**What makes a figure? Negation and figurativity**

**Negation in language, in vision, in gestures, and in linguistic and visual metaphors and ironies/sarcasm**

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**Abstract**

Recent studies have shown that **linguistic negation** is a low-salience marker, **highlighting** a concept’s meanings low on salience (see Givoni, Giora, & Bergerbest, 2013; Givoni, Bergerbest, & Giora, 2020), prompting, among other things, novel interpretations automatically, i.e., **by** **default** (see also Giora, in revision; Giora, 2006; Giora, Fein, Metuki, & Stern, 2010; Giora, Givoni & Fein, 2015; Giora & Becker 2019). Others have shown that it is a concept’s presence in or absence from the situation model that affects its retention, regardless of negation (see Kaup & Zwaan, 2003).

Here, I will adduce evidence showing that being a low-salience marker, negation can also affect **nonliteralness** **by default** (as shown by e.g., Giora, in revision; Giora, 2006; Giora, 2007a; Giora, Fein, Laadan, Wolfson, Zeituny, Kidron, Kaufman, & Shaham, 2007b; Giora et al., 2010; Giora, Livnat, Fein, Barnea, Zeiman, & Berger, 2013a; Giora & Becker (2019); Givoni, Giora, & Bergerbest, 2013b; Givoni et al., 2020; Giora et al., 2015; Giora, Jaffe, Becker, & Fein, 2018; among others).

For instance, Giora et al. (2010) show that linguistic negation generates figurativeness via highlighting some nonliteral features of the concept it rejects, while rendering its literal features pragmatically irrelevant, regardless of whether they are true or false. Thus, when presented in isolation, **negative** constructions of the form “X is not Y” as in *I am not your social worker*; *You are not my* boss; *This is not Memorial Day*,are interpreted **nonliterally**, here **metaphorically**, **by default**; their affirmative versions are interpreted literally under these very same conditions. Corpus-based studies lend further support to these findings (see Giora et al., 2013).

 Similarly, Giora et al. (2005b) show that, when presented in isolation, **negative** overstatements (*He is* ***not*** *particularly bright*) are interpreted as significantly more **sarcastic** than both, their affirmative counterparts (*He is particularly bright*) and their negated non-overstatement counterparts (*He is not bright*). Indeed, being a modifier that induces nonliteral interpretations automatically, i.e., **by default**, allows **negation** to affect an asymmetric behavior (see also Giora, 2006).

**Figurativeness both in vision and in language**

Consider, for example, the following photos, in which the man, titled as **”the bird man”**, also considers himself as “the thing that flies” (see examples 1-2 below; Originally in Hebrew):

(1) “I am the thing the flies.”



 3/

(2) “I am the thing the flies.”[[1]](#footnote-1)



Examples (1-2) above, then, send a metaphorical message, conveying that the man ‘is a bird’ – not just because he flies, but also because he titles himself as “the bird man”, who can also “fly”. This immediately allows the concept of a “bird” (rather than a “pilot”) to spring to mind unconditionally, while entertaining the similarities and differences between the two – the “pilot” and the “bird”, i.e., the man who flies. Although these sound and look like metaphors, for this person, this is real life, even if **metaphorical**.

What if the photos are each titled as: “this is **not** a bird”? Will they be interpreted as metaphorical? If so, will negation induce and entertain this metaphoricity?

Indeed, as per the Retention Hypothesis (see Giora, 2003), more often than not, information within the scope of negation (e.g., “**not** a bird”) is **retained** unconditionally rather than dispersed, (see Giora, in revision; Giora, 2003; Giora, 2006; Giora et al., 2007b).

In fact, to test the Retention Hypothesis (Giora, 2003), Giora, Zimmerman & Fein (2008) ran 3 experiments, engaging Hebrew speakers. In Experiment 1, participants were presented short, Hebrew dialogue pairs (see example 3 below), which were comparable in every respect, except for the negation marker, which was displayed in one condition but not in the other. Both versions, the negative and the affirmative, ended in a statement that rejected the comparison (e.g., “How can you compare?", see B below):

(3) A: Bush is Hitler. Bush is not Hitler.

 B: How can you compare?

Participants were asked to rate the appropriateness/coherence of the final, rejection statement compared to previous (either negative or affirmative) statement. Results showed no differences in **appropriateness** ratings between the two versions, suggesting that both the affirmative and negative utterances came across as similarly adequate comparisons (Experiment 1).

