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'Well, that's just great!' – **An empirically based analysis of non-literal and attitudinal content of ironic utterances**[*]

Abstract

This study contributes to the ongoing debate about the informational status of attitudinal content with a focus on verbal irony. Specifically, we investigate where the different meaning components involved in ironic utterances are positioned in the dichotomy between primary and secondary content of utterances. After an analysis of the semantic and pragmatic characteristics of ironic meaning components and their linguistic expression, we show, based on experimental data, that ironic, non-literally asserted content is "less" at issue than non-ironic, literally asserted content. Crucially, our findings also suggest that an ironic utterance's non-literally asserted content is more at issue than the attitudinal content expressed with an ironic utterance. No difference is observed between attitudinal content manifested as ironic criticism and content manifested as ironic praise. Our findings support the notion of at-issueness as a graded criterion and can be used to argue that verbal irony in general seems to be difficult to reject directly and treated as at issue.

Key words: *verbal irony*, *at-issueness*, *non-literal*, *attitudinal*, *evaluative*

1   Introduction

Investigations of the semantic and pragmatic characteristics of attitudinal content typically consider meanings that are literal. Research on attitudinal content that is non-literal, as is the case

with metaphoric language or verbal irony, is sparse and confounded by the fact that the expression's non-literalness seems to critically supplement the main point of the utterance. Consider the following example of verbal irony.

(1)   [After breaking a plate]
      Well, that's just great!

The utterance in (1) articulates an assertion which denotes the opposite of the expression's literal meaning. At the same time, by saying something positive, the speaker conveys a negative attitude towards the corresponding denotatum, i.e., for example, the plate's broken state. An evaluation of this sort, which materializes as ironic criticism in the example, has been argued to be a key component of verbal irony, see, for example, Dews & Winner (1999), Kreuz & Glucksberg (1989), Wilson (2006). But what exactly is the informational status of the speaker attitude expressed with an ironic utterance? By 'status', we refer to the difference between at-issue content and not-at-issue content, see, among others, Potts (2015). According to Potts (2015: 169), at-issue content corresponds to Frege's (1892/1980) 'sense' and to Grice's (1975) 'what is said'. Not-at-issue content, in contrast, has been analyzed as content which does not contribute to the question under discussion directly, see, e.g., Tonhauser (2012).

   In the literature on attitudinal content, the evaluative content of slurs, for instance, has been characterized as not-at-issue content, see Carrus (2017), McCready (2010) among others. This raises the question whether this also applies to attitudinal content of ironic utterances. Further, what is the informational status of content expressed non-literally in comparison with literally expressed content? Does the former contribute to the question under discussion in the same way as the latter? It appears, for example, that ironically expressed content can be dissented with less easily than non-ironic, literal content, as is reflected in the difference in suitability between ((2)b) and ((3)b) below, responding to an ironic utterance in ((2)a) and, respectively, its non-ironic counterpart in ((3)a).

(2)   [After an ambivalent performance]

        a.   A: Well, that lead singer really delivered every note in place.

        b.   B: $^{??}$No, that is not true – the performance was flawless!

(3)   a.   A: Well, that lead singer sang totally off key.

        b.   B: No, that is not true – the performance was flawless!

An explanation of this effect holds, one may argue, that a non-literally expressed assertion has a different conversational status than a literally expressed one and is, thus, more difficult to dissent with directly. Furthermore, as verbal irony always conveys an evaluation of some sort, and as an evaluation is, supposedly, more difficult to reject, it is also less prone to figure as at-issue content in a discourse.

Against this background, the current study aims at analyzing where the different meaning components involved in ironic utterances are positioned in the dichotomy between primary and secondary content, that is, the dichotomy between at-issue and not-at-issue content. Our empirical focus is on German. Specifically, our paper seeks to answer the following questions from an experimental point of view: First, is ironic, non-literally expressed content less at issue than literally expressed content? While we find positive evidence for the not-at-issueness of ironically uttered contents, we hypothesize the different content types involved in ironic utterance to differ in their potentials to be treated as at issue. Accordingly, our second question asks whether ironic, non-literally expressed content is more at issue than the attitudinal content expressed with an ironic utterance. Last, do different ironic attitudinal contents vary with respect to their at-issueness so that ironic criticism has a lesser potential to be treated as at issue than ironic praise?

The structure of this paper is as follows. In section 2, the central meaning components of ironic utterances will be characterized with a focus on how these are encoded linguistically. In section 3, we determine the semantic and pragmatic source as well as the informational status of contents involved in verbal irony based on an experimental study. Section 4 concludes our investigation.

2 Ironic meaning components and their expression

As has often been claimed in the literature, verbal irony, when compared to a direct rejection or insult, has a face-saving function, which is achieved through adding an aspect of wit in a conversational exchange, see, for example, Dews & Winner (1999), Giora (1995). Dews et al. (1995: 297) state that "speakers choose irony over literal language in order to […] soften the edge of an insult, to show themselves to be in control of their emotions, and to avoid damaging their relationship with the addressee". The communicative effect produced by an ironic utterance is rooted in the meaning characteristics verbal irony conveys in contrast to non-ironic language. In the following, we assume these characteristics to be associated with two main components, including a content expressed non-literally, on the one hand, and the speaker's attitude to evaluate the expression's denotation, on the other.

2.1 Two components of ironic utterances

Consider the example in (4), which, when uttered ironically, asserts that the bar in question is not buzzing with people, that is, a meaning that is an alternate to the sentence's literal meaning.

(4)   [At a deserted late night bar]
        This place is buzzing with people!

Drawing on Kaplan's (1999) distinction between descriptive and expressive content, we consider the negated version of the semantic content of (4) to represent the descriptive content of the sentence. We presume that, while the locution of (4) suggests that the bar in question is buzzing with people, the opposite meaning is intended as the assertion, thus suggesting an update of the common ground with the corresponding proposition.

The non-literalness of the meaning of the expression is a central characteristic of ironic and sarcastic language, see, e.g., Sperber & Wilson (1981).[1] From a semantic viewpoint, verbal irony has been described to involve a form of (indirect) negation, see Giora (1995). In contrast to semantic approaches, pragmatic approaches view the notion of contextual inappropriateness

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[1]   Following Attardo et al. (2003), we do not draw a systematic distinction between irony and sarcasm in this paper.

of the expression as central in explaining the non-literalness of ironic speech acts, see Attardo (2000), Dynel (2018).

