

“And Olmert is a responsible man”

On the Priority of Salience-Based yet Incompatible Interpretations in Nonliteral Language

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This study focuses on an unresolved issue — the role of salience-based yet incompatible interpretations in shaping contextually compatible ironic interpretations in contexts strongly benefiting such interpretations by inducing an expectation for ironic utterances. According to the direct access view (Gibbs, 1986, 1994, 2002), if context is highly predictive of an oncoming ironic utterance it will facilitate that utterance relative to an incompatible alternative. According to the graded salience hypothesis (Giora, 1997, 2003), even if irony is facilitated, this will not block salience-based interpretations — interpretations based on the salient meanings of the utterance’s components (whether literal or non-literal) — even if contextually incompatible. Review of the findings accumulated in the literature so far show that ironies took longer to make sense of than salience-based interpretations and involved salience-based incompatible interpretations even in the presence of a strong context inducing an expectation for an ironic utterance. This was true even when contextual information was heavily biased in favor of an ironic interpretation, whether observably promoting such an expectation (Giora et al., 2007) or involving more than one contextual factor supportive of that interpretation (Pexman, Ferretti & Katz, 2000).

Keywords: irony, literal-based interpretation, expecting irony, context-effects, activation and retention of incompatible interpretations

1. Introduction

For Israelis, “And Olmert is a responsible man”¹⁾ — the title of an Israeli newspaper article (1 below²⁾, which echoes Shakespeare’s (1623) all too well-known irony — For Brutus is an honorable man — is instantly read as ironic:

(1) For Olmert is a responsible man

The Winograd Committee has stated that the way Israel embarked on the Second Lebanon War is unaccept-

able, must not recur and should be rectified as soon as possible. The report says: “The primary responsibility for these serious failings rests with the prime minister, the minister of defense and the [former] chief of staff.” The chief of staff had already resigned, and the defense minister is on his way out. But Prime Minister Ehud Olmert firmly believes the responsible thing to do is to remain in office, **for Olmert is a responsible man**³⁾.

The interim report discusses the prime minister’s attitude toward the issue of the home front; from the out-

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1) Ehud Olmert is the current Israeli Prime Minister responsible for the fiasco titled The Second Lebanon War.

2) The Hebrew version of the article reads “And Olmert is a responsible man”.

3) All emphases in this article are added for convenience.

set, it states, Olmert understood very well that the North would be vulnerable to rockets and even made sure the other ministers understood this. But he did not do everything possible to improve the defense of the home front. “Only someone who has failed knows how to rectify,” Olmert says, clinging to his chair, **for Olmert is a responsible man...** (Benziman, 2007).

Could readers, familiar with the Shakespearean source, ignore the irony the newspaper’s title resonates with, because of its contextual inappropriateness? The answer seems negative. The salience of the ironic source makes it highly accessible and thus impossible to block (Giora, 1997, 1999, 2002, 2003; Peleg & Eviatar, 2007). Will that ironic source, however, be later suppressed as inappropriate? Apparently not. Both, the recurrence of this newspaper title throughout the article and the article’s structuring, which takes after the Shakespearean soliloquy, make it clear that this ironic source should be entertained.

Notwithstanding, this irony further resonates with an accessible literal source. It echoes Olmert’s excuse for not taking responsibility for his failed military policy. Thus, instead of resigning, Olmert decided that “quitting would be display of irresponsibility” (Benn & Mualem, 2007). Fleshing out Olmert’s assumed “responsibility” allows for assessing the gap between what is said — “responsible man” — and the situation described — failure to assume responsibility. (On irony as residing in the gap between what is said and the situation described, see Giora, 1995; Giora & Fein, 1999; Giora, Fein & Schwartz, 1998; Giora et al., 2005a,b, in press).