Given the similar appropriateness, we aimed to show that negation does not necessarily suppress information within its scope. Instead, it retains it. To test that, we examined speakers' sensitivity to degree of prototypicality of the comparisons' shared features, regardless of negation. We assumed that if the information within the scope of negation is retainable, then readers would find comparisons, involving nondefault, less prototypical (i.e., less salient) shared features, less appropriate than comparisons involving default, prototypical (i.e., salient) shared features, as shown for affirmative comparisons by e.g., Armstrong, Gleitman, & Gleitman (1983).

In Experiment 2, we, therefore, presented speakers with dialogues whose affirmative and negative versions introduced either a default, typical feature, or a nondefault, atypical one, weighing them against incoherent controls (related to *orator*):

(4) George Bush is **not** Adolf Hitler. George Bush did **not** exterminate Jews. Bush is **not** a great orator.

(5) George Bush is **not** a Dalmatian(i.e., a dog). George Bush did **not** exterminate Jews. Bush is **not** a great orator.

Findings showed that negative comparisons featuring a default, **prototypical** attribute were rated as significantly more appropriate than those featuring a nondefault, less-prototypical attribute. Both, then, were viewed as more coherent than their respective unrelated controls. These results support the Retention Hypothesis. They testify to the **preservation** of the concept within the scope of negation, which allows their salient, **default**, automatic features to be more accessible than **nondefault**, **less salient** counterparts.

When default salient features are referred to, this affects high appropriateness ratings. When, however, default salient features are not referred to but, instead, nondefault less salient features are engaged, the comparisons are rated as less appropriate, albeit more appropriate than the unrelated controls. Speakers, then, are sensitive to degree of defaultness/prototypicality, regardless of negation.

To further support the hypothesis that negated concepts are **not suppressed unconditionally**, in Experiment 3, we recorded reading times of the stimuli used in Experiment 2. Given the Retention Hypothesis, we expected statements, featuring default prototypical (salient) attributes, to be processed **faster** than those featuring nondefault less

prototypical (less salient) attributes. Such differences in reading times will support the view that negation need not **unconditionally** trigger **suppression** of the concept in its scope. Instead, it will exhibit sensitivity to prototypicality.

Results indeed support the prediction. Reading times of the two types of stimuli differed significantly: Statements featuring prototypical attributes were read faster than

those featuring less prototypical alternatives. Taken together, these results argue against the view that suppression following negation is obligatory.

Based on these results, in Giora et al. (2010), we tested the hypothesis that negation may further **generate figurativeness**. We therefore presented participants with items such as *You are not my boss*; *I am not your social worker; I am not* *your* *secretary* (see examples 6-13 below:

(6) I am *not a* *crook*. (Nixon’s infamous statement, see Kilpatrick, 1973, which evoked a public perception of Nixon as a **metaphorical** crook).

 (7) I am *not* *your* *secretary to file all the documents and keep track of the*

 *learning materials for you* (Student, 2008; This metaphorically elaborates on the claim that the person is not a “servant…”)

(8) I am not *your social worker. I am not into listening to your difficulties and*

 *challenges*. (Speaking metaphorically, I am not here to be a care taker …)

(9) This is *not* *Memorial Day*. *Don’t be so sad*. (Metaphorically speaking, this is not memorial day, hence don’t be so sad…)

(10) You are *not my mom*. *Stop looking after me*. (Don’t behave as if you were my mom … since you are not, not even close…)

(11) Don’t ever tell me that “I better do something on my blog**.**”*You* are *not*

 *my boss*so *don’t tell me what to write*. (*Joan,* 2008).

In many cases, then, the speakers elaborate on what they mean by their negative utterances, while explaining their messages **nonliterally** (see also below in bold):

 (12)You tell me what to do all of the time, what to say, where to hide, and what to do. ***I am not your wife,* *I am not your maid*, *I'm not someone that you can lay your demands [on] all of [the] time, I'm sick of this, it's going to stop!*** (Blige, 2007)**.**

 (13) “Tell TBS**this is not food**.They should concentrate on checking uponfoodstuff imports many of which are*expired or sub-standard or unfit for human* *consumption*,”said by a stall holder, Saidi Abdallah Umbe (BBC News,2003).

