Metuki, & Stern, 2010; Giora et al., 2013). The conditions specified below are therefore geared toward excluding cues, whether utterance internal (1 and 2) or external (3), known to prompt nonliteralness:

1. Constituents (words, phrases, utterances) have to be unfamiliar so that salient (coded) nonliteral meanings of expressions and collocations are avoided. Items should therefore exclude familiar idioms (*Let the cat out of the bag*),

metaphors (*a heart of gold)*, sarcasms (*You don't say*), mottos, slogans, or any conventional formulaic expression (*hang in there*) (see Gibbs, 1980, 1981, 1994; Giora, 2003); prefabs, such as *By the way* (Erman & Warren, 2000); or conventionalized, ritualistic, situation-bound utterances, such that occur in standardized communicative situations (e.g., *Cheers*; see Kecskés, 1999, 2000). Also, if negative utterances are considered, they should not be negative polarity items (e.g., *no prob*) but should have an *acceptable* affirmative *counterpart* so that conventionality is avoided. (On negative polarity items exhibiting asymmetric behavior in minimal pairs of negative and affirmative sentences whereby, as a result of conventionalization, affirmatives are almost nonexistent, see, e.g., Horn, 1989, p. 49; Israel, 2006, 2011.)

2. Semantic anomaly (known to trigger metaphoricalness; see, e.g., Beardsley, 1958), such as *time flies*, or any kind of internal incongruency, any opposition between the elements of a phrase or proposition (known to trigger a sarcastic reading; see Barbe, 1993) such as *he has made such a good job of discrediting himself* (Partington, 2011) should not be involved, so that both literal and nonliteral interpretations may be allowed. For this reason, "epitomizations"— negative OSV (object subject verb) constructions ("X s/he is not")—in which the fronted constituent is a proper noun (*Mother Teresa she is not*), must be excluded. Such constructions are primarily metaphorical, not least in their affirmative version. (On "epitomization," see Birner & Ward, 1998; Ward, 1984; Ward & Birner, 2006; on the pragmatic functions of such constructions, see Prince, 1981.)

3. Specific and informative contextual information should not be involved so that pragmatic incongruity—any breach of pragmatic maxims or contextual misfit on the one hand (see Grice, 1975) and supportive biasing information on the other (e.g., Campbell & Katz, 2012; Gibbs, 1981, 1986a, 1986b, 1994, 2002; Katz, Blasko, & Kazmerski, 2004)—may not invite a nonliteral (or literal) interpretation. Contextual or pragmatic cues such as explicit discourse markers (*metaphorically speaking*, *sarcastically speaking, literally*, see, e.g., Katz & Ferretti, 2003; Kovaz, Kreuz, & Riordan, 2013); explicit interjections such as *gee* or *gosh*, shown to cue sarcastic interpretation (e.g., Kovaz et al., 2013; Kreuz & Caucci, 2007; Utsumi, 2000); and marked intonation/prosodic cues, whether nonliteral, such as sarcastic, effective even outside of a specific context (Bryant & Fox Tree, 2002; Rockwell, 2000, 2007; Voyer & Techentin, 2010), or corrective, such as assigned to metalinguistic negation (Carston, 1996; Chapman, 1993, 1996; Horn, 1985, 1989, p. 375), or nonverbal (such as gestures or facial expressions; e.g., Caucci & Kreuz, 2012), should be avoided, so that nonliteralness would neither be invited nor blocked.

To test for default nonliteral interpretations then, utterances should be shown to be novel, as should be their alternative counterparts (Condition 1), and

potentially ambiguous between literal and nonliteral interpretations (Condition 2) when presented in isolation or in a neutral nonspoken context (Condition 3).

Predictions

According to the view of default nonliteral interpretations, some negative constructions of the form "X is not his/her forte/best attribute" (*Supportiveness is not her forte/Meticulousness is not her best attribute*), "X s/he/ is not" (*Smart she is not*), "X is not particularly Y" (*She is not particularly sensitive*), or "X? I don't think so" (*Smart? I don't think so*), conforming to the conditions for default nonliteral interpretation specified above (1–3),

  (a) will be interpreted sarcastically and rated as more sarcastic compared to their affirmative counterparts when presented in isolation, regardless of structural markedness, and
  (b) will consequently be processed sarcastically initially, regardless of contextual information to the contrary. They will thus be processed faster when embedded in contexts biasing them toward their nonsalient sarcastic interpretation than toward their (equally strongly biased) salience-based (here literal) interpretation.

To test the predictions following from the view of default nonliteral interpretations, the present study focuses on "X is not her forte/what she excels at" constructions, which meet Conditions 1–3. It weighs their nonsalient (noncoded) sarcastic interpretation against their salience-based literal alternative.

For an illustration of the various possible interpretations, consider the following natural examples, interpretable either sarcastically (examples (3) and (4)) or literally (examples (5)–(8)) (target constructions in boldface, interpretations in italics, for convenience):

(3) *Tom's wait is currently 3 years*, more-or-less. **Punctuality is not his forte** (Marzluf, 2011).

(4) Sorry, **my French is not my best attribute**, in fact it is *awful*!! (Anonymous, 2010).

(5) This is officially the first Powerpuff Girl story I ever wrote. I wrote it in 2000 shortly after I started watching the show. I found it recently and now I am sharing it with you fantabulous readers. I don't know if this is considered *funny*, because **writing humor is not my forte**, but I hope you get a *chuckle* or two out of this. Anyway, please R&R![5]

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[5]https://www.fanfiction.net/s/1466130/1/Miss-Keane-Strikes-Back (retrieved on March 18, 2014).

