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# IRONY

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What is irony? How does it differ from sarcasm and cynicism? According to Kreuz, irony may be used to comment on odd juxtapositions of events (e.g., the person who dies the day after winning a lottery; the memory expert who forgets where his car is parked); sarcasm is the use of irony to remind others of such juxtapositions (e.g., the friend who has not been helpful; the waiter who has not been attentive); cynicism refers to the chronic interpretation of events as ironic, and the expression of these events via sarcasm.[1]

The topic of this chapter is 'sarcasm', to be referred to as 'verbal irony', or just 'irony' (see also Brown 1980). Little will be said on irony in the first sense, classically referred to as 'irony of fate' or 'situational irony' (cf. Lucariello 1994; Gibbs & O'Brien 1991; Gibbs, O'Brien & Doolittle 1995; Littman & Mey 1991; and see Utsumi 1996 on how verbal irony displays ironic environment[2]). And nothing will be said here of cynicism.[3]

## 1. Definitions of irony

Irony, one of the most important and common tropes, has attracted the attention of rhetoricians and literary scholars ever since Aristotle (for a review, see, e.g., Booth 1974; Muecke 1970; Bredin 1997; Tittler 1984). According to the classical view, irony communicates the opposite of what is said. Recently, however, this view has been challenged by pragmatists and cognitive psychologists alike. To be able to review

the traditional and more recent accounts of irony, let us consider, first, some examples of ironic discourses:

(1)    We go for a picnic and it rains. I say: *"What a lovely day for a picnic"* (adopted from Sperber & Wilson 1986/95: 239).

(2)    We come upon a customer complaining in a shop, blind with rage and making public exhibition of himself. I turn to you and say: *"You can tell he is upset"* (Wilson & Sperber 1992: 54).

(3)    "You sure know a lot", said to someone who is arrogantly and offensively showing off knowledge (Kumon-Nakamura, Glucksberg & Brown 1995: 4).

(4)    We walk in a rather posh neighborhood and come upon gorgeous Ferraris and Jaguars. I say: *"What a junkyard!"*.

(5)    *Thanks to Micronesia*

All the world's states condemned Israel for building in Jerusalem while violating Oslo agreement and obstructing the peace process. All the states, but two: The United States and Micronesia.

We have to be grateful to this federation of islands in the Pacific ocean, whose population does not exceed that of Bnei-Brak [a small, religious Israeli town], which does not have a Jewish lobby, for preventing the total exclusion of Israel from the family of nations.

I suggest that on Independence Day we all put up the flag of Micronesia.

Michael Berger

Jerusalem

*(Ha'aretz* — an Israeli daily — Letters to the Editor, 18.4.97 [in Hebrew])

The classical view of irony, adopted by modern pragmatists (e.g., Cutler 1974; Grice 1975; Haverkate 1990; Searle 1979), dubbed 'The Standard Pragmatic Model', assumes that irony is a special form of language use, by which what is said (sentence meaning) is used to communicate what is unsaid (speaker's meaning). According to Grice, language use requires the cooperation of the parties involved. Speakers should cue their addressees to their communicative intention. To be cooperative, the speaker should conform to four requirements (maxims). She should provide (a) sufficient (new) information, such that it will not be too little or too much in a given situation. This information must be (b) true, verifiable, (c) relevant to the topic discussed, and (d) clear and unambiguous. Conforming to these requirements guarantees a coherent and straightforward discourse. However, to achieve special effects, the speaker may

overtly flout the maxims, so as to enable her addressee to detect the violation and identify her communicative intention. The cooperative addressee, alerted by the cue — the overt violation of the maxim — identifies the speaker's intention, and derives her intended meaning (termed 'conversational implicature'). The recovery of the speaker's intended meaning restores the temporarily violated discourse coherence.