Note that under the assumption that verbal irony involves negation, non-literal, ironically asserted content is not non-truth-conditional (as opposed to expressive content, which is usually considered to be non-truth-conditional, see, e.g., Potts 2007). Ironically asserted content is only not truth-conditional in a sense that the ironic interpretation entails some negated version of the non-ironic alternate's truth-conditional content.[2] With this characterization in mind, we confine our analysis to ironic utterances that contain non-literally used lexical material and exclude other types of verbal irony such as ironically expressed enthusiasm as in *Oh, yay, he crashed my brand new car!*,[3] where the negation operates on a locutionary level.

Another element typically found in ironic utterances is the speaker's intention to produce an evaluative comment reflecting beliefs concerning an entity's value or significance, using criteria governed by a set of cultural standards, see, for example, Wilson & Sperber (1992).[4] We consider this content to represent expressive content, i.e., content that is non-truth-conditional and not at issue, see Potts (2005). It has been analyzed as another utterance's echo in the literature, see, among others, Jorgensen et al. (1984), Wilson (2006), with the echo giving rise to some sort of mockery effect in verbal irony. Consider the following example.

(5)　　[After arriving at a small Bed & Breakfast]

That is quite a "hotel" the agency chose for our honeymoon!

With this utterance, the speaker communicates that somebody, perhaps a travel agent, has used the label *hotel* for the denotatum under discussion, which, however, would better be described as *Bed & Breakfast*. At the same time, the speaker articulates a negative evaluation of the corresponding denotatum.

While the non-literalness of the utterance's meaning represents the first central characteristic of verbal irony, the evaluative "undertone" is treated here as the second main feature of ironic utterances. Crucially, we presume the two features to be separable such that they, though linked

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[2]　This insight will be relevant for the interpretation of our experimental data, see sections 3.3 and 4.

[3]　We wish to thank Kristen Syrett for her input on this type of irony.

[4]　For an extensive overview of the literature on this characteristic, see Dynel (2018).

to each other, can be treated as two distinct notional contents. A potential objection against such a two-component view of verbal irony holds that it is in fact the non-literal content alone that implicates an evaluative comment.[5] Under such a view, a non-literal ironic content has the same evaluative content as its non-ironic literal alternative. While we agree that both ironically and non-ironically presented assertions may involve equivalent attitudinal contents, we assume, however, that only the former expresses an evaluation conventionally but not the latter. Hence, considering the following examples, we assume that only the ironic utterance in ((6)a) conventionally implicates the meaning 'Pavarotti sang badly' but not the non-ironic correspondent in ((6)b).

[After a performance out of tune]

(6) a. Pavarotti sang every note in tune.

b. Pavarotti did not sing every note in tune.

Observe that the speaker's evaluative attitude expressed with an ironic utterance is often negative, referred to as ironic criticism, but it can also be positive (ironic praise), see, e.g., Dews & Winner (1999), Kreuz & Link (2002). The latter type is illustrated in the following example.

(7) [Tom received an A grade]

That is such a bad grade, Tom!

When uttering (7) ironically, the speaker literally says something negative in order to express something positive. Wilson (2013) argues that ironic praise is subject to stronger use restrictions than ironic criticism, which is often considered the default in verbal irony, see also Wilson & Sperber (1992). The standard of verbal irony to involve a negative attitudinal polarity has been explained by means of a normative bias, see Kreuz & Glucksberg (1989). Due to this normative bias, which describes people's general aspiration to fulfill social norms rather than defy them, an ironically praising utterance has to refer to a preceding assertion, event, situation, etc. while ironic criticism can be used without such a specific reference point. Thus, ironic praise standardly requires an echo of or allusion to some explicit previous statement while ironic criticism

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[5] We wish to thank Chris Cummins for pointing this out to us.

does not require such an anchor point, see also Dews & Winner (1999). Against this background, also more recent experimental research on irony detection can be interpreted, which found ironic praise, as the less prototypical type of irony, "to generate variance with surplus meaning beyond the variance generated by ironic criticism in irony detection", see Bruntsch & Ruch (2017: 87).

2.2 Encoding verbal irony

Empirical investigations on how verbal irony is signaled in an utterance have a focus on suprasegmental and non-verbal features. Based on stimuli collected from sitcoms, Attardo et al. (2003), for example, concluded acoustic pitch as well as facial expression – primarily the so-called "blank face" – to be used as cues to signal irony. Neitsch (2019) investigated irony in the form of rhetorical questions (e.g*., Who likes sloppiness*?) and prosodic cues such as a breathy voice quality and pitch accent that seem to be associated with signaling irony. In the visual domain as well, for Italian Sign Language, mouth patterns have been found to convey the signers' attitude in an ironic remark, see Mantovan, Giustolisi & Panzeri (2019). It is still an open question how consistent and systematic markers of this sort are in ironic language. Results of a controlled irony-rating study conducted by Rockwell (2000) using auditory utterances indicate that only for staged irony, raters were able to discriminate ironic from non-ironic utterances. Spontaneous irony could not be discriminated from non-irony based on vocal cues.

Another non-verbal means to indicate irony are quotation marks. In general, quotes are a metalinguistic device used to "mention" an expression, i.e., to draw the addressee's attention to an expression's linguistic side, see, for example, Quine (1981). Quotes around ironically used expressions like in (5) above have commonly been characterized as a form of scare quotation in the literature, see, among others, Meibauer (2007) and Predelli (2003). Quotes have an apologetic function here and express a specific speaker modality implying a reservation with respect to the semantic appropriateness of the expression in quotes. Quotes materialize typographically as inverted commas and are often encoded as air quotes in the gestural mode. It is an open question whether the ironic use of quotes is also reflected acoustically, but evidence exists that quotes are acoustically represented in non-ironic utterances, when they are used, for example, to indicate pure quotation (*"Hotel" has five letters*), see Schlechtweg & Härtl (2019).

The lexical inventory used to indicate irony involves certain modifiers and particles as well as expressive lexical material. The name-mentioning modifier *so-called*, for instance, as in *The*

so-called "hotel" turned out to be a small Bed & Breakfast, can adopt a distancing function and is semantically related to privative modifiers (*pretended*, *fake*) in such contexts. With this use of the modifier, the speaker questions the semantic appropriateness of the head noun's name, thus producing an ironic or sarcastic interpretation of the construction, see Härtl (2018). Furthermore, ironic utterances are inclined to contain modal particles. Consider the following example from German.

