Rachel Giora*, Moshe Raphaely, Ofer Fein and Elad Livnat **Resonating with contextually inappropriate interpretations in production: The case of irony**

Abstract: According to the graded salience hypothesis, salient meanings and salience-based interpretations are not only involved in language comprehension but also in language production (Giora 2003, 2011a; Giora and Gur 2003). This should be true of irony production as well. If, as predicted by the graded salience hypothesis, the ironist herself indeed activates utterance interpretations on account of their salience-based accessibility rather than solely on account of their contextual fit, this might be reflected in the ironies' environment. Given the crucial role of the salience-based interpretation of "what is said" in deriving and supporting the ironic interpretation, this interpretation should not be suppressed (Giora 1995). Such a view of irony production predicts that its environment will demonstrate dialogic resonance (à la Du Bois, this volume) with ironies' salience-based, but incompatible interpretations. To test this prediction, we studied a written Hebrew corpus including over 1600 ironies. Our findings show that 46% of the ironies, 10% of which are extended ironies, are addressed via reference to their salience-based contextually incompatible interpretations; resonance with the context-based, ironic interpretation occurred in only 8% of the cases; the environment of the rest either did not resonate with any of their interpretations (43%), or resonated with both their compatible and incompatible interpretations (3%). These results support the view that, like comprehenders (Giora et al. 2007), irony producers too activate and retain salience-based albeit inappropriate interpretations.

Keywords: irony production, salience, salience-based interpretations, resonance

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1 Introduction

The aim of this corpus-based study was to show that the contextual environment of ironies (*What a lovely day for a picnic* said on a stormy day) tends to reflect their salience-based yet incompatible interpretation ('The weather is **nice** today'). Given that our research is focused on written discourses, each produced by a single speaker, the following questions arise: Why would a speaker **activate** interpretations incompatible with her own intended interpretation; why should she **retain** them and keep harping on them? According to the graded salience hypothesis the answer to these questions lies in the automatic activation of salient meanings and in the non-automatic, almost deliberate nature of suppression of contextually incompatible interpretations (Giora 1997, 1999, 2003).

What utterance interpretations are activated in the mind of the ironic speaker? Which are retained by their producer? Can the various contexts of ironic utterances disclose irony production routes as irony production unfolds? Do irony production routes mimic irony interpretation routes, as might be assumed, given that production and comprehension share similar processes, as shown by Levelt (1993, 1999), Pickering and Garrod (2013), and also by Giora (2003, 2011c).

Various contemporary theories of irony interpretation might have different predictions concerning these issues. Although it is questionable whether one could assume that interpretation and production follow similar processing routes, it might be interesting to look at how the former might nonetheless account for data resulting from testing the latter. So far, however, the assumption the production and interpretation processes mirror each other has already gained some support (Giora and Balaban 2001; Partington 2007; Shen and Balaban 1999; see also Stephens et al. 2010 who showed that speakers and listeners mirror each other's brains when engaging in verbal communication). Particularly, a number of studies into lexical access in speech production reveal that, as predicted by the graded salience hypothesis, the speed of lexical access is frequency dependent and the various stages involved in selecting the appropriate word are monitored by the speaker following lexical access (Levelt 1989, 1993, 1999).

Along the lines suggested by Giora (2003), Giora and Balaban (2001), Giora and Gur (2003), Kotthoff (2003), and Partington (2007), we test irony in context. We assume that the various interpretations involved in making sense of ironic utterances will be also involved in irony production and be reflected by their neighboring utterances. Specifically, the environment of irony will disclose the various interpretations activated by the ironist on account of their accessibility and be retained by the ironist on account of their role in sustaining the ironic interpretation during production.

