

Scare quotes as deontic modals

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Abstract

The aim of this paper is to propose a formal semantic account of scare quotation (SQ). I present data showing that SQ, though flexible, is subject to regular and so far largely unnoticed limitations following from the infelicitous use of irony as well as the division between at-issue and not-at-issue content parts. While these effects can hardly be accounted for by assuming that the ironic aspect of SQ simply involves negation, they are in harmony with basic properties of deontic modality. Following these observations, I extend the modal framework for quotation proposed by Wiślicki (2021) to formulate a deontic modal account of SQ. The offered account not only predicts the complex behaviour of SQ, but also sheds much new light on the formal nature of irony.

KEYWORDS: scare quotes, quotation, irony, use-mention distinction, deontic modality, reportative modals, model shifting, not-at-issue content

1 Introduction

Recent semantic and syntactic inquiry on quotation has pushed the level of understanding and formalizing this category much beyond the one achievable for purely logical and philosophical approaches. In particular, important progress has been made in understanding the sense of quotation being, as illustrated in (1), not an atomic string of symbols *simpliciter* (Geach 1957; Quine 1960).

- (1) a. His “I really like you” was quite surprising, but I don’t think he really does.
- b. Bush probably “misunderestimated” his guests.

Various accounts (Ginzburg & Cooper 2014; Pagin & Westerståhl 2010) have been proposed to show how even pure quotation as in (1a), which blocks substitution *salva veritate*, can remain transparent, e.g. for the sake of ellipsis. Others (Maier 2014a; Shan 2010) explained why mixed quotation as in (1b), while retaining morphosyntactic properties of quoted expressions, incorporates into grammar expressions that would be blocked if not quoted. In this sense they investigated quotation as form-rigid and thus atomic on the one hand, but transparent and thus complex on the other.

Viewed from that angle, there is one type of quotation, called *scare quotation* (SQ), that deserves more attention than it has gained in formal semantics. To see this, consider the dialogue in (2) in a context where B is highly critical of the president.

- (2) A: I talked with the president_i.
 B: The “president”_i disregards the constitution!
 \nRightarrow “He”_i disregards the constitution.
 \rightsquigarrow B negatively evaluates A’s use of the expression *president*.

SQ is more challenging than other types of quotation. Not only does it retain the properties of mixed quotation, in particular the morphosyntactic transparency and the lack of substitution *salva veritate* and (as shown by \nRightarrow), but also provides additional content (\rightsquigarrow). Moreover, despite a growing interest in the semantics-pragmatics interface properties of SQ, there is no strict framework solving two basic problems. First, what is the formal mechanism responsible for the emergence of the interpretational properties of SQ? While this problem has been investigated for mixed quotation (Maier 2014a; Shan 2010), no relevant extension has been proposed for SQ. In particular, while it has been widely accepted that the kind of negative evaluation involved by SQ is some sort of not-at-issue content part (Gutzmann & Stei 2011; Gutzmann & McCreedy 2016; Härtl & Seeliger 2019), neither the exact mechanism generating it, nor its place in a formal system has been specified. Second, what is the source of limitations of scare-quoting? While the flexibility of mixed quotation and the pragmatic character of negative evaluation, much less constrained than genuinely semantic operations, might explain the fact that almost every expression can be scare-quoted, the problem of infelicitous SQs has been neither solved nor explained.

It is the aim of this paper to contribute to the understanding of these two aspects of SQ. In order to do this, I start in Section 2 from discussing the flexibility of SQ on the one hand, and its limitations as well as sensitivity to tests showing the complex distribution of their at-issue/not-at-issue content parts on the other. Then, in Section 3 I show how these data are problematic for recent proposals and sketch a conceptual outline of a modal account of SQ. Finally, in Section 4 I check how this framework captures the data discussed in Section 2 when formalized within a strict model-theoretic setting. Section 5 summarizes the results and suggests paths for future research.

I argue that SQ is a type of deontic modality, in harmony with other modal properties of quotation (Wiślicki 2021). Negative evaluation lying at the heart of SQ, as well as various effects showing its limitations, can be accounted for and explained in terms of norms to which the event of uttering the quoted expression poorly conforms. Accordingly, SQ is derived and regulated by a more general part of grammar, i.e. modality. Data come mainly from nominals, whose wide range of semantic properties conveniently shows the flexibility and, more importantly, limitations of scare-quoting.

2 The data

In this section I scrutinize the range of expressions and contexts for which the SQ effect can emerge. First, in Section 2.1 I show this effect can apply to various content parts of quoted expressions. Then, in Section 2.2 I discuss limits of felicity of scare-quoting, as well as its sensitivity to tests for the at-issue/not-at-issue character.

2.1 Flexibility of scare quoting

SQ is often discussed together with quotes used to emphasize irony, as in (3), or non-literal uses of expressions, as in (4):

- (3) [With no salient speaker uttering the word “clever”]
 Paul is such a “clever”_{ironic intonation} guy!
 (4) [With no salient speaker uttering the word “bicycle”]
 He made a kind of “bicycle” with an additional engine and wings.

In (3) the intended reading is that Paul is not clever and in this sense the quoted predicate is negated. However, (4) is more delicate. The intended reading is that the vehicle at hand is not a typical bicycle. Still, the degree to which it resembles normal bicycles or to which it still counts as a (perhaps very odd) bicycle remains underspecified. Thus, what links the two examples is not straightforward negation, but rejection of some content part. This is also observed for SQs. To see this, consider first (5).

- (5) **Context:** A mistakenly took an MP for the president.
 A: Look, the president denies his own words.
 B: The “president” is an opposition MP.

Quotes flanking the noun *president* indeed mark the fact that B denies that the person at hand is a president. From the semantic point of view, B’s reply involves the rejection of at-issue content (roughly in the sense of Potts 2015). Still, it is not simply negation of the predicate *president(x)* that gives rise to the special SQ effect. Otherwise there would be no difference between simple negation as in (6) and SQ (for more far-reaching differences between ironic and non-ironic denials, see Härtl & Bürger 2020):

- (6) He is not a president, but an opposition MP.

Rather, the effect arises as a result of downgrading A’s use of expression *president* as false and thus rejecting the relevant content part. This intuition is supported by Itō’s (2020) findings for Japanese, where SQ is felicitous provided the whole sentence is topped by the particle *ne* marking the low informative value of the sentence.

- (7) Hontō “gūzen” da #∅/✓ ne
 really “coincidence” COP #∅/✓ ne
 It’s really a “coincidence”!
 (cf. Itō 2020)

The same effect can be observed for proper names as in (8).

- (8) Anna Smith called yesterday
 B: “Anna Smith” is now Anna Harris, she got married last month.

Just as in (5), B ironically rejects the at-issue content (Matushansky 2008), i.e. the fact that the name of the person mentioned by A is *Anna Smith*, as false.

This intuition is supported by data from scare quotes flanking expressions with more complex formal structures. Note that the above simple analysis is possible due to the fact that irony in B’s statements is rooted in denying the fact that the person at hand is a president/is called *Anna Smith*. But the problem becomes more puzzling in the case of judge-dependent predicates (Bylina 2017; Coppock 2018), as in (9).

- (9) **Context:** Two persons disagree on the evaluation of Peter.
 A: Peter is a prodigy!
 B: In my opinion, your “prodigy” is just a normal boy.

While being a president is a matter of fact, not opinion, whether or not a person falls under the concept of prodigy is to much extent a matter of personal judgement. Thus, while *x* cannot be a president for A but not for B, the same does not hold for being a prodigy. And it is exactly this kind of judgement that underlies B’s statement in (9). Rather than denying the fact that the boy at hand is a prodigy, B expresses his/her opinion and communicates that it is at odds with the one expressed by A. Put informally, B states that according to him/her Peter is not a prodigy and that A’s opinion is groundless. Thus (9) is remarkably different from (5) in providing faultless disagreement, i.e. two contradictory statements both of which are true. This, of course, is reasonably ruled out in the case of (5), for which a modification as in (10) is clearly odd.

- (10) ?In my opinion, the “president” is an opposition MP.

Accordingly, both (5) and (9) involve rejecting the at-issue content. In both examples the SQ effect does not follow from straightforward negation but from rejecting the use of expression as inappropriate. The difference is that while in (5) the objective content of the quoted expression is rejected as false, in (9) the judge-dependent content is rejected as a groundless opinion. Importantly, while the source of rejection is rooted in different semantic properties, it is driven by the same general mechanism.

These initial observations are supported by further data showing that the character of rejection also depends on the type of rejected content. Note that if the SQ effect is rooted not in straightforward

negation, but in downgrading and thus rejecting someone’s use of expression, it is natural to expect it to arise as a consequence of various types of inappropriateness. A given use of expression can be rejected not only as being false or groundless, but, e.g., awkward or impolite. Then rejection targets both at-issue and not-at-issue content parts. To illustrate, take a look at (11), with the same SQ as in (5) placed in a different context:

- (11) **Context:** B is highly critical of the president.
 A: The president talked about the bill.
 B: The “president” disregards the constitution!