According to Grice, to communicate an ironic intent, the speaker should (overtly) flout the truthfulness maxim.[4] The addressee should recover the speaker's intended meaning by deriving the opposite of what is said. Implicating rather that stating a negative attitude may be viewed as a form of politeness (cf. Barbe 1995; Kotthoff 1996), which may save the victim's face. Examples (1) and (4) satisfy these conditions. They (overtly) flout the truthfulness maxim and can be viewed as implicating the opposite of what is said. However, this version of the classical account does not explain the ironic discourses in (2) and (3), which are forms of understatement that do not violate the truthfulness maxim, and (5) which ridicules and criticizes the policy of the state of Israel without implicating the opposite of what is said.

A more general view of irony being contextually inappropriate has been forwarded by Attardo (1996, 1999). Elaborating on Searle (1979: 113), Attardo proposes that irony violates co(n)textual appropriateness, rather than one or more Gricean maxims. For instance, example (1) said on a hot day by a farmer in a drought stricken area is ironic, albeit true, due to being contextually inappropriate (see also Giora 1995 for a similar view discussed in terms of probability).

Expanding on Grice (1975, 1978), Clark (1996) and Clark & Gerrig (1984) proposed that the ironist, catering for a specific audience, pretends to be speaking to an imaginary or implied addressee who might take her words at face value. Whereas the imaginary addressee is assumed to accept the literal meaning of the utterance, the initiated addressee is assumed to be able to recognize the pretense and infer the speaker's intended ironic meaning. The Pretense view can account for all the examples listed, though (4) may be an exception. According to the Pretense account, the ironist pretends to be a Pollyanna sort of person who views the world through rose-colored glasses (Clark & Gerrig 1984: 122). Indeed, example (4) is not prototypical; most of the verbal ironies tend to be articulated in positive terms (see also Cutler 1974). But (4) can still be classified as a staged act of communication (Clark, 1996), whereupon speakers are engaged in a joint pretense (see also Bakhtin 1981; Haiman 1990; Kotthoff 1999a; Voloshinov 1978 for voicing and layering of voices).

Giora (1995) proposed that irony is a form of indirect negation. Flouting the graded informativeness requirement (rather than the truthfulness requirement), the ironist negates without using an overt negation marker. More often than not, an affirmative expression or utterance is used to implicate that a specific state of affairs is different or far from the desirable state of affairs made explicit by the very same expression. Viewing irony as indirect negation assumes that irony retains both the explicit and implicated messages so that the difference between them may be computed. The indirect negation view can account for all the examples cited above, including (4). Though (4) looks like a counter-example — making explicit what is seemingly an undesirable state of affairs — in fact, this state of affairs is more appealing to the speaker than the actual one which she laments (see also Cutler 1974). However, on the indirect negation view, irony allows the comprehender to measure the extent to which the ironicized situation or object has fallen short of expectation.

The classical view, projected in the traditional pragmatic accounts (e.g., Cutler 1974; Grice 1975, 1978), has been challenged by proponents of Relevance theory, notably by Sperber and Wilson (Sperber 1984, Sperber & Wilson 1981, 1986/95; Wilson & Sperber 1992). They pointed out that the classical view cannot account for ironies that do not breach the truthfulness requirement (e.g., examples (2) and (3)). Moreover, the classical view, they claim, does not explain why a speaker who can express her intended message directly, should choose, instead, to convey it indirectly by saying the opposite of what she means. The Relevance theoretic account, however, is deemed free of these problems. According to the Relevance account, irony is a representation of, or an echoic allusion to someone's utterance, or to the opinions of a certain type of person, or to popular wisdom, in a manifestly ridiculing or reproving way.[5] Verbal irony invariably involves an interpretive use of someone's opinion or thought and an attitude of dissociation from the opinion echoed. Upon this account, the speaker says what she, in fact, disapproves of in order to distance herself from what she mentions. This may include true statements as well as no statements at all (e.g., interjections). Focusing on the reminding function of the Relevance account of irony, Kreuz & Glucksberg (1989: 375) contend that the opinion echoed can remind a listener of what might have been expected and hoped for or of an inaccurate prediction.