 In example (12) above, the woman deplores the person’s attitude to her, which is **likened** to an attitude towards female **slaves** or **lower-class** female helpers,

 who the person can **control as much as he likes**. Rejecting, via negation,

 the facts that the woman is e.g., **his wife**, **his maid**, as in ***I am not your wife,* *I am not your maid***, etc., renders these utterances **metaphorical**.

In example (13) above, “this is not food” implies that the “food” in question is “*sub-standard or unfit for human* *consumption*”, instead, it’s **garbage** – a **metaphorical** description of rotten inedible food, namely, trash.

It should be noted that the source domain features, attributable to the target domain need not be of superordinate abstraction level (as assumed by Glucksberg & Keysar, 1990). They should, however, share a common feature and be classifiable under a common superordinate category.

For instance, while **not your secretary** (in 6 above) could mean[*will not*] *file all the documents and keep track of the learning materials for you* or *will not print out and staple your work*, these features should be categorizable as, for example, instances of **metaphorical** ‘servility’, typical of low-class assistance.

To further test the prediction the negation induces metaphoricity, Giora et al. (2010) ran 3 experiments. In Experiment 1, participants were instructed to decide whether context-less affirmatives (***I am your maid*; *this is food***) and their negative counterparts (***I am not your maid*; *this is not food***) communicate either a literal or a metaphorical interpretation. Experiment 2 compared affirmative (*almost*) and negative (*not*) modifiers, expecting to show that a **negative** but not an affirmative modifier **is a metaphor-inducing operator**.

Participants were presented affirmative statements (***I am almost your maid*; *this is almost food***) and their negative counterparts (***I am not your maid*; *this is not food***) and were asked to rate the extent to which they were (non)literal.

Because many of the negative items of Experiments 1-2 could be rather familiar, Experiment 3 used only highly novel negative statements (**This is not Memorial Day; You are not my boss**) and their equally novel affirmative counterparts (**This is Memorial Day; You are my boss**). Design and procedure were the same as in Experiment 2 (see experiments 1-3 below).

Findings demonstrate the prevalence of **figurative** meanings in the **negative** but **not** in the **affirmative** constructions. Below, they are further corroborated by naturally occurring uses, which also demonstrate the way in which the discourse environment of these negative items echoes and **resonates** with their **default metaphorical** interpretation.

**Enhancing metaphor-related properties: Experimental data collected from 3 experiments**

***Experiment 1***

The aim of Experiment 1 below was to test the hypothesis that **negation** enhances **metaphor**-related properties. Specifically, it tests the prediction that, when having to decide whether a statement is intended either literally or metaphorically, participants will opt for the metaphorical interpretation when encountering a negative statement, but significantly less so when encountering its affirmative counterpart.

 Forty-eight students of the Linguistics department at Tel Aviv University (33 women, 15 men), mean age 24.4 years old, volunteered to participate in the experiment.

Materials included 24 context-less affirmatives (***I am your maid*; *this is food***) and their negative counterparts (***I am not your maid*; *this is not food***). Two booklets were prepared so that each participant would be presented with only one item per pair. Each booklet included 12 affirmative items, 12 negative items, alongside 17 filler items, half of which were negative (***I am not hungry now***).

Participants were instructed to decide whether each of the items communicates either a literal or a metaphorical interpretation. No participant saw more than one version of each item.

Results showed that, as predicted, comprehenders opted for the **metaphorical** interpretation when they rated the **negative** items but significantly less so when they rated the **affirmative** counterparts, which tended to be literal. Specifically, the mean probability of negative items to be perceived as metaphorical was higher (68%) than the mean probability of their affirmative versions (43%). The difference was significant in both subject (*t*1) and item (*t*2) analyses, (*t*1(47)=7.09, *p*<.0001; *t*2(23)=7.19, *p*<.0001). Results thus support the view that **negation, can, indeed, serve as a metaphor inducing operator**.

 In Experiment 2 below, participants were asked to rate the interpretation of the targets on a 7-point scale, ranging between literal and metaphorical outputs. In addition to these interpretations, or as an alternative, they were allowed to come up with an interpretation of their own. This experiment focused on comparing negative items (involving the negative modifier “not”) and their affirmative alternatives (involving the affirmative modifier “almost”). This experiment thus allows us to compare negatively and affirmatively marked utterances.