(8)   Das ist (ja) eine schöne Wohnung!
        'That is (PRT) a nice apartment.'

As opposed to, e.g., the German particle *wohl* (lit. 'well'), *ja* (lit. 'yes') is compatible with an ironic interpretation of (8), which is more difficult to construct also in an out-of-the-blue context if the particle is not present.[6]

When used with its discursive function, *ja* marks a proposition as uncontroversial and known in the relevant discourse domain. It links the utterance's content to some existing (implicit or explicit) pretext as a reference point in the common ground, see, for example, Diewald & Fischer (1998), Karagjosova (2003), and instructs the addressee to retrieve content from the common ground that is currently not under consideration, see Repp (2013). As regards informational status, *ja* has been analyzed to indicate that the proposition in *ja*'s scope is not used to directly address the current question under discussion, see Viesel (2015).

Ja is also found in utterances that involve a moment of surprise, that is, a speaker-oriented, not-at-issue content related to an exceeded expectation, see, e.g., Rett (2011). Zimmermann (2011) argues that the surprise content is a secondary, i.e., not lexicalized, meaning component of *ja*, which can be entailed through particles other than *ja*, and which also depends on particular intonational contours, see, e.g., Lindner (1991) as cited in Zimmermann (2011). The latter can also be observed for the example in (8) above, which requires an exclamation intonation for the

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[6] We ignore intonational aspects at this point as the finding applies to the written mode. In an ad-hoc inquiry we conducted, ten out of twelve of our German informants agreed that a written utterance like (8) is difficult to identify as ironic if the particle *ja* is not present.

ironic reading to arise. We interpret this intonational characteristic to reflect the speaker's intention to simulate a surprise with the ironic utterance and, by manifesting it as an echo, give rise to a mockery effect, cf., among others, Jorgensen et al. (1984), Wilson (2006).

We consider *ja* with a surprise interpretation to share the discourse requirement with the expressively neutral counterpart such that both refer the addressee to a proposition somehow retrievable from a shared common ground, cf. Kratzer & Matthewson (2009). Based on this, the discourse function of *ja* can be argued to be the key factor why it often figures in ironic utterances in German. Verbal irony is a form of echoic language, see Wilson (2006), Wilson & Sperber (1992), that makes reference to state-of-affairs that are expected or desired based on mutually shared knowledge, see Gibbs & Colston (2007). Verbal irony can echo a previous remark explicitly (e.g., *The so-called "hotel" turned out to be a small Bed & Breakfast*) or echo an assumption about a general norm (*What lovely weather for a picnic!*). Accordingly, the use of *ja* is compatible with an ironic reading of a sentence like (8) as *ja* tells the addressee to establish a link between the expressed proposition and certain shared background knowledge about a previous remark or a norm, respectively. Observe that even when *ja* is used as an indicator that the current question under discussion is not addressed directly with an (ironic) utterance, this does not imply that a proposition in the scope of *ja* cannot be the target of negation, see Viesel (2016: 193).

Other potential modal cues often found in ironic utterances in German involve *aber* (lit. 'but'), *wirklich* ('really') and the discourse particle *na*. Consider the following examples uttered ironically.

(9) [After some bad news]
     Na, das sind aber tolle Neuigkeiten!
     PRT that is PRT great news
     'Well, that is really great news!'

(10) [After a dull joke]
     Na, der ist wirklich zum Totlachen!
     PRT this is PRT to the dead laugh
     'Well, this one is killing me!'

While *na* is an interjection used in sentential-initial position to connect thoughts, *aber* has an exclamative function and can be used to signal (simulated) surprise about a state-of-affair that is unexpected for the speaker, see Thurmair (1989: 190).[7] *Wirklich*, when used as an epistemic adverb, see Romero & Han (2004), has an affirmative function, pertaining to the simulated literalness of an ironic utterance, and puts emphasis on the endpoint of the scale in question.[8] *Wirklich* and *aber* are attitudinally unbiased and, thus, sensitive to the evaluative polarity of the ironic utterance. *Aber*, for example, adopts a negatively enforcing function in (9) but a positively enforcing one with ironic praise, as is illustrated in (11).

(11) [After some good news]

  Na, das ist aber ein ganz schlechter Tag heute!

  PRT that is PRT a totally awful day today

  'Well, today really is an awful day!'

While the particles discussed above function as discourse-related and modal cues to mark verbal irony, the attitudinal content itself in an ironic utterance is encoded by means of evaluative lexical material, for example, through sentiment adjectives like *great*, *nice*, *bad*, *awful*, as exemplified in the examples above. We will come back to empirical particulars of this point in section 3.3.

  In this section, we have argued verbal irony to comprise two main contents, i.e., the expression's non-literal meaning and the speaker's attitude to evaluate the expression's denotation. The latter materializes usually as ironic criticism but also as ironic praise. Cues for verbal irony involve discourse and modal particles as well as certain modifiers and expressive lexical material. We are now ready to address our main question, which aims at localizing the contents of ironic utterances in the dichotomy between primary and secondary content, i.e., between at-issue content and not-at-issue content of an utterance.

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[7] We wish to thank Andreas Trotzke for his input on that topic.

[8] See Beltrama & Trotzke (2019) for a recent overview of lexical intensification. Observe that *ganz* ('totally') in the example in (11) below fulfills a similar function within the DP. We speculate the use of these adverbs in ironic utterances to be explained by the fact that verbal irony may be easier to detect as such with "extreme" propositions. We wish to thank Heiko Seeliger for this suggestion.

3   Irony in the spectrum between primary and secondary content

For the purpose of our analysis, by 'source', we refer to the difference between truth-conditional content (entailments and presuppositions),[9] on the one hand, and non-truth-conditional content (implicated content), on the other. Truth-conditional content is asserted explicitly. In contrast, implicated content is content which is not said explicitly but results from principles of conversational inference (Grice 1975).