(6) **Humor is not my best attribute** and I still can't play the guitar! But *while I can hold my own in all of these areas*, I am not *GREAT* at them, because that is not where my heart is ... (Trussell, 2012).

(7) Painting the (argggh) grass. As I said, **backgrounds are not my strong point.** *I'm better at* focusing on the main subject of a painting than its surroundings.[6]

(8) Aye what i meant was that **its not his outstanding trait**, *while he's good at it there are other things he is good at which outshine his passing ability*.[7]

In examples (3) and (4), the discourses feature a negative statement (*Punctuality is not his forte*; *my French is not my best attribute*), which conveys a nonliteral, sarcastic interpretation, suggesting a contrastive reading of what is negated (e.g., rather than being punctual, Tom's wait is far too long, running behind on supplying the orders; rather than being my best attribute, my French is "awful"). In examples (5)–(8), however, similar negative statements (*writing humor is not my forte*; *Humor is not my best attribute*; *backgrounds are not my strong point*; *its not his outstanding trait*) convey a literal interpretation. Such interpretation gets across a mitigated sense of the negated concept rather than a contrastive reading; it allows the retention of the negated concept while hedging it (on negation as mitigation, see, e.g., Giora, 2006; Giora, Balaban, Fein, & Alkabets, 2005). This interpretation, then, is based on the salient coded meanings of the utterance components (rather than on their noncoded opposites). And because this is not the default interpretation of an otherwise infrequent utterance, the literal interpretation may vary between, for example, "X's Y is less than X's strongest point but it is still fairly strong" and "X's Y is fairly good but there are other things X is better at."

For instance, in (5) and (6), what is rejected as one's "forte" or "best attribute" is not dismissed via a contrastive reading (as un-humorous or dull) but only toned down. Specifically, in (5), although writing humor is not the speaker's forte, it may still be somewhat humorous (given that one might still "get a *chuckle* or two out of this"); in (6), although humor is not the speaker's forte, s/he indicates that her humor is fairly good ("*I can hold my own* in all of these areas"). In (7) and (8), the negative utterances (*backgrounds are not my strong point*; *its not his outstanding trait*) do not invite a contrastive interpretation. Instead, they suggest the speaker/character excels at other things (e.g., "*I'm better at focusing on the main subject of a painting than its surroundings*"; "*while he's good at it there are other things he is good at which outshine his passing ability*").

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[6]http://www.instructables.com/id/Portrait-of-a-Lion/step2/Painting-the-argggh-grass/ (retrieved on May 15, 2014).

[7]http://www.newcastle-online.org/nufcforum/index.php?topic=93459.2465;wap2 (retrieved on May 15, 2014).

Experiments 1–5 here test the predictions that negative utterances of the form "X is not her forte/best attribute," complying with the conditions for default nonliteral interpretations, will prompt sarcastic interpretation by default. They will be interpreted and rated as sarcastic even without contextual support, regardless of structural markedness. Consequently, they will be read faster in contexts strongly biasing them toward their sarcastic than toward their (equally strongly biased) literal interpretation. Although a complete set of factors constraining such constructions is yet to be explored, some of our recent studies indicate that negation (among other low-salience markers) plays a crucial role in highlighting low-salience interpretations by default (on low-salience marking, see Givoni, Giora, & Bergerbest, 2013; on negation as highlighting novel, nonliteral interpretations by default, see Giora et al., 2010, 2013).

Along these lines, we test Predictions (a) and (b) with regard to some (Hebrew) negative constructions of the form "X is not his/her forte" and "X is not her/his best attribute/what s/he excels at." These constructions involve a fronted gerundive or a deadjectival noun and a predicate that includes a copula and a noun phrase (e.g., *Supportiveness is not her forte*; *Supportiveness is not what she excels at*). They are compared to their affirmative counterparts (*Supportiveness is her forte*; *Supportiveness is what she excels at*). These negative constructions are expected to be interpreted sarcastically when presented in isolation (Experiments 1 and 3) and processed faster in sarcastically than in literally biasing contexts (Experiments 2 and 4).

EXPERIMENT 1

Experiment 1 tests Prediction (a), following from the view of default nonliteral interpretations. Accordingly, when presented in isolation, novel negative utterances of the form "X is not her/his forte" (*Punctuality is not his forte*), potentially ambiguous between a nonsalient sarcastic interpretation and a salience-based literal alternative, will be interpreted sarcastically (Experiment 1.1) and rated as sarcastic compared to their novel affirmative counterparts (Experiment 1.2)

Experiment 1.1

Method

Participants. Twenty students of Tel Aviv University (11 women, 9 men; mean age 27.4, $SD = 6.6$) volunteered to participate in the experiment. They were all native speakers of Hebrew.

Stimuli. Stimuli were all presented in isolation and included 14 novel negative utterances of the form "X is not her/his forte," involving no internal

incongruity (see Appendix A) in addition to 26 filler items, varying in terms of degree of literalness, affirmation, and novelty. Their proposed interpretations were based on natural instances (of similar utterances) in corpora (see (3)–(8)).