***Experiment 2***

The aim of Experiment 2 was to show that, even when allowed a wider range of choices, comprehenders might find the negatively marked items more metaphorical than their affirmative counterparts.Participants were 24 students at Tel Aviv University (9 women and 15 men), mean age 25.3 years old, who volunteered to participate in the experiment.

Materials included 16 items, involving *negative* modifiers (***You are not my boss***) and their affirmative counterparts, involving an *almost* modifier – (***You are almost*** ***my boss***). Two booklets were prepared so that each participant would be presented only one item of a pair. Each booklet included 8 affirmative items, 8 negative items, and 7 similar filler items. Each item was followed by a 7-point scale which featured two different interpretations – either a literal or a metaphorical interpretation - presented randomly at each end of the scale:

(14) **You are not my maid**



|  |  |  |
| --- | --- | --- |
| Don’t serve me |  | You are not the person who cleans my place for a living  |

(15) **You are almost my maid**

****

|  |  |  |
| --- | --- | --- |
| You help me a lot with the housekeeping  |  | You are about to get the job as a maid in my house  |

Participants were sent an electronic booklet. They were asked to rate, on a 7-point scale, the proximity of the interpretation of the items to any of those instantiations at the scale’s ends, which displayed either a literal (=1) or a metaphorical (=7) interpretation.

Results showed that negative statements were rated as more **metaphorical** (M=6.02, SD=0.65) than their affirmatives counterparts (M=5.59, SD=0.70). The difference was significant in the subject (*t*1) analysis, and marginally significant in the item (*t*2) analysis (*t*1(23)=2.50, *p*<.01; *t*2(15)=1.56, *p*=.07).

Overall, then, results of Experiments 1-2 show that, as assumed, negation generates metaphoricity. When faced with an either/or choice, participants rooted for a **metaphorical** interpretation for the **negative** but not for the affirmative items (Experiment 1). When allowed a graded choice, they attributed a **metaphorical** interpretation to the **negative** rather than to the affirmative items (Experiment 2).

Given that many of the negative items of Experiments 1-2 are used metaphorically quite frequently, we designed Experiment 3, in which novel negative statements (***This is not Memorial Day; I am not your boss***) and their equally novel affirmative counterparts (***This is Memorial Day; I am your boss***) were tested.

***Experiment 3***

Participants were 48 university students and high-school graduates (31 women and 17 men), mean age 25.6-year-old, who either volunteered to participate in the experiment or were paid 15 Israeli shekels (about $4) instead.

To ensure that we use only novel metaphors, we ran a pretest, in which 31 affirmative utterances and their negative counterparts were rated for familiarity by 50 participants (students and high-school graduates).

Two booklets were prepared so that each participant would be presented only one item of a pair. Each booklet included about 15 or 16 affirmative items, 15 or 16 negative items, and 15 filler items (familiar metaphors, half of which were negated), which were the same for both booklets.

Participants were asked to rate the items’ familiarity on a 7 point familiarity scale, ranging from 1 ("Not familiar at all; Never heard it") to 7 (“Highly familiar; I hear it all the time"). For the actual experiment, 15 items were selected, those that scored below 4 (in both the affirmative and negative versions) and which, in addition, had similar familiarity ratings for the affirmative and negative versions, as shown by t-tests, which did not reveal any significant differences (*p* value was always above .20). Materials for the actual experiment, then, were the 15 novel affirmatives and their equally novel negative counterparts, selected on the basis of the pretest’s results described above. Two booklets were prepared so that each participant would be presented only one item of a pair. Each booklet included 7 or 8 affirmative items and 7 or 8 negative items, modeled after the presentation of the items in Experiment 2 (see examples 16-17 below), and 15 filler items (i.e., familiar metaphors, half of which were negated):

(16) **This is not Memorial Day**



|  |  |  |
| --- | --- | --- |
| No need to be so sad |  | We are not  celebrating Memorial Day  today |

(17) **This is Memorial Day**



|  |  |  |
| --- | --- | --- |
| Everybody is sad today |  | We are celebrating Memorial Day today |

Results showed that novel negative statements were rated as

more **metaphorical** (M=5.50, SD=0.96) than their equally novel affirmative counterparts (M=3.48, SD=1.27). The difference was significant in both subject (*t1*) and item (*t2*) analyses (*t*1(47)=10.17, *p*<.0001; *t*2(14)=4.36, *p*<.0005).