Whereas the various theories dealing with irony interpretation agree that a supportive context facilitates contextually compatible interpretations, they disagree on the processes affecting this output. One major issue is whether irony can be tapped directly, without recourse to its incompatible interpretations (e.g., "the direct access view"), or whether these interpretations are activated but suppressed as inappropriate ("the literal-first model"), or whether they are activated and retained even when contextual information is strongly biased toward the ironic interpretation (e.g., "the graded salience hypothesis" and "the retention/ suppression hypothesis").

According to "the direct access view" (Gibbs 1986, 1994, 2002), if context is highly informative, supportive of or inducing an expectation for an ironic utterance (Gibbs 2002), it will affect an exclusive activation of the compatible (utterance) interpretation initially.

On "the literal-first model" (Grice 1975; Searle 1979), irony involves fleshing out the utterance incompatible literal interpretation first, which must then be suppressed as inappropriate so that the appropriate interpretation may be derived.

Assuming Fodor's (1983) modular view, "the graded salience hypothesis" (Giora 1997, 1999, 2003) posits that a strong context, highly supportive or predictive of the compatible interpretation, cannot block salient – coded and prominent – meanings, even when incompatible. To be salient, a meaning of a stimulus must be coded and foremost on one's mind due to exposure or prototypicality: the more familiar, frequent, conventional, or prototypical a stimulus, the more salient its meaning (Giora 1997, 2003). Salient meanings are stimulus driven and get activated automatically, regardless of contextual information, authorial intent, or degree of (non)literalness. Utterance interpretations constructed on the basis of such meanings are salience-based; being based on salient meanings, such interpretations will get activated on account of their relative accessibility, regardless of whether the speaker intended to convey them or not. Evidence so far demonstrates that irony interpreters activate salience-based albeit incompatible interpretations immediately (Fein et al. 2014; Giora 2011a; Giora et al. 2007).

Salience-based but incompatible interpretations however need not be suppressed. Rather, they may play a role in deriving and maintaining compatible interpretations (the retention/suppression hypothesis, Giora 2003), as they do in the case of irony (Colston and Gibbs 2002; Colston and O'Brien 2000; Giora 1995, 2011a, 2011b; Giora et al. 1998; Giora et al. 2007).

Positing different underlying processes, these different models should have different predictions as to the way the environment of an ironic utterance may address irony's (various) interpretation(s). Although on all the theories, resonating with the compatible ironic interpretation is expected, it seems safe to maintain

that resonating with the intended output *exclusively* should be more consistent with the view that, in a highly supportive context (such as when the speaker knows her own mind), irony interpretation can be activated directly, without recourse to its salience-based inappropriate interpretation (Gibbs 1986, 1994, 2002). On this view, then, resonating with the unintended salience-based interpretation is not expected, since this interpretation is not available. Such lack of resonance is also predicted by the literal-first model which posits suppression of incompatible (literal) interpretations before activating appropriate ones (Grice 1975; Searle 1979). If, however, context addresses irony's salience-based albeit incompatible interpretations, this will be more consistent with theories assuming the activation and retention of such interpretations (Giora 1995, 2003, 2011a; Giora et al. 2007; Giora and Gur 2003).

To test the predictions of the various models, we measured the extent to which irony's neighboring utterances relate to its various interpretations. For an utterance/phrase to resonate with another, it should activate affinities with that constituent. This "activation of affinities across utterances" (Du Bois 2007, this issue), whether the speaker's herself or her interlocutors', results in an environment that aligns with utterances' interpretations (Du Bois 2004). Such an alignment can obtain between a given utterance and a previous one (see 4b below), as well as between a given utterance and a later one (see 5a below; on backward and forward resonance, see Giora 2007). Such alignments have been also observed in self-talk, where a speaker says aloud what others might only think (Du Bois 2009, 2011). Thus, even self-talk cannot be divorced from sociality; instead it follows real-life dialogic practices (Du Bois 2009: 338).