Furthermore, by 'status', we refer to the difference between at-issue content and not-at-issue content, see, among others, Gutzmann (2015), Potts (2015), Tonhauser (2012). The standard definition holds at-issue content to represent the main assertion of an utterance and to answer the (underlying) question under discussion. Therefore, at-issue content is responsive to a direct negation like *No, that is not true.* Not-at-issue content, in contrast, is linked to secondary aspects of an utterance and does not, or only indirectly, contribute to the question under discussion. A typical instance of not-at-issue content is an appositive relative clause as in *Kim, who lives in Berlin, fascinates Joan*, whose content can only be indirectly rejected by means of a discourse-interrupting protest like *Wait a minute – Kim lives in Rome!*, see Fintel (2004).

3.1 Not-at-issue content as salient content

Presuppositions and implicatures are commonly taken to represent content which does not contribute to the question under discussion or does so only indirectly, see Potts (2005). This assumption, however, does not imply that these contents cannot be treated as salient and thus as "somehow" at issue by the interlocutors in a conversation. For instance, certain presupposed contents, although they are typically meant to be backgrounded and non-controversial, can be accommodated as new information and, thus, gain main-point status, see Lewis (1979), Simons (2005).[10] This is illustrated in the following example, adapted from Simons (2005: 342).

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[9] We speak of presuppositions as semantic presuppositions, see, e.g., Potts (2015), and not as pragmatic presuppositions, see, among others, Stalnaker (1974/1999).

[10] We stay agonistic with respect to the question whether 'main-point status' is an empirically primitive notion like salience or psychological prominence, which are also sometimes characterized as (conceptual) primitives, see, for example, Schmidt (1996).

(12) a. A: I should ask the new guy out – he seems really nice.

b. B: Yes, and his girlfriend is lovely, too!

Technically, the at-issue content in B's utterance is the information that the new guy's girlfriend is as nice as he himself. At the same time, however, the information is expressed that the new guy has a girlfriend, and we can reason this to be the utterance's actual main point communicated to A. The example illustrates that content which is presented as presupposed can be perceived as more on the at-issue side even though it formally figures as not-at-issue content. With respect to B's reply in ((12)b), the latter is reflected by the fact that the information of the new guy having a girlfriend cannot be easily rejected by means of a direct negation, cf. *??No, that's not true – he is single!* Similarly, conversational implicatures resist direct negation. This is illustrated in (13), with A's response in ((13)c) intended to reject the (relevance-based)[11] implicature articulated in B's answer that it must be before 11:00 o'clock.

(13) a. A: Can you tell me the time?

b. B: Well, the postman has not come yet.

c. A: *??No, that is not true – it is after 11:00 o'clock.*

Under certain circumstances, however, contents that are typically perceived as not at issue can also be rejected with a direct negation and, it follows, be treated as at issue by the respondent.[12] An example are sentence-final appositives as in *Joan admires Kim, who lives in Berlin*, whose content can be targeted with a direct denial like *No, that is not true – Kim lives in Rome*, see AnderBois et al. (2015), Syrett & Koev (2015). Furthermore, a direct negation targeting not-at-issue content improves to a significant extent with the presence of a lexical tag in the denial,[13] i.e., an anchor that can be used to determine the scope of the negative operator. The contrast

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[11] See Grice (1975).

[12] It is important to understand the logic of the empirical reasoning in the following. It is always the felicity of the response, e.g., (14)c)), that indicates whether a content contained in the preceding utterance, see ((14)a), can be felicitously treated as at issue or not by the respondent.

[13] We wish to thank Craige Roberts for pointing this out to us.

between ((14)b) and ((14)c), both with the intended meaning that Kim does not live in Berlin, shows this:

(14) a. Kim, who lives in Berlin, fascinates Joan.

b. ^{??}No, that is not true.

c. No, Kim lives in Rome.

While certain not-at-issue contents can be treated as salient to some extent in a conversational exchange, attitudinal contents as they are contained in racial slurs and other evaluative expressions typically resist to be treated as at issue. Consider the example in ((15)a) and potential denials illustrated in ((15)b – d).

(15) a. There are spics living in this building!

b. No, that is not true.

c. No, that is not true – all the residents are of Asian descent!

d. ^{??}No, that is not true – all the residents are admirable people!

The denial alone, see ((15)b), by default, targets the descriptive content of *spic*, entailing that people of Latin-American descent live in the building in question, as explicated in ((15)c). Observe that a direct denial combined with an explanation that targets *spic*'s evaluative content gives rise to some markedness of the expression, see ((15)d). In contrast, a response addressing the evaluative content with discourse-interrupting protest, e.g., *Wait a second – all the residents are admirable people!*, is less marked. The oddity of the direct denial in ((15)d) can be explained by the fact that the use of expressive content, according to Potts (2007), is like a performative act, that is, an act that does not contribute debatable content to the common ground, cf. Carrus (2017). Below, we will draw a similar conclusion for the attitudinal content expressed with an ironic utterance.

The view pursued here implies that (not-)at-issueness is a gradual feature and, thus, present to certain degrees in an utterance, see Härtl & Seeliger (2019). The notion is motivated by experimental results as they are reported in Smith & Hall (2011), who found substantial heterogeneity among projective meanings with respect to their projective strengths. In assertions containing an appositive like *Kim, who lives in Berlin, a great city, has finally arrived*, graded

at-issueness is reflected in supposedly graded acceptabilities for the different denial options so that *No, she hasn't > No, she doesn't > No, it isn't.* Notice that with our gradual construction of (not-)at-issueness, the treatment of contents introduced in the discourse is in focus in a backward-looking way, cf. Gutzmann & Turgay (2019). Thus, we assume different contents to have different potentials to become at issue in a conversational exchange.

3.2 Hypothesized types of contents in ironic utterances

Our basic assumption is that the different types of contents involved in an ironic utterance, i.e., its non-literally asserted content and its attitudinal content, differ in their potentials to be treated as at issue in a conversation. Regarding their informational status, we start form the premise that the two contents do not directly contribute to the question under discussion and, thus, are less at issue in comparison to literal and attitudinally neutral content. Consider ((16)a), uttered ironically.[14]

(16)   [After an ambivalent performance]
  a.   A: Well, that lead singer really delivered every note in place.
  b.   B: ??No, that is not true – she hit every single tone!
  b.'   B: ??No, that is not true – the performance was wonderful!
  c.   B: Wait a sec – she hit every single tone!
  c.'   B: Wait a sec – the performance was wonderful!