Relevance theory may account for the ironies cited above except for (4). In the absence of prior context to allow for an explicit echo, a negative statement represents no popular wisdom and no one's particular thought. Hence, it is not echoic (see also Kreuz & Glucksberg 1989; for an argument along these lines, see Clark and Gerrig

1984, who propose that Swifts' (1729) *A Modest Proposal* cannot be considered an instance of echoic irony, since the source of the echo is untraceable. For a response to this contention, see Sperber 1984). Still, as noted earlier, negative ironies are rare (for a few examples see Winner 1988). The commonplace irony is articulated positively, which, according to Relevance theory, echoes conventional norms of saying nice and positive things. Such irony needs no explicit source; reminding of societal conventions can be implicit. (An explicit antecedent, however, improves such ironies' identification and memory as shown by Gibbs 1986a and partially by Jorgensen et al. 1984). By contrast, negatively phrased ironies require an explicit prior mention (see Kreuz & Glucksberg 1989).[6]

Curcó (1997) expands on Sperber and Wilson. She suggests that the ironist may dissociate herself from what she says, be it someone else's rather than the speaker's opinion, or the speaker's own thought at a different time. She may also be 'indirectly echoic' by dissociating herself from what is assumed, implied, or implicated by what she says. For example, using a metaphor ironically, as in (6), involves dissociation from what is implicated by the metaphor (i.e., the nonliteral meaning, e.g., 'good hearted') rather than from what is explicitly said (i.e., the literal meaning, e.g., 'inhuman creature'):

(6)     A: My daughter is an angel.
        B: (scornfully): An angel, indeed!

## 2. Irony comprehension

How do we compute the meaning of ironic utterances? Has the contextually incompatible literal meaning of irony any role in irony comprehension? The various views noted above have different hypotheses as to how comprehenders make sense of nonliteral language, including irony. Primarily, they diverge on the role context plays in comprehension; particularly on how context affects the initial phase of comprehension. At one end are the proponents of *the direct access view* (e.g., Gibbs 1986a,b, 1994; Gibbs O'Brien & Doolittle 1995; Sperber & Wilson 1986/95) which assumes that context affects comprehension significantly. In a rich and supportive context, comprehension need not involve a contextually inappropriate (e.g., literal) stage at all. Rather, context should *pre*-select the contextually appropriate meaning so

that only the intended — contextually compatible (e.g., ironic) — meaning should be made available for comprehension. In terms of Relevance theory (e.g., Sperber & Wilson 1986/95) for example, this means that the optimally relevant interpretation — the one that guarantees enough contextual effects for least processing effort — should be tapped directly. On the assumption that contexts are not given but searched for, comprehenders should access only those contextual assumptions that render a newly stated assumption optimally relevant. Since the literal meaning of an ironic utterance is irrelevant — it does not benefit the comprehender with any contextual effects — it need not be processed.[7]

Such a model posits equivalent processes for both literal and figurative language. Comprehenders compute only the intended, contextually appropriate or optimally relevant meaning, be it literal or figurative, depending on the context. Nonliteral language should, therefore, take no longer to comprehend than literal language, and should require no special process. Consider the following examples, borrowed from Sperber & Wilson (1986/95: 239):

(7a)   He: It's a lovely day for a picnic.
        [They go for a picnic and the sun shines.]
(7b)   She (happily): It's a lovely day for a picnic, indeed.
(8a)   He: It's a lovely day for a picnic.
        [They go for a picnic and it rains.]
(8b)   She (sarcastically): It's a lovely day for a picnic, indeed.

> "In both (7b) and (8b) there is an echoic allusion to be picked up.
> Under the circumstances described, it is clear that the speaker of (7b)
> endorses the opinion echoed, whereas the speaker of (8b) rejects it
> with scorn. These utterances are interpreted on exactly similar
> patterns; the only difference is in the attitudes they express. (7b) has
> not been thought of by rhetoricians to be worthy of special attention;
> (8b) is, of course, a case of irony." (Sperber & Wilson 1986/95: 239).