This interplay between the original Shakespearean irony — a contextually incompatible interpretation — and Olmert’s claim for responsibility (“only someone who has failed knows how to rectify”, Benziman, 2007) — another incompatible interpretation — allows for the ironi-

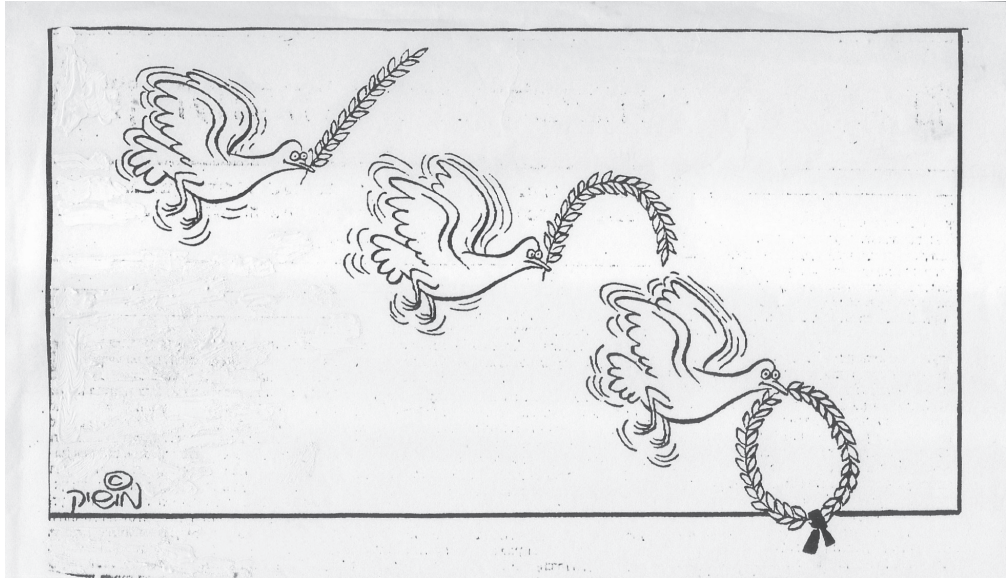
ness of the title. This ironic interpretation is thus the end product of a process that involves activating some inappropriate responses: a salient/coded (ironic) statement as well as a rather accessible (literal) interpretation, termed here salience-based, because it is based on the salient/lexicalized meanings of the utterance’s components. (On salience-based interpretations, see also Giora et al., 2007 and sections 2–3 below; on irony involving echoing a conventional thought, saying, or norm, see Sperber and Wilson, 1986/1995).

Note further how the following visual text (Moshik, 1994) relies on salience-based interpretations while getting across an ironic message. In this caricature, the ironic interpretation of the wreath (connoting **death**) lies heavily on the salience-based interpretation of its counterparts — the metaphoric (‘Oslo **peace** agreements’) as well as the literal (‘olive bough’) interpretations of the olive-branch of which this wreath is made. This irony thus spells out the difference between what is said/drawn (olive-branch — the symbol of peace) and the situation described (rise in death toll):

Similarly, in the following art (Illuse, 2004), the salience-based (literal and figurative) interpretations of the matza are inescapable. While the matza is the (literal) bread used by Jews during the Passover holidays, it is also a symbol of liberty and freedom of movement. Literally making up part of The Wall built up by the Israeli occupier around the Palestinian occupied territory, which confines Palestinians and restricts their freedom of movement (because it cannot be ‘passed over’), the matza’s various meanings play a crucial role in constructing both the novel metaphoric and ironic interpretations of the art:

What these examples suggest is that making sense of irony involves irrelevant interpretations activated on account of their accessibility rather than due to their contextual compatibility. In fact, these so-called irrelevant interpretations are not only accessed but also retained. Why

(2)



(3)



would contextually irrelevant interpretations be retained? Because they are instrumental to the interpretation of the compatible interpretation (Giora, 2003): They make up the reference point relative to which the situation described is assessed, thus allowing for the difference between what is said/made explicit and the situation referred to to be computed (Giora, 1995).

One prediction that follows from assuming

that irony involves irrelevant interpretations is that ironies should be able to prime such interpretations. Evidence for such priming can be found in the context following the ironies. For instance, in the newspaper article under discussion here (1), the context following the ironic title (“**And Olmert is a responsible man**”) indeed discusses ‘Olmert’s (literal) responsibility for The Second Lebanon War’ (“The primary re-

sponsibility for these serious failings rests with **the prime minister**, the minister of defense and the [former] chief of staff"). Such resonance with the literal interpretation of an ironic utterance testifies to its accessibility.