Here B questions neither the fact that the person A talks about is a president, contrary to (5), nor A’s opinion, contrary to (9). In this sense SQ does not involve rejecting the at-issue content part, as it is generally assumed by Meibauer (2014). Rather, B downgrades A’s use of expression *president* by suggesting that the person does not meet a demand generally assumed for presidents. Put more precisely, what seems to be rejected is not the content of the at-issue predicate *president(x)*, but part of presupposition (in the sense of Stalnaker 1974) saying that presidents follow constitutions of their countries. Such SQs arise across various types of nominals, as in (12)–(13).

- (12) **Context:** A and B discuss Peter’s role in supervising A.
 A: Peter was the true Napoleon of my thesis.
 B: Your “Napoleon” doesn’t understand semantics!
- (13) **Context:** A and B see a cloud whose shape resembles the word *love*.
 A: There is “love” written in the sky by a jet pilot.
 B: Your “love” is just an accidental shape of that cloud.

The proper name *Napoleon* in its non-rigid use presupposes that the person at hand is a competent leader of certain enterprise. For the pure quote “love”, it is presupposed that the relevant string represents a linguistic expression. Both presuppositions are undermined, which underlies the SQ effect. Importantly, just as in the case of (11), neither of the two involves straightforward negation. Peter in (12) might have played the crucial role in the process of writing the thesis; so does the cloud in (13) might have had a shape resembling the word *love* (for the role of shape in the semantics of quotation, see Pafel 2011). Accordingly, A’s use of these expressions gives rise neither to falsehood as in (5), nor to a different judgement as in (10), nor to presupposition cancellation *simpliciter*. Rather, A’s uses of these expressions are partially at odds with some presuppositions and thus ironically downgraded as inappropriate.

The range of content parts subject to the SQ-type of rejection is wide, covering information encoded at various stages of computation. Apart from the at-issue content and presupposition, the SQ effect can be encoded at the level of syntactic derivation or of a use of quoted expression. To see this, consider the following examples.

- (14) **Context:** A points at the particular person.
 A: He talked about the bill.
 B: “He” is a woman!
- (15) **Context:** Emperors of Japan are widely considered to have a high social rank.
 A: Did you see that guy?
 B: “That guy” is the Emperor of Japan!
- (16) **Context:** Someone stole B’s car.
 A: Did you see Peter’s new car?
 B: He stole “his” new car from my garage!

In (14) the problem concerns formal morphosyntactic features. Given the context, A and B do not disagree on the choice of the relevant person, but on the gender. Having the particular person in mind, B downgrades A’s use of pronoun as incorrectly stating that the person is a man. Assume, as standardly in the minimalist syntax (Hornstein et al. 2005), that φ -features ([PERSON], [GENDER], [NUMBER]) are inserted in terminal nominals during the syntactic derivation. Then disagreement in (14) is rooted in rejecting the content part obtained as a result of computing the particular φ -feature. Thus the rejected piece of information is encoded at the level of syntactic derivation. By contrast, (15) exemplifies SQ targeting content part regulated by the rules of conventional implicature. A’s use of *that guy* is downgraded not because it picks out a wrong person or mistakenly assigns him certain properties, but because it is inappropriate given the social rank of the Emperor of Japan. This content part, assuming Levinson’s (1983) approach to honorifics, emerges as a conventional implicature. Accordingly, the SQ

effect can be rooted in rejecting a conventional part of expression other than the truth-conditional one. Finally, in (16) SQ involves the rejection of the particular use of possessive, hardly regulated by grammar and rather emerging as a result of various ways of understanding the relation of possession. Here A's use of pronoun is rejected as assuming the relation of ownership, which is unjustified if the property was stolen.

To close this part of discussion, let us take a look at the SQ effect targeting content-independent properties of quoted expression. Consider the examples in (17)–(18):

- (17) **Context:** Jan cannot master basic English grammar.
According to Jan, all the students “should studies” harder.
- (18) **Context:** Whenever John gets nervous, he starts stammering.
John again couldn't find his “k-k-k-keys”.

Contrary to previous examples, here the SQ effect is rooted not in content-related, but form-related properties of quoted expression.¹ In (17) the form marks the improper morphosyntactic relation within the quoted phrase, in (18) disfluency; both are objects of irony. While the ability of quotation to contribute to the overall meaning by exposing an utterance form has already been noticed in the literature (Potts 2007: 405–406), these examples show that the form itself can be a target of irony involved in SQ.

The examples presented above show that scare quotes are flexible with respect to a type of nominal they can ironically quote (common nouns, proper names, pronouns, pure quotations) and aspects of quoted expressions relative to which their use can be downgraded. The latter include the at-issue content, judge-dependent content as well as pieces of information encoded at the level of syntactic derivation, part of presupposition, conventional implicature, the use of pronoun, morphosyntactic relations or the utterance form of quoted expression. However, so far nothing has been said about limits of scare-quoting. I will discuss this in the next subsection.

2.2 Limits of scare quoting

I divide the following discussion into two parts covering limits of scare-quoting rooted in the use of quotation (2.2.1) and negative evaluation (2.2.2).

2.2.1 Limits following from the use of quotation

The apparent flexibility of SQ is rooted in the fact that from the syntactic point of view it is mostly used as a mixed quotation and thus inherits its formal properties (Maier 2014a; Maier 2017). On the one hand, it incorporates into grammar any material, including an ill-formed one as in (17), while retaining its morphosyntactic features. On the other hand, it imposes certain limitations. First, it allows any material provided it is interpreted as defined in the idiolect of the quoted speaker and, in this reading, is meaningfully interpretable. Thus for (19) to be acceptable, *misunderestimates* must be a transitive verb, interpretable as a Bushism and agreeing with subject's formal features ([3rd], [SING]).

- (19) I'm afraid that Bush is the only person that “misunderestimates” his guests.

Second, just like any mode of quotation, SQ blocks substituting *salva veritate* a quoted expression with a co-referential/-extensional one, as in (20). Still, contrary to pure quotation, mixed and scare modes encode speech events. For mixed quotation, its lack has been shown by Maier (2014a) to give rise to the effect of *hey-wait-a-minute* test (Shanon 1976; Fintel 2004), as in (21):

- (20) A: I talked with him_i.
B: #The “president”_i disregards the constitution.
- (21) [With no salient speaker using the word *president*]
A: The “president” disregards the constitution.
B: Hey, wait a minute! Who ever said *president*?

These observations show that SQ provides different limits than non-reportative uses of quotes as those in (3)–(4), where they mark irony or non-literality (Meibauer 2014; Ludwig & Ray 2017). This, together with the fact that it is only quotation that allows ungrammatical material to become an object of negative evaluation as in (17), show that SQ involves a stronger formal mechanism, only partially shared by the one involved by non-reportative uses of quotes.

¹Interestingly, this difference affects the requirement of marking SQ. In Japanese, a sentence like (18) does not require the particle *ne*, contrary to irony targeting content parts, as in (7). This suggests some semantic patterns regulating the optional character of marking quotation (De Brabanter 2020).

2.2.2 Limits following from negative evaluation

The properties shown in (20)–(21) have their more far-reaching effects observed for the ironic aspect of SQ. To see this, consider the example in (22).

- (22) A: I talked with president Smith.
 B: ✓ The “president”/ #“Smith” disregards the constitution!

This effect is more problematic. Not only are the two quoted phrases co-referential, but also each of them has been uttered by the quoted speaker; thus the demand illustrated in (21) is met. Nevertheless, the SQ effect is blocked for one of them.

Intuitively, the source of this effect is simple. Irony concerning the attitude towards the constitution is well-targeted when applied to the use of the word *president*, it is no longer so for a proper name. The reason is irony cannot emerge if the content part being its target is not carried by the scare-quoted phrase. The content carried by quoted expressions, in turn, varies relative to the type of expression; this gives rise to differences in acceptability. A quick comparison between co-referential expressions (contexts remain unchanged) is helpful in this regard.

- (23) A: Anna Smith_i/She_i called yesterday.
 B: ✓ “Anna Smith”_i/ #“She”_i is now Anna Harris, she got married last month.
- (24) A: The president_i/ He_i talked about the bill.
 B: The ✓ “president”_i/ #“He”_i disregards the constitution!
 B: The #“president”_i/ ✓ “He”_i is a woman!
- (25) A: There is a word_i/“ghlmp”_i written on the wall.
 B: The ✓ “word”_i/ #“ “ghlmp” ”_i is a gibberish!

Nevertheless, these observations suggest that the problem does not lie in formal properties of quoted expressions alone, but rather in the interaction between these, the context and the common ground (CG). The context updates CG; then its part provides a reason of downgrading the relevant content part of scare-quoted expression. Thanks to this, discourse participants can understand negative evaluation. For the SQ effect to arise, the result of this interaction must some sort of match between the relevant part of CG and a piece of information which is contradictory to the one carried by the quoted expression and the context. To see this, let us move back to the above examples. In (22) the context provides the general assumption that presidents follow constitutions of their countries. Since this is contradictory to what is stated by B, the use of the noun *president* becomes the object of negative evaluation. Still, that kind of match does not hold for the proper name *Smith*. No part of CG provides restrictions on the use of the name *Smith* relative to one’s attitude towards constitution. By contrast, a use of proper name can be an object of irony if the context is updated by a proposition saying that the person at hand is misnamed, as in (23). Here it is the pronoun that does not carry the relevant piece of information. On the other hand, it is a pronoun that is used inappropriately, giving rise to the gender mismatch in (24). Though the [GENDER] feature is encoded both in pronouns and nouns, it is unambiguous only in the case of the former. Finally, an effect similar to the one observed for (22) holds for pure quotation as in (25). This mode of quoting does not presuppose referential properties of quoted expressions (in this regard pure quotations behave to a certain extent like proper names, cf. Maier 2014b).