A direct access model is consistent with a selective account of lexical access. Recent research into ambiguity resolution has shown that in heavily biasing contexts, only the appropriate meaning is made available for comprehension (Simpson 1981; Glucksberg, Kreuz & Rho 1986). Indeed, as predicted by a direct access hypothesis, irony was found to take no longer to read than its literal equivalent (Gibbs 1986a,b),

and when it was explicitly echoic (cf. Sperber & Wilson 1992), it was read faster than when it was implicitly so (Gibbs 1986a; Jorgensen, Sperber & Miller 1984).[8]

The direct access view argues against 'The Standard Pragmatic Model' (e.g., Bredin 1997; Dascal 1987, 1989; Grice 1975; Searle 1979). According to Grice and Searle, comprehenders compute the sentence (literal) meaning first, regardless of contextual bias. If it is compatible with the situation or context, it is accepted as the intended meaning and search is stopped. If it is incompatible with the context, it is rejected and replaced by a compatible nonliteral meaning. In this framework, literal meaning enjoys a privileged status — it is always activated and always first. Interpreting nonliteral language such as metaphor, irony or indirect requests should, therefore, involve a *sequential* process. It should take longer than interpreting literal language, which requires no reinterpretation phase.

The Standard Pragmatic Model is consistent with *the modular view* (cf. Fodor 1983) which maintains that lexical processes are autonomous: Context does not affect the initial access of a word's coded meanings. Rather, it selects the appropriate meaning *after* the word's meanings have been retrieved (Gernsbacher 1990; Onifer & Swinney 1981; Rayner, Pacht & Duffy 1994; Swinney 1979). Findings supporting the modular view include different reading times and different reaction times to literally and ironically related probes. For example, Dews & Winner (1997) and Giora, Fein & Schwartz (1998) found longer reading times for utterances in ironically than in literally biasing contexts (see also the reinterpretation of Gibbs' 1986a findings in Giora 1995). In addition, Giora et al. (1998) found facilitation for literally related test words displayed 150 msec after offset of target sentences in ironically and literally biasing contexts. However, at a later stage — 2000 msec after offset of the target sentence — the ironic meaning became available (in the contexts biasing the meaning towards the ironic interpretation) and the literal meaning was still as active. Such findings support the view that ironies are processed only *literally* initially.

Giora et al. (1998) proposed a more general view of language comprehension which postulates the priority of salient (rather than literal) meanings (for a similar view see Récanati 1995; Turner & Katz 1997). A word's salient meanings are those coded in the mental lexicon. Their degree of salience may be affected by e.g., conventionality, familiarity, frequency, or prototypicality. According to the graded salience hypothesis (Giora 1997), salient meanings should always be accessed and always first, regardless of contextual information.[9] The graded salience hypothesis, thus, predicts that less salient ironies (which depend on context for their

interpretation) would be processed literally initially. However, salient ironies such as *wise guy, big deal* (whose ironic meaning is coded) should be accessed directly. Giora et al. (1998) and Giora & Fein (1999a) indeed showed that less salient ironies, akin to examples (1) to (6) above, facilitated only their salient (literal) meaning immediately, i.e., 150 msec after offset of the ironic target; their ironic meaning became available only later — 1000 - 2000 msec after offset of the ironic target sentence. In contrast, salient ironies facilitated both their salient (literal and ironic) meanings shortly (150 msec) after offset of the ironic target.[10] Pexman, Ferretti & Katz (2000), using on-lines measures (moving windows), showed that contextual information (e.g., about the occupation of the speaker) does not inhibit salient meanings. Though context might have enhanced less salient meanings (e.g., ironic meaning) it was less effective in filtering out the salient meanings. Even when the context was heavily biased in favor of the ironic meaning, the literal meaning was activated and slowed down the comprehension of irony. Pexman et al. concluded that "a person who goes to the effort of using sarcasm to make a point that could be made in some more direct fashion wants the listener/reader to consider both the expressed message and the indirect intended message" (for a similar view, see Bredin 1997; Giora 1995). Schwoebel, Dews, Winner, & Srinivas (2000) adduce similar evidence.

