Introduction: Relevance-theoretic claims on irony
(a) it is a variety of interpretive use in which the proposition expressed by the utterance represents a belief implicitly attributed by the speaker to someone other than herself at the time of utterance; (b) it is echoic (i.e., it implicitly expresses the speaker’s attitude to the beliefs being represented); and (c) the attitude involved in the echo is one of dissociation from the thoughts echoed (Curcó, 2000: 261).

1. Source of the echo and dissociative attitude
1.1. Echo: The notion of “echo” has broadened conveniently from the initial use-mention distinction (Sperber & Wilson, 1981) to cover all cases in which irony is conveyed.¹

1.2. Attitude: Irony necessarily entails a dissociative attitude.²

2. Metarepresentations and the interpretation of irony
Three types of metarepresentation (Wilson, 2009):

1. Mindreading ability (or metapsychological ability) to represent and think about one’s own thoughts and those of others.
2. Pragmatic ability (or metacommunicative ability) to represent and think about utterances and other overt communicative acts.
3. Argumentative ability (or metalogical ability) contributing to a more general capacity for epistemic vigilance: the capacity to defend oneself against mistakes or deliberate deception by communicators.

Proposal (a) (Yus, 2012b):
These metarepresentations are also activated as parallel adjustment of 2 (pragmatic ability) and 3 (argumentative ability) within the general framework of 1 (mindreading) while interpreting utterances.⁴

3. General comprehension procedure (not really stages, but mostly mutual parallel adjustment)
Stage 1:
The speaker produces a verbal stimulus with an ostensive quality. Ostensive stimulus triggers activation of mindreading (metapsychological ability).

Stage 2:
Pragmatic (or metacommunicative ability) engages in mutual parallel adjustment intended to obtain an interpretation of the coded input.

Stretch-by-stretch mutual parallel adjustment of:
(1) identification of a grammatical sequence (semantic representation, logical form).
(2) pragmatic enrichment into an explicit interpretation (explicature).
(3) construction and derivation of implicated premises and implicated conclusions (implicature).

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¹ “The thought being echoed may not have been expressed in an utterance; it may not be attributable to any specific person, but merely to a type of person, or people in general; it may be merely a cultural aspiration or norm” (Wilson & Sperber, 1992: 60).

² “The attitude expressed by an ironical utterance is invariably of the rejecting or disapproving kind. The speaker dissociates herself from the opinion echoed and indicates that she does not hold it herself” (Sperber & Wilson, 1995: 239). Spotting the attitude as dissociative is essential to differentiate irony from other types of incongruity such as the one found in jokes (Yus, 2003, 2008, 2011, 2012a).

³ The abilities for overt intentional communication and epistemic vigilance must have evolved together, and must also develop together and be put to use together (Sperber et al., 2010: 360).

⁴ “Given the parallels between irony comprehension and the ability to cope with deliberate lies, it seems reasonable to assume that irony comprehension also has both an epistemic and a mindreading component” (Wilson, 2009: 219).
Stage 3 (while engaged in Stage 2): Contextual inappropriateness triggers ironic interpretation.

Access to context pictured as “contextual sources” in previous research (Yus, 2000, 2009, 2012b)

A: Contextual sources

Irony entails the activation of contextual information -identified as inappropriate- which is basically obtained from any of the following seven types, called “contextual sources” in Yus (2000, 2009, 2012b):

CONTEXTUAL SOURCE A
General encyclopedic knowledge (general information on the world we live in, our culture, collective beliefs, social stereotypes, commonsense assumptions, moral standards etc.).

CONTEXTUAL SOURCE B
Specific encyclopedic knowledge on the speaker (likes, dislikes, habits, beliefs, opinions...).

CONTEXTUAL SOURCE C
Knowledge, still stored in the hearer’s short-term memory, of events or actions which have just taken place or have taken place very recently.

CONTEXTUAL SOURCE D
Previous utterances in the same conversation or coming from previous conversations; utterances which were said before (or some time in the past).

CONTEXTUAL SOURCE E
Speaker’s nonverbal communication, either vocal (tone, intonation...) or visual (smile, gestures, wink...).

CONTEXTUAL SOURCE F
Lexical or grammatical choices by the speaker which work as linguistic cues about the speaker’s ironic intention.

CONTEXTUAL SOURCE G
Information coming from the physical area which surrounds the interlocutors during the conversation.