One could argue, though, that the ironies discussed so far are not conventional, that is, they have no lexicalized ironic meaning that could be accessed rapidly and exclusively. Therefore they activate their more accessible interpretations even if inappropriate. A more crucial question, then, should be examined: Can highly conventional ironies, whose salient meaning is ironic, prime their salience-based but irrelevant interpretations? A look at some naturally occurring conventional instances allows us to respond in the affirmative. (For laboratory data on conventional ironies, involving their salience-based yet contextually irrelevant literal interpretations during online processing, see Giora & Fein, 1999). As shown below, the following highly conventional irony *Read his lips* (meaning 'lying') primed its salience-based literal interpretation, which could therefore be echoed in the next discourse segment ("speaks from both sides of his mouth"; "they're moving"). Similarly, the conventional irony *Cry me a river* is resonated with by its salience-based literal interpretation ("A sobbing Paris Hilton"; "Tears") featuring in the next segment. Such echoing allows for this literal interpretation to resonate with the literal source of the irony (on discourse resonance, see Du Bois, 2001, 2007):

- (4) **Read his lips:** In endorsing Bush, Randy Kelly **speaks from both sides of his mouth** (Robson, 2004).
- (5) **Read his lips...if they're moving** (Aday, 2004).
- (6) **Cry me a river**⁴⁾

A **sobbing** Paris Hilton was ordered back to jail on Friday as a judge overruled a sheriff's decision to place the hotel heiress under house arrest for psychological problems after she spent three days behind bars.

Further evidence for irony making "what is said" available for interlocutors, despite its "inappropriateness", can be found in Kotthoff (2003) and Giora & Gur (1999). In Giora and Gur, we examined the kind of response irony elicits in conversations. Our data come from one-hour recorded conversations among 5 Israeli friends. They show that, of the 56 identified ironic utterances, 42 (75%) were responded to by reference to their salience-based (literal) interpretation. Such data demonstrate that the occurrence of irony in the conversations made its salience-based interpretation available for further discussion and elaboration. These findings are consistent with Kotthoff's.

In her study, Kotthoff (2003) recorded German conversations among friends and TV talk-shows participants and looked into how irony's various interpretations primed next turns among interlocutors. Her findings showed that among friends, "what is said" — the salience-based interpretation — was available and responded to in most of the cases (50.9%), whereas "what is meant" — the ironic interpretation — was only marginally addressed (7.8%); mixed responses to both the salience-based and the ironic interpretations amounted to 19.6%, and the rest were laughter (11.8%) and ambiguous turns (9.8%). The opposite was true of TV conversations among opponents, who chose to reply to the appropriate, ironic interpretation in most of the cases (58.3%), while elaboration on the salience-based interpretation was kept minimal (4.2%); mixed responses were also negligent (8.2%) while ambiguous (20.9%) and laughter (8.2%) turns made up the rest. What these data tell us is that salience-based albeit inappropriate interpretations of irony are available for interlocutors who may choose to elaborate on them and re-

4) Posted on [Mainstream Iowan](http://66.102.9.104/search?q=cache:kWMBksBEdBQJ:mainstreamiowan.blogspot.com/2007/06/cry-me-a-river.html+%22cry+me+a+river%22&hl=en&ct=clnk&cd=33) June 09, 2007
<http://66.102.9.104/search?q=cache:kWMBksBEdBQJ:mainstreamiowan.blogspot.com/2007/06/cry-me-a-river.html+%22cry+me+a+river%22&hl=en&ct=clnk&cd=33>

fer to them when engaging in a joint fun.

In sum, although contextually incompatible, salience-based interpretations of irony are activated and retained and can therefore be addressed and resonated with in both spoken and written discourse.

What we have seen so far, then, is that there is some evidence demonstrating that ironies, not least conventional ones, activate and retain their salience-based irrelevant interpretations. Still, one might wonder whether this kind of processing will persist in face of contextual information strongly and exclusively supporting the ironic interpretation. How would accessible but incompatible interpretations fare under such circumstances? Would these contextually inappropriate interpretations resist such a bias and get involved in the process nonetheless?