2 Method

Materials. Our materials come from a Hebrew corpus of newspaper editorials and op-ed articles (*Haaretz, Ynet, NRG, Walla, The Seventh Eye,* and *Mouse*) collected during 2008–9, comprising of 70347 words, including 1612 ironic utterances, (comprising 15466 words). Overall, 105 texts were inspected, written by 32 different journalists, who are known for using non-literal language. These texts were chosen because they included at least one irony.

Procedure. Two judges identified the ironic utterances independently and decided whether and how their different interpretations were or were not reflected by their neighboring utterances. Only in few cases (about 1%) the judges disagreed with each other, and in those cases the disagreements were resolved in a discussion which also involved the first author. Specifically, (i) either the environment did not resonate with any of the interpretations of the ironic utterance (see 1a below), (ii) or it resonated with both its salience-based and context-based ironic interpretations (see 2a below), (iii) or it included extended ironies – namely, ironies extending their salience-based interpretation and consequently their ironic interpretation as well, thus creating an environment which resonates with both the compatible and incompatible interpretations of the utterance (see 3a below), (iv) or it resonated either with the ironic interpretation only (see 4a–b below), (v) or with its salience-based interpretation only (see 5a–c below; in the examples below the ironic key word/phrase is in bold and the way it is resonated with is in italics, for convenience). However, only types (iv–v) (see examples 4–5) count as the data on which we ran our analysis:

- (1) Environment manifesting no resonance with any of the interpretations of the ironic utterance
- (a) Before I start writing, let me inform you up front that I love you dearly. I would like to warmly embrace the inhabitants of the south – Arabs not included – and dedicate this festive column to them. The **spectacular** demonstrations in Gaza have only contributed to our feelings of a shared fate, Arabs living in the Land of Israel and the Jewish people (Kashua 2009).
- (2) Environment manifesting resonance with both the literal and ironic interpretations of the ironic utterance
- (a) Like the "investigative journalism" programs we see on television, the self-righteous preoccupy themselves with trifle matters. How great it must be to make a name for yourself as a pursuer of justice as you shine the spotlight of your "*investigation*" onto a rabbi who got a little too frisky or the mechanic who overcharges his customer. This is a war that is universally satisfying to all sides. After all, who wants to tolerate an adulterous rabbi, a swindling mechanic, or a thief for a prime minister (Levy 2008a)?
- (3) Environment manifesting extended irony
- (a) The legend, lest it be a true story, tells of how the late mathematician, Professor Haim Hanani, asked his students at the Technion to draw up a plan for constructing a pipe to transport blood from Haifa to Eilat. The obedient students did as they were told. Using logarithmic rulers, they sketched the design for a sophisticated pipeline. They meticulously planned its route, taking into account the landscape's topography, the possibility of corrosion, the pipe's diameter and the flow calibration. When they presented their final product, the professor rendered his judgment: You failed. None of you asked why we need such a pipe, whose blood will fill it, and why it is flowing in the first place (Levy 2009a).

- (4) Environment manifesting ironic resonance
- (a) A **modest** studio of less than 140 square meters with two enormous rooms outfitted like the most luxurious hotel (Kashua 2008).
- (b) The man [Olmert] who made a number of courageous statements about peace late in his tenure has orchestrated no fewer than two wars. Talking peace and making war, the "moderate" and "enlightened" prime minister [Olmert] has been revealed as one of our greatest *fomenters of war* (Levy 2009b).
- (5) Environment manifesting salience-based resonance
- (a) "Hooray to the Israeli Air Force pilots doing a splendid job" effused Brigadier General Avi Benayahu, the IDF spokesperson, talking to Yonit Levy – white turtleneck against a background of tanks, vis à vis hundreds of funerals in Gaza – a token of the "splendid job" of our fine pilots (Levy 2008b).¹
- (b) All this really could have been *peachy* were it not for the fact that blindness is dangerous and the **not-so-good** ending is known in advance (Levy, 2009c).²
- (c) Some of Israel's tycoons who borrowed billions upon billions of shekels from the public through bond issues in recent years seem to have *difficulty* adjusting to the idea of the **ghastly** conditions in the first class section of commercial flights (Rolnik, 2008).