The examples show that both the non-literal content as well as the (negative) evaluation are difficult to dissent with directly, see ((16)b & b'). Instead, their rejection takes on the form of discourse-interrupting phrases, see ((16)c & c'). Recall, however, the notion discussed in the previous section that certain contents, although they are typically not at issue, can gain salience under specific circumstances and, thus, sometimes be treated as more at issue to a significant extent. The same can be expected for ironically uttered contents. Consider the hypothetical dialogue in (17), with ((17)a) again uttered ironically.

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[14] For the non-ironic counterpart, see the example in (3) above.

(17)   [In a small apartment]

    a.   A: This is a spacious place.

    b.   B: No, that is not true – there's actually lots of room!

In this exchange, B uses a direct denial to address ironically expressed content. We claim instances of this sort to express an interlocutor's intention to treat an ironic content as at issue and, thus, take it to contribute to the question under discussion. This view will be relevant for our experimental study, see section 3.3, where we test the potentials of the different ironically uttered contents to be treated as at issue in a conversation.

  As concerns the source of the contents involved in ironic utterances, we assume them to function as implicatures in a conversational exchange. Consider the examples below, which show that both the non-literal content, see ((18)b), as well as the evaluative content, see ((18)b'), are, in general, cancellable by the speaker, indicating that the two contents represent (conversational) implicatures.

(18)   [After arriving at a small Bed & Breakfast]

    a.   That is quite a "hotel" the agency chose for our honeymoon!

    b.   I don't want to say it's not a real hotel – I just don't like it.

    b.'   I don't want to say I don't like it – it's just not a real hotel.

Notice, however, that in certain contexts, the non-literal content of an ironic utterance is more difficult to cancel than its evaluative component. Reconsider the example in (16) in this respect. Observe that the cancellation in ((19)c') is noticeably less marked than the one in ((19)c), which is only appropriate under the assumption that Speaker A did not express the corresponding content *literally*.

(19)   [After an ambivalent performance]

     a.   A: Well, that lead singer really delivered every note in place.

     b.   B: Do you want to say she sang off key?

     c.   A: [??]I did not say that!

     b.'   B: Do you want to say you didn't like the performance?

     c.'   A: I did not say that!

We take the contrast between ((19)c) and ((19)c') to indicate that the non-literal content expressed in an ironic utterance is communicatively more prominent, cf. ((19)c), than the utterance's evaluative content, cf. ((19)c'). This insight is compatible with experimental findings from Härtl & Seeliger (2019). Based on two experimental studies on ironically used DPs containing the modifier *so-called* (e.g., *The so-called "hotel" turned out to be a small Bed & Breakfast*), the authors argue that the head nominal's non-literalness is more at issue than the speaker's attitude to evaluate the head's denotatum negatively. Based on these premises, for ironic utterances of the type under discussion, we hypothesize their non-literal content (= Content A in (20) below) to be less prone to figure as at-issue content in comparison with the utterance's evaluative content B (Hypothesis H_{A-1}). Content C entailed in a non-ironic utterance is predicted to be more at issue than both ironic contents A & B, see (21) (Hypothesis H_{A-2}).[15]

(20) Well, that lead singer really delivered every note in place.

     Content A: 'the lead singer sang off key'

     Content B: 'Speaker dislikes the singer's performance'

     $H_{A-1:}$ At-issueness(A) > At-issueness(B)

(21) Well, that lead singer sang totally off key.

     Content C: 'the lead singer sang off key'

     H_{A-2}: At-issueness(C) > (At-issueness(A) & At-issueness(B))

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[15] In our study, potential evaluative content of non-ironic utterances is excluded from the investigation.

Our second conjecture concerns the at-issueness of the two types of evaluative content expressed with an ironic utterance. Specifically, ironic praise could be assumed to be more at issue than ironic criticism, see section 2.1., based on the assumption that the former is subject to stronger use restrictions than ironic criticism, see Wilson (2013), and that it is also less frequent than the latter, implying a higher markedness of ironic-praise utterances, cf. Bruntsch & Ruch (2017). As markedness, in general, can be assumed to give rise to higher informational salience, our second hypothesis states a positive speaker's evaluation expressed with an ironic utterance to be more prone to figure as at-issue content than a negative speaker's evaluation (Hypothesis H_B).

(22) H_B: At-issueness($B_{ironic\ praise}$) > At-issueness($B_{ironic\ criticism}$)

To test hypotheses $H_{A-1/2}$ and H_B, we devised a rating study, which we will now present.

3.3 Experimental study

Method. *Participants*. 62 German native speakers participated in the experiment (46 female, 16 male, <20 N = 1, 20–30 N = 36, >30 N = 25).[16] Participants were not paid.

Materials and design. To identify the informational status of the two meaning components of ironic utterances, i.e., the utterance's non-literal content and the speaker's evaluation (both positive and negative), three different ironic conditions were tested based on Hypotheses H_{A-1} and H_B. As a fourth condition, non-ironic utterances were included, which served as a baseline to be able to compare the informational status of an ironic utterance's non-literal content with the informational status of the content entailed in a non-ironic utterance (Hypothesis H_{A-2}). Therefore, four different conditions, i.e., (i) an ironic utterance's non-literal content (NLC), (ii) negative speaker evaluation (NegEval), (iii) positive speaker evaluation (PosEval), and (iv) a non-ironic utterance's entailed content (EC), were tested in the experiment. Using a within-subject design, each condition was represented by ten experimental items. The participants thus saw a total of 40 items throughout the experiment. A separate filler was not included as it would add

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[16] The factor of gender does not play a role in our analysis. For a discussion of how gender may affect the use of verbal irony, see, e.g., Colston & Lee (2004).

a semantic dimension which we considered to overly complicate the already complex design of the study and possibly blur the participants' judgements.

The entire experiment was conducted in German. Designing the items, we followed the experimental studies conducted by Syrett & Koev (2015) as well as Härtl & Seeliger (2019). All experimental items had analogous structures and took the form of dialogues between two speakers. The dialogues were embedded in a specific situation, as illustrated in (23), which is an example of an experimental item including an ironic utterance with a non-literal meaning and thus aiming at testing the NLC condition.

(23)   Nadine und Matthias fahren zum Tierarzt, um die Katze von Matthias' Bruder abzuholen. Matthias' Bruder hatte sie informiert, dass seine Katze eine allergische Reaktion hatte und nun mehrere Tage Medikamente bekomme. Als die beiden das Arztzimmer betreten, sitzt die Katze aufgeweckt in ihrem Korb. Nadine stellt fest, dass die Katze gesund aussieht.