Overall, then, results from novel and familiar utterances (of the form “This is not…”; “I am not…”; You are not…”), support the view that negation generates **figurativity** **by default**.

 Given the accessibility of negated concepts also allows them to be echoed and “**resonated**” with related concepts in their environment, thereby enabling them to display “catalytic activation of affinities across utterances” (as per Du Bois 2001; Du Bois & Giora, 2014: 359), as shown here for negated concepts; it is this accessibility of negated concepts that prompts activating an array of linguistic and conceptual elements in one speaker's utterance, which echoes and "resonates" with elements of hers or another's, in both prior and late context, as shown by both, studies of natural discourses (Giora, 2007a), and lab results (Giora et al. 2007b).

To illustrate, consider example (18) below, titled *Not a* ***quake*** *and not a quiver*, which features a concept within the scope of negation (*do****n't*** *give away even a slight* ***quiver*** *of a [combat aircraft's] wing*), which however resonates with prior context (*earth****quake***):

(18) *Not a quake and not a quiver* (Misgav, 2007)

For months they tell us about an "earth**quake**". But the *memorials* have a mind of their own, as if bereavement is a natural disaster or fate, and they do**n't** give away even a slight **quiver** of a [combat aircraft's] wing.

Example (18) above, then, titled - *Not a quake and not a quiver* - demonstrates **forward** **resonance**, in which a given negated concept (*Not a quake*) resonates with, that is, activates affinities with the next negated concept, appearing in its late context (*not a quiver*).

Forward resonance, allowed by negated concepts (*no monument and no memorial*), can also make accessible an affirmative (related) concept (*grave*). This is afforded only by the retainability of the concept within the scope of negation (as shown by 19 below):

 (19) [T]he time has come to ask Kastner's forgiveness. Perhaps this important film [*Killing Kastner* by Gaylen Ross] will carry out the historical task, in a place where Kastner has **no monument** and **no memorial**, except for his **grave** (Levy, 2008).

An event-related fMRI study further demonstrates that negation and affirmation need not exhibit asymmetrical behavior, since how they are processed often depends on their context. Still, looking into the **neural substrates** of making negative and affirmative decisions about semantic relatedness, Stringaris, Medford, Giora, Giampietro, Brammer, & David (2006) show that rejecting and endorsing semantic relatedness activates similar brain areas when related (*honesty*)and unrelated (*meetings*)probes are presented, following (conventional) **metaphors** (*Some answers are* ***straight***). This, however, is not the case when related (*passion*) and unrelated (*meetings*)probes are presented, following literals (*Some answers are* ***emotional***).

**Negation in vision**

Although it has been argued in the literature that negation is a uniquely *linguistic* marker, suggesting that pictures **cannot** say “no”, as in ‘‘Pictures do not have verbs or nouns [...] hence, they cannot make claims; they cannot say A is B or A is not B’’ (Kennedy, 2008: 459; see also Sonesson, 1989); alongside ‘‘Pictures can’t say ain’t’’ (Worth, 1981: 162), hence, they cannot make claims; alongside ‘‘Pictures [. . .] cannot deal with what is not” (Worth, 1981: 173) and the like; regardless, it turns out that it can, as it is also a visual marker, crossing over or erasing images and (parts of) pictures. Indeed, like linguistic negation, **pictorial negation**, such as the red cross in example (20) below, which does not discard the information within its scope; instead, it retains it (see Giora, Heruti, Metuki, & Fein, 2009; Oversteegen & Schilperoord, 2014; see also Giora, in revision).

Note that, according to Tseronis & Forceville (2017: 13), Groarke (1996) also argues against the critics who claim that “images cannot negate” (see also Birdsell & Groarke, 1996, 2007).

Consider further some pictorial examples below. For instance, example (20) below, by David Tartakover’s (1998), titled *Childhood is not a child’s play*, involves a wordplay which relies on **retaining** the concept (*child* or *child’s play*) within the scope of negation, despite the visual cross negating the child:

(20) Childhood is not a child’s play (Tartakover, 1998) also, titled XL (2007)1

1David Tartakover granted me permission to reproduce all his artworks displayed in this paper.