The third type of limitations imposed by SQs is connected with the lack of straightforward accessibility of truth values for the ironic content, exposed by the *that’s-(not)-true* test. As for the non-quotational ironic content, the test was used by Härtl & Bürger (2020) in their discussion on the (not) at-issue character of such expressions. As the authors show, the ironic content is hardly subject to negation if treated as at-issue. However, the same content can be naturally rejected if it is questioned at the presuppositional level by means of the *hey-wait-a-minute* test:

- (26) [After an ambivalent performance]
 A: Well, that lead singer really delivered every note in place.
 B: ??No, that’s not true—she hit every single tone!
 B: Wait a sec—she hit every single tone!
 (cf. Härtl & Bürger 2020)

This supports other arguments presented by the authors in showing that the ironic content is at least more of a presuppositional than of an at-issue character. Put differently, the at-issueness of ironic content is graded. Such an approach opens up an interesting path in exploring the nature of irony and, more

generally, negative evaluation involved by SQ. A quick look at the data shows that this content part is not straightforwardly retrievable in simplest forms. Take Q-at-issueness, i.e. is the ability to address the question under discussion (QUD).

- (27) A: Anna called him “president”. Do you think it’s fine?
 B: # He is a “president”.

Even if B puts the ironic intonation on quotation, his reply is clearly odd. Thus the negative evaluation of the use of quoted expression is not straightforwardly retrievable as Q-at-issue. However, weakening the notion of (Q-)at-issueness by letting it address just some part of QUD (as discussed in AnderBois 2016) or be subject to negotiation (AnderBois et al. 2015) improves the retrievability of the negative evaluation content part encoded in SQ as at-issue.

- (28) A: Was their wording fine?
 B: They said that the manifestation was “illegal”!
 A: And why do you think it’s bad?

Importantly, while not infelicitous, B’s reply would become less natural had scare quotes been omitted. In this sense SQ and a richer context make the negative evaluation more easily retrievable as at-issue. The reason seems to lie in the highly limited transparency of this content part. Note that even if overtly marked by means of intonation, explicating its exact meaning remains a matter of approximation. The richer the surrounding context, the more data for formulating such an approximation, and thus the more retrievable the at-issue content part.

This effect is confirmed for two tests illustrated in (26). As discussed by Kaufmann (2012), while the *that’s-(not)-true* test, at least in the simplest form, is not sufficiently sensitive to capture propositionhood, it reveals some important properties of expressions that are problematic for this test in general. Interestingly, though Kaufmann discusses imperatives, SQs to much extent align with such expressions, pushing the results worked out for irony by Härtl & Bürger (2020) a step further. While imperatives do not pass the simple *that’s-(not)-true* test, they pass its enriched version as in (29):

- (29) A: How do I get to Rüsselsheim?
 B: Take the S8.
 A: Oh right, that’s true.
 A: #No, that’s not true.
 (Kaufmann 2012:166)

SQs also pass the *that’s-true* test provided it is enriched by a modal follow-up pertaining to the metalinguistic dimension. Moreover, even that kind of enrichment does not allow the negated version, i.e. the *that’s-not-true* test:

- (30) A: Did you see that guy?
 B: “That guy” is the Emperor of Japan!
 A: That’s true, I shouldn’t say so.
 A: #That’s not true, I don’t have to obey all these customary rules.

Though the exact type of follow-up largely depends on the content of quoted expressions (just as in the case of imperatives, cf. Kaufmann 2012:168), in general SQs pass the test.² Interestingly, what makes replies for SQs, not strictly information-seeking questions and imperatives acceptable in this regard is a cataphoric relation with modalised propositions.

²Two comments are in order. First, note that the improper honorific form alone does not allow replies as in (30). Even assuming that slurs encode a negative attitude towards the person at hand (Gutzmann & McCready 2016), this content part does not pass the *that’s true* test.

- (1) A: The damn Kaplan got promoted.
 B: #That’s true, I don’t like him either.

Second, an anonymous reviewer points out that *that’s true* as used here expresses agreement (*that’s right, I agree*), rather than target the truth value. This, however, does not weaken the observations. First, that kind of agreement does concern the truth value, even if it is relativised to the discourse participant. Second, even under this reading the test filters out not-at-issue content parts, e.g. in parentheticals.

- (2) A: John, who likes Paris, is a really irresponsible guy!
 B: # That’s right/I agree, he goes there every year.

Third, what is crucial here is that SQ shares the general properties of imperatives, and this effect is fully predicted by such constructions (see Kaufmann 2012:166).

- (31) A: Who is going to do the dishes?
 B: That's true, we should have thought of this.
 (Kaufmann 2012:164)
- (32) A: Do your homework right now!
 B: That's true, I should have done it yesterday.

The question that arises is, of course, whether the felicitous reply made by A in (30) is not possible exclusively thanks to SQ. Note that it would also be acceptable (as a kind of suggestion) had quotation in B's statement been replaced by a co-referential pronoun, as in (33). Still, SQ alone can give rise to this effect. As shown in (34), a bare (non-question-seeking) SQ-question, contrary to a bare pronoun question, can be felicitously addressed as at-issue by making use of a modal.

- (33) A: Did you see that guy?
 B: He is the Emperor of Japan!
 A: That's true, I shouldn't say so.
- (34) A: Did you see that guy_i?
 B₁: "That guy"?
 A₁: That's true, I shouldn't say so.
 B₂: Him_i?
 A₂: #That's true, I shouldn't say so.

This confirms that negative evaluation is an at-issue content part being just more easily retrievable when enriched by the surrounding context.

As for the absence of felicitous *that's-not-true* replies, Kaufmann (2012) explains it in terms of authority condition. She takes it to be a presupposed content part which allows evaluation of new information relative to an ordering source corresponding to speaker's will, commands, etc., and not to CG. Apart from conceptual intuitions, according to which authority underlies the felicity of giving commands, the evidence for that kind of a presupposed piece of content comes from replies where a speaker is rebuked for having no necessary authority.

- (35) A: Go home immediately!
 B: Hey wait a minute, you are in no position to give me commands.
 (Kaufmann 2012:150)

Rather than the content, B addresses A's authority to give commands. Moreover, the fact that it passes the *hey-wait-a-minute* test proves that this content part is presupposed, thus not-at-issue. Again, a closely related effect can be observed for irony involved in SQs.

- (36) A: Did you see that guy?
 B: "That guy" is the Emperor of Japan!
 A₁: Hey wait a minute, you are in no position to tell me how to speak.
 A₂: Hey wait a minute, I don't have to obey all these customary rules.

As discussed in the context of (30), the exact type of rebuke depends on the content being an object of SQ. Nevertheless, the crucial point is that what is rejected in (35) and (36) is not the content of command/irony but the speaker's authority to give the command/evaluate the way one speaks.

To close this part of discussion, let us have a look at two close cousins of (35)–(36).

- (37) A: Go home immediately!
 B: Don't tell me what to do!
- (38) A: Did you see that guy?
 B: "That guy" is the Emperor of Japan!
 A: Don't tell me how to speak!

These observations are important for two reasons. First, they confirm that there is some range of properties shared by SQs and imperatives. Second, the fact that part of it can be directly addressed without making the *hey wait a minute* test or peripherality markers (cf. Koev 2018) supports the claim of its at-issue character.

Examples discussed in this subsection show that the apparent flexibility of SQ has certain limitations. These are rooted in a complex relation between the at-issue content and CG. On the one hand, various

pieces of information, either concerning the existence of quoted utterance, contradictory information or information responsible for *hey-wait-a-minute* and *that's-(not)-true* tests, are parts of presupposition. On the other hand, the felicity of irony as well as possible replies to utterances containing SQs largely depend on at-issue content. Finally, SQs behave to much extent like imperatives with respect to ways of rejecting or accepting commanding/advising and irony.

2.3 Interim summary No. 1

In this section I discussed various types of scare-quoted nominals. The data show a highly complex relation regulating the at-issue and not-at-issue character of three aspects of SQ, i.e. its scope, underlying mechanisms and the level of encoding irony. First, there is a wide range of properties of quoted expressions, i.e. the at-issue/not-at-issue distinction, morphosyntactic features or utterance form, whose negative evaluation gives rise to the SQ effect. Second, morphosyntactically SQ is mostly a mixed quotation, and thus it shares its basic properties. Third, the ironic content is sensitive to tests for accessibility of not-at-issue and, when enriched by follow-ups, at-issue content parts.