In (1a), the author, an Israeli Arab, is overall derisive and ironic. However one of his ironies, describing the Gazans' demonstrating the massacres during Operation Cast Lead as "**spectacular**" is not echoed by its environment.

In (2a), the use of "**investigative journalism**" is ironic (originally marked as such by inverted commas) suggesting that it is far from being what is considered professional investigative journalism (see Giora 1995). This use is later echoed ironically in "*investigation*", which is also marked by the author as ironic, and which also resonates with the literal meaning of the ironic "investigation".

In (3a), **"Using logarithmic rulers, they sketched the design for a sophisticated pipeline. They meticulously planned its route, taking into account the landscape's topography, the possibility of corrosion, the pipe's diameter and the flow calibration" is a detailed description of a students' plan of a horrific pipeline intended to transport blood. This description could be read as an extended literal account of the plan were it not for the various cues such as "sophisticated" or "meticulously", projecting the speaker's dissociative ironic attitude to what he is describing (see Sperber and Wilson 1986/1995). The whole**

¹ Translated from Hebrew by Elad Livnat.

² On negative understatements being ironic, see Giora et al. (2005).

description, then, is an irony whose extension relies on the salience-based, literal interpretation of the utterances that make it up.

In (4a), the description of the studio in terms of "140 square meters with two enormous rooms outfitted like the most luxurious hotel" conveys 'luxury' or 'extravagance', reflecting the ironic interpretation of a **modest** studio appearing earlier in the context; in (4b), describing Olmert "as one of our greatest fomenters of war", reflects the ironic interpretation of "**moderate**" and "**enlightened**"" – attributes assigned to him earlier in the context, which are now perceived as detached from their salient meanings.

In contrast, in (5a), describing hundreds of funerals in Gaza as a token of the "**splendid** job" of our fine pilots", though intended ironically, activates what is mentioned previously in the context, when the cited speaker genuinely compliments Israeli Air force pilots for doing a *splendid* job.

Similarly, the ironic "not-so-good" in (5b) resonates with the positivity of *peachy* occurring earlier in the context, as does the irony expressed via "the ghastly conditions" in (5c), which resonates with the interpretation of *difficulty*, which is based on the salient meaning of the word. (In the original Hebrew version, *difficulty* and *ghastly* derived from the same polysemous root).

Producing irony, then, may involve entertaining salience-based interpretations with which the irony resonates or which it echoes (on the echoic mention view of irony, see Sperber and Wilson 1986/1995).

3 Results and discussion

Results show that of the 1612 ironies, (i) 689 ironies (42.7%) were not addressed by their environment; (ii) 64 ironies (3.9%) were addressed by relating to both their ironic and salience-based interpretations; (iii) 160 were extended ironies – ironies extending their salience-based interpretation (9.9%); (iv) 589 ironies (36.5%) were addressed only via their salience-based interpretations; and (v) 122 (7.5%) were addressed only via their ironic interpretations.³ Comparing the number of utterances per text being mirrored by their environment via their contextually incompatible, salience-based interpretations only (5.61, SD = 6.53) with the number of utterances per text being mirrored via their contextually compatible, ironic interpretations only (1.16, SD = 1.12) shows that the former exceeds the latter significantly, t(104) = 6.78, p < .0001. Adding to this the set of 160 extended ironies

³ In 12 cases, an irony was classified twice, since it was addressed both via its ironic interpretation and in addition was later developed into an extended irony. For this reason, the numbers sum up to 1624, rather than 1612.

(~10%), which elaborate on the salience-based interpretation, lends further support to the graded salience hypothesis, which predicts the involvement of salient meanings and accessible interpretations in utterance production, even when incompatible.

Taken together, then, these results show, that, as predicted, salience-based but incompatible interpretations get activated in the ironist's mind and need not be discarded from their producer's mental representation (Giora 2003; Kotthoff 2003; Partington 2007).