'Nadine and Matthias drive to the vet to fetch Matthias' brother's cat. Matthias' brother had informed them that his cat had an allergic reaction and has been getting medication for some days. As the two enter the vet's room, the cat is sitting cheerfully in her basket. Nadine notices that the cat looks healthy.'

    a.   Nadine: *Wirklich eine sehr kranke Katze …*
                        'Really a very sick cat …'

    b.   Matthias: *Das stimmt nicht, sie ist schon krank.*[17]
                        'That's not true, she is indeed sick.'

    b.'   Matthias: *Moment, sie ist schon krank.*
                        'One moment, she is indeed sick.'

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[17] All uses of *schon* (lit. 'already') occurring in the rejections assisted a modal interpretation where the speaker positively confirms the assertion targeted by the rejection. All stimuli were carefully tested with respect to the consistency of the intended interpretation such that other readings of *schon*, like a temporal one, could be excluded. We wish to thank an anonymous reviewer for their input on this matter.

As the example shows, all items start off with the description of a specific situation. The description is then followed by a small dialogue, starting with the critical utterance ((23)a), which is ironic in three out of the four conditions, i.e., NLC, NegEval, and PosEval, and non-ironic in the condition testing entailed content (EC). The last part of all items offers two utterances representing possible rejections of the critical (ironic) utterance. While ((23)b) is a direct rejection of the critical utterance and therefore represents an at-issue rejection, ((23)b') contains an indirect rejection aiming at not-at-issue content of the utterance it targets. Participants were asked to decide which rejection they perceived as more appropriate. To do this, they rated the rejections on a 5-point Likert scale, with value 1 representing the at-issue rejection on the left side of the scale and indicating a clear preference for the direct rejection, and value 5 representing the not-at-issue rejection on the right side, indicating a preference for the indirect rejection. Participants were able to rate both rejections as equally (in)appropriate by choosing the mid value. Moreover, they could rate one rejection as more appropriate than the other by using the values in between, without being forced to indicate a clear preference towards one option.

According to our hypotheses, we expected the participants to give all three conditions including components of ironic utterances, i.e., NLC, NegEval, and PosEval, high rankings leaning towards the right of the scale. Based on Hypothesis H_{A-1}, we anticipated the NLC conditions' results to show a stronger tendency towards the mid values than the results of the two Eval conditions. According to Hypothesis H_B, we expected the highest results on the 5-point scale in the NegEval condition. In turn, the EC conditions' results were expected to have low values, following our Hypothesis H_{A-2}.

In order to ensure the items' comparability, a total of ten substantially different but standardized model situations were operationalized in the material. Specifically, we used similar situations for every condition's first item, second item, etc. For example, in the second item of all four conditions, there are two people dealing with a certain type of school task: In NegEval item 2, it is Felix and Monica 'chatting' about a vocabulary test; in PosEval item 2, Tom and Paulina 'talk' about a homework; NLC item 2 deals with Thomas and Yvonne 'having a conversation' about a marketplace task, and in EC item 2, Tobias and Svenja 'discuss' a presentation's deadline. Accordingly, all items 1, 3, 4, etc. describe comparable situations and, at the

same time, we varied formulations as well as particular contents to mask the items' resemblance.

To maintain concentration and compensate for individual preferences with respect to certain linguistic expressions, a variety of discourse-interrupting phrases (*Wart mal* ('Wait'), *Sekunde,* ('Wait a second') and *Moment* ('One moment') was used for the not-at-issue rejections, and as direct negations, *Das ist nicht wahr* ('That's not true'), *Das stimmt nicht* ('That's not correct'), *Gar nicht wahr* ('Not true at all'), and *Das ist falsch* ('That's wrong') were used for the at-issue rejections.

To signal ironic utterances, different means were utilized. As first marker, suspension points were attached to all ironic utterances.[18] Further, we included lexical means that were supposed to signal irony in the items' critical utterances. We used and varied modal particles as well as evaluative lexical material and distributed both evenly across the conditions. For example, items 1 involve the particles *na*, *ja*, and *wirklich*, as the ironic utterance from the NegEval item 1 displayed below shows, see ((24)a).

(24)   Tim und Anna kommen aus der Oper. Die beiden haben morgens noch in der Zeitung gelesen, dass die Aufführung, für die sie Karten reserviert hatten, gut sei und vor allem die Opernsänger beeindruckend wären. Tim findet aber, dass der Sopran eine sehr schlechte Performance abgeliefert hat.
'Tim and Anna leave the opera. In the morning, both of them read in the newspaper that the performance for which they had reserved tickets was good and that the opera singers in particular were impressive. However, Tim finds that the soprano has delivered a very bad performance.'

    a.   Tim: *Na, das war ja wirklich eine tolle Performance …*
             PRT, that was PRT PRT a great performance
             'Well, that was a really great performance …'

    b.   Anna: *Das ist nicht wahr, ich fand sie eigentlich ganz gut.*
             'That's not true, I found it quite good actually.'

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[18] The suspension points were used as a symbol of 'leaving room for interpretation', and consequently also as a stimulus to look for the alternate, non-literal meaning present in an ironic utterance, see section 2.1 above.

b.' Anna: *Wart mal, ich fand sie eigentlich ganz gut.*

'Wait, I found it quite good actually.'

In contrast to this, items 10, for example, do not include *ja*. Instead, only *na* and *wirklich* are used in the ironic utterances of the items 10, as ((25)a) from the the PosEval item illustrates.

(25)   Jannik erzählt seiner Arbeitskollegin, dass er nächste Woche auf eine Geschäfts-reise muss, die von der Firma bezahlt wird.

'Jannik tells his colleague that he has to go on a business trip next week, which will be paid by the company.'

a.   Colleague: *Na, in einen Gratisurlaub zu fahren ist wirklich eine unglaubliche Zumutung ...*

PRT in a free vacation to go is really a disgrace

'To go a free vacation really is a disgrace ...'

b.   Jannik: *Das ist falsch, ich halte die Reise schon für anstrengend.*

'That's wrong, I find the trip indeed stressful.'

b.'   Jannik: *Sekunde, ich halte die Reise schon für anstrengend.*

'Second, I find the trip indeed stressful.'