 The red cross, negating the child and what he wants to do, does not suppress, nor discard “the child” from the mental representation. Instead it brings to the forth the fact that even after 40 years of Israeli occupation of Palestinians, Israel still torments Palestinian children.

 In example (20) above, using a visual negation marker, i.e., the red cross over the Palestinian child, alongside an additional marker – XL, whereby XL indicates Israeli 40 years of occupation of Palestinians, does not erase the “negated” figure. On the contrary, it allows the accessibility and retention of what has been negated and crossed over. Indeed, the message this artwork above is sending, is related to the ruthless killing of Palestinian children by Israelis, and how, after so many years of occupation, this is still being exercised on a large scale.

It is precisely this **persisting accessibility** of negated information that allows negation to affect its representation in various ways. For instance, negated concepts have been shown to induce mitigation of their interpretations so that “not pretty”, for instance, was represented as “less than pretty” rather than as “ugly” (Giora, Balaban, Fein & Alkabets, 2005; Horn, 1989/2001; Jespersen, 1917, 1924; Paradis & Willners, 2006). In addition, compared to affirmative modifiers (*almost*), negation is a stronger mitigator, representing a weaker or a more hedged version of the affirmative (Giora, Balaban, et al., 2005). Negated concepts have also been shown to be represented as a mitigated version of their **alternative** opposites, so that “not pretty” was represented as a hedged version of “ugly” (Fraenkel & Schul, 2008). However, when negating an end of the scale member (“not very pretty”), mitigation via negation invites a sarcastic interpretation even outside a specific context (Giora, Fein, Ganzi, Alkeslassy Levi, Sabah, 2005; Horn, 2001: Chapter 5).

Along the same lines, Fleming (1996: 11) contends that “visual images (i.e., pictures) cannot … be arguments”. “I define “pictures” then, as an artifact, constructed to be iconic with the external world; and my question is, can such a thing, independent of language, be an “argument”?

Similarly, Kjeldsen (2015: 119) has further argued that “even though images may not be propositional and thus, strictly speaking, lack the capacity to negate, they are nonetheless able to ‘‘refute’’ other images (Lake & Pickering, 1998) by visually dissecting, or breaking down the image being refuted, or by visually substituting or transforming it in a repudiatory manner (cf. Groarke, 1996: 118ff.)”.

 Indeed, Giora et al. (2009) show that visual and verbal negations do not actually differ much from each other. Rather, they both allow accessing, and more importantly, **retaining** the negated concepts in their scope, rather than suppressing them and replacing them with an alternative opposite. Indeed, as also demonstrated by Oversteegen & Schilperoord (2014: 89), “pictures can say “no”. Similarly, according to Forceville & Clark (2014: 22), “While pictures communicate in a way that is fundamentally different from language, pictures clearly can contain explicit information which can originate in both linguistically and non-linguistically encoded material". Along the same lines, Tseronis & Forceville (2017: 18) further argue that “images, sounds, music, and other semiotic modes combine to create artefacts that

do not merely seek to inform and please an audience but also convince and persuade them”.

In (21) below, the knotted, i.e., negated or deactivated gun, has also become a metaphorical symbol of the struggle to stop the ongoing war between Israel and the Palestinians, led by “Combatants for Peace” – an Israeli-Palestinian NGO and an egalitarian, bi-national, grassroots movement, committed to non-violent action against the “Israeli occupation and all forms of violence” in Israel and the Palestinian territories.” “…we come together to say enough pain and enough war, and stress, that **peace** is the only solution to stop the killing" (Muhannad Najjar, Combatants for Peace; also cited by Giora, in revision).

(21) Hakan Dahlstrom (2015), The knotted gun.



Visual negation, then, does not eliminate the negated information. In fact, it draws attention to it. Negation, then, visual negation included, is not a suppressor. Instead it allows access to what is negated, not least because it is retained. Visual and verbal negations, then, do not really differ from each other. The knotted gun is, in fact, a symbol, if not, a metaphor of **peace**; it is the message sent by “Combatants for **Peace**” calling to stop wars.