B: Combination of contextual sources

During this adjustment, irony can be spotted by activating just one of these seven contextual sources (A-G) (leading contextual source). However, as argued in Yus (2000, 2009, 2012b), human cognition can activate several contextual sources, either in sequence, or simultaneously while the hearer is interpreting the utterance (leading contextual source plus supportive contextual source(s)). This contextual saturation actually aids

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5. (a) “[Sometimes we can find] the speaker’s attitude or reaction to thoughts which are not tied to a particular individual, time and place, but are widely entertained or expressed by a certain group of people (or people in general), and which are, as it were, endemic in that group” (Wilson, 2009: 203).

(b) “Cultural norms are widely represented in human minds, and are always available for ironical echoing. This is what happens in ‘As I reached the bank at closing time, the bank clerk helpfully shut the door in my face’, where the bank clerk’s behaviour (which clearly violates a cultural norm) is ironically described as helpful” (Wilson, 2006: 1735).

6. (a) “Irony should be more easily understood when the thought the speaker is echoing is made more salient by being overtly expressed in a previous utterance” (Wilson, 2009: 197). (b) “The most easily recognisable cases of echoic use are those that convey the speaker’s attitude or reaction to a thought overtly expressed in an immediately preceding utterance [...] we would expect to find echoic utterances conveying the speaker’s attitude not only to immediately preceding utterances but to more distant utterances” (Wilson, 2009: 202).

7. “The ironical tone of voice is a natural cue to the particular type of mocking, sceptical or contemptuous attitude that the speaker intends to convey” (Wilson, 2009: 213).
C: Saving mental effort while activating sources in sequence or simultaneity

On paper, activation of multiple contextual sources should increase mental effort, thus reducing eventual relevance. But human cognition has evolved in such a way that it tends to minimize effort, and this applies to all contextual sources:

General encyclopedic knowledge
Certain general assumptions about culture and society are accessed more often and strengthened by the media, thus acquiring a higher level of accessibility. Strangers often refer to these cultural assumptions when attempting to be ironic.

Linguistic cues
Due to grammaticalization or conventionalization, certain lexical choices, syntactic arrangements or stylistic features become typical in irony comprehension, and are retrieved almost automatically.

Physical surrounding
The filtering ability of human cognition selects from the environment those stimuli that are worth attending to in the processing or ironies.

Previous utterances
The information provided by previous utterances is often still active when ironies focusing on this contextual source are intended.

Nonverbal communication
Typically processed in parallel to the interpretation of verbal stimuli and often stored as part of the information about the speaker, in terms of typical gestures and intonational contours that are systematically used by the speaker in similar situations, hence acquiring higher accessibility.

Recent actions
Effort-saving vivid connection between the event and the utterance, still stored in the hearer’s short-memory store.

Information about the speaker
When we come across a friend, not all the information about him, which belongs to both interlocutors’ mutual cognitive environment is equally accessible. Some information about him/her has been accessed frequently in previous conversations, and these assumptions have acquired a certain prominence or salience in their accessibility when the interlocutors start a conversation. It would make a difference if, instead of activating contextual information about the speaker “on the fly”, the hearer found inconsistencies with information about the speaker which has already acquired certain accessibility because it is salient and accessed almost unconsciously.

Proposal of narrowed mutual cognitive environment, made up of assumptions which are very salient or prominent, and which are almost unconsciously activated due to repeated interactions with the interlocutor
in which this information has been commented upon.\textsuperscript{11} This area is typically exploited for ironic purposes but the effort to identify the dissociative attitude and the source of echo decreases due to the accessibility to this information located in the narrowed mutual cognitive environment.

The individual, then, can be pictured as a sort of “cluster of information”, some of which is highly manifest due to repeated interactions with him/her. Upon starting conversations with friends, some information is very salient, to the extent that it is almost unconsciously made accessible.\textsuperscript{12}

Formation of a \textit{narrowed cognitive environment}: [1. Reiterative interactions] lead to [2. certain topics being systematically addressed] which leads to [3. certain mutually manifest assumptions becoming more salient] which leads to [4. a narrowed mutual cognitive environment] and [5. irony typically exploits assumptions included in this narrowed environment] which leads to [6. certain assumptions being strengthened and acquiring higher salience] which leads to [7. a more fine-grained narrowed mutual cognitive environment\textsuperscript{13}] which leads to [8. this narrowed environment becoming a preliminary context for subsequent interactions].\textsuperscript{14}