Pretest.   To establish the novelty of the negative items vis à vis their affirmative counterparts, familiarity ratings were collected from 24 Hebrew speakers, students of Tel Aviv University. The negative utterances (*Punctuality is not his forte*) and their affirmative counterparts (*Punctuality is his forte*) were presented in isolation. Two booklets were prepared so that each participant would see only one version of each target. In addition, there were 26 filler items, varying in degree of novelty. Participants were asked to rate, on a seven-point familiarity scale (where 7 was highly familiar and 1 was highly unfamiliar), the extent to which the items were familiar.

Results showed that both the negative items ($M = 2.09$, $SD = 0.49$) and their affirmative counterparts ($M = 2.04$, $SD = 0.46$) were similarly novel, $t(13) < 1$, n.s., both scoring significantly lower than 2.5 on a seven-point familiarity scale, ($t(13) = 3.12$, $p < .005$; $t(13) = 3.81$, $p < .005$). The established novelty of the negative items ascertained they conformed to Condition 1 for default nonliteral interpretations.

Procedure.   The negative items (e.g., *Punctuality is not his forte*) were presented in isolation. They were followed by a seven-point scale, whose ends randomly instantiated either a salience-based literal interpretation (*He is fairly punctual but there are things he is better at*) or a nonsalient, sarcastic interpretation of each item (*He is not punctual at all*).[8] Participants were asked to indicate the proximity of the interpretation of the items to any of those (randomly ordered) instantiations at the scale's ends (or otherwise propose an alternative interpretation).

Results

Results showed that outside of a specific context, the interpretations of the novel negative items were sarcastic, scoring high on sarcasm ($M = 5.51$, $SD = 1.35$), significantly higher than 5 on a seven-point sarcasm scale, $t_1(19) = 1.67$, $p = .055$, $t_2(13) = 5.44$, $p < .0001$.

To strengthen the claim that these interpretations are sarcastic, Experiment 1.2 was run. In this experiment we use a rating scale that makes the notion of sarcasm

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[8]No matter at which end the sarcastic interpretation was displayed, whether on the right or on the left, for the purposes of our calculations, this end was treated as 7. The opposite was true of the literal interpretation: Regardless of whether it appeared at the right or at the left end of the scale, it was treated as 1.

explicit, thus allowing us to determine whether these interpretations are indeed consciously perceived as being sarcastic.

Experiment 1.2

Method

Participants.   Forty students of Tel Aviv University (22 women, 18 men; mean age 27.2, $SD = 6.7$) volunteered to participate in the experiment. They were all native speakers of Hebrew.

Stimuli.   As in Experiment 1.1, only both negative and affirmative items were included. Two booklets were prepared so that each participant would see only one version of each target. As in Experiment 1.1, there were, in addition, 26 filler items.

Procedure.   To demonstrate that the interpretation of the novel negative targets is indeed sarcastic, sarcasm ratings were collected for the negative items and their affirmative counterparts, when presented in isolation. Participants were asked to explicitly rate degree of sarcasm of the targets on a seven-point sarcasm scale (where $1 =$ nonsarcastic and $7 =$ highly sarcastic; no instantiations of interpretations were provided).

Results and Discussion

Results show that the novel negative utterances were rated as highly sarcastic ($M = 6.02, SD = 0.78$), more sarcastic than their novel affirmative counterparts (which were actually rated as nonsarcastic), $M = 2.69, SD = 1.01, t_1(39) = 15.43,$ $p < .0001, t_2(13) = 22.07, p < .0001$.

Negation, then, induces sarcastic interpretations by default. As predicted, when presented in isolation, novel negative items were interpreted sarcastically by default (Experiment 1.1) and were consciously rated as more sarcastic than their novel affirmative counterparts (Experiment 1.2).

EXPERIMENT 2

Experiment 2 was designed to test Prediction (b), following from the view of default nonliteral interpretations. Accordingly, utterances shown to be rated and interpreted sarcastically by default (see Experiment 1) will be processed faster in contexts strongly biasing them toward their nonsalient sarcastic interpretation (see (3) and (4) above) than toward their equally strongly biased salience-based interpretation (see (5)–(8) above). Equal strength of bias guarantees that differences, if found, will not be attributable to context effects.

Method

Participants.   Forty-four students of Tel Aviv University (23 women, 21 men; mean age 25.9, $SD = 3.13$) were paid ~ 8 U.S. dollars each to participate. They were all native speakers of Hebrew.

Stimuli.   Stimuli were as in Experiment 1, only here items were embedded in sarcastically (example (9) below) and literally (example (10) below) biasing contexts (boldface added), followed by a two-word spillover segment (italics added). The target utterances, followed by the spillover segments, were presented in context nonfinal position. The texts were all similar in length (in terms of word numbers and number of lines) and were followed by a yes-or-no comprehension question, which could relate to any part of the text, except for the target utterance. Two versions of the experiment were prepared so that each participant would see only one context for each target. In addition, there were 24 filler items (for English versions, see Appendix A):

(9) Shay had to take his father to the dentist. Although his father reminded him time and again that he must be there at precisely 10:00 because he hates being late, Shay was half an hour late, arriving at 10:30. Later, while having dinner, Shay's father complained to his wife about Shay's behavior, embarrassing him in front of the dentist. "Well, what did you expect?" answered his wife disparagingly, "we know him well enough, don't we? And this is not the first time he has given you a lift. **Punctuality is not his forte**. *He has* lived in a very lenient discipline climate as a child."