For the last two decades or so, this has been a heated issue of debate among cognitive psychologists and psycholinguists. In the next sections, I first review the various processing models involved in this debate. Then I test their predictions with regard to the effect of a strongly biasing context on irony interpretation.

2. Models of interpretation

2.1 Compatible-first model: The direct access view

The received view in psycholinguistics, dubbed “the direct access view”, posits a single interactive mechanism. It assumes that a rich and supportive context allows for compatible interpretations to be derived immediately, if not exclusively, without first involving contextually incompatible (message-level) interpretations. Thus, contextual information that is predictive of an ironic interpretation will facilitate such interpretation initially without involving inappropriate ones (Gibbs, 1986, 1994, 2002). (For an overview and for more details on the environment that motivates ironic interpretations, see Utsumi, 2000).

To be predictive of an ironic interpretation,

contextual information needs to set up an “ironic situation” through some contrast between what is expected (by the speaker) and the reality that frustrates it, while further communicating negative emotions (Gibbs, 1986, 2002: 462; Ivanko & Pexman, 2003; Utsumi, 2000). Alternatively, an expectation for an ironic utterance may be raised by the involvement of speakers known for their non-literality (Pexman, Ferretti & Katz, 2000). Additionally, comprehenders reporting of their frequent use of ironic language are expected to fare better on irony than literally-oriented speakers (Ivanko, Pexman, & Olineck, 2004).

2.2 Salient and salience-based-obligatory model: The graded salience hypothesis

The graded salience hypothesis (Giora, 1997, 1999, 2003; Peleg, Giora, & Fein, 2001, 2004) posits two distinct mechanisms that run parallel (see also Fodor, 1983):

- a. a contextual mechanism specializing in top-down, inference drawing, integrative, and predictive processes
and
- b. a modular, bottom-up mechanism, such as lexical access, which is *insensitive* to contextual information whose output, cannot, therefore, be blocked by such information.

According to this view, salient meanings — meanings listed in the mental lexicon, enjoying prominence because they are constantly on our mind due to factors such as experiential familiarity, conventionality, frequency, prototypicality, taboo, and the like — are accessed automatically. Their order of access, however, is motivated by their degree of salience. More salient meanings are activated initially; meanings low on factors such as those mentioned above are accessed later on; non-listed meanings are nonsalient and depend on contextual information for their derivation. They might be long to arrive at or easy to guess and predict, depending on how heavily

contextual information is weighted in their favor (Peleg, et al., 2001).

Importantly, though, and regardless of which of these meanings win the race, salient meanings are always activated and at times even induce salience-based message-level interpretations of the stimulus in question, regardless of context (Dews & Winner, 1999; Giora et al., 2007). And, as long as these interpretations are not detrimental to the construction of the appropriate interpretation, they are retained, even at the cost of conflicting with contextual information (Giora, 2003, 2006; Giora et al., 2007).

2.3 Predictions of the processing models

The goal of this paper is to test the predictions of the various processing models with regard to irony interpretation. It focuses on an unresolved issue — the role of salience-based yet incompatible interpretations in shaping contextually compatible (ironic) interpretations in contexts strongly benefiting such interpretations by inducing an expectation for ironic utterances.

According to the direct access view, if context is highly predictive of an oncoming ironic utterance it will facilitate that utterance relative to an incompatible alternative. According to the graded salience hypothesis, even if irony is facilitated, this will not block salience-based interpretations — interpretations based on the salient meanings of the utterance's components (whether literal or non-literal) — even if contextually incompatible.