Proposal (b):
The argumentative ability (hard-wired for epistemic vigilance) will be activated by contextual inappropriateness, which leads to a specific attitude-tracking inferential activity in the hearer while the utterance is being inferred.\textsuperscript{15}

\textbf{Stage 4 (triggered by Stage 3): Identification of the speaker's dissociative propositional attitude, the source of echo and selection of an eventual ironic interpretation}

Question: Are these all the stages needed for an appropriate account of how ironies are identified and their interpretations obtained? If utterances end up with different interpretations even with the same attitude and source of echo (as utterly critical, mildly critical, praising, humorous...), there has to be another inferential procedure involved in the processing of ironies.

My proposal:
To incorporate the identification of a second-order, feeling- or emotion-related metarepresentation (with the broad label of \textit{affective attitude}) that is added to the main metarepresentation that locates the (propositional) \textit{dissociative attitude}.\textsuperscript{16} This affect-related metarepresentation is held towards the source of the echo, thus generating different outcomes of the irony depending on the feelings and emotions held by the speaker while producing the ironical utterance.

Of course, nonverbal communication and different choices of utterances can convey different types and

\begin{itemize}
\item \textsuperscript{11} This narrowed environment would also include information about the interlocutor’s tendency to be ironic and individual-specific nonverbal behaviour, both of which also save effort when activating these particular contextual sources and when detecting dissociative attitudes and underlying intentions to be ironic.
\item \textsuperscript{12} This reminds me of the so-called \textit{Automaticity Model of Priming Effects}, according to which perceiving people and situational cues is expected to activate thoughts, emotions, and actions linked to particular concepts and situations... This associative connection between social perception and the activation of internal representations of the outside world is thought of as an automatic response with no involvement of human volition (Bargh & Chartrand, 1999, 2000)
\item \textsuperscript{13} The use of irony typically produces an effect of enhanced mutuality between interlocutors: “Irony serves as a mark of intimacy between speakers and listeners, and brings them even closer together (Gibbs & Colston, 2001: 190).
\item \textsuperscript{14} “Solidary relationship is a cue to irony and also a product of irony” (...) “By commenting on the addressee’s attributes and behavior, the speaker can demonstrate and enhance social closeness with the addressee; the speaker and addressee are enough and know each other well enough to be entitled to make such comments” (Pexman and Zvaigzne, 2004: 159 and 144-145).
\item \textsuperscript{15} “It could be that any piece of communicative behaviour activates two distinct processes in the addressee: one geared to identifying the relevance of what is communicated on the assumption that it is trustworthy, and the other geared to assessing its trustworthiness” (Sperber et al., 2010: 363).
\item \textsuperscript{16} “A propositional attitude is affectively neutral, but the kind of labels we associate with it reflect the emotions aroused by that opinion, belief or knowledge. The labels associated with the expression of propositional attitude seem therefore to be closely allied to those associated with emotion” (Wuchmann, 2000). “[Irony] implies a judgmental attitude with a strong affective, emotional dimension. Irony may, somewhat paradoxically, signal detachment, (...) yet also can reflect deep emotion and evoke a range of affective responses (Gibbs et al., 2002: 142).
\end{itemize}
intensities of feelings and emotions while producing the irony (example adapted from Gibbs et al., 2002):

[One day while parking at work your car splashes mud on Mary. You look at Mary and ask why her clothes are such a mess]

a. You splashed mud on me with your car.
   [not much about her attitude and emotions].

b. [laughing] I’m getting ready for a “wet T-shirt” competition.
   [irony, negative attitude, amusement].

c. Thanks a lot for giving me a bath.
   [irony, negative attitude and anger].

d. I loooove your driving ability!! Can you do it again?
   [irony, negative attitude and much more anger].

