

The maxim of relevance – that contributions should clearly relate to the purpose of the exchange – is also undermined. What is the purpose of a CMC exchange? In some cases, it is possible to define this easily – a search for information on a specific topic on the Web, for example. In others, several purposes can be present simultaneously, such as an email which combines informational, social, and ludic functions. But in many cases it is not easy to work out what the purpose of the exchange is. People often seem to post messages not in a spirit of real communication but just to demonstrate their electronic presence to other members of a group – to ‘leave their mark’ for the world to see (as with graffiti). From the amount of topic-shifting in some forums we might well conclude that no subject-matter could ever be irrelevant. The notion of relevance is usually related to an ideational or content-based function of language; but here we seem to have a situation where content is not privileged, and where factors of a social kind are given precedence. Incorporating new functional dimensions of this kind is one of the many challenges facing pragmatic theory.

D.C.

See also: Conversational turn taking; cooperative principle; Grice, H.P.; maxims of conversation

Suggestions for further reading

- Crystal, D. (2006) *Language and the Internet*, 2nd edn, Cambridge: Cambridge University Press.
- Maricis, I. (2005) *Face in Cyberspace: Facework, (Im) politeness and Conflict in English Discussion Groups*, *Acta Wexionensia* 57/2005, Vaxjo: Vaxjo University Press.
- Wallace, P. (1999) *The Psychology of the Internet*, Cambridge: Cambridge University Press.

Irony

How do we go about interpreting an ironic utterance such as *You're sharp, aren't you?* (Flash 2004). Given the speaker's ostensive ironic

intent, does that guarantee that we activate the appropriate interpretation initially or even exclusively? Or could the process also involve the *literal* ('piercing') and *metaphoric* ('smart') interpretations of the utterance, regardless of their inappropriateness?

An unresolved issue within pragmatics and psycholinguistics is whether our cognitive machinery is adept at swiftly and accurately homing in on a single, contextually appropriate interpretation (Gibbs 1986, 1994; Sperber and Wilson 1995) or whether it is less efficient at sieving out interpretations based on salient (coded and prominent) word and phrase meanings which might be derived irrespective of contextual information and speakers' intent (Giora 1997, 2003). Within the field of nonliteral language, this translates into whether accessible but incompatible message-level interpretations are involved even when contextual information is highly supportive of an alternative interpretation. The debate within irony research thus revolves around the role of salience-based yet incompatible interpretations in shaping contextually compatible ironic but non-salient interpretations in contexts strongly benefiting such interpretations.

What kind of contexts may benefit ironic interpretations? On one view, titled 'the direct access model' (Gibbs 1986, 1994, 2002), a context displaying some contrast between what is expected (by the protagonist) and the reality that frustrates it, while further conveying negative emotions, will both predict and facilitate ironic interpretations (Colston 2002; Gibbs 1986, 2002: 462; Utsumi 2000). On another view, titled 'the constraints-based model', a context involving contextual factors inviting an ironic interpretation (such as speakers known for their nonliteralness) will raise an expectation for an ironic utterance which, in turn, will facilitate irony interpretation exclusively (Pexman et al. 2000). (For a detailed review of the existing models of irony, see Giora 2003: 61–102.)

However, experiments in which one varies characteristics deemed effective by the direct access or constraints-based models have not demonstrated an increase in irony predictability or observed facilitation of irony interpretation (Giora et al. 2009). Although findings in Gibbs (1986) can be viewed as demonstrating similar

processing times for ironies and equivalent salience-based (literal) interpretations, they may also be viewed as demonstrating quite the opposite, namely, that irony is more difficult to derive than salience-based interpretations (Dews and Winner 1997; Giora 1995).

Another way to induce an expectation for an ironic utterance has been studied by Giora et al. (2007) who increased uses of ironies in contexts preceding ironic targets. Still, while these contexts gave rise to an expectation for another ironic utterance (as might be also envisaged by Kreuz and Glucksberg 1989), this expectation did not facilitate ironical interpretations of those utterances compared to their salience-based (e.g. literal) interpretations. In spite of their contextual inappropriateness, only salience-based interpretations were facilitated initially, even when comprehenders were allowed lengthy (1,000 msec) processing time.

Another environment privileging ironic interpretation is that shared by intimates who rely on a rich common ground and who are willing to join in the fun (Clark 1996; Clift 1999; Eisterhold et al. 2006; Gibbs 2000; Kotthoff 2003; Pexman and Zvaigzne 2004). However, a check of the way friends respond to their mates' ironic turns shows that they mostly respond to the salience-based (e.g. literal/'what is said') interpretation of the irony, either by addressing it directly or by extending the ironic turn on the basis of the salience-based interpretation (Eisterhold et al. 2006; Giora and Gur 2003; Kotthoff 2003). For instance, the irony cited above (*You're sharp, aren't you?*) is followed by an utterance (*I like my me to have 'brains' and a 'bit of class'*) that elaborates on the salient (metaphoric) meaning of the irony. Such response patterns testify to the high accessibility of irony's salience-based interpretations which may therefore lend themselves to further elaborations.