4 General discussion

What meanings and interpretations get activated in the mind of a speaker as her discourse unfolds. Do production processes mimic interpretation processes? What models could account for the activation of contextually incompatible interpretations during production? In this article we tried to address these questions by focusing on irony production. We assumed that how the neighboring utterances of an irony (*What a lovely day for a picnic* said on a stormy day) resonate with its various interpretations – its salience-based, contextually inappropriate interpretation ('The weather is **nice** today') as well as its context-appropriate, ironic interpretations ('The weather is **bad** today') – may allow an insight into the processes involved in its inception.

What is resonance and how is it created? Can it obtain between a speaker's own utterances? Can resonance indeed shed light on the kind of processes involved in utterance production? According to Du Bois (this issue), resonance is created when neighboring utterances are related to one another in various ways, not least via their semantic and pragmatic affinities. Although it is typically a socially cohesive means, relating interlocutors' dialogic turns to each other, resonance is not limited to conversational exchanges but can arise even in the relation between successive parallel clauses produced by a single speaker (Du Bois, this issue).

If the processes involved in utterance production mirror those involved in utterance interpretation then dialogic resonance can be revealing as to which meanings and interpretations are activated and retained by their producer. Admittedly, evidence of neighboring utterances resonating with the contextually compatible ironic interpretation of an ironic utterance is predicted by all the existing models of irony interpretation. However, evidence demonstrating resonance with the contextually compatible ironic interpretation only (or even mostly) is better accounted for by the direct access view (Gibbs 1994, 2002) and the literal-first model (Grice 1975; Searle 1979). On the first account, a strong con-

text (such as a producer tuned to her own intention) should allow the ironist a direct and exclusive access to her intended interpretation, which should therefore feature exclusively in her produced discourse; on the second view, should incompatible (literal) interpretations get activated on account of their priority, they should then be suppressed and replaced by the appropriate alternative; such processes, then, would not allow inappropriate interpretations to feature in the final products of the process.

In contrast, evidence demonstrating resonance with an irony's salience-based but incompatible interpretation would be consistent only with the graded salience hypothesis (Giora 1997, 1999, 2003) and the view of irony as indirect negation (Giora 1995). Although the graded salience hypothesis focuses on comprehension processes, it also posits similar processes with regard to production (Giora 2003: 9, 90–94; Giora and Gur 2003).

According to the graded salience hypothesis, given its relatively high accessibility, a salience-based interpretation cannot be ignored even when incompatible. In addition, it need not be discarded from the mental representation in case it might play a role in constructing the compatible interpretation (the retention/ suppression hypothesis, Giora 2003). According to Giora (1995), irony interpretation relies on computing the difference between the salience-based interpretation of what is said and the reality described. Such a view motivates retention of the incompatible, salience-based interpretation of irony. In the case of irony, then, this view predicts an environment which also echoes ironies' salience-based albeit contextually incompatible interpretations.

Why are salience-based interpretations accessible to the extent that they are unavoidable? Why would a speaker activate and retain interpretations incompatible with her own intended meaning? According to the graded salience hypothesis (Giora, 1997, 1999, 2003), the answer to these questions lies in the automaticity of salient responses to relevant stimuli. To be salient, a response – a meaning – of a stimulus must be coded and foremost on one's mind due to experiential and cognitive factors: The more frequent, familiar, conventional, or prototypical a stimulus, the more salient its response (Giora 1997, 2003). Salient responses are activated initially, with no recourse to contextual information (see also Fodor 1983). Note, though, that while the meaning of a linguistic stimulus, such as a word or an expression, could be coded, the interpretation of an utterance, based on the salient meaning(s) of its constituents, need not. Instead, it is compositional, presumably involving a certain amount of inferencing. This, however, is a salience-based interpretation – an interpretation based on the salient meanings of the utterance components. Based on salient meanings, such an interpretation should be easy to activate even when a context-based interpretation – an interpretation based solely on contextual information – is highly predictable.