3. Findings: On the priority of salience-based interpretations

Studies, manipulating strength of context in one way or another, resulted in conflicting data. They either showed that irony interpretation was facilitated in a strong context (Gibbs, 1986; but see Dews & Winner, 1997 and Giora, 1995 for a re-analysis of the results; and Ivanko et al., 2004) but also in a weak context (Ivanko & Pex-

man, 2003) or, unexpectedly, that it was more demanding than equivalent literal interpretations (Katz, Blasko, & Kazmerski, 2004; Katz & Pexman, 1997; Ivanko & Pexman, 2003; Pexman, Ferretti & Katz, 2000). Given that findings demonstrating difficulties in irony interpretation do not support the view that strong contextual information facilitates irony interpretation, these data were interpreted either as demonstrating early sensitivity to contextual information (Katz, Blasko, & Kazmerski, 2004; Katz & Pexman, 1997; Pexman, Ferretti & Katz, 2000), or as reflecting greater emotional processing associated with ironic than literal sentences (Katz et al., 2004), or as testifying to difficulties in irony processing when a literal utterance was in fact anticipated (Ivanko & Pexman, 2003; for a review, see Giora, 2003; Giora et al., 2007; Giora, Fein, Kaufman, Eisenberg, & Erez, in press). Most of the studies, then, attempting to testify to context facilitative effects on irony interpretation compared to alternative salience-based but incompatible (literal, metaphoric) ones haven't fully demonstrated such effects. Rather, the majority of the findings point to the temporal priority of incompatible but accessible interpretations, testifying to the obligatory processing of salience-based interpretations, irrespective of context (Colston & Gibbs, 2002; Dews & Winner, 1999; Giora, 1995; Giora & Fein, 1999; Giora et al., 1998, 2007, in press; Katz, Blasko, & Kazmerski, 2004; Katz & Pexman, 1997; Ivanko & Pexman, 2003; Pexman, Ferretti & Katz, 2000; Schwoebel, Dews, Winner, & Srinivas, 2000. For a review, see also Giora, 2003).

For instance, following a context (“incisive and knowledgeable answers”) supportive of the salience-based (metaphoric) interpretation, the target “That guy is **brilliant** at answering questions” was read faster than following a context (“naive and ignorant answers”) inducing an ironic interpretation of the target (Schwoebel et al., 2000):

(7) A new professor was hired to teach phi-

losophy. The professor was supposed to be really sharp. When Allen asked several questions, the professor offered **naive and ignorant/incisive and knowledgeable answers**. Allen said: That guy is brilliant at answering questions.

Similarly, in Colston and Gibbs (2002), “This one’s really sharp”, took longer to read in an irony inducing context (8b) than in a salience-based (metaphor) inducing context (8a):

- (8) a. You are a teacher at an elementary school. You are discussing a new student with your assistant teacher. The student did extremely well on her entrance examinations. You say to your assistant, “This one’s really sharp.”
- b. You are a teacher at an elementary school. You are gathering teaching supplies with your assistant teacher. Some of the scissors you have are in really bad shape. You find one pair that won’t cut anything. You say to your assistant, “This one’s really sharp.”

Regrettably, however, so far, no study has actually controlled for the kind of expectation induced by the contexts tested, except for Ivanko and Pexman (2003) who tested targets in contexts showing either preference for a literal target (in which irony was slowed down) or no preference at all (in which irony was facilitated at times). Whether a context exhibiting a preference or an expectation for an ironic utterance indeed facilitates irony interpretation has not been tested yet.

Recently, Giora and her colleagues addressed this particular issue, attempting to test irony interpretation in contexts observably demonstrating a preference or an expectation for an ironic utterance (Giora et al., in press; Giora et al., 2007).

Giora et al. (in press) examined the assumption that an “ironic situation” both invites and hence facilitates ironic interpretation

(Gibbs, 1986, 2002). In Experiment 1, we therefore compared an “ironic situation” — a situation manifesting a protagonist’s *frustrated* expectation (9) — with its minimal-pair context, featuring a *fulfilled* expectation (10) in terms of which prompts comprehenders to anticipate an ironic remark:

(9) Frustrated expectation

Shirley is a feminist activist. Two weeks ago, she organized a demonstration against the closure of a shelter for victimized women, and invited the press. She hoped that due to her immense efforts many people will show up at the demonstration, and that the media will cover it widely. On the day of the demonstration, 20 activists arrived, and no journalist showed up. In response to the poor turnout, Shirley muttered:

- a. This demonstration is a remarkable success. (Ironic)
- b. This demonstration is a remarkable failure. (Literal)

(10) Realized expectation

Shirley is a feminist activist. Two weeks ago, she organized a demonstration against the closure of a shelter for victimized women, and invited the press. As always, she prepared herself for the idea that despite the hard work, only a few people will show up at the demonstration and the media will ignore it entirely. On the day of the demonstration, 20 activists arrived, and no journalist showed up. In response to the poor turnout, Shirley muttered:

- a. This demonstration is a remarkable success. (Ironic)
- b. This demonstration is a remarkable failure. (Literal)

When asked which of the endings, either (a) or (b), was most suitable, comprehenders opted for a literal interpretation in about 70% of the cases, regardless of type of context. These results ar-

gue against the assumption that an “ironic situation” encourages readers to anticipate an ironic remark.

Interestingly, a re-analysis of the results showed that an ironic statement was preferred over a literal one when the gap between what was said and the situation described was large (as posited by Giora, 1995).

In Experiment 2, we tested the second prediction related to the facilitative effects of an “ironic situation”, according to which such a context should speed up an ironic interpretation. In this experiment, we used 3 types of context. In addition to a new set of contexts featuring a frustrated vs. fulfilled expectation (11–12), we also introduced a third context exhibiting no expectation on the part of the protagonist (13):

(11) Frustrated expectation

Context:

Sagee went on a ski vacation abroad. He really likes vacations that include sport activities. A relaxed vacation in a quiet ski-resort place looked like the right thing for him. Before leaving, he made sure he had all the equipment and even took training classes on a ski simulator. But already at the beginning of the second day he lost balance, fell, and broke his shoulder. He spent the rest of the time in a local hospital ward feeling bored and missing home. When he got back home, his shoulder still in cast, he said to his fellow workers:

Ironic target sentence:

“Ski vacation is recommended for your health”

Final sentence:

Everyone smiled.

(12) Realized expectation

Context:

Sagee went on a ski vacation abroad. He doesn’t even like skiing. It looks dangerous to him and staying in such a cold place doesn’t feel like a vacation at all. But his

girlfriend wanted to go and asked him to join her. Already at the beginning of the second day he lost balance, fell, and broke his shoulder. He spent the rest of the time in a local hospital ward feeling bored and missing home. When he got back home, his shoulder still in cast, he said to his fellow workers:

Ironic target sentence:

“Ski vacation is recommended for your health”

Final sentence:

Everyone smiled.

(13) No-expectation

Context:

Sagee went on a ski vacation abroad. He has never practiced ski so it was his first time. He wasn’t sure whether he would be able to learn to ski and whether he will handle the weather. The minute he got there he understood it was a great thing for him. He learned how to ski in no time and enjoyed it a lot. Besides, the weather was nice and the atmosphere relaxed. When he got back home, he said to his fellow workers:

Literal target sentence:

“Ski vacation is recommended for your health”

Final sentence:

Everyone smiled.

In 2 pretests, we controlled for (i) the ironiness of the targets (in the frustrated vs. fulfilled-expectation contexts compared to lack of it in the no-expectation context, in which the target had a salience-based literal interpretation) and (ii) for the manifestation of expectations in the frustrated vs. fulfilled-expectation condition compared to its absence in the no-expectation condition.

Reading times of targets (“Ski vacation is recommended for your health”) showed no facilitation of ironic interpretations compared to salience-based literal interpretations. On the

contrary, while the ironic targets, on their own, did not differ from each other (1927 msec following the frustrated-expectation context vs. 1906 msec following the fulfilled-expectation context), they took longer to read than the (salience-based) literal targets (1819 msec) following the no-expectation context.

In all, these findings argue against the view assumed by Gibbs (1986, 2002) that a context featuring an “ironic situation” favors an ironic interpretation (Experiment 1) which, in turn, facilitates irony interpretation compared to a literal alternative (Experiment 2). Instead, they replicated previous results showing that, regardless of context bias, interpreting irony takes longer to process than equivalent salience-based (e.g., literal) utterances (Giora, 1995; Giora et al. 2007; Pexman, Ferretti & Katz, 2000; Schwoebel, Dews, Winner, & Srinivas, 2000, among others).