On top of that, effects marking the dual at-issue/not-at-issue character were shown to be common for SQs and imperatives. In the next section I show that this fact is not accidental, arguing that semantics of SQ is driven by a covert deontic modality.

3 Conceptual framework for scare quotation

The data presented in Section 2 reveal at least two challenges concerning SQ. First, if SQ is a type of quotation, then it should be framed within a more general semantics of quotation, already shown to be compositionality-wise challenging (Werning 2005; Potts 2007; Pagin & Westerstahl 2010; Shan 2010; Maier 2014a). Second, the formal grammatical category of SQ should be specified in a way explaining the role of at-issue and not-at-issue content parts in regulating the emergence and limits of irony.

Following these observations, I propose to take SQ as a type of deontic modality, formulated as one part of modal semantic framework for quotation proposed by Wiślicki (2021). I argue that the properties of SQ discussed in Section 2 follow from a negative evaluation of the use of quoted expressions. I start from indicating in Section 3.1 technical points that are problematic for recent proposals concerning SQ in light of data presented so far. Then in Section 3.2 I present conceptual and empirical arguments based on these data and supporting a modal approach to SQs.

3.1 Technical problems with capturing scare quotation

The first major observation, made in Section 2.1, is the flexibility of scare-quoting. Targets of irony span not only substantially different content parts, but also content-independent properties, such as morphosyntactic relations or the utterance form. These facts are important for understanding the emergence of the SQ effect. As summarized by Härtl & Seeliger (2019), there are two basic approaches to the emergence of irony.

The first approach assumes that irony involves negation. Taking the most straightforward view, Schlöder (2017) lets irony arise as a result of negation (e.g. *I'm not at home* for ironic *I'm at home*) or of picking out an element from the opposite end of scale (e.g. *terrible* for ironic *amazing*). A less straightforward approach had been proposed by Giora (1995) and developed by Giora et al. (1998) and Giora et al. (2005). It takes irony to involve the literal implicated meaning and the negated one. The greater the gap between the literal meaning and the context, and thus the smaller the gap between the negated meaning and the context, the easier the computation of irony.

In the second approach, the ironic content underlying SQ emerges as a result of an attitude involving a negative evaluation of the use of quoted expression. It can be driven by hostility towards the use of expression (Predelli 2003b), ironic treatment of the use of expression (Predelli 2003a), distancing oneself from or rejecting the use of expression (Gómez-Torrente 2017; John 2013; McCullagh 2017; Härtl 2018), as well as the lack of commitment to a content part of quoted expression (Hess 2018). There are also hybrid approaches assuming both the contrary meaning relative to what is literally said and a negative evaluation of the denotatum (Härtl & Seeliger 2019).

The data discussed in Section 2 show that while the first approach is untenable, the second one is on the right track. First of all, it is not true that SQ in general involves negation. It clearly does so in the case of (39), extracted from (5). Assuming a sufficiently fine-grained machinery, where negation covers not-at-issue content parts, it might do that in the case of (40), extracted from (11). But it cannot

explain (41), extracted from (18), where the target of irony is the utterance form, as such not subject to negation.

- (39) The “president” is an opposition MP. \rightsquigarrow s/he is not a president
- (40) The “president” disregards the constitution! \rightsquigarrow s/he is not a good president
- (41) John again couldn’t find his “k-k-k-keys”.

Second, there are strong arguments from Japanese supporting the attitude-based approach. As shown by Itō (2020) and discussed in the context of (7), the SQ reading is available in Japanese provided there is the particle *ne* attached to the whole sentence. Since independent observations show that the particle marks the fact that the sentence’s informativity value is judged low (McCready 2009),³ the negative attitude naturally follows. What the general attitude-based accounts mentioned above lack is a precise mechanism capturing various sources of such attitudes, and thus felicity conditions of irony. Without this, as I show at the end of this subsection, they largely overgenerate.

The second problem concerns the formal nature of ironic content, in particular its place in the layered representation of SQ. According to the most widely assumed approach, the ironic content is part of not-at-issue meaning of SQs. Predelli (2003b), criticised by Horn (2008) and Meibauer (2014), takes this part to correspond to attachment. It is added to the main content part (dubbed *message*) and corresponds to much extent to conventional implicatures. Pointing out problems arising for quoted contradictory information, Gutzmann & Stei (2011) let this content part be conversational implicature. This general approach is supported by Meibauer (2014), Itō (2020) and indirectly by Cappelen & Lepore (2007). According to it, a sentence containing SQ has a two-dimensional representation roughly depicted in (42):

- (42) The “president” disregards the constitution!
 \rightsquigarrow At-issue: $x : x$ is called by the speaker *S* *president*, disregards the constitution
not-at-issue: *S*’s use of the expression *president* is inappropriate

To this extent the approach is closely related to those proposed for simple irony, honorifics or slurs (Gutzmann & McCready 2016; see also Castroviejo et al. 2020 for related problems). One of its pros is that it correctly predicts some of felicitous and infelicitous replies targeting the ironic content. To see this, take a look at (43), extracted from (30) and (36):

- (43) B: “That guy” is the Emperor of Japan!
A₁: #That’s not true, I don’t have to obey all these customary rules.
A₂: Hey wait a minute, you are in no position to tell me how to speak.
A₃: Hey wait a minute, I don’t have to obey all these customary rules.

If this type of negative evaluation is treated as not-at-issue, the fact that it fails the *that’s-not-true* test and passes the *hey-wait-a-minute* test is expected. However, a closer look into data shows that the ironic content cannot be accounted for as not-at-issue simpliciter. First, what these examples show is not that the whole negative evaluation is not-at-issue, but rather its two parts, i.e. the relevant authority and the underlying rules or norms. Second, experimental findings made by Härtl & Seeliger (2019); Härtl & Bürger (2020) show that various content parts giving rise to irony, i.e. negative evaluation and non-literal meaning, are interpreted as not-at-issue to various degrees. This is partially in harmony with the observation showing that the truth value (at least for affirmatives) becomes accessible for replies if they are repaired by follow-ups containing, e.g., modals as in (30). Note, however, that this cannot be explained if the ironic content is simply taken as not-at-issue. Rather, such content parts must be encoded at the at-issue level of semantic representations of SQs, and thus made accessible for certain replies.

Finally, the third problem concerns perhaps the most understudied pieces of data, i.e. those showing limitations of scare-quoting. As mentioned above, the attitude-based approaches to SQ, contrary to those assuming negation, are general enough to capture the variety of sources of irony exemplified in (39)–(41). However, as they stand they are too general to encode these sources and link them with the emergence of irony. To see the problem, recall (24), repeated below as (44):

- (44) A: The president_{*i*}/ He_{*i*} talked about the bill.
B: The ✓“president”_{*i*}/ #“He”_{*i*} disregards the constitution!
B: The #“president”_{*i*}/ ✓“He”_{*i*} is a woman!

³This effect is probably rooted in the fact that *ne* is merely a confirmation particle. It provides no new information and cannot be used when the information introduced by the sentence it is attached to is not part of CG (Hasegawa 2010; McCready 2012).

What the general approaches mentioned above are able to capture is that in each case the speaker judges the use of quoted expression inappropriate, hence the effect of scare-quoting. Thanks to this they do not give rise to the abovementioned problems arising for the negation-based approach. However, until the relevant relation between pieces of information that give rise to the SQ effect (e.g. being a president, but not a male, and obeying the constitution) is present in the formal representation of SQ, infelicitous examples remain unaccounted for. Since neither of the abovementioned accounts secures these, they do not capture infelicitous cases and thus overgenerate. An interesting step forward is proposed by Itō (2020). Drawing on Lasersohn’s (2005) idea of judge-shifting operators, he takes SQ to involve a salient judge. Combining this with the abovementioned fact that Japanese overtly marks the low informativity value of the sentence it is attached to, it receives the following simplified interpretation:

- (45) A: It is really a coincidence.
 B: It is really a “coincidence”!
 \rightsquigarrow the informative value of the proposition including the word *coincidence* as understood by A is judged low

The significance of this step lies in the fact that it is not the use of expression in general, but the use of expression as understood and uttered by the quoted speaker that is judged inappropriate. To this extent the object of irony becomes much more specified. What is further needed is the exact source, and not just object, of evaluation that filters out infelicitous examples like those illustrated in (44). Note that such a source is not included in the quoted utterance or even in its surrounding context. Thus even enriched information concerning the judge and his utterance is not enough. Rather, the source is provided by the surrounding and situational context of the quoting sentence. This context is updated in (45) by phrases *disregards the constitution* and *is a woman*. Accordingly, the relevant pieces of information marked by these phrases should be encoded in formal representations of SQs. I am going to propose that kind of extension within a modal framework sketched in the next subsection.

3.2 Connection between scare quotation and modality

A striking fact, discussed in Section 2.2 but to my knowledge never pointed out in the literature, is that the ironic content involved in SQ can be a target of modals. One example was shown for the *that’s-(not)-true* test, passed by SQ in its modalized version:

- (46) A: Did you see that guy?
 B: “That guy” is the Emperor of Japan!
 A: That’s true, I shouldn’t say so.
 A: # That’s true, he has a high social rank.