Indeed, most of the behavioural evidence in irony research argues in favour of a salience-based rather than contextually compatible initial model of irony interpretation (Colston and Gibbs 2002; Dews and Winner 1999; Giora 1995; Giora and Fein 1999; Giora et al. 1998, 2007; Ivanko and Pexman 2003; Katz et al. 2004; Katz and Pexman 1997; Pexman et al. 2000; Schwoebel et al. 2000). Corpus-assisted studies too support the view that salience-based

interpretations are highly functional in irony interpretation (Partington 2007). Among other things, it is, in fact, the initial activation of incompatible, salience-based interpretations that makes irony interpretation a complex and error-prone process (Anolli et al. 2001; Lagerwerf 2007), as also demonstrated by some notorious misunderstandings (e.g. taking Swift's 'A Modest Proposal' literally; see Booth 1974).

The view that irony interpretation is a complex process also gains support from neurological studies. For instance, irony has been shown to recruit the right hemisphere, which is adept at inferencing and remote associations. Salient meanings and salience-based interpretations (familiar literals and familiar metaphors), however, rely more heavily on the left hemisphere, which reduces the range of possible alternatives to the most salient ones (Eviatar and Just 2006; Giora et al. 2000; Kaplan et al. 1990; McDonald 1999; Peleg and Eviatar 2008; Shamay-Tsoory et al. 2005a; Wakusawa et al. 2007). Furthermore, neurologically impaired populations were also found to fare better on salience-based interpretations than on (non-salient) ironic interpretations. For instance, populations impaired on theory of mind (the ability to distinguish between our own mental states and those of others), such as autistic individuals (including individuals with Asperger syndrome, a high-functioning variant of autism), individuals with closed head injury, brain damage (especially right-hemisphere damage) and schizophrenia performed worse than normal controls on irony compared to familiar (metaphoric and literal) interpretations (Baron-Cohen et al. 1993, 1997; Channon et al. 2005; Giora et al. 2000; Kaland et al. 2005; Kasari and Rotheram-Fuller 2005; Leitman et al. 2006; Martin and McDonald 2004; McDonald 2000; Mitchley et al. 1998; Mo et al. 2008; Stratta et al. 2007; Thoma and Daum 2006; Tompkins and Mateer 1985; Wang et al. 2006; Winner et al. 1998).

Developmentally, findings which show that irony acquisition occurs rather late, between 6 and 9 years of age (Bernicot et al. 2007; Creusere 2000; Hancock and Purdy 2000; Winner 1988), and decays earlier than simpler tasks (Bara et al. 2000), also support the view that interpreting irony might be a complex process. And while adults mostly make do with con-

textual information (Bryant and Fox Tree 2005), children, in addition, often rely on prosodic cues when detecting irony (Ackerman 1981, 1983, 1986; Capelli et al. 1990; de Groot et al. 1995; Milosky and Ford 1997; Winner 1988; Winner et al. 1988; but see Attardo et al. 2003 and Bryant and Fox Tree 2005, who found that there is no specific tone of voice for irony).

This diverse array of findings, coupled with observed scarcity (7 to 10 per cent) of ironic turns among friends (Attardo et al. 2003; Eisterhold et al. 2006; Gibbs 2000; Partington 2007; Rockwell 2004; Tannen 1984a), elementary-school teachers (Lazar et al. 1989), and others (Haiman 1998; Hartung 1998) and the failures to detect them (Attardo 2002; Rockwell 2004) bring out irony's complex nature. Such complexity is predicted by theories which assume that salience-based albeit incompatible interpretations play a major role in irony interpretation (Clark and Gerrig 1984; Colston 1997b, 2002; Currie 2006; Dews and Winner 1999; Giora 1995; Kumon-Nakamura et al. 1995; Recanati 2004b; Sperber and Wilson 1995: 242), while further triggering inferential processes such as implicature derivation (Attardo 2000, 2001; Carston 2002: 160; Grice 1975) and theory of mind (Curcú 2000; Happé 1993, 1995; Sperber and Wilson 1995; Wilson 2006; Wilson and Sperber 1992). Although by the age of 6 years we can distinguish between our own and others' mental states, even as adults we often fail to recruit this ability initially (Keysar 1994, 2000; Keysar et al. 2003), although this may vary culturally (Wu and Keysar 2007).

However, theories assuming that context can effect immediate if not exclusive activation of nonsalient but contextually compatible interpretations (Gibbs 1994; Katz et al. 2004; Pexman et al. 2000; Utsumi 2000) cannot, at this stage, explain a wide range of findings accumulated during the last two decades of irony research. Still, testing the initial effect of a *cluster* of contextual factors, including their relative weight, might shed further light on the nature of irony interpretation.

R.GIO.

See also: Autism spectrum disorders; clinical pragmatics; conventionality; development, pragmatic; experimental pragmatics; explicit/implicit distinction; humour; inference; inferential comprehension; neuropragmatics; pragmatic language impairment; right-hemisphere damage and pragmatics; schizophrenic language; theory of mind; traumatic brain injury and discourse

Suggestions for further reading

- Barbe, K. (1995) *Irony in Context*, Amsterdam: John Benjamins.
- Gibbs, R.W. Jr and Colston, H.L. (eds) (2007) *Irony in Language and Thought: A Cognitive Science Reader*, New York and London: Lawrence Erlbaum Associates.
- Martin, A.R. (2007) *The Psychology of Humor: An Integrative Approach*, Burlington, MA: Elsevier.