Indeed, Giora et al. (1998) and Giora & Fein (1999a) have shown that the salient, contextually incompatible (literal) meaning of irony is not suppressed when the ironic meaning emerges. While the literal meaning of utterances embedded in literally inducing contexts began to fade after 2000 msec delay, it was found to be highly activated after this lengthy delay in irony-inducing contexts.

Findings from naturally occurring conversations further support the view that the activated literal meaning of irony need not be suppressed, and may be retained. In studying conversations between friends, Kotthoff (1999b) has shown that listeners very often respond to the literal meaning of the ironic utterance while at the same time making it clear that they have also understood the implicated meaning. Findings by Giora & Gur (1998) corroborate Kotthoff's findings, showing that, more often than not, irony is reacted to by resonating with its salient literal interpretation (see e.g., example (6).

Does the literal meaning of irony play a role in irony interpretation (and should it, therefore, be retained rather than suppressed as irrelevant, as proposed by Gernsbacher 1990; Swinney 1979)? This question may have an answer only within theories that postulate a literal phase in irony comprehension. Following the Standard

Pragmatic Model, which is a theory of replacement (cf. section 1) that dispenses with the literal meaning, the answer must be negative. Following the 'tinge hypothesis' (Winner 1988; Dews & Winner 1995, 1997, 1999), the literal meaning serves to mute the negative, critical tone of irony. According to the indirect negation view (Giora 1995), the literal meaning serves as a reference point which allows the computation of the difference between the expected state of affairs (referenced literally) and the ironicized situation.

## 3. The function(s) of irony

Why would speakers say what they don't mean? Why should they refrain from saying what they mean 'in so many words'? According to Relevance theory (e.g., Sperber & Wilson 1986/95; Wilson & Sperber 1992), speakers use irony to project an attitude of dissociation. They echo an opinion or a thought in order to distance themselves from the mentioned thought or its assumption(s) (Curcó 1997).

Theories that assume that the literal meaning of irony is processed, whether alongside or prior to recovering the ironic intent, attribute a special role to this 'double voice'. Many researchers agree that irony is partially, at least, used to remind us of, or allow the recognition of the incompatibility, incongruity, or discrepancy between what is expected and what is presented (e.g., Clark 1996; Colston & Gibbs 1998; Colston & O'Brien 1998; Curcó 1997; Giora 1995; Kreuz & Glucksberg 1989; Kreuz & Roberts 1995; Kumon-Nakamura, Glucksberg & Brown 1995; Martin 1992).

The frustration with or criticism of failed expectation may be 'tinged' or 'muted' (e.g., Dews & Winner 1995) by the literal meaning of the ironic expression, which usually pertains to the positive expectation. According to Dews & Winner (1995), Dews, Kaplan & Winner (1995), Giora (1995), Winner (1988), irony is a politeness strategy (see also Barbe 1995; Brown & Levinson 1987; Jorgensen 1996; Leech 1983). It is a mitigated form of criticism relative to an alternative literal expression which could project the same attitude. For example, according to Winner and her collaborators, a literal expression such as "How terribly slow you are" as opposed to an ironic one such as "How terribly fast you are" said to a person who lost a race, has been judged as more aggressive. Similarly, "How terribly slow you are" said to a person who just won a race mutes the praise as opposed to the literal alternative. Recently, however, Colston (1997) has accumulated evidence suggesting

that irony is used to enhance rather than dilute the condemnation. According to Colston (1997), since Dews, Kaplan & Winner's (1995) findings are based on auditory stimuli, they can be explained in terms of intonation effect on irony appreciation. It is also possible that irony is perceived as aggressive since it is an indirect form of condemnation that seems to be resistant to counter argumentation (Giora, 1998).

Muting the meaning may have a few purposes. For instance, the literal surface meaning of an ironic utterance may be beguiling. According to Giora (1995), and Haiman (1990), speakers resort to indirect devices in order to protect themselves: "Part of what I consider the aesthetic appeal of sarcasm, in fact, lies in its ambiguity, and its potential deniability" (Haiman 1990: 203; see also Muecke 1970 about the potential of irony to convey subversive ideas; for a different view, see Hutcheon 1994 who shows that irony can be "risky business"). Irony has, consequently, been used by powerless groups to transmit subversive ideas. For instance, forms of indirection such as irony and fantasy have been used by women to challenge cultural assumptions in contemporary novels by women (Giora, 1998; Walker 1991). Self-irony is used by women to divert mockery away from themselves so that it targets the norms which they protest (Kotthoff 1999b).