Another important observation comes from rebukes, repeated below as (47).

- (47) A: Did you see that guy?
 B: “That guy” is the Emperor of Japan!
 A₁: Don’t tell me how to speak!
 A₂: Hey wait a minute, you are in no position to tell me how to speak.
 A₃: Hey wait a minute, I don’t have to obey all these customary rules.

Two comments are in order. First, as discussed in section 2.2.2, these effects are common for SQ and imperatives, shown by Kaufmann (2012) to be covert deontic modals. Second, A₂’s rebuke is yet another hint confirming the presence of covert modality in SQ tested in (46). As discussed by Bhatt (2006), such infinitival structures involve covert modals.

- (48) Don’t tell me how to speak!
 \rightsquigarrow Don’t tell me how I should speak!

These observations are important for at least two reasons. First, they are in harmony with the intuitive explications SQs mentioned in section 3.1. These take SQ to contribute speaker’s judgement that the use of expression is, for various reasons, downgraded. The notion of evaluation (goodness), in turn, has been shown in the literature to be in a tight relation with the semantics of deontic modals like *should/ought*, in some languages manifested overtly (cf. Chung 2019; Lassiter 2017; Oshima 2019). Second, the above observations provide arguments for taking deontic modality to be strictly encoded in the meaning of SQ. Otherwise the grammar could hardly explain the at-issue presence of modals, but also the not-at-issue presence of their source, i.e. an authority and rules/norms upon which the negative evaluation is based. Putting these facts together, we can formulate the first approximation of the meaning of SQ as follows:

- (49) “That guy” is the Emperor of Japan!
 $\rightsquigarrow x$: x is the Emperor of Japan, was called *that guy* and, given the salient norm, such a use of language should not take place

In this approach, SQ instantiates a covert deontic modality defined at the metalinguistic level and targeting an inadequate use of language. Such an account, however, poses at least two challenges. First, the presence of the evaluated speech event (the event of using the quoted expression) encoded in the formal representation of SQ. Second, the problem of ill-formed quoted expressions. Let us have a closer look into them.

First, evaluating the use of quoted expression as inappropriate (one that should not take place) requires a variable ranging over speech events encoded in the formal representation of SQ. Such speech events were recently used, also in modal frameworks, by Bary & Maier (2021) and Shimamura (2021). Still, these accounts are limited to reports with overt *say* predicates which by default provide such events; mixed quotation, where such events are not overtly introduced, are left aside. SQ, in turn, mostly instantiates mixed quotation with an additionally imposed at-issue speech event required by evaluation. Accordingly, it is so far an unresolved problem.

Second, as discussed in the context of (17)–(19), quotation, including SQ, incorporates into grammar expressions that are not interpretable in the model in which it is interpreted. This is problematic in light of the fact that mixed quotation retains morphosyntactic features of quoted expressions. In this regard Maier’s (2014) approach seems to be in a position to capture SQ. Still, there are two reasons for which an extended approach is required. First, in Maier’s account speech events are not-at-issue. As shown in (50)–(51), though correct for mixed quotation, it leaves the fact that speech events in SQ are retrievable as at-issue unaccounted for.

- (50) A: Bush “misunderestimated”^{*mixed quotation*} John.
 B: #That’s not true, he didn’t say that./ ✓Hey wait a minute, he didn’t say that.
- (51) A: “That guy”_{SQ} is the Emperor of Japan!
 B: ✓That’s true, I shouldn’t say so./ ?Hey wait a minute, I can say so.

Second, as pointed out by Wiślicki (2021), it does not capture the metalinguistic reading of modals involved by quotation, which applies also to SQ. To see this, consider a slightly rewritten version of one example discussed by Predelli (2003b):

- (52) **Context:** An orthodox speaker of British English having a negative attitude towards American spelling:
 You can watch your “color” TV, we will watch “colour” TV.

Under the prominent reading, permission introduced by the modal does not concern the action of watching TV, but of using the expression *color*, downgraded by SQ.

So, these two observations show that SQ requires a deontic modal framework which additionally (i) provides at-issue speech events that are independent from *say* predicates and accessible to evaluation as well as overt modals; (ii) captures the non-compositional yet morphosyntactically transparent character of quotation.

In order to secure a framework meeting these two demands, I let SQ be derived in two steps. First, as a standard mixed quotation; next, as quotation downgrading the use of quoted expression. These steps are introduced by two formal concepts within a hybrid scalar-quantificational type of modality (cf. Herburger & Rubinstein 2019). First, I use the Kratzerian quantificational machinery adapted to quotation by Wiślicki (2021). Apart from assuming the basis of demonstrative theory of quotation (Davidson 2015), its crucial contribution is that it takes the interpretation of quoted expression to be relativised to a non-actual model. The shifted model provides an interpretation for the idiolect of the quoted speaker in which it is interpreted. Models of idiolects conceptualize Chomsky’s (1986) idea of I-languages, together with a model-theoretic formalization securing rules of interpretation. Thus a sentence containing mixed quotation receives the following simplified interpretation:

- (53) $\llbracket \text{Bush “misunderestimated” John} \rrbracket^{\mathcal{M}, w @}$
 \rightsquigarrow for the accessible model \mathcal{M}_{Bush} , $\langle Bush, John \rangle \in \llbracket \text{misunderestimated} \rrbracket^{\mathcal{M}_{Bush}, w}$, where *misunderestimated* as defined in \mathcal{M}_{Bush} for w has the utterance form demonstrated by the form “misunderestimated”

This approach secures at least at least two demands listed above. First, it captures the non-compositional character of quotation and at the same time retains the morphosyntactic transparency of quoted expression (Shan 2010; Maier 2014a). Second, it remains neutral towards speech events, taken by Maier (2014a)

to be encoded by default as part of presupposition.⁴ Thanks to this, it does not assume that speech events of quoted expressions are not-at-issue, exactly as shown in (51) to be required by SQ.

Still, if that kind of model shifting machinery remains neutral towards quoted speech events, they must be additionally encoded for the sake of evaluation. As shown in (50)–(51), it is SQ, not simply mixed quotation, that provides at-issue speech events. Thus, it is natural to introduce such events together with an operation introducing evaluation, independently from the one yielding mixed quotation (here corresponding to model shifting). As discussed in the context of (46)–(49), evaluation involved by SQ has crucial hallmarks of deontic modality, encoding at-issue modals and salient norms as well as showing connection with the notion of goodness. These factors must be compatible with the model-shifting machinery providing mixed quotation. This motivates the second tool within the proposed hybrid scalar-quantificational account in the form of measure function introducing degrees. Such degrees encode the flavour and strength of modals. Drawing on Lassiter’s (2017) account of *should* in (54), I let SQ involve a measure function providing a negative evaluation of speech events, as in (55).

- (54) $\llbracket \text{Peter should win} \rrbracket^{\mathcal{M},w}$
 \rightsquigarrow the degree to which Peter should win exceeds the salient threshold θ_{should}
- (55) $\llbracket \text{“That guy” is the Emperor of Japan} \rrbracket^{\mathcal{M},w,CG}$
 \rightsquigarrow the degree to which every situation e of uttering *that guy* should not take place exceeds the salient threshold $\theta_{\text{should not}}$ relative to the CG-salient NORM, where:
- (i) for the accessible model \mathcal{M}_i , $\llbracket \text{that guy} \rrbracket^{\mathcal{M}_i} \in \llbracket \text{Emperor of Japan} \rrbracket^{\mathcal{M},w}$ where *that guy* as defined in \mathcal{M}_i for w has the utterance form demonstrated by the form $\ulcorner \text{that guy} \urcorner$, and
 - (ii) $\text{NORM}_{CG} = \text{social ranks are respected}$

Let us now have a look at the crucial elements of the simplified and yet underspecified interpretation in (55). First, it is widely assumed that deontic modals are computed relative to salient rules or norms. These underlie judgments that relate propositions to states taken as preferred relative to the modal strength (Fintel & Iatridou 2008; Pasternak 2019) or at least taken as normal (Yalcin 2016). In scalar approaches such norms feed orderings relative to which degrees and thresholds are defined. I let SQ be driven by the fact that the use of quoted expressions is judged as being at odds with these norms. This is encoded by the fact the relevant degree exceeds the salient threshold value marking the borderline beyond which the use of quoted expression should not take place. This part of grammar secures and specifies two issues discussed in Section 3.1. First, the fact that in the case of SQ the use of quoted expression is judged inappropriate. Second, the necessity of encoding into the meaning of SQs the source of negative evaluation. The metalinguistic character of such judgements is rendered by relations which, in the case of quotation, provide orderings over speech events of uttering quoted expressions, interpreted in the idiolect of quoted speaker.

This approach is compatible with the model-shifting account of quotation as well as the conceptual semantic properties of SQ. The negative evaluation discussed in Section 3.1 suggests that it instantiates a type of necessity modal. Still, it does not give rise to effects observed for strong necessity modals. In particular, it does not give rise to non-negotiable requirements (Portner & Rubinstein 2016). This is shown by the fact that the ironic content involved by SQ passes various tests for gradability, as illustrated in (56):

- (56) A: I talked with the president.
 B: Rather a “president”. Did you see what he had done with the protesters?
 B: At most a “president”. Did you see what he had done with the protesters?
 B: He is more a “president” than a (true) president.