(10) Shay had to take his father to the dentist at 10:00. He was a few minutes early and waited for his father outside his place. During the dental treatment, Shay's father could not stop bragging about his son, telling the dentist how successful he is, and responsible, and what a lovely girlfriend he has and a great career too . . . The dentist reciprocated: "Yeah, and I've noticed that he knows an appointment is an appointment. Most of my patients act like time is insignificant." The father agreed while adding: "Yes, he is usually on time, albeit **punctuality is not his forte**. *He has* lived in a very harsh discipline climate as a child."

Pretest.   To control for the similar strength of the contextual bias, 34 Hebrew speakers, students of Tel Aviv University, were presented the 14 contexts ending in the target utterances. These items were followed by a seven-point sarcasm scale, whose ends randomly instantiated either a literal ($= 1$) or a sarcastic ($= 7$) interpretation of each target (see footnote 8). Participants were asked to indicate the proximity of the interpretation of the target to any of those (randomly ordered) instantiations at the scale's ends. Two booklets were prepared so that each participant would see only one context for each target.

Results showed that contexts were equally constraining. Negative targets embedded in sarcastically biasing contexts scored as high on sarcasm ($M = 5.66$, $SD = 0.32$) as did their counterparts on literalness ($M = 5.58$, $SD = 0.39$) when embedded in literally biasing contexts, $t(13) < 1$, n.s., each scoring significantly higher than 5 on a seven-point scale, $t(13) = 7.63, p < .001; t(13) = 5.65, p < .001$. Given that contexts were equally highly constraining, any differences in processing between the targets, if found, would not be accountable by context effects.

Procedure.   Participants self-paced their reading of the contexts that were displayed segment by segment. They advanced the texts by pressing a key. Segments, displayed from right to left,[9] accumulated on the screen to form a full paragraph. They either made up a part of a sentence or a complete sentence. Reading times of the target utterance and the spillover segment of the next sentence were recorded. After reading the whole text, participants answered a yes-or-no comprehension question.

Results and Discussion

One participant was discarded, having made more than 25% errors in the comprehension questions. In addition, 27 data points were discarded because of errors in responding to the comprehension questions (4.3%). Outliers were defined as response times (RTs) above 3 SD from the mean of each participant. Eleven such outliers were discarded from the analysis of the target sentences (1.8%), and 14 outliers were discarded from the analysis of spillover segments (2.3%). Results show that, as predicted, sarcastically biased targets were read faster ($M = 1349$ ms, $SD = 401$) than their literally biased versions ($M = 1790$ ms, $SD = 579; t_1(43) = 4.69, p < .0001; t_2(13) = 4.48, p < .0005$). In addition, there were spillover effects showing that, following sarcastically biased targets, reading times of spillover segments were faster ($M = 647$ ms, $SD = 192$) than those following literally biased targets ($M = 739$ ms, $SD = 196; t_1(43) = 2.90$, $p < .0005; t_2(13) = 1.94, p < .05$).

Negation, then, generates sarcastic interpretations by default. As predicted, negative utterances of the form "X is not her forte," shown to comply with the conditions for default nonliteral interpretations, were interpreted and rated as sarcastic by default (Experiment 1) and were therefore processed faster in sarcastically than in literally biasing contexts.

Albeit nonsalient, default sarcastic interpretations were shown to reign supreme. They were processed faster than their salience-based literal interpretation when presented in equally strongly biasing contexts. Neither the

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[9]Hebrew is read from right to left.

Literal-First Model (Grice, 1975; Searle, 1979) nor Constraint Satisfaction Models (e.g., Campbell & Katz, 2012; Pexman et al., 2000) nor the Direct Access View (Gibbs, 1986b, 1994) nor the Graded Salience Hypothesis (Giora, 1997, 2003) can account for the temporal priority of nonsalient nonliteral interpretations over salience-based literal ones, in contexts equally highly supportive of either interpretation.

Could it be, however, the case that semantically *not his forte* might have become a conventional sarcastic cue in Hebrew? To control for the possibility that any degree of semantic conventionalization might have affected the results of Experiments 1 and 2, Experiments 3 and 4 were designed, aimed at testing the same construction tested in Experiments 1 and 2, only short of its possibly "conventionalized" semantics (*not his/her forte*), which was replaced with an alternative. Experiments 3 and 4, then, examine novel negative utterances of the form "X is not what she excels at" (e.g., *Punctuality is not what best characterizes him*; *Agility is not her most distinctive feature*; *Supportiveness is not what she excels at*), potentially ambiguous between literal and nonliteral interpretations (see examples (3)–(8)). They aim to show that such utterances will be interpreted sarcastically when presented in isolation (Experiment 3) and will be processed faster in a context strongly supporting their sarcastic interpretation than in a context strongly supporting their literal interpretation (Experiment 4).

EXPERIMENT 3

Experiment 3 aims to replicate the results of Experiment 1 by using a similar construction to that tested in Experiment 1 ("X is not his/her forte"), only short of its semantics ("not his forte"), which might cue sarcastic interpretation. We thus aim to show here that when presented in isolation, such negative utterances will be interpreted sarcastically (Experiment 3.1) and rated as more sarcastic than their novel affirmative counterparts (Experiment 3.2).

Experiment 3.1

Method

Participants.   Participants were 20 (mostly) students of Tel Aviv University (12 women, 8 men; mean age 28.7, $SD = 2.5$), all native speakers of Hebrew, who volunteered to participate in the experiment.

Stimuli.   Stimuli were all presented in isolation and included 12 novel negative utterances of the form "X is not her/his most amazing attribute," involving no internal incongruity (see Appendix B), and 26 filler items, as in Experiment 1. Their proposed interpretations were based on natural instances (of similar utterances) in corpora.