Of special interest are Guerrilla Girls, an anonymous group of women who protest women's marginalization in society and in the Arts. They use the names of women artists of the past, and appear in gorilla masks. For over seven years they have created over 40 posters which, by means of irony mainly, address taboo topics, challenge men's values, and protest women's discrimination. The following poster, entitled 'Guerrilla Girls explain the concept of natural law' (cited in Crawford 1995: 162), is exemplary. It illustrates how blunt criticism is transmitted indirectly, protected by a guise:

(9a)    Protecting the rights of the unborn means precisely that. Once you're born, you're on your own.

(9b)    Sexual harassment is man's natural response to women on the job. Women who report it are uptight prudes. Women who don't are ambitious whores.

(9c)    Women are paid less in the work-place because they have no business being there.

(9d)    Anyone who is unemployed or homeless deserves it.

(9e)    The people who have the most money are entitled to the best health care.

(9f)    AIDS is a punishment for homosexuality and drug abuse. Only heterosexuals, celebrities and children deserve a cure.

(9g) Life is beautiful. Artists, writers or performers who want to inflict disgusting, homosexual, erotic, satirical or political images upon the public should have their xxxxxx grants cut off.

Not only women as a powerless group resort to irony as a form of resistance. In a study of irony and power relations in the work-place, Schütte (1991) showed that irony and sarcasm as a sub-form were used by the subordinate (a group of orchestra musicians) to subvert the powerful status of the dominant (the conductor).

Cross-cultural research alludes to the possibility that irony is used differently by (culturally) different speakers. For example, Weizman (1984a,b, 1986, 1997) showed that the written daily press in Hebrew and French differs in terms of the preferred structures and the range of discourse structures used to convey ironic (and other) attitudes. It is proposed that Gricean maxims can account for cross-cultural misunderstanding.

Another role that has been attributed to irony, assuming that it involves activating the literal meaning, is the role of being informative, i.e., surprising (Giora 1995). Saying "what a lousy day for a picnic" when one is going for a picnic on a stormy day may be very boring. In contrast, saying "what a lovely day for a picnic" which on the given occasion sounds highly improbable, is a lot more surprising. The surprise effect accounts for the funniness of irony and for its wittiness (see also Colston & O'Brien 1998) which may also improve its recall (Micham 1984; Gibbs 1986a; Keenan, MacWinney & Meyhew 1997; Kreuz, Long & Church 1991). It is better accomplished when employing hyperbole (Colston & Keller 1998).

Since, according to some theories (e.g., Clark 1996; Clark & Gerrig 1984; Katz & Lee 1993; Kreuz, Kassler, Coppenrath, McLain & Allen 1999), irony interpretation relies heavily on common ground and shared beliefs, irony is assumed to promote intimacy (e.g., Gibbs 1986a; see Katz 1996 for a review) and group cohesiveness (e.g., Roy 1981; Kotthoff 1999a). On account of being humorous, irony can be also amusing. In a study of Indian irony ritual, Hymes (1987) highlights the performance and entertainment aspects of irony. In a study of conversational irony, Kotthoff (1999a) has shown that irony is a form of friendly and playful humor. Interestingly, even more than critical irony, friendly irony (among friends) is used to communicate a difference: "[T]he ironist attributes a perspective to the irony object from which she at the same time distances herself". However, while in a friendly context, irony was responded to both literally and ironically, in a less friendly set-up — e.g., pro/con TV

discussions — responses to ironic remarks targeted the ironic meaning only. Kotthoff (1999b) concludes that while friendly irony is responded to playfully by resonating with the literal meaning, critical irony does not provoke such response. Agar (1995) in his Handbook contribution on 'Ethnography', dealing with a specific Austrian genre — *schmaeh fuehrn* — which is a form of teasing whereupon an ironic turn is expected to be responded to ironically, also points out the playfulness of irony, functioning as a kind of humorous verbal duel. Irony, then, is not a homogenous phenomenon, and has a variety of functions.