Finally, the norm becomes part of presupposition as a result of updating CG. The surrounding context suggests a norm relative to which the evaluation involved in SQ is defined and adds it to CG. This is

⁴The general reason for doing this is an observation for a metalinguistic reading of modals:

- (1) Bush might have “misunderestimated” John.
 \rightsquigarrow it is possible that Bush did to John what he referred to with the word *misunderestimated*
 \rightsquigarrow whatever Bush did to John, it is possible that he referred to it with the word *misunderestimated*

Under the second, metalinguistic reading of modal, the presupposition that Bush said the word *misunderestimated* does not hold (this is exactly what the possibility modal is about). Wiślicki (2021) solves this by restricting model shifting to purely hypothetical models or to particular models such that utterances of expressions defined in those models belong to the domain of actual world.

motivated by two factors. First, as shown by Itō (2020), there are overt elements of Japanese grammar (particles *yo* and *ne*) that encode new/old information in CG and relative to this block/allow the effect of scare-quoting. Second, as discussed in Section 2.2, unless the relevant norm is made salient, mostly by the surrounding context, and thus added to CG, the SQ effect is blocked. Importantly, a norm itself is presupposed, as standardly assumed for deontic modals. This is in harmony with the effect observed for the *hey-wait-a-minute* test as in (43), showing that the content part carried by such norms is not-at-issue.

These elements provide a novel framework for formal semantics of SQ. Still, the general strategy has its predecessor. In their account of laughter involved in scare-quoting, Ginzburg et al. (2015) take the relevant effect to follow from a clash between the enthymeme and a topos. While the enthymeme is supposed to instantiate the topos, the laughter marks the fact that this assumption fails. Within the framework sketched above, the effect of scare-quoting follows from the fact that the situation of uttering the quoted expression is at odds with the presupposed norm. The present proposal not only accounts for numerous problematic issues, in particular the at-issueness of SQ, but also makes use of more standard and worked out grammatical mechanisms.

3.3 Interim summary No. 2

In this section I sketched a modal approach to SQ. It is motivated by two factors. First, the existing accounts are too coarse-grained to capture problems revealed in Section 2. There is no formal mechanism capturing the interaction between at-issue and not-at-issue content parts that give rise to and limit the emergence of SQ effects. Second, these problems are addressed by elements of deontic modality. Such an approach is compatible with the intuitive explication of SQ, strictly modal effects it involves, and a more general modal semantics of quotation defended on independent grounds by Wiślicki (2021). In the next, final section I show the exact formal way of developing this framework to the one suitable for SQ and discuss how it solves problems exposed above.

4 Deontic modal framework for scare quotation

Formal semantic accounts of deontic modality fall into two general types (see Katz et al. 2012; Lassiter 2016, 2017; Portner 2009 for critical comparisons). The Kratzerian quantificational approach (Kratzer 1981; Kratzer 1991) assumes orderings over worlds relative to salient norms. Then the shifted world, in which the proposition is evaluated, is relativised to such orderings, as roughly shown in (57).

- (57) $\llbracket \text{The president should protect the constitution} \rrbracket^{w,CG} = \llbracket \phi \rrbracket^{w,CG}$
 $\lambda w. [\forall w' : w' \in \text{Best}_{\text{NORM}}(R(w)) \Rightarrow \phi(w')]$
 NORM_{CG}: presidents protect constitutions of their countries

Scalar approaches (Lassiter 2017) also assume orderings, but let them feed measure functions $\mu_i : \{p\} \rightarrow N$ from propositions to numerical values. Values of μ_i are then related to contextually salient thresholds θ_i regulated by modal strength.

- (58) $\llbracket \text{The president should protect the constitution} \rrbracket^{CG} =$
 $\mu_{\text{should}}(\text{The president protects the constitution}) \geq \theta_{\text{should}}$
 NORM_{CG}: presidents protect their constitutions

However, in order to capture the metalinguistic type of modality, additionally involving negative evaluation of speech events, the two types of approaches must be integrated into one. More precisely, a mechanism providing model shifting (for the sake of capturing quotation) must be matched with the one introducing speech events in which the quoted expression were uttered and secure their negative evaluation. In the next subsection I show how the two can be combined within a formal framework.

4.1 Formal system

The hybrid scalar-quantificational system proposed in this paper assumes a strict division of labour. First, the model shifting device captures the operation of enquotation yielding mixed quotation. Second, the operation introduced through measure function provides negative evaluation yielding the SQ effect.

Let us start from the former. Quoted expressions must be interpreted as understood by the quoted speaker. For reasons discussed in subsection 3.2, I do not straightforwardly adapt the Kratzerian framework, contrary to Bary & Maier (2021) and Shimamura (2021). Instead, I make use of Wiślicki's (2021) system where quotes shift the interpretation of quoted expressions from the actual model to that of the

idiolect of the quoted speaker. This account can be defined in two major steps. First, model shifting defined for quotation requires a new accessibility relation. This is given in (59).

(59) **[Reportative accessibility relation for quotation]** Assume that:

- i. M is a set of models such that $\mathcal{M}, \mathcal{M}_1 \in M$;
- ii. v is a variable assignment from indices to worlds, so that $w_{v(i)} = w$, where $w \in W$ and W is a set of worlds defined in \mathcal{M} ;
- iii. $w_{1,v(i)} \in W_1$ is a world such that W_1 is a set of worlds defined in \mathcal{M}_1 .

Then \mathcal{R} is an accessibility relation such that $\mathcal{M}_1 \in \mathcal{R}(\mathcal{M})$ iff every expression E defined in \mathcal{M}_1 for $w_{1,v(i)}$ is defined for the quotational context as ‘ E ’ in \mathcal{M} , where the form ‘ E ’ demonstrates E .

The accessibility relation in (59) selects models of idiolects in which quoted expressions are interpreted. Worlds are selected by pragmatic factors regulating the assignment function v . Given this, the operation of enquotation, more often than not overtly marked and affecting the online processing also in the case of SQ (Schlechtweg & Härtl 2020a,b), corresponds in the formal system to a modal operator Q . And this is the second major step in defining semantics of enquotation. The operator behaves like the familiar \Box , with the proviso that it shifts models, not worlds, of interpretation. Thus, within Wiślicki’s (2021) framework the quoted proper name “John” is interpreted as follows:

- (60) $\llbracket \text{“John”} \rrbracket^{\mathcal{M}, w_{\otimes}, v} = Q \llbracket \text{John} \rrbracket^{\mathcal{M}, w_{\otimes}, v} = \text{John} :$
 $\forall \mathcal{M}_1 (\mathcal{M}_1 \in \mathcal{R}(\mathcal{M}) \Rightarrow \text{John} = \llbracket \text{John} \rrbracket^{\mathcal{M}_1, w_{1,v(i)}, v})$
where John as defined in \mathcal{M}_1 for $w_{1,v(i)}$ has the utterance form demonstrated by the form ‘ John ’)

Thanks to the operator, the quoted expression is interpreted in the way and form defined in the idiolect of quoted speaker. What remains to be specified is the range of shifted models. The operator itself provides an unrestricted shifting to possible models. This is required by overt modals like those illustrated in (52). In order to capture more restricted uses of quotation, I let $RES : \langle st, st \rangle$ be a function restricting sets of accessible objects (cf. Rullmann et al. 2008). It selects the relevant, most often contextually salient (Maier 2014a) subset $r(\mathcal{R}(\mathcal{M}))$ of all accessible models $\mathcal{R}(\mathcal{M})$. In the case of quotation appearing without overt modals, it restricts a set of accessible models to the particular model of the idiolect of the quoted speaker. Its special property is that utterances of expressions generated by this idiolect and interpreted in the corresponding model are elements of the domain of the actual world.

Let us move to the second part of hybrid modality, i.e. the operation yielding the negative evaluation of the use of quoted expression. As shown above, such an operation has the hallmarks of negated weak necessity modal *should not*. Bearing in mind empirical reasons discussed in subsection 3, I propose to adapt Lassiter’s (2017) approach sketched in (58). To see how this works, consider first the following examples.

- (61) John: I talked with the president.
 Paul: The “president” is, as Martin would put it, “the destroyer of the constitution”.
- (62) A: The president is great!
 B: And so is the first lady!
 C: Your_A “president” and your_B “first lady” disregard the constitution!

As shown in (61), where only the first quotation exemplifies SQ, negative evaluation not necessarily targets all quoted expressions appearing in the sentence. Nevertheless, their number is not limited to one, as shown in (62). Rather, negative evaluation targets precisely those speech events that are regulated by salient norms.