Pretest.   To establish the novelty of the negative and affirmative versions, familiarity ratings were collected from 40 native speakers of Hebrew. The negative utterances (*Punctuality is not what best characterizes him*) and their affirmative counterparts (*Punctuality is what best characterizes him*) were presented in isolation. Two booklets were prepared so that each participant would see only one version of each target. In addition, there were 26 filler items varying in degree of novelty. Participants were asked to rate, on a seven-point familiarity scale, where 7 was highly familiar and 1 was highly unfamiliar, the extent to which the items were familiar.

Results showed that both the negative items ($M = 1.47$, $SD = 0.36$) and their affirmative counterparts ($M = 1.30$, $SD = 0.15$) were similarly novel, $t(11) = 1.86$, $p = .09$ (two-tail), both scoring significantly lower than 2 on a seven-point familiarity scale ($t(11) = 5.11$, $p < .0005$; $t(11) = 15.60$, $p < .0001$). Establishing the novelty of the negative items ascertained they conformed to Condition 1 for default nonliteral interpretations.

Procedure.   As in Experiment 1.1, the novel negative items were presented in isolation, followed by a seven-point scale, featuring a sarcastic (*He is not punctual at all*) and a literal (*He is fairly punctual but there are things he is better at*) interpretation, randomly displayed at either end. Participants were asked to indicate the proximity of the interpretation of the items to any of those (randomly ordered) instantiations at the scale's ends (or otherwise propose an alternative interpretation).

Results

As before, results showed that outside of a specific context, the interpretation of the novel negative items was sarcastic, scoring high on sarcasm ($M = 5.45$, $SD = 1.40$), significantly higher than 5 on a seven-point sarcasm scale, $t_1(19) = 1.45$, $p = .08$, $t_2(11) = 5.52$, $p < .0001$.

To strengthen the claim that these interpretations are indeed sarcastic, Experiment 3.2 was run. It aimed at collecting sarcasm ratings, using a rating scale that makes the notion of sarcasm explicit, thus allowing us to determine whether these interpretations are indeed consciously perceived as being sarcastic.

Experiment 3.2

Method

Participants.   Participants were 40 (mostly) students of Tel Aviv University (24 women, 16 men; mean age 30, $SD = 6$), all native speakers of Hebrew, who volunteered to participate in the experiment.

Stimuli.   These were the same as in Experiment 3.1, only including both negative and affirmative items.

Procedure.   This was the same as in Experiment 1.2.

Results and Discussion

Results show that the novel negative utterances were rated as more sarcastic ($M = 5.96$, $SD = 0.76$) than their novel affirmative counterparts (which were nonsarcastic) ($M = 3.29$, $SD = 1.06$; $t_1(39) = 12.72$, $p < .0001$, $t_2(11) = 13.95$, $p < .0001$). Negation, then, induces sarcastic interpretation by default. When presented in isolation (Condition 3), novel negative items (Condition 1), potentially ambiguous between literal and nonliteral interpretations (Condition 2), were interpreted sarcastically by default (Experiment 3.1) and were perceived as more sarcastic than their novel affirmative counterparts (Experiment 3.2).

EXPERIMENT 4

Experiment 4 tests Prediction (b), following from the view of default nonliteral interpretations, according to which utterances, shown to be rated and interpreted sarcastically by default (see Experiment 3), will be processed faster in contexts strongly biasing them toward their nonsalient sarcastic interpretation (see (3) and (4) above) than toward their equally strongly biased salience-based literal interpretation (see (5)–(8) above). Equal strength of contextual bias guarantees that differences, if found, will not be attributable to context effects.

Method

Participants.   Fifty-two students of Tel Aviv University (39 women, 13 men; mean age 24.9, $SD = 3.43$), all native speakers of Hebrew, were paid ~ 11 U.S. dollars each to participate.

Stimuli.   As in Experiment 3, but here targets were embedded in sarcastically and literally biasing contexts, followed by a two-word spillover segment (as in examples (9) and (10)). As before, the target utterances, followed by the spillover segment, were presented in context nonfinal position and the texts were followed by a yes-or-no comprehension question.

Pretest.   To control for the similar strength of the contextual bias, 44 Hebrew speakers, mostly students of Tel Aviv University, were presented the 12 contexts ending in the target utterances. These items were followed by a seven-point sarcasm scale, whose ends randomly instantiated either a literal ($= 1$) or a sarcastic ($= 7$) interpretation of each target. Participants were asked to indicate the proximity of the interpretation of the target to any of those (randomly

ordered) instantiations at the scale's ends. Two booklets were prepared so that each participant would see only one context for each target.

Results showed that contexts were equally constraining. Negative items embedded in sarcastically biasing contexts scored as high on sarcasm ($M = 6.31$, $SD = 0.21$) as did their counterparts on literalness ($M = 6.14$, $SD = 0.41$) when embedded in literally biasing contexts, $t(11) = 1.24$, $p = .24$ (two-tail), each scoring significantly higher than 5.5 on a seven-point scale ($t(11) = 13.12$, $p < .0001$; $t(11) = 5.47$, $p < .0001$). Given that contexts were equally highly constraining, any differences in processing between the targets, if found, would not be accountable by context effects.

Procedure.   Procedure followed that of Experiment 2.