Last, the dialogues in the item sets differed with respect to whether they contained ironic utter-ances or not. The example in (26) below illustrates the non-ironic EC item 7.

(26)   Stefan hat Marina und Laura zum Grillen eingeladen. Da die beiden Mädchen Vegetarierinnen sind, hat er ihnen versprochen, auch etwas Vegetarisches vor-zubereiten. Als die beiden am Tisch auf ihr Essen warten, stellt Stefan einen Salat mit Putenstreifen vor sie.

'Stefan has invited Marina and Laura to a barbecue. Since the two girls are vegetarians, he promised them to prepare something vegetarian as well. As both are sitting at the table, waiting for their food, Stefan puts a salad with turkey breast on the table, right in front of them.'

a.   Stefan: *Hier ist der vegetarische Salat für euch.*
here is the vegetarian salad for you
'Here, that's the vegetarian salad for you.'

b.   Marina: *Gar nicht wahr, das ist kein vegetarischer Salat.*
'Not true at all, that's not a vegetarian salad.'

b.'   Marina: *Wart mal, das ist kein vegetarischer Salat.*
'Wait, that's not a vegetarian salad.'

Besides the apparent semantic distinction between items containing non-ironic and ironic utterances, lexical cues were included to signal the difference between the two Eval conditions and the NLC condition. While evaluative expressions were used in the Eval conditions, in the NLC condition, assertive expressions are involved. For instance, example (23) above, illustrating NLC item 6, contains the verb *feststellen* ('notice'), entailing an objective observation. Both corresponding rejections, moreover, include the copula *sein* ('be') to emphasize objectivity and underline the neutral content of the item. We separated the two components of ironic utterances, i.e., a non-literal meaning and a speaker's evaluation, as far as possible by focusing on the neutrality and objectivity connected to the non-literal meaning component on the one hand, and by emphasizing the attitudinal nature of the evaluative component on the other. For the NLC items, we varied the assertive verbs *feststellen* ('notice'), *bemerken* ('recognize') and *behaupten* ('claim'). In opposition to these, we alternated the evaluative verbs *wahrnehmen* ('perceive'), *empfinden* ('sense'), *finden* ('find'), and *halten* ('find') in the NegEval and PosEval items, particularly with a focus on the rejections. In addition to those verbs, some evaluation items comprise supplementary expressive lexical material in the context sentences, for example, evaluative adjectives like *begeistert* ('enthusiastic') and *beeindruckend* ('impressive'). Finally, we implemented the distinction between the two Eval conditions with respect to content rather than lexical material. Specifically, the speakers uttering something ironically literally say something

positive to express something negative in the NegEval items and vice versa in the PosEval items.

Procedure. Participants were asked to go through the 40 experimental items in an online questionnaire on SoSci Survey.[19] Items appeared in a randomized order for every participant. At the beginning of the experiment, there was a short training period with two test items. The first item was similar to a NegEval item and thus ironic, whereas the second one illustrated an example of an EC item with a non-ironic utterance. The two examples were used to norm the distinction between truth-conditional and non-truth-conditional content for the participants, suggesting to them that in the first training item, the rejection on the right side of the scale would probably be more appropriate, and that in the second training item, the rejection on the left could most likely be considered as more suitable.[20] Prior to the two training items, we explained (in German) that the purpose of our study was to "find out how certain statements can be rejected". Moreover, the participants were prepared that the test would contain ironic utterances and we explained that "it is not easy to understand ironic utterances since they contain a personal evaluation and often mean the opposite of what is literally said".[21] After that, the first ironic test item was presented.

Results. Only the questionnaires in which all items were rated were included in our statistical analysis. To normalize data, a threshold was set based on pre-testing so that reading and understanding an item as well as choosing a preferred rejection would take at least 12 seconds. All items that were answered in under 12 seconds were therefore excluded from the analysis. The upper time limit was set less strictly as the experiment could not be paused, and since a short break was considered plausible with respect to the number of items and beneficial for the participants' concentration. Participants who answered too fast on more than eight items, i.e., 20 per cent of the questionnaire, were excluded from our analysis, just like participants that were not native speakers of German. All in all, 62 from initially 89 questionnaires were included in

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[19] www.soscisurvey.de

[20] "In this training example, the right/left answer can probably be considered more suitable. Please click the corresponding circle now."

[21] Since verbal irony is more difficult to detect as such in the written mode, we informed participants about the occurrence of ironic utterances in the experiment to rule out that participants interpret the corresponding utterances as nonsensical. The actual objective of the study, i.e., determining the correlation between type of ironic content and type of rejection, was not revealed to the participants.

our statistical analysis.[22] The following box plots give an overview of the ratings within each condition.
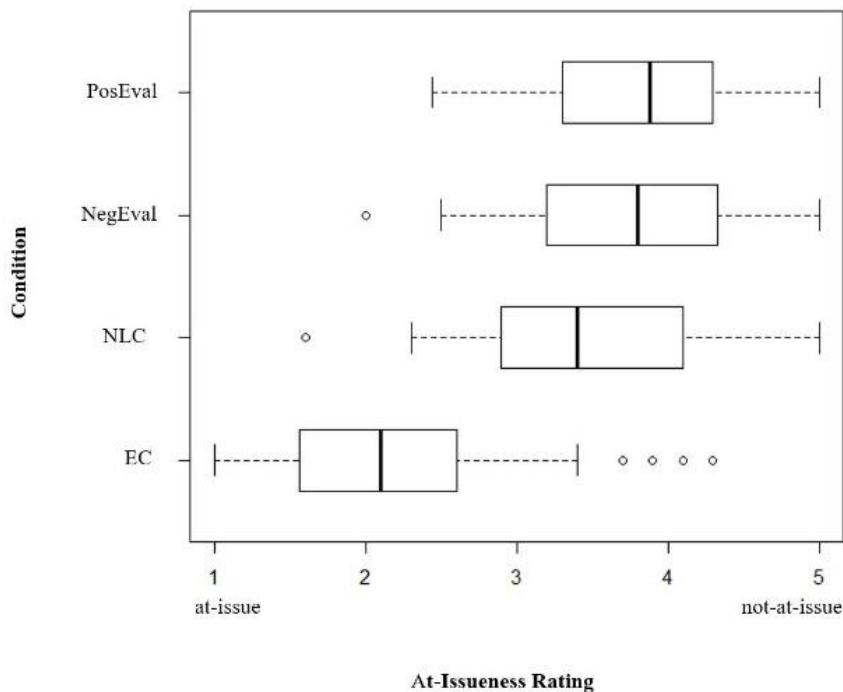

Figure 1: Median ratings across conditions

As can be seen, participants showed a preference towards the direct rejections on the left side of the 5-point scale in the entailment condition just as expected. In all three other conditions, i.e., the non-literal meaning and the two evaluation conditions, which are at the center of this examination, participants preferred the indirect rejections on the right side of the scale. Therefore, the components of ironic utterances belonging to the three central conditions can be classified as being not at issue, whereas entailments can be allocated to at-issue contents. Table 1 summarizes the mean ratings for each condition.