However, the same ironical utterance, with the same dissociative attitude and the same source of echo can yield utterly different interpretive outcomes depending on the identification of the speaker’s affective attitude:

<table>
<thead>
<tr>
<th>John calls Mary on the phone.</th>
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<tbody>
<tr>
<td><strong>Mary:</strong> Hi John! How’re things?</td>
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<td><strong>Mary:</strong> Hahaha. Poor thing... You are right, I should call you more often, but you seem sooo happy to call your friend, don’t you? hahaha. <strong>John:</strong> Hehehe... Of course, Mary... A pleasure.</td>
<td><strong>Mary:</strong> I am sorry... I do call you every now and then... Don’t be so angry. <strong>John:</strong> Yeah, once a year more or less. I just think I deserve better.</td>
<td><strong>Mary:</strong> Hahaha. Poor thing... You are right, I should call you more often, but you seem sooo happy to call your friend, don’t you? hahaha. <strong>John:</strong> Actually, I am pissed off with having to call you all the time. You could make the effort to call me, couldn’t you? <strong>Mary:</strong> I am sorry... Don’t be so angry. I never thought you’d be so upset.</td>
</tr>
</tbody>
</table>

In these examples, John has a dissociative attitude towards an opinion echoed (maybe a commonsense social norm): that he should not always be the one who calls, and that it would be nice if Mary called him for a change sometimes. However, the final interpretation of this echoed opinion varies in each case because of the feelings associated with this opinion. In the first dialogue, John does think that it would be nice that Mary called him more often, but the feelings that he holds towards the echoed opinion are on the positive side, and Mary infers the attitude (dissociative and affective) correctly. The whole exchange is tinged with humour and amusement. By contrast, in the second dialogue John also has a dissociative attitude towards the opinion echoed but the feelings that he holds towards that opinion are on the negative side. Mary, again, correctly locates the echo plus dissociative attitude and also infers that the feelings associated with this echo are negative: John is angry at being the one who calls her all the time. Hence, she reacts in a different way from the previous example: by apologising. Finally, in the third dialogue the dissociative attitude is correctly inferred but the feelings or emotions associated with the opinion echoed (the affective attitude) are misinterpreted, resulting in an erroneous interactional outcome.

(1) [Juan has always complained of those politicians who do not care about their appearance or dress inelegantly since, for him, personal appearance and clothing in politics are crucial to achieving the desired election results].

(2) Juan: Have you seen the candidate from the conservative party? I can’t believe it.
   Luis: Yes, I have... They could have chosen a better candidate...
   Juan: [Smiling ostensively] At least he dresses very elegantly and looks really tidy.
   Luis: Yes, he is not the best dressed politician, and having a pigtail and that three-day beard does not do him any good either. But you shouldn’t be so critical of his appearance. Perhaps it’s not so important nowadays, and it’s his performance as a politician that counts.

(3) [Juan hopes that a political change will take place in the forthcoming elections. He has become fond
of the ideas of the left-wing party candidate, who does not look too tidy, has a three-day beard and a pigtail].

(4) Juan: Have you read the left-wing party’s manifesto? I really think these guys could change this country. I like their revolutionary ideas.
Luis: I still haven’t had a chance to look at it, but I do think we need a change in this country. The leader says some sensible things about how to tackle the crisis.
Juan: [Smiling ostensively] Nice pigtail and beard, though [laughs].
Luis: Hahaha... Swallow your principles! You’ll have to accept this guy’s look if you like the ideas of his party.

In both situations, Juan holds a dissociative attitude towards the norm that politicians in general should dress smartly and be mindful of their appearance, since it plays a part in the eventual voters’ satisfaction with the party that they represent. In both situations, Juan uses an irony that criticises the leader of a political party for not following this general norm. But the feelings and emotions associated in each case vary. In (1-2), Juan feels angry about the politician’s look, and this feeling adds to the default critical connotation of his ironical utterance, even though he is also smiling. By contrast, in (3-4) he still has that dissociative attitude towards an unfulfilled norm, but the feelings associated with this attitude are milder, even close to amusement or a humorous connotation, which is corroborated by Luis’ laughter upon hearing Juan’s utterance. As a consequence, the same irony, with the same underlying attitude (which Juan has held for quite some time), has different feelings and emotions (affective attitude) associated with it.