In an attempt to tease apart the various models, we focused here on dialogic resonance with salience-based but inappropriate interpretations of a single speaker's ironic utterances vis à vis their compatible, context-based ironic interpretations. We targeted ironic utterances because they have at least one incompatible salience-based, often literal interpretation (but see, e.g., Colston and Gibbs 2002, for a salience-based metaphoric interpretation of irony) and one non-salient but contextually compatible (ironic) interpretation. If findings disclose resonance with ironies' salience-based but incompatible interpretations, they can be revealing about the underlying processes of activation and retention of such interpretations in the mind of their producer.

One way to look at how speakers resonate with their own utterances is to study written texts. Our corpus included a great number of articles and op-eds (seventy-thousand odd words) written by ironic journalists, involving over 1600 ironies. Resonance was rated by two judges and discussed by three when disagreement emerged. Results are consistent with the graded salience hypothesis. As anticipated, they attest to the prevalence of resonance with salience-based yet incompatible interpretations. These findings argue against the literal-first model and the direct access view – the former predicting suppression of the incompatible interpretations (Grice 1975), the latter predicting circumventing such interpretations (Gibbs 1994, 2002).

Our corpus-assisted findings lend support to previous findings based on natural conversations. For instance, in Kotthoff (2003), resonating with saliencebased incompatible interpretations of irony was scarce in conversations among foes, but prevalent in conversations among friends who focused on creating alignments and amusing each other (see also Partington 2007). Similarly, in Giora and Gur (2003), ironies, produced in conversations among friends, were mostly responded to via resonating with their salience-based but incompatible interpretations.⁴ Such findings support the view that utterance salience-based interpretation are fleshed out in the mind of their producers despite their contextual incompatibility. Once they are activated, however, they are used for various purposes, not least for the sake of humorous effects (Attardo 1994, 2008) and joint teasing (Kotthoff 2003), or for purposes of politeness (Barbe 1995; Giora 1995), and tingeing the intended interpretation (Colston 1997; Dews and Winner 1995, 1999; Dews et al. 1995; Schwoebel et al. 2000).

⁴ In Eisterhold et al. (2006), however, 'serious' verbal responses (vs. laughter), mostly to the appropriate ironic interpretation, were more frequent (28%) than to the literal inappropriate interpretation (about 15%).

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References

- Attardo, Salvatore. 1994. Linguistic theories of humor. Berlin: Mouton de Gruyter.
- Attardo, Salvatore. 2008. A primer for the linguistics of humor. In Victor Raskin (ed.), *The primer* of humor research, 101–156. Berlin & New York: Mouton de Gruyter.
- Barbe, Katharina. 1995. Irony in context. Amsterdam: John Benjamins.
- Colston, Herbert L. 1997. Salting a wound or sugaring a pill: The pragmatic functions of ironic criticism. *Discourse Processes* 23, 25–45.
- Colston, Herbert L. & Jennifer O'Brien. 2000. Contrast and pragmatics in figurative language: Anything understatement can do, irony can do better. *Journal of Pragmatics* 32(11), 1557–1583.
- Colston, Herbert L. & Raymond W. Gibbs Jr. 2002. Are irony and metaphor understood differently? *Metaphor and Symbol* 17, 57–80.
- Dews, Shelly, Joan Kaplan & Ellen Winner. 1995. Why not say it directly? The social functions of irony. *Discourse Processes* 19, 347–368.
- Dews, Shelly & Ellen Winner. 1995. Muting the meaning: A social function of irony. *Metaphor and Symbolic Activity* 10, 3–19.
- Dews, Shelly & Ellen Winner. 1999. Obligatory processing of the literal and nonliteral meanings of ironic utterances. *Journal of Pragmatics* 31, 1579–1599.
- Du Bois, John W. 2004. The dialogic locus: Where language, mind, and culture engage. Paper presented at Conference on Language, Culture, and Mind, Portsmouth, England, 17–20 July.
- Du Bois, John W. 2007. The stance triangle. In Englebretson, Robert (ed.), Stancetaking in discourse: Subjectivity, evaluation, interaction, 139–182. Amsterdam: Benjamins.
- Du Bois, John W. 2009. Interior dialogues: The co-voicing of ritual in solitude. In Gunter Senft & Ellen B. Basso (eds.), *Ritual communication*, 317–340. Oxford: Berg.
- Du Bois, John W. 2011. Co-opting intersubjectivity: Dialogic rhetoric of the self. In Christian Meyer & Felix Girke (eds.), *The rhetorical emergence of culture*, 52–80. Oxford: Berghahn Books.