Given this, I let negative evaluation involved by SQ be defined as follows:

- (63) **[Measure function for scare quotation]** Let NORM_{CG} be a set of propositions stating norms and added to CG , and $\llbracket \varphi \rrbracket = \langle a, \dots \rangle$ be a structured proposition. Then $\mu_{\text{should not}}(\langle a, \dots \rangle, e)$ is a value within the interval $[-1, 1]$ in \mathbb{R} of uttering every expression f, \dots such that the following is true:
- i. terms of $\llbracket f \rrbracket, \dots$ are within the scope of Q in $\langle a, \dots \rangle$;
 - ii. $\forall \mathcal{M}_i (\mathcal{M}_i \in r(\mathcal{R}(\mathcal{M})) \rightarrow \langle a, \dots \rangle \text{ holds})$, where f, \dots as defined in \mathcal{M}_i for $w_{i,v(k)}$ have the utterance forms demonstrated by the form ‘ f ’, \dots ;
 - iii. the use of f, \dots is regulated by NORM_{CG} .

Let us pause for a moment and take a look at some immediate consequences of this definition. Perhaps the most important property from the formal point of view is that $\mu_{\text{should not}}$ takes as one of its arguments not a proposition simpliciter, but a structured proposition (Pickel 2019).⁵ That is, a straightforward adaptation of Lassiter’s proposal outlined in (58), where the measure function is defined on propositions, would not work. The reason is that the function must select those terms that are within the scope of the quotational operator Q . To illustrate, for a simplified structured proposition in (64), the interpretation of the NP *president* is within the scope of Q .

$$(64) \quad \llbracket \text{The “president” disregards the constitution} \rrbracket = \langle \langle \llbracket \text{the} \rrbracket, Q\llbracket \text{president} \rrbracket \rangle, \langle \llbracket \text{the} \rrbracket, \llbracket \text{constitution} \rrbracket \rangle, \llbracket \text{disregards} \rrbracket \rangle$$

Unless quoted terms are identified, the grammar cannot impose negative evaluation on the use of quoted expressions. This, of course, would not be possible had the measure function been defined on propositions taken just as sets of possible worlds. Second, the measure function provides speech events required for the sake of negative evaluation. These are not only at-issue, but also selected as those being regulated by salient norms, both properties being empirically confirmed. Finally, it encodes norms that underlie negative evaluation as not-at-issue. These norms are made salient by being added to CG. Drawing on a partially related account proposed by Potts & Kawahara (2004) for evaluation carried by honorifics, I let the value of $\mu_{\text{should not}} : \{ \langle \llbracket \varphi \rrbracket, e \rangle \} \rightarrow [-1, 1]$ be a number reflecting the degree to which the speech event should not take place. The less compatible it is with the norm, the closer the value of $\mu_{\text{should not}}$ to 1.

Still, the measure function alone does not guarantee a compositional and sufficiently detailed computation of SQ. In particular, two elements of formal machinery must be specified, (i) the formal connection between norms and the measure function, (ii) the effect of scare quoting numerous expressions uttered in different events.

First, I let $\mu_{\text{should not}}$ be an order preserving measure function relative to qualitative orderings imposed by norms, as specified in (65).

$$(65) \quad \text{If } \mathbb{E} \text{ is a set of speech events and NORM is a proposition in CG, then there is an ordering } \langle \mathbb{E}, \prec_{\text{NORM}} \rangle \text{ such that for } e_1, e_2 \in \mathbb{E}, e_1 \prec_{\text{NORM}} e_2 \text{ iff } e_1 \text{ is less compatible with the NORM than } e_2. \text{ Then for every measure function } \mu_{\text{should not}} \text{ defined in terms of NORM it is true that } e_1 \prec_{\text{NORM}} e_2 \Rightarrow \mu_{\text{should not}}(\llbracket \varphi \rrbracket, e_1) > \mu_{\text{should not}}(\llbracket \varphi \rrbracket, e_2).$$

Put shortly, the less compatible the given speech event with the norm, the higher the degree to which it should not take place.

Let us now move to the second problem. As shown in (62), negative evaluation cannot be defined for a single speech event variable e . Rather, it should cover all the possible speech events that are at odds with the norm. This is also in harmony with the data discussed in previous sections. SQ in (2) does not mean that the quoted expression should not be used only in the particular salient event, but rather in any event in which it violates the norm. In order to account for this, I let the measure function be a term within a more complex term involving quantification over speech events:

$$(66) \quad \lambda p_{st}. \lambda e'_s. [\forall e (\mu_{\text{should not}}(\llbracket p \rrbracket, e) \geq \theta_{\text{should not}}) \text{ in } e']$$

The function in (66) states that for every speech event, the use of quoted expressions appearing in $\llbracket p \rrbracket$ and regulated by salient norms is judged in e' as exceeding the threshold beyond which it should not take place.

This is the last element of the proposed formal system. In the next subsection I show how these tools interact with each other to provide a compositional computation of SQ.

4.2 Computing scare quotation

In order to show how the system successively introduced so far computes SQ, I start from an assumption concerning salient norms. I take the context surrounding the SQ to add to CG the norm together with the qualitative ordering.

$$(67) \quad \begin{aligned} &\text{The “president” disregards the constitution!} \\ &\text{NORM} = \llbracket \text{presidents protect constitutions of their countries} \rrbracket \\ &\text{CG} = \{p_i\} : \text{NORM} \in \{p_i\} \\ &\text{There is a non-empty set } \mathbb{E} \text{ such that } \langle \mathbb{E}, \prec_{\text{NORM}} \rangle \text{ holds.} \end{aligned}$$

⁵I owe this all-important point to an anonymous reviewer.

(68)

$S_3 : st$
 $RES : \langle st, st \rangle \quad S_2 : st$
 $SQ : \langle st, st \rangle \quad S_1 : st$
 $\iota x[Q_{president}(x)] \quad VP : \langle e, st \rangle$
 $the : \langle et, e \rangle \quad NP \quad disregards : \langle e, \langle e, st \rangle \rangle \quad DP : e$
 $Q\lambda x_e.[president(x)]$
 $Q \quad \lambda x_e.[president(x)]$
 $the\ constitution : e$

(69) $\llbracket \text{“president”} \rrbracket^{\mathcal{M}, w_{\mathbb{A}}, v} = \mathbf{Q} \llbracket \text{president} \rrbracket^{\mathcal{M}, w_{\mathbb{A}}, v} = \mathbf{Q} \lambda x_e. [president(x)]$ such that
 $\forall \mathcal{M}_1 (\mathcal{M}_1 \in \mathcal{R}(\mathcal{M}) \Rightarrow x \in \llbracket \text{president} \rrbracket^{\mathcal{M}_1, w_{1, v(i)}, v})$
where president as defined in \mathcal{M}_1 for $w_{1, v(i)}$ has the utterance form demonstrated by the form
 $\ulcorner \text{president} \urcorner$)

The second major step is the merger of the measure function, abbreviated in (68) as *SQ*, yielding the effect of scare quoting.⁶ At the level of *S*₁ the computation makes salient the *NORM* and the connected ordering by adding them to *CG* (thus they are not-at-issue). Then the measure function takes as arguments the proposition derived at *S*₁ and a situation of uttering, and relates these to the threshold:

It is at this level where the SQ reading emerges. The term containing the measure function takes as its argument the structured proposition. Then it checks its terms and identifies those that are within the scope of the quotational operator Q and whose use is regulated by the salient $NORM$, as defined in (63). The result is a two-dimensional representation. The at-issue content part is a proposition stating that

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whoever is defined in the idiolect of the quoted speaker as *president* disregards the constitution and that uttering this expression as defined in this idiolect exceeds the threshold $\theta_{should\ not}$ relative to the salient norm. This relation encodes negative evaluation, i.e. the judgement that such a speech event should not take place, which in turn corresponds to the negative evaluation involved in SQ. The not-at-issue content part provides the norm.

There is also a pragmatic aspect of this stage of computation. As discussed in the context of (59), world-shifting, piggybacking on the model-shifting triggered by the quotational operator Q, is regulated by the assignment function v . Wiślicki (2021) shows that this regulation is highly context-dependent; SQ supports this idea. Note that it is incoherent to scare-quote an expression interpreted in the source utterance at one world and provide a negative evaluation of its use relating it to a different world.

- (71) A: It is possible that he will become a president.
 B:# This “president” disregards the constitution!

Accordingly, the assignment v must fix the shifted world as being equal to that of the interpretation of the whole sentence; hence $w_{1,v(i)} = w_{@}$. Nevertheless, this effect is involved only in SQ, not quotation in general; thus it is not part of the operation of enquotation as such.

The final step yielding S_3 provides restriction over accessible models. While at the level of S_2 quantification is defined for all models accessible from \mathcal{M} , RES specifies the particular model \mathcal{M}_1 of the idiolect of the quoted speaker. As mentioned above, utterances of expressions interpreted in this model are elements of the domain of the actual world. This is tantamount to stating that RES returns a subset $r_{@}(\mathcal{R}(\mathcal{M}))$ of the set of accessible models such that $r_{@}(\mathcal{R}(\mathcal{M}))$ is a singleton $\{\mathcal{M}_1\}$ where \mathcal{M}_1 is the actual (not hypothetical) model of the idiolect of quoted speaker.