Results and Discussion

Two participants were discarded after making more than 25% errors in the comprehension questions. In addition, 34 data points were discarded because of errors in responding to the comprehension questions (5.4%). Outliers were defined as in Experiment 2. Fifteen such outliers were discarded from the analysis of the target sentences (2.4%), and 19 outliers were discarded from the analysis of spillover segments (3%). Results show that, as predicted, the sarcastically biased targets were read faster ($M = 1821$ ms, $SD = 588$) than their literally biased versions ($M = 2405$ ms, $SD = 833$; $t_1(51) = 6.19$, $p < .0001$; $t_2(11) = 2.93$, $p < .01$). In addition, there were modest (although insignificant) spillover effects showing that, following sarcastically biased targets, reading times of spillover segments ($M = 690$ ms, $SD = 208$) were marginally faster than those following literally biased targets ($M = 726$ ms, $SD = 275$; $t_1(51) = 1.48$, $p = .07$, $t_2(11) \leq 1$, n.s.).

Results replicated those of Experiment 2, showing that, as predicted, negative utterances of the form "X is not her/his best attribute," shown to be interpreted nonliterally by default (Experiment 3), were processed faster in sarcastically than in literally biasing contexts. We thus confirmed that the results of Experiment 2 were not necessarily the outcome of conventionalization processes.

EXPERIMENT 5

To control for the possibility that structural markedness rather than negation might account for our results, it is necessary to weigh degree of negation (not/yes) against degree of structural markedness (± fronting) directly. Experiment 5 was designed to test this alternative explanation. In this experiment, we compared utterances marked for both negation/affirmation and structural markedness

(*Punctuality is not/yes her forte/best attribute*)[10] and structurally unmarked alternatives differing only in negation versus affirmation (*Her forte/best attribute is not/yes Punctuality*). We predicted that even if structural markedness might prompt sarcasm, negation would prove to be the determinant factor (see also Prediction (a)). Specifically, negative versions of utterances will always be more sarcastic than their affirmative counterparts, regardless of degree of structural markedness.

Method

Participants.   Sixty students of Tel Aviv University and The Academic College of Tel Aviv-Yaffo (27 women, 33 men; mean age 28.4, $SD = 9.3$) volunteered to participate in the experiment. They were all native speakers of Hebrew.

Stimuli.   Experimental items included 16 concepts (taken from Experiments 1 and 3), each appearing in four different constructions (see (11)–(14) below), varying between whether they included a negative (not) or an affirmative (yes) marker. Presentation of the various constructions was counterbalanced. There were also 16 filler items, varying between sarcastic, literal, and metaphorical utterances. Four booklets were prepared so that each participant would see only one version of each concept. In addition to the 16 filler items, each booklet then contained eight structurally marked constructions (four negative and four affirmative) (examples (11) and (12) below) and eight structurally unmarked constructions (four negative and four affirmative) (examples (13) and (14) below):

(11) Punctuality is not her forte/best attribute.

(12) Punctuality is yes her forte/best attribute.

(13) Her forte/best attribute is not punctuality.

(14) Her forte/best attribute is yes punctuality.

As in Experiments 1 and 3, items were presented in isolation, in a random order, followed by a seven-point sarcasm scale.

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[10]In Hebrew, such utterances are also marked for the affirmative ("yes").

TABLE 1
Mean Sarcasm Ratings for Marked and Unmarked Affirmative and Negative Utterances:
Experiment 5

	Affirmative	*Negative*	*Mean*
Marked	("Punctuality is yes her forte") 2.24 (1.19)	("Punctuality is not her forte") 5.04 (1.55)	3.64
Unmarked	("Her forte is yes punctuality") 2.20 (1.23)	("Her forte is not punctuality") 4.86 (1.58)	3.53
Mean	2.22	4.95	

Note. Values in parentheses are *SD*.

Procedure.   Participants were asked to rate the degree of sarcasm of each utterance on a seven-point sarcasm scale.

Results and Discussion

As shown in Table 1, results demonstrate that the negative versions were always rated as more sarcastic than their affirmative counterparts. Markedness did not play a role in affecting sarcasm. Two 2-way (subject and item) ANOVAs were performed, with negation and structural markedness as within-subject factors. Both ANOVAs showed a significant main effect of negation, $F_1(1,59) = 128.87$, $p < .0001$, $F_2(1,15) = 799.72$, $p < .0001$, but no significant effect of markedness, $F_1(1,59) = 1.80$, $p = .19$, $F_2(1,15) < 1$, n.s., and no negation × markedness interaction, $F_1(1,59) < 1$, n.s., $F_2(1,15) < 1$, n.s. Negation rather than structural markedness, then, plays a crucial role in affecting sarcasm by default.

GENERAL DISCUSSION

In this article we weigh nonsalient sarcastic interpretations against salience-based literal interpretations of negative utterances of the form "X is not her/his forte" and "X is not her/his strong point." Five experiments demonstrate that negation prompts nonsalient nonliteral utterance-level interpretations by default. Although nonsalient, these nonliteral interpretations are activated even outside of a specific context. They are therefore processed faster when strongly biased toward their nonliteral than toward their equally strongly biased salience-based literal interpretation (see also Giora et al., 2010, 2013).

    For any linguistic stimulus to convey a nonliteral utterance-level interpretation *by default*, it has to meet the conditions for default nonliteral

interpretation. These conditions aim to ensure that utterances are *prima facie* ambiguous between literal and nonliteral interpretations so that favoring one interpretation over another is allowed on equal grounds. To secure such ambiguity, utterances should be novel and free of both utterance internal and external cues known to prompt nonliteralness. They should thus be (1) unfamiliar, (2) free of semantic anomaly or any kind of internal incongruity, and (3) presented outside of a biasing context.