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[22] Answer times per item averaged across participants: Mean = 27.31 sec, Median = 23 sec (SD = 18.94)

Condition	Mean rating
Positive evaluation (PosEval)	3.79
Negative evaluation (NegEval)	3.75
Non-literal content (NLC)	3.46
Entailed content (EC)	2.21

Table 1: Mean ratings

The statistical analysis was conducted using the MINITAB software package. A 1 x 4 repeated-measures variance analysis[23] (General Linear Model) by subject was conducted for the dependent variable (Rating). The independent variable (Content Type) was included as a fixed (within-subject) factor. The factor Subject was treated as random. The analysis revealed a highly significant difference, $F(3, 61) = 59.68$, $p < .001$, for the mean ratings of the four content types. In planned post-hoc comparisons (Fisher LSD), a highly significant difference, $t(61) = 9.21$, $p < .001$, was found between ratings for entailed content (EC) and non-literal content (NLC). Crucially, the differences between the NLC ratings, on the one hand, and the NegEval ratings, $t(61) = -2.39$, $p = .017$, and, respectively, the PosEval ratings, $t(61) = 2.11$, $p = .036$, were also found to be significant. The comparison of the NegEval and the PosEval ratings, in turn, showed no significant difference. To check robustness, we identified statistical outliers and tests were repeated with the outliers being excluded. No deviation from our original results was found.

Discussion. The experiment's results lead us to accept Hypotheses H_{A-1} and H_{A-2}. The evaluative content – be it positive or negative – of ironic utterances is less prone to figure as at-issue content in comparison with the utterance's non-literal content, which in turn figures as less at issue than the content entailed in a non-ironic utterance. Consequently, when a speaker utters something ironically in a conversation, the hearer perceives the non-literal meaning component of her utterance as more in the foreground than the evaluative component. Thus, the speaker evaluation is the meaning component of ironic utterances that is most difficult to dissent with directly. However, this does not mean that the non-literal meaning component of ironic utterances is easy to dissent with directly. An indirect rejection is preferred here as well, even though a direct denial is not as inappropriate as is the case with evaluative components. This result

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[23] See de Winter & Dodou (2010) for a discussion on using parametric tests on data based on Likert scales.

supports our view of (not-)at-issueness being a gradual feature. All ironic meaning components are therefore more on the not-at-issue side of the spectrum.

With respect to Hypothesis H_B, we fail to reject the null hypothesis. A positive speaker's evaluation expressed with an ironic utterance does not have a higher tendency to figure as at-issue content than a negative speaker's evaluation. Therefore, neither the use restrictions nor the lower frequency of ironic praise, implying a higher markedness, seem to affect the informational status of ironically praising utterances in comparison with ironic criticism.

Entailed content represents at-issue information of an utterance. How, then, can we explain that the mean rating for our EC condition is 2.21 in the results and does not reach value 1? As an explanation, the factor of politeness comes into play when statements have to be judged as (in)appropriate. As stated in Koev (2018), for example, 'wait a minute' rejections gain acceptability when targeting at-issue content under the assumption that that this type of response may be used as a polite way to voice disagreement. As an illustration, consider example (26). In the example, Stefan offers a vegetarian salad to Marina and Laura. The salad, however, contains turkey breast and should therefore not be called a 'vegetarian' salad. Hence, Stefan's statement is plainly wrong and could thus be rejected in a direct way. Nevertheless, the use of an indirect rejection is plausible as well since it makes Stefan aware of his mistake in a more polite way. Since indirect rejections are often perceived as more polite than direct rejections, the participants' preference of the former in a few individual items was thus expectable. While the use of an at-issue rejection for not-at-issue content is not appropriate, it is possible to reject at-issue content with not-at-issue rejections since they are considered as more polite in conversations. Consequently, politeness is a factor that cannot be ignored in experiments involving ratings of the appropriateness of dissenting responses.

4 Conclusion

The central question addressed in the current paper asked how contents conveyed by an ironic utterance blend into the spectrum between at-issue and not-at-issue content. Moreover, we hypothesized the different types of contents involved in ironic utterances to differ in their potentials to be treated as at issue in a conversation. Based on experimental data, we found ironic, non-literally asserted content to be less at issue than non-ironic, literally asserted content. Furthermore, non-literally asserted content to exhibit a higher potential to be treated as at issue

than attitudinal content expressed with an ironic utterance. Last, no difference with respect to at-issueness was detected between the two types of attitudinal contents involved in ironic utterances, i.e., between ironic criticism and ironic praise.

We interpret the observed effects to be rooted in the pragmatic status of ironic contents, which figure as implicatures in a conversational exchange and, thus, are less prone to directly contribute to the question under discussion, see, e.g., Potts (2015). While the different ironic contents were found to generally figure as not-at-issue content, our findings also show that the attitudinal content expressed with an ironic utterance is treated as less primary than the utterance's non-literal content. This outcome can be explained through the fact that content expressed non-literally in an ironic utterance relates to a (negated) version of the truth-conditional content, which is asserted with the utterance's non-ironic form. We conclude that ironically asserted content is not non-truth-conditional in the strict sense but only not truth-conditional as the ironic interpretation entails the negated truth-conditional content of the non-ironic alternate. In contrast, an ironic utterance's attitudinal content is non-truth-conditional *par excellence*, which, at the same time, explains its stronger not-at-issueness observed in our data. Finally, while our findings are compatible with a graded understanding of at-issueness, we conclude that the different types of ironic attitudinal content (ironic criticism and ironic praise) are treated as not-at-issue to equal extents.

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