## 4. Irony processing in partial implementation

### 4.1. Developmental aspects of irony comprehension

Irony processing in partial implementation may be illuminating regarding the various controversies. For instance, developmental research on understanding nonliteral language (e.g., Ackerman 1981, 1983; Winner 1988; Winner, Levy, Kaplan & Rosenblatt 1988), seems to be consistent with the modular hypothesis for irony understanding in children. Findings attest that young children access the coded (literal) meaning first. Studies by Winner and her colleagues (e.g., Winner 1988, Winner, Levy, Kaplan & Rosenblatt 1988) showed that in understanding irony, children failed to detect (rule) violation, and therefore did not recognize the nonliteral meaning of the utterance. In Ackerman's (1981, 1983) studies, young children (6-7 years old) were better at error detection than at error correction (i.e., deriving the intended ironic meaning). Among young children, both stressed intonation and contextual discrepancy facilitated both rejection of the literal meaning, and inferencing (see also de Groot, Kaplan, Rosenblatt, Dews, & Winner 1995 on the role of intonation in facilitating irony comprehension among children, and see Creusere 1999 for a very comprehensive review of the conflicting findings on the topic). Vosniadou (1989) too showed that contextual information facilitated ironic interpretation. Stress, however, did not affect adult comprehension of irony (due to ceiling effects). While for the adults, error detection was sufficient for inference, for the young children, it was only necessary.

Children explained the use of nonliteral utterances literally (Ackerman 1981). According to Nelson & Nelson (1978), children are biased towards the literal

interpretation of utterances. However, it is also possible that they simply do not know what to make of such utterances, and hence fall back on a literal strategy (Ackerman 1983), and feel uncomfortable about it (Winner, Levy, Kaplan & Rosenblatt 1988). According to Ackerman (1983), children tend to explain the use of nonliteral utterances literally because they are unfamiliar with the conventional nonliteral meanings associated with these utterances. According to Winner (1988) and Happé (1993), irony comprehension requires a theory of mind. Indeed, Happé (1993) shows that children lacking a theory of mind, interpret irony literally.

However, children as old as nine have been shown to understand irony (Giora & Fein 1999b; Milosky & Ford 1997; Rosenblatt et al. 1987, cited in Winner 1988: 155). Conti and Camras (1984) also showed that children as old as eight can detect and appreciate irony. And third and sixth graders were shown to be very good at recognizing irony when the speaker used ironic intonation (Capelli, Nakagawa & Madden 1990; see Gibbs 1994 and particularly Creusere 1999 for a comprehensive review).

### 4.2. Hemispheric perspectives of irony comprehension

Most of the research into hemispheric perspectives of irony comprehension has involved brain-damaged individuals. Findings regarding partial implementation suggest that the inferencing and interpretation of nonliteral meanings selectively involve the right hemisphere (e.g., Bihrle, Brownell, Powelson & Gardner 1986; Brownell, Michel, Powelson & Gardner 1983; Brownell & Potter, Bihrle & Gardner 1986; Chiarello 1988; Brownell, Happé, Blum, Pincus 1998; Zaidel 1979; see also Burgess & Chiarello 1996 for a review). As shown by Brownell, Michel, Powelson & Gardner (1983), right brain damaged individuals are sensitive to rule violation (e.g., the surprise endings of jokes), but insensitive to error-correction (e.g., the punchline which reconciles the rule violation). It is, therefore, plausible to assume a selective right hemisphere contribution to irony understanding. Indeed, Kaplan, Brownell, Jacobs & Gardner (1990) showed that right hemisphere damaged individuals are biased towards the literal interpretation, and are less able than normal individuals to derive ironic intent. More recently, Giora, Zaidel, Soroker, Batori & Kasher (2000) replicated these results (and see also McDonald & Pearce 1996 on the effects of frontal lobe deficits on irony comprehension).