It is still possible, however, that this study replicated previous results because the items used — “ironic situations” and their ironic counterparts — did not prompt an expectation for an ironic utterance, as shown by Experiment 1.

In 4 additional experiments (Giora et al., 2007), we tried to remedy for that by involving items promoting an expectation for ironic utterances. On the assumption that expectancy may be built-up by the preceding stimulus sequences (Jentzsch & Sommer, 2002), we proliferated ironic uses in the contexts preceding ironic targets. In Experiment 1, we manipulated expectancy for irony by introducing an ironic speaker in context mid-position (14). Two pretests guaranteed that the contexts featuring an ironic speaker (14f; 15f) showed preference and raised an expectation for another ironic utterance (14j):

(14)

- (a) Barak: I finish work early today.
- (b) Sagit: So, do you want to go to the movies?
- (c) Barak: I don't really feel like seeing a

movie

- (d) Sagit: So maybe we could go dancing?
 - (e) Barak: No, at the end of the night my feet will hurt and I'll be tired.
 - (f) Sagit: You're a really active guy...
 - (g) Barak: Sorry but I had a rough week
 - (h) Sagit: So what are you going to do tonight?
 - (i) Barak: I think I'll stay home, read a magazine, and go to bed early.
 - (j) Sagit: Sounds like you are going to have a really interesting evening.
 - (k) Barak: So we'll talk sometime this week
- (15)

- (a) Barak: I was invited to a film and a lecture by Amos Gitai.
- (b) Sagit: That's fun. He is my favorite director.
- (c) Barak: I know, I thought we'll go together.
- (d) Sagit: Great. When is it on?
- (e) Barak: Tomorrow. We will have to be in Metulla in the afternoon.
- (f) Sagit: I see they found a place that is really close to the center.
- (g) Barak: I want to leave early in the morning. Do you want to come?
- (h) Sagit: I can't, I'm studying in the morning.
- (i) Barak: Well, I'm going anyway.
- (j) Sagit: Sounds like you are going to have a really interesting evening.
- (k) Barak: So we'll talk sometime this week

In spite of an observable bias toward an ironic interpretation, results did not support the expectation hypothesis: reading times of the expectancy-based ironic targets (14j) were not faster compared to their less-expected salience-based interpretations (15j). In fact, they were slower, demonstrating no facilitation of ironic targets following irony inducing contexts, but, instead, replicating previous findings supporting

the priority of salience-based interpretations.

In the next experiments (3-4) we proliferated ironic uses by means of the experimental design. Response times to probes were compared in two experimental conditions: a condition in which participants were exclusively exposed to items ending in an ironic utterance (+Expectancy), thus acquiring an expectation for an ironic utterance, as opposed to a condition in which they were exposed to items ending either in an ironic or in a salience-based (literal/metaphoric) utterance (-Expectancy), which did not allow them to acquire any expectation.

Experiments 2-4 tested the same items, which were all controlled for in Experiment 2. Experiment 2 was designed to reflect the -Expectancy condition. It also involved pre-testing the degree of ironiness of the target sentences in their respective ironic (17) vs. literal (16) contexts, the salience of the probes out of a biasing context, the relatedness of the probes to the interpretation of the target sentences in their contexts, in addition to their relation to the target sentence rather than to the context alone:

(16) Sarit worked as a waitress in a small restaurant in central Naharia. The evening was slow, and even the few customers she did wait on left negligible tips. She didn't think that the elderly man who walked in alone and ordered just a couple of small sandwiches would be any different. But when he had left, and she collected his pay for the meal from off his table, she found no less than 60 NIS tip! When she showed her friends how much she got, Orna commented: "**That was real noble of him!**"

(17) Sarit worked as a waitress in a small restaurant in central Naharia. The evening was slow, and even the few customers she did wait on left negligible tips. She didn't think that the elderly man who walked in alone and ordered just a couple of small sandwiches would be any different. In-

deed, after making her run back and forth throughout the meal, he left, and she collected his pay for the meal from off his table and found 2.5 NIS tip! When she showed her friends how much she got, Orna commented: "**That was real noble of him!**" Probes: Literally related—generous; ironically related—stingy; unrelated—sleepy.