4. Research questions

(1) Despite being non-propositional information, do the speaker’s emotions count as part of what is communicated and what is eventually relevant?
Feelings and emotions can indeed affect the outcome of ironical interpretations, so they are worth the hearer’s attention in his/her search for a relevant interpretation of the speaker’s utterance.17

(2) Is affective attitude intentional?
Normally, the speaker will want the interlocutor to work out the feelings and emotions associated with a specific ironical utterance. Speakers will be surprised if their utterances are understood as humorous when they are meant to be offensive, or if their interlocutors interpret anger when they only held humorous intentions. However, there is a lot of discussion concerning whether speakers actively mean to communicate their feelings and emotions.18

(3) At which point during irony comprehension is affective attitude identified?
My proposal is that when contextual inappropriateness activates epistemic vigilance, which triggers the identification of the dissociative attitude and the source of the echo, the hearer also engages in a parallel identification of the speaker’s affective attitude towards the source of the echo.

(4) Which contextual sources are at work in the identification of the speaker’s affective attitude attached to the production of an irony?
Mainly knowledge of the speaker [source B above] and nonverbal communication19 [source E above], but also general norms and expectations [source A above].

17. “Practically all of the cognitive science work on intentional communication focuses on how speakers verbally formulate, and listeners explicitly recover, communicative intentions that can be stated as well-formed propositions. Yet in many cases of interpersonal communication, (...) what is important is not the explicit propositions stated, but the more indeterminate nonpropositional meaning and affect that is expressed and understood (Gibbs et al., 2002: 128).

18. [After being splashed by a car] when Christine says “Thanks a lot for giving me a bath,” she conveys the strong impression that she is angry, but does she intend for listeners to recognize her emotional state as part of her communicative meaning? Much work in cognitive science assumes that the expression and understanding of speaker meaning depends on, and is limited by, the recognition of communicative intentions (...) most conversational analysts assume that interpersonal communication consists of the sender intending to cause the receiver to think or do something just by getting the receiver to recognize that the sender is trying to cause that thought or action (...). Others suggest the need to address nonintentional actions to account for emotions in communication because emotions do not conform to standard assumptions about intentionality. In contrast with language, emotions may be either intentionally or uncontrollably revealed, or they may be present within a person but stifled or not revealed (Leggitt & Gibbs, 2000: 4-5).

19. “At all times, we are communicating information about our emotional state, attitudes, and evaluations of whatever we are currently confronting... Several of the nonverbal cues that reflect our internal state can be controlled consciously to some degree, but this will only occur if one directs one's conscious attention to the process of non-verbal encoding” (Wharton, 2009: 166).
(5) How much information about the speaker’s feelings and emotions is worth the hearer’s attention?

Emotion ascription is constrained by relevance. We cannot possibly pay attention to all the barrage of emotional information that a speaker can hold and display (especially because we are rather bad at identifying fine-grained emotions and intensities merely from speaker’s nonverbal displays), but hearers do infer broad feelings and emotions inasmuch as they play a part in the quality of the eventual ironical interpretation.

References
IRONY COMPREHENSION

The speaker produces a verbal stimulus with an ostensive quality

Ostensive stimulus triggers activation of mindreading (metapsychological ability)

Pragmatic or metacommunicative ability is activated, leading to a stretch-by-stretch mutual parallel adjustment of:
1. Identification of a grammatical sequence (semantic representation, logical form).
2. Pragmatic enrichment into an explicit interpretation (explicature).
3. Construction and derivation of implicated premises and implicated conclusions (implicature).
4. Accessibility to as much contextual information as necessary to obtain (2) and (3).

During mutual parallel adjustment some information from context is incompatible with the proposition being enriched

Information from context is mainly obtained from a number of "contextual sources":

[A] General encyclopaedic information + commonsense assumptions
[B] Specific knowledge of the speaker
[C] Recent events or actions triggering ironic remark
[D] Previous utterances re-used later
[E] Speaker’s nonverbal communication (vocal / visual)
[F] Lexical or grammatical choices
[G] Information from physical surrounding

Access to contextual sources [A-G] can take place in isolation (only one needed for irony) or in conjunction, either sequentially or simultaneously. Access to several contextual sources does not necessarily entail increased effort

Contextual incompatibility triggers activation of argumentative ability (epistemic vigilance)

Source of the echo and speaker’s dissociative attitude spotted

Identification of speaker’s feelings and emotions towards the echoed propositional content (affective attitude)

Identification entails further activation of contextual sources, especially:

[B] Knowledge of the speaker (likes, dislikes, opinions...)
[E] Speaker’s nonverbal behaviour (vocal and visual)

IRONICAL INTERPRETATION OBTAINED (RELATED TO A PROPER AFFECTIVE ATTITUDE)