## 5. Future avenues of research

Research into the processes involved in verbal irony has focussed, so far, on irony comprehension and reception. Little do we know of the processes involved in irony production (for an initiation sees Giora & Gur 1998). Much research is needed in the area of spontaneous speech (see Kotthoff 1999a,b). A more comprehensive, maybe socially oriented theory is needed for the reconciliation of conflicting findings (e.g., muted vs. enhanced irony, cf. Dews & Winner, 1995 vs. Colston 1997; friendly vs. critical irony cf. Kotthoff 1999a,b). Little is known about the possibility that an ironic strategy may be activated and enhanced by prior ironic utterances, both in production and comprehension, though recent work by Katz and his colleagues (e.g., Katz & Lee 1993; Katz & Pexman 1997) suggests that prior information about a speaker's irony-related habits may affect the processing of irony. The notion of irony aptness (where aptness refers to the comprehensibility of the ironic message and its degree of wit) has been left almost untouched (but see Katz 1996 for an initiation). Neither has pictorial irony been looked into in detail (but see Ducas 1998). And though research into cues and constraints in irony comprehension and production (e.g., Coates 1992; Capelli, Nakagawa & Madden 1990; Kreuz & Roberts 1995, Kreuz 1996; Milosky & Ford 1997; Muecke 1969, 1978; Weizman & Dascal 1991), computational aspects of irony comprehension (Utsumi 1996), the relation of irony to humor (e.g., Attardo 1996, 1999), as well as cross-cultural aspects (Weizman 1984a,b, 1986, 1997), developmental (Creusere 1999) and hemisphere perspectives have seen the light of day, these areas still await research. Apparently, there is more to irony than meets the eye.

## Notes

1.    From a 1996 item, in Hebrew, in the Tel Aviv weekly *Ha'ir*. Kreuz & Glucksberg (1989) argued that while sarcasm ridicules a specific victim, irony does not. Lee & Katz (1998) lent empirical support to this view.

2.    For instance, according to Utsumi, verbal irony presupposes an ironic environment which consists of the speaker's expectation, an incongruity between the expectation and the state of affairs, and the speaker's negative attitude toward that incongruity. Verbal irony, primarily a prototypical form of verbal irony, implicitly displays the ironic environment in that it alludes to the speaker's failed expectation.

3.    Little will be said on 'narrative irony' but see Booth (1974); Eco (1984); Jardon (1988); Muecke (1969, 1970, 1982); Prier & Gillespie (1997); Stringfellow (1994); Tittler (1984); Walker (1991).

4.    For a somewhat similar view, postulating the violation of the sincerity condition, see Haverkate (1990); Kumon-Nakamura, Glucksberg & Brown (1995).

5.    For support of the echoic view of irony see e.g., Curcó (1997), Yamanashi (1998); for suggestions that the echoic view may be too narrow see e.g., Hamamoto (1998), Giora (1995), Seto (1998).

6.    For a somewhat similar distinction between ironies involving an explicit as opposed to implicit echo, see Cutler (1974).

7 .    It should be noted, though, that while the Relevance theoretic account seems to assume a single stage in irony comprehension, Curcó (1997) assumes that that stage involves activating the literal and ironic interpretations (roughly) in parallel.

8.    It should be noted that the direct access view does not necessarily assume equal reading times for all kinds of irony. Poetic or novel (ironic) language may, for various reasons, take longer to read than its literal counterpart.

9.    Note that "out-of context " may not be "really contextually free; rather, the context is internal and based on our experiences with linguistic usages and conventions. Thus for familiar items presented out-of-context, one may easily construct a metaphoric or ironic context " (Katz 1996: 3).

10.    It is possible that the materials used by Gibbs (1986b) — sarcastically intended indirect requests — are highly conventional. Consequently, their ironic meaning may be salient enough to warrant direct access, which may account for their fast processing. See also Katz (1996), Katz & Pexman (1997) on how conventionality and context interact.

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