In this experiment, reading times of words following the critical words were measured in order to test for spill-over effects. In addition, lexical decisions to related, unrelated, and nonwords were administered, using early (250 msec) and late (1400 msec) interstimulus intervals (ISIs).

Results demonstrated no facilitation for irony. Instead, spill-over effects were observed only for ironic items and neither in the early nor in the late ISIs was there any facilitation of the ironically related probes. In contrast, in the late ISI, only salience-based probes were facilitated, attesting to the accessibility of the salience-based interpretations. At the early ISI, no probe was facilitated, ascertaining that the probes used indeed tapped message-level interpretations of all targets, which take longer to process than lexical meanings.

On the basis of these items, Experiments 3-4 were designed to directly compare the -Expectation and +Expectation conditions. In Experiment 3, the ISI was 750 msec; in Experiment 4, the ISI was 1000 msec. As earlier, results showed no facilitation of the expectation-based ironic probes in either ISI conditions: irony interpretation was not available at any of the delays. In contrast, in both experiments, the salience-based (mostly literal) interpretations were facilitated. In both experiments, there was no difference between the -Expectation and +Expectation conditions as far as the differences between the salience-based and expectancy-based interpretations were concerned. Although in Experiment 4 there was expectancy effect, it only speeded up responses to all probes, without eliminating their differences,

though.

In sum, findings in Giora et al. (2007), do not support the view that a context that promotes an expectation for an ironic interpretation indeed facilitates this interpretation to the extent that it is easier or even as easy to make sense of as a salience-based interpretation.

4. General discussion

Based on the behavioral data accumulated in the literature for the last two decades or so, it seems safe to conclude that salience-based interpretations — interpretations based on the salient meaning of the utterance’s components — are activated rapidly and partake in the interpretation process even when contextually inappropriate (Giora, 2003; Giora et al., 2007). Such salience-based interpretations need not be literal and might as well be figurative (see Colston & Gibbs, 2002; Giora, 2003; Pexman et al., 2000; Schwoebel et al., 2001). Because of their accessibility, such interpretations get involved in nonsalient interpretations, effecting complex derivation processes.

Indeed, the studies reviewed here show that nonsalient ironies took longer to make sense of than salience-based interpretations and involved salience-based incompatible interpretations even in the presence of a strong context inducing an expectation for an ironic utterance. This was true even when contextual information was heavily biased in favor of an ironic interpretation, whether observably promoting such an expectation (Giora et al., 2007) or involving more than one contextual factor supportive of that interpretation (Pexman et al., 2000).

These behavioral data are further supported by brain research studies. Given their complex nature, ironic interpretations should primarily engage brain areas adept at top-down processes such as drawing inferences and associating remote interpretations, as assumed for the right hemisphere (RH); salience-based, familiar interpretations should fare better in the left

hemisphere (LH), which is proficient at salient and closely related meanings and interpretations (Beeman, 1998; Giora, 2003; Giora et al., 2000).

Findings indeed show that ironic interpretations differed from salience-based (literal, figurative) interpretations in that they engaged the RH while salience-based interpretations involved primarily the LH (Channon, Pellijeff, & Rule, 2005; Eviatar & Just, 2006; Giora, et al., 2000; Leitman, Ziwich, Pasternak, & Javitt, 2006; Shamay-Tsoory, Tomer, & Aharon-Peretz, 2005 and references therein)

Although most of the findings support the priority of salience-based compared to nonsalient ironic interpretations, the question as to which reigns supreme should be further looked into. Future research should attempt at biasing contextual information more strongly by involving multiple contextual factors predictive of future nonsalient (ironic) interpretations and pit them against salient meanings and salience-based interpretations (see Katz, in press). In addition, ironies should be studied in their natural environments, whether conversational (see Giora & Gur, 1999; Kotthoff, 2003) or written, in order to allow for a better look at the environment of irony (Gibbs, 2002; Utsumi, 2000), and at how people produce and understand such utterances.

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