**Negation in gestures**

Could our bodily gestures be also metaphorical? Could they make a figure? Could gestures convey messages? Our body language, especially, our facial expressions, our hands, fingers, and shoulders, often send all kinds of implicit, nonverbal messages, as shown by the illustration below, by Inbar & Shor, (2019: 87). This illustration displays a series of **negation** gestures, often complementing or accompanying people’s speech (here, in Hebrew). To see what kinds of negative gestures are used by Israeli Hebrew speakers, consider and mull over the examples in section 22 below:

 (22) **Overview of ‘negative’ co-speech gestures in Israeli Hebrew, involving 6**

 **patterns**

 In pattern (1) below the person uses a headshake, which conveys “no”, and which sends a **metaphorical** message, even without relying on speech. This is also true of pattern (5), which relies on finger wagging, the latter can be as effective as a metaphor, again, when not relying on verbal “negation”. Still, speech often relies on gestures to strengthen and make their message clear. Shrugging our shoulders (see pattern 6 below), is also metaphorical, sending a rejection message without having to utter a word. Likewise, when young, instead of responding verbally, we often shake our head from side to side to indicate a refusal or a rejection of a suggestion, no matter how kind (as shown in pattern 1 below). Similarly, as we grow up, we also wag our finger(s) (see pattern 5 below) to convey a warning; or raise up our hands to reject any possible objection to our or the speaker’s claim, as also illustrated by the negative gestures in pattern 4 below). Our body, then, can send figurative messages, without relying on language:

|  |
| --- |
| **Overview of ‘negative’ co-speech gestures in Israeli Hebrew (Inbar & Shor, 2019: 87)** |
| **file6** | **file7** | **file4 (2)** |
| ‘Headshake’(Pattern 1) | ‘Sweeping away’  (Pattern 2) | ‘Holding away’  (Pattern 3) |
| **file5** | **file2** | **file3 (1)** |
|  |  |  |
| ‘Hands up’ (Pattern 4) | ‘Finger wagging’ (Pattern 5) | ‘Shoulder shrug’(Pattern 6) |

 In sum, co-speech gestures, activated when verbally expressing negation, thereby sending across a nonverbal implicit negation, is aimed at amplifying the verbal negation’s impact. It thus actually implies that negation is, after all, a **weak** operator, hence, it has to be amplified via **metaphorical** bodily language.

 Gestures, then, can “say” ‘no’ or ‘not’ and the like. Still, can **pictures** say no or not? Indeed, they can, as shown for instance by Oversteegen & Schilperoord (2014: 89), indicating that “pictures can say “no”. Similarly, Forceville & Clark (2014: 22) further show that “[w]hile pictures communicate in a way that is fundamentally different from language, pictures clearly can contain explicit information which can originate in both linguistically and non-linguistically encoded material". Along the same lines, Tseronis & Forceville (2017: 18) also argue that “images, sounds, music, and other semiotic modes combine to create **artefacts** that do not merely seek to inform and please an audience, but also convince and persuade them”.

 (23), “**No** Ball Games”, Banksy’s Graffiti Art Photo (2006)



 In (23) above, children are playing with a poster as if it were a ball, while, in fact, it is a **metaphorical** ball. Still, “No ball games” is the message behind this striking piece of agitprop [i.e., political propaganda] – by Banksy’s graffiti artwork.

**Implicit metaphorical negation in art**

Consider furtherimplicit metaphorical negation in art. For instance, in the

metaphorical image, (24) below, titled “Lovers“, by Rene Magritte, a man and a woman are **metaphorically** united via a kiss; their heads and faces, although “disguised”, wrapped up in a white cloth, negating and “erasing” their faces and identities, allow them to merge into one (“without qualities”) via a kiss:

(24) Rene Magritte, Lovers, (1928a), c/o Pictoright Amsterdam 2020



(25) Rene Magritte, Lovers (1928b), c/o Pictoright Amsterdam 2020



 In (25) above, the lovers face the onlookers, their heads wrapped up in a white cloth, as if erased. Note, though, that both artworks (in 24 and 25 above), while not disclosing the heads and faces, exhibit an instantiation of visual **metaphorical** negation, turning the two into one (without erasing the concept of the faces or heads).