Under such conditions, negative constructions such as "X is not her/his forte" and "X is not her/his most distinctive feature" are expected to be (a) interpreted sarcastically and rated as sarcastic compared to their affirmative counterparts when presented in isolation, regardless of structural markedness. As a result, they should be (b) processed faster when presented in contexts strongly biasing them toward their preferred (sarcastic) interpretation than toward their equally strongly biased yet nonpreferred (literal) interpretation.

Experiments 1–5 here test these predictions. They demonstrate that these novel negative utterances (e.g., *Punctuality is not his forte*, *French is not my best attribute*), involving no internal incongruity, are (a) interpreted sarcastically and rated as more sarcastic compared to their novel affirmative counterparts when presented in isolation, regardless of structural markedness. As a result, (b) when embedded in contexts strongly biasing them toward their nonsalient, sarcastic interpretation, they are read faster than when embedded in (equally strong) contexts biasing them toward their salience-based, literal interpretation.

What allows negation to induce sarcastic interpretations by default? One of the central roles of negation is mitigation, assigning a negated concept a hedged, understated interpretation (see Giora, 2006; Giora, Balaban, et al., 2005; Giora, Fein, Ganzi, Alkeslassy Levi, & Sabah, 2005). Under certain circumstances, such a cue may alert comprehenders as to the speaker's sarcastic intent, especially when negated positive overstatements are at stake (see Bolinger, 1972; Horn, 1989; Leech, 1983). For instance, in Giora, Fein, Ganzi, et al. (2005), when in a biasing context, hedged positive (Hebrew) overstatements (getting across as understatements) invited a sarcastic interpretation, whether modified by negation (*He is **not** particularly bright*) or by an affirmative mitigator such as "looks like" (***Looks like** he is particularly bright*). Importantly, however, when items were presented in isolation, negated overstatements were rated as more sarcastic than both nonmodified (affirmative) overstatements (*He is particularly bright*) and non-overstatements versions of the negated utterances (*He is not bright*). Attenuated (negated) overstatements, then, were interpreted sarcastically even without contextual support.

Along similar lines, Veale (2012, 2013) showed that another such attenuating marker—"about"—tends to invite a sarcastic interpretation when modifying similes of the form *as X as Y* (. . .***about** as soothing as a cat in a blender*). Findings, based on a large database of creative similes, show that hedging a

simile (which on its own is a hedged construction) by using the "about" marker alerts "the audience to the possibility of irony," thereby minimizing "the risk that the author's creative intent is misunderstood" (Veale, 2013, p. 14).

Following Giora et al. (2010, 2013) and Givoni et al. (2013), negation is viewed here as a low-salience marker, highlighting a concept's meanings low on salience via rejecting them. As a low-salience marker, negation may prompt low salience metaphorical features (as shown in Giora, 2006; Giora et al., 2010, 2013). As shown here, it may also prompt a concept's end-of-the scale features, thus rendering accessible nonsalient sarcastic interpretations even outside of a supportive context. Note that contrasts/antonyms often activate each other (as shown by Clark, 1970; Gries & Otani, 2010; Jones, Murphy, Paradis, & Willners, 2012; Paradis, Willners, & Jones, 2009; van de Weijer, Paradis, Willners, & Lindgren, 2012). Our previous findings, related to *X s/he is not* constructions, are also a case in point (Giora et al., 2013).

Can the temporal precedence of nonsalient sarcastic interpretations over salience-based literal ones be accounted for by contemporary models of interpretation? As mentioned earlier, these results cannot be explained by the Graded Salience Hypothesis (Giora, 1997, 1999, 2003), given the nonsalience of the sarcastic interpretations compared to the salience-based status of their literal interpretations (expected to be speedier by the theory). Nor can they be explained on internal (Partington, 2011) or pragmatic (Grice, 1975) incongruity, given that these factors were excluded. Neither can the negative sarcastic remarks be viewed as echoic utterances from which the speaker dissociates herself (Sperber & Wilson, 1986/1995), given that echoing and dissociating from the negative construction (X *is not my forte*) might imply an affirmative opposite (X *is my forte*). Nor can context strength (Campbell & Katz, 2012; Gibbs, 1986a, 1986b, 1994, 2002; Glucksberg, 2001; Katz, 2009; Katz & Ferretti, 2003; Keysar, 1989; Ortony, Schallert, Reynolds, & Antos, 1978; Pexman et al., 2000) account for these results, given that contexts were equally strongly supportive of both the literal and sarcastic interpretations of the items. Future research should look into the moment by moment interpretation of such utterances to shed light on the initial activation of their sarcastic interpretation even when intended literally.

Are our results explainable by construction grammar theories? Given that the interpretations of our Hebrew items, both in their negative and the affirmative versions, are not coded but have, instead, to be constructed, they might not be considered grammaticized. Hence, not quite accountable by Goldberg's (1995), Bybee's (2006), or Fillmore, Kay, and O'Connor's (1988) views, according to which pairings of form and meaning are conventionalized in a way that is similar to the conventionalization of lexical items (Croft, 2007). On the other hand, given that the items considered here demonstrate a strong association between specific negative constructions and their sarcastic interpretations (and specific affirmative constructions and their literal interpretations), this may be explained by Ariel's

(2008) concept of "salient discourse profile." Salient discourse profiles exhibit strong, even if not coded, form/function associations.