Du Bois, John W. This issue. Towards a dialogic syntax.

- Eisterhold, Jodi, Salvatore Attardo & Diana Boxer. 2006. Reactions to irony in discourse: Evidence for the least disruption principle. *Journal of Pragmatics* 38(8), 1239–1256.
- Fein, Ofer, Menahem Yeari & Rachel Giora. 2014. On the priority of salience-based interpretations: The case of irony. In revision.
- Fodor, Jerry A. 1983. *The modularity of mind: An essay on faculty psychology*. Cambridge, MA: MIT Press.
- Gibbs, Raymond W. Jr. 1986. On the psycholinguistics of sarcasm. *Journal of Experimental Psychology: General* 115, 3–15.

Gibbs, Raymond W. Jr. 1994. *The poetics of mind*. Cambridge: Cambridge University Press.

- Gibbs, Raymond W. Jr. 2002. A new look at literal meaning in understanding what is said and implicated. *Journal of Pragmatics* 34, 457–486.
- Giora, Rachel. 1995. On irony and negation. *Discourse Processes* 19, 239–264.
- Giora, Rachel. 1997. Understanding figurative and literal language: The graded salience hypothesis. *Cognitive Linguistics* 7, 183–206.
- Giora, Rachel. 1999. On the priority of salient meanings: Studies of literal and figurative language. *Journal of Pragmatics* 31, 919–929.
- Giora, Rachel. 2003. *On our mind: Salience, context, and figurative language*. New York: Oxford University Press.
- Giora, Rachel. 2011a. Will anticipating irony facilitate it immediately? In: Marta Dynel (ed.), *The pragmatics of humour across discourse domains*, 19–31. Amsterdam: John Benjamins.
- Giora, Rachel. 2011b. "Your baby is no longer an infant". On metaphor as context. In Michael Gluzman & Orly Lubin (eds.), *Intertextuality in literature and culture*, 235–247. Tel Aviv: Hakibbuz Hameuchad. (In Hebrew)
- Giora, Rachel. 2011c. In defense of commonality. *Scientific Study of Literature* 1(1), 104–112.
- Giora, Rachel & Noga Balaban. 2001. Lexical access in text production: On the role of salience in metaphor resonance. In Ted Sanders, Joost Schilperoord & Wilbert Spooren (eds.), *Text Representation*, 11–124. Amsterdam: John Benjamins.
- Giora, Rachel, Ofer Fein & Tamir Schwartz. 1998. Irony: Graded salience and indirect negation. *Metaphor and Symbol* 13(2), 83–101.
- Giora, Rachel, Ofer Fein, Jonathan Ganzi & Natalie Alkeslassy Levi. 2005. On negation as mitigation: The case of irony. *Discourse Processes* 39, 81–100.
- Giora, Rachel, Ofer Fein, Dafna Laadan, Jon Wolfson, Michal Zeituny, Ran Kidron, Ronie Kaufman & Ronit Shaham. 2007. Expecting irony: Context vs. salience-based effects. *Metaphor and Symbol* 22(2), 119–146.
- Giora, Rachel & Inbal Gur. 2003. Irony in conversation: Salience and context effects. In Brigitte Nerlich, Zazie Todd, Vimala Herman & David D. Clarke (eds.), *Polysemy*, 297–316. Berlin: Walter de Gruyter.
- Grice, H. Paul. 1975. Logic and conversation. In Peter Cole & Jerry L. Morgan (eds.), *Speech acts* (Syntax and semantics 3), 41–58. New York: Academic Press.
- Kashua, Sayed. 23 May, 2008. Manhattan transfer. http://www.haaretz.com/manhattantransfer-1.246407 (accessed on 27 June 2012).
- Kashua, Sayed. 5 January, 2009. Hit them where it hurts. http://todosporgaza.blogspot. com/2009/01/sayed-kashua-no-haaretz-050109_07.html Published originally in Haaretz. (accessed on 7 January 2009).
- Kotthoff, Helga. 2003. Responding to irony in different contexts: Cognition and conversation. *Journal of Pragmatics* 35, 1387–1411.