 Along similar lines, Optimal Innovations, as in “Know Hope” below, also exhibit an implicit **metaphorical** **negation in language and in art**. For instance, the street art work in (26) below, plays on this multi-meaning creativity, involving both the **familiar** and the **novel**. Whereas “Know Hope” is (as of now) a **novel**, **nondefault** collocation, inspiring hope, it nonetheless automatically activates the salient, **default** meaning of despair - “No Hope” – while still retaining it, despite being implicitly rejected by the Optimal Innovation. And although contextual information supports this multi-meaning collocation, involving both hope but mostly despair, the Optimal Innovation will still deautomatize the conventional, “no hope”, thereby allowing an interplay between the novel Know Hope and the familiar “no hope”, related to *despair* yet rooting for *hope*. No wonder, this interplay induces hedonic effects, whereby different multi-meanings interact and enrich each other (as also shown in Giora, in revision).

(26)Know Hope, Addam Yekutieli (2006)

Implicit negation, then, is not quite different from explicit negation. In both, the negated concept is mostly if not always retained and therefore allows for an interplay between the novel, **nondefault** (here, “Know Hope”) and the familiar, **default** counterpart (here, “no hope”), the latter springs to mind unconditionally.

In example (27) below, a woman is crafted so as to look like a parrot. Indeed, at first sight, this image wouldn’t really look metaphorical, since the viewer won’t instantly identify a woman when engaging with the image of the parrot, given that the parrot is the **global**, yet a metaphorical overriding construction, rather than a specific **part**.

However, once the onlooker invests more in trying to trace the woman (following the title’s instruction to “look closer”), s/he will eventually notice that this is not (only) a bird. Instead, the bird’s tail is one of the woman’s legs; her hand, bent over her head, is the parrot’s beak; and what looks like a wing is actually the woman’s bent leg, as is her stretched leg, which looks like the parrot’s tail. At this stage, the viewer must understand why the art is titled “This is **not** a bird”, which further suggests that negation, implicit negation included, even if a metaphorical one, is not a suppressor.

(27) Birbo, 3 March 2019. This is not a bird. Look closer.



Along similar lines, Conway’s portrait in (28) below, titled “Knows Job”, also conveys an implicit **metaphorical** negation, referring to her lies via highlighting her Pinocchio’s elongating nose:

(28) Knows Job, by Robbie Conal (2018)



Note further that, the title “Knows Job”, is an Optimal Innovation. On the one hand, it is innovative, in that it alludes to KellyanneConway’s “job” as Trump’s senior advisor and campaign manager, and later on, as his [counselor](https://en.wikipedia.org/wiki/Counselor_to_the_President). On the other hand, it activates the **default** familiar meaning of Pinocchio’s “nose job” concept, referring to Conway’s multiple lies, resulting in increasing the length of her “Pinocchio’s” nose. Indeed, in 2019, the [U.S. Office of Special Counsel](https://en.wikipedia.org/wiki/United_States_Office_of_Special_Counsel) recommended that Conway be fired for "unprecedented" multiple violations of the [Hatch Act of 1939](https://en.wikipedia.org/wiki/Hatch_Act_of_1939%22%20%5Co%20%22Hatch%20Act%20of%201939).

Note further that the Optimal Innovation in “Knows Job” above, also plays a role in implicit visual **metaphorical** negation, made unambiguous by her Pinocchio’s elongated “nose”.

**Conclusions**

In sum, negation, then, is multi-faceted. Regardless, more often than not, it retains rather than suppresses the concepts in its scope. As shown here, this has been supported experimentally. Having rated degree of appropriateness, which did not differ between negative and affirmative targets (Experiment 1), Experiment 2 showed that **negative** comparisons, featuring a default, **prototypical** attribute, were rated as significantly more appropriate than comparisons featuring a nondefault, less-prototypical attribute. These results testify to the **retention** rather than suppression of the concept in the scope of **negation**, thus allowing **default**, automatic features to be more available than **nondefault**, less salient counterparts.

 Given the results of Experiments 1-2, in Experiment 3, we recorded reading times of the stimuli used in Experiment 2. Based on the Retention Hypothesis, we expected statements, featuring **default** prototypical attributes, to be processed **faster** than those featuring **nondefault** less prototypical counterparts. Such differences in reading times will indicate that negation need not **unconditionally suppress** the concept in its scope. Instead, it will exhibit sensitivity to prototypicality.

 Results indeed support the prediction: Statements featuring prototypical attributes were processed faster than those featuring less prototypical alternatives.

 Negation, then, is multi-functional. Nothing compares to it!

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