In conclusion, the studies reported here adduce evidence attributing to negation the role of a low-salience marker, enhancing nonsalient sarcastic interpretations via rejecting them. Although a full-fledged list of the constraints of the negative constructions examined here is yet to be established, the present studies are innovative in that they shed light on a unique contribution of negation to the notion of default nonliteral interpretation, in general, and to default sarcastic interpretation, in particular. It is particularly innovative in that it demonstrates the priority, both in terms of interpretation and speed of activation, of default yet nonsalient sarcastic interpretations over salience-based literal alternatives.

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APPENDIX A

A.1 Target Utterances of Experiments 1 and 2 (Originally in Hebrew)

1. Punctuality is/is not his forte.
2. Tactics is/is not his forte.
3. Decisiveness is/is not his forte.
4. Thoroughness is/is not her forte.
5. Ingenuity is/is not his forte.
6. Straightforwardness is/is not her forte.
7. Clarity is/is not his forte.
8. Sensuality is/is not her forte.
9. Keeping focused is/is not her forte.
10. Self-control is/is not her forte.
11. Caring is/is not her forte.
12. Agility is/is not her forte.
13. Alertness is/is not her forte.
14. Charisma is/is not his forte.

A.2 Sample Targets of Experiment 2 in Biasing Contexts (in Bold) and Spillover (Two-Word) Segments (in Italics) (a Versions = Sarcastic, b Versions = Literal)

1.
   (a) Dganit and Amir, good friends since childhood,
       were watching a football game on Dganit's new 45 inch TV,
       and were frustrated by the negligent mistakes of Yossi Menachem,
       who is the main striker of their favorite team.
       After an extremely stupid kick of Yossi's has nearly caused the team to lose the ball,
       Amir said angrily:
       "What an idiot! What in the world does he think he's doing?!?
       He should really think a bit before kicking the ball."
       Dganit: "Yeah,
       tactics is not his forte.
       He excels
       at making the audiences mad."
       Q: Did Dganit and Amir watch the game together?
   (b) Dagan's mother came to watch him during his football practice.
       Being the fanatic football fan that she is,

she sat and watched her son proudly
throughout the whole practice.
At the end of the practice, she went over to the coach for a chat.
Coach: "did you see that? Your son is a champ!"
Mother: "Yes, I'm impressed, he's a wonderful player. And he seems to have a
good perception of the game and knows how to react to every situation."
The coach added admiringly: "that's true, albeit
tactics is not his forte.
He excels
more at long distance kicks."
Q: Does Dagan's mother love football?

2.
  (a) Shira and Niv are talking about a mutual colleague, and how much they dislike
     her.
     Shira: "She was so spineless yesterday
     in her attempt to ask for a raise,
     which, by the way, she does not deserve at all since she doesn't do anything."
     Niv: "Why? What did she say?"
     Shira: "Instead of simply asking for a raise like an ordinary person,
     she stuttered and beat about the bush, coming up with all kinds of stories and
     excuses."
     "It was really pathetic."
     Niv added disparagingly: "Oh well,
     straightforwardness is not her forte.
     She needs
     to work on that."
     Q: Do Shira and Niv work together?
  (b) Shira and Niv are talking about a mutual colleague,
     and how much they admire her.
     Shira: "I wish I could be more like her,
     she's so successful in everything she does."
     "and how she asked the manager for a raise with no shame whatsoever and no
     unnecessary insinuations."
     "I would just beat about the bush and go on and on about how I
     work overtime and do another task here and another task there."
     "She just said she wants a raise, plain and simple."
     Niv: "Yeah, her way of asking for that raise was extraordinary, even while
     straightforwardness is not her forte.
     She needs
     to run this whole company."
     Q: Do Shira and Niv work together?

3.
  (a) Nimrod and his brother Assaf were talking about Nimrod's wife.
     Nimrod says she is an "airhead"
     and never notices what's going on around her.
     Assaf couldn't help but laugh and agree,
     and reminded Nimrod of the following incident:
     "I remember that once when we were hanging around in the park,
     we left her on her own for a few minutes.
     When we were back, we found out that all of our belongings were stolen."

Nimrod laughed and added: "yeah, what can you do,
alertness is not her forte.
she's just
a real daydreamer."
Q: Were their belongings stolen at the park?
 (b) Nimrod says his wife has all that it takes
to be the best wife and mother in the world.
Assaf, Nimrod's brother,
agrees and tells him about the following incident:
"I remember when we had a wild birthday party at the swimming pool
and amidst the commotion
she managed to notice
a boy who fell into the pool, and saved him."
Nimrod: "yes, she's very sharp and focused, even though
alertness is not her forte.
She's just
the perfect woman."
Q: Did she save a boy at the pool party?

APPENDIX B

Target Utterances of Experiments 3 and 4 (Originally in Hebrew)

1. Thoroughness is/is not her most amazing attribute.
2. Standing in front of an audience is/is not her most prominent strength.
3. Keeping focused is/is not her area of expertise.
4. Clarity is/is not his most noticeable endowment.
5. Caring is/is not her most outstanding capability.
6. Tactics is/is not his greatest talent.
7. Hospitality is/is not his effective faculty.
8. Alertness is/is not her most pronounced characteristic.
9. Agility is/is not her most distinctive feature.
10. Straightforwardness is/is not what she most excels at.
11. Decisiveness is/is not his most impressive quality.
12. Punctuality is/is not what best characterizes him.