Levelt, Willem J. M. 1989. Speaking: From intention to articulation. Cambridge, MA: MIT Press.

- Levelt, Willem J. M. (ed.). 1993. *Lexical access in speech production*. Cambridge and Oxford: Blackwell.
- Levelt, Willem J. M. 1999. A theory of lexical access in speech production. *Behavioral and Brain Sciences* 22(1), 3.
- Levy, Gideon. 3 March, 2008a. Spotlight on the lesser evil. http://www.haaretz.com/printedition/opinion/spotlight-on-the-lesser-evil-1.251007 (accessed on 3 March 2008).

- Levy, Gideon. 29 December, 2008b. Operation Cast Lead: it's gonna end with Kleenex. (In Hebrew). http://www.mouse.co.il/CM.television_articles_item,790,209,31362,.aspx (accessed on 29 December 2008).
- Levy, Gideon. 5 January, 2009a. And there lie the bodies. http://www.haaretz.com/printedition/opinion/and-there-lie-the-bodies-1.267393 (accessed on 5 January 2009).
- Levy, Gideon. 12 January, 2009b. "Israel's" leaders will pay for the bloodshed in Gaza. http://english.alahednews.com.lb/essaydetails.php?eid=7345&cid=389#.U6v5-PldXig (accessed on 12 January 2009).
- Levy, Gideon. 19 July, 2009c. Israelis don't pay price for injustice of occupation. http://www. haaretz.com:80/print-edition/opinion/israelis-don-t-pay-price-for-injustice-ofoccupation-1.280237 (accessed on 19 January 2009).
- Partington, Alan. 2007. Irony and reversal of evaluation. *Journal of Pragmatics* 39, 1547–1569.
- Pickering, Martin & Simon Garrod. 2013. An integrated theory of language production and comprehension. *Behavioral and Brain Sciences* 36(4), 329–392.
- Rolnik, Guy. 4 December, 2008. Taking stock / Three safety nets. http://www.haaretz.com/ print-edition/business/taking-stock-three-safety-nets-1.258808 (accessed on 4 December 2008)
- Searle, John. 1979. *Expression and meaning*. Cambridge, England: Cambridge University Press.
- Shen, Yeshayahu & Noga Balaban. 1999. Metaphorical (in)coherence in discourse. *Discourse Processes* 28, 139–154.
- Schwoebel, John, Shelly Dews, Ellen Winner & Kavitha Srinivas. 2000. Obligatory processing of the literal meaning of ironic utterances: Further evidence. *Metaphor and Symbol* 15, 47–61.
- Sperber, Dan & Deirdre Wilson. 1986/1995. *Relevance: Communication and cognition*. Oxford: Blackwell
- Stephens, Greg J., Lauren J. Silbert & Uri Hasson. 2010. Speaker-listener neural coupling underlies successful communication. *Proceedings of the National Academy of Sciences* 107, 14425–14430.