- (72) $\llbracket S_3 \rrbracket^{\mathcal{M}, w_{@}, CG} = \llbracket RES \rrbracket^{\mathcal{M}, w_{@}}(\llbracket S_2 \rrbracket^{\mathcal{M}, w_{@}, CG}) =_{FA} 1$ iff
the value of every situation e of uttering president as judged in e' exceeds the threshold $\theta_{should\ not}$ relative to the NORM, where:
 $\forall \mathcal{M}_1 (\mathcal{M}_1 \in r_{@}(\mathcal{R}(\mathcal{M})) \Rightarrow \langle \iota x [\llbracket \text{president} \rrbracket^{\mathcal{M}_1, w_{@}}(x)], \iota y [\text{constitution}(y)], e'' \rangle \in \llbracket \text{disregard} \rrbracket^{\mathcal{M}, w_{@}})$,
where president as defined in \mathcal{M}_1 for $w_{@}$ has the utterance form demonstrated by the form ‘president’
 PRESUPPOSITION: $NORM = \llbracket \text{presidents protect constitutions of their countries} \rrbracket^{\mathcal{M}, w_{@}}$ and for
 $NORM \in CG$ and $e \in \mathbb{E}$, $\langle \mathbb{E}, \prec_{NORM} \rangle$ holds

The merger of function RES ends the computation. Let us now have a look at how the proposed account of SQ captures its properties discussed in Section 2 and 3.1. I start from those that can be traced in (67) and its computation laid out in (68)–(72). First, the proposed semantics captures the non-compositional character of quotation. The interpretation of scare-quoted expression is form-rigid and relativised to the way it is understood by the quoted speaker, as discussed in the context of (19). Second, it secures the negative evaluation of the use of quoted expression by relating the situation of uttering it to the norm. In this sense it implements the attitude-based, and not negation-based approach, as discussed in Section 3.1. This is important for at least two reasons. First, it is coherent with the data from Japanese particles *yo* and *ne* discussed by Itō (2020) as involving attitude-related semantic effects. Second, it is not trapped in problems arising for negation (as assumed by Giora 1995; Schlöder 2017, a.o.). Recall that (67) does not mean that the person at hand is not a president. The proposed account predicts this effect, together with another complication arising for negation-based approach, namely the fact that contrary to (67), (73) finally gives rise to the effect of negation:

- (73) The “president” is an opposition MP!

In the present account both effects follow from the fact that the value assigned to the situation of uttering the quoted expression is judged as one that should not take place. In the case of (73), the norm is close to Grice’s maxim of quality, i.e. *speak truthfully*.⁷ The speech event at hand poorly conforms to the norm, hence the effect of negation in (73). Still, neither (67) nor (73) assumes negation as such, as required. Finally, the proposed account correctly predicts the balance between the at-issue and not-at-issue content parts. On the one hand, by taking SQ as covert deontic modality, it captures the presence of modal content revealed by (46)–(47), as well as gradability in (56). On the other, it correctly predicts the presence of not-at-issue content parts as in (43). Here A rejects the authority allowing one to formulate the ordering at hand (cf. Kaufmann 2012). The ordering is part of presupposition, exactly as suggested by (43).

⁷Itō (2020) shows that a quoted speech event can be judged relative to Grice’s maxim of quantity or related rules.

Moving from effects observed for (67)–(72) to more general issues, the proposed framework bridges the flexibility of SQ discussed in Section 2.1 with its limitations shown in Section 2.2. The first property is secured by the modal operator Q and norms underlying the negative evaluation. The former allows quotation to combine with any expression, regardless of the grammatical category or formal semantic type. The latter provides a slot for a wide range of norms that are assumed by the users of language as regulating everyday discourse. To illustrate, there are widely assumed norms for as different types of SQ as those in (74), here captured within a single account.

- (74) a. He stole “his” new car from my garage!
 NORM: thieves do not become owners of the goods they steal.
 b. John couldn’t find his “k-k-k-keys”.
 NORM: linguistic expressions are pronounced clearly.

On the other hand, norms and the fact that they must be made salient explain limitations of scare-quoting discussed in Section 2.2. These follow from the lack of relevant norms as in (75), or simply from the fact that the norm is not added to CG.

- (75) A: I talked with president Smith.
 B: ✓ The “president” / #“Smith” disregards the constitution!
 There is no NORM: people with certain names protect constitutions

Again, the negation-based approach is hardly in a position to account for these effects.

4.3 Discussion

Let us now have a look at how the proposed account contributes to the recent debate on quotation. There are at least four aspects of this debate that are developed by the present framework. These are the modal character of quotation, the role of quoted source in the semantics of quotation, the balance between at-issue and not-at-issue content parts and the demonstrative nature of quotation. Below I discuss these aspects one by one.

First, the present discussion supports and extends the modal approach to quotation proposed by Wiślicki (2021). Not only does it show that SQ, in addition to mixed, direct and pure quotation, involves the same basic modal mechanism, but also specifies another, deontic, type of modality involved in quotation.

Second, it has already been argued (Shan 2010; Maier 2014a; Ginzburg & Cooper 2014) that the interpretation of quoted expression must be relativised to the quoted speaker. Itō (2020) pushes forward these ideas showing that this sort of relativisation has certain hallmarks of attitudinal semantics, involving a judge. The present account shows that not only this approach is conceptually convincing and empirically well-motivated, but also that it has underlying model-theoretic mechanisms of shifting a model of idiolect to that of the quoted speaker.

Third, there is an ongoing debate on the extent to which quotation is a pragmatic or semantic phenomenon. In a series of articles, de Brabanter (2010; 2017; 2020) provides a wide range of effects arguing that these support a pragmatic approach to quotation. Applying the *hey-wait-a-minute* test, Maier (2014a) specifies the division of content parts for mixed quotation into presupposed and at-issue. Pushing this line of reasoning, I argued for a different division of content parts for SQ, showing that the deontic modal framework solves these problems.

Finally, the recent debate, mainly after Davidson (2015), provides growing evidence for the demonstrative character of quotation. This property has been argued not only to go in hand with the fact that quotation can appear without quotes and involve a non-serious interpretation of quoted expression (De Brabanter 2020), but also to involve multi-modal acts of demonstration (Maier 2019, 2020; Steinbach 2020, to appear). The offered account shows that this property follows from its semantics based on model-shifting and a core fact concerning symbolic systems, namely the conventional form-meaning pairing secured by a model. To see this, consider (76).

- (76) He said “hello” in all East Asian languages.

A single quotational expression, apart from not being identical to the quoted one, has a quantificational part of meaning. Otherwise its ability to simultaneously quote expressions with different forms, defined in different models, would remain unaccounted for.

4.4 Interim summary No. 3

In this final section I formalised the framework sketched in Section 3 and applied it to data presented in Section 2. The framework extends the modal approach to quotation proposed by Wiślicki (2021) by formulating a deontic modal account of SQ. The strength of the present proposal lies in at least four points. First, thanks to the flexibility of modal operator and deontic norms, it captures a wide variety of quoted expressions and their aspects targeted by the negative evaluation involved by SQ. Second, the architecture of deontic modals, including the presupposed character of norms, specifies and explains which content parts are at-issue and not-at-issue. Third, the idea of model-shifting contributes to the present understanding of formal and purely empirical aspects of the demonstrative theory of quotation. Finally, the proposed account provides a strict way of combining two accounts of modality within a hybrid system.

5 Conclusion and future prospects

In this paper I discussed effects observed for scare-quoted nominals, focusing on so far not scrutinized data from limitations of scare-quoting as well as tests showing the complex balance of at-issue and not-at-issue content parts. Then I proposed a modal framework for SQ and applied it to these data.

The contribution of this discussion is three-fold. First, it provides and tests a model-theoretic framework capturing some problematic effects rooted in the quotational and ironic character of SQ. The proposed account not only provides a precise mechanism deriving and computing SQ, but also identifies its so far underspecified grammatical character, letting it be part of more general category of (deontic) modality. Second, it explains the formal nature of negative evaluation underlying SQ. The effect is accounted for as involving a negated weak necessity modal defined relative to salient norms. This not only solves problems arising for negation-based approaches, in particular cases where no negation is involved whatsoever, but also explains the presence of modal content in the interpretation of SQs. Third, it predicts limitations of scare-quoting as well as the scope of not-at-issue content part. The obligatory presence of norms added to CG provides conditions underlying the felicitous use of scare quotes. Their presupposed character, in turn, captures the not-at-issue parts of negative evaluation.

Apart from this, the fact that the complex nature of SQ can be accounted for by letting scare quotes involve deontic modality opens up at least two paths for future inquiry. First, it invites further research on irony formalized as a strictly modal category involving scales based on salient norms. If proved correct, this would raise the prospect of capturing irony within a generalized semantics of attitudes. Second, it provides a precise framework for investigating the relation between at-issue and not-at-issue content parts involved in irony. Härtl & Bürger (2020) and Härtl & Seeliger (2019) argue that the way the users of language access at-issue or not-at-issue parts of ironic content is graded, rather than simply zero-one. The argument comes from experiments showing a graded rating of acceptability of sentences involving rejection of various parts of meaning. If this is correct, then there must be a formal relation between the at-issue and not-at-issue content parts responsible for the effect at hand. The present framework opens up one possible way for specifying and investigating this relation. It provides the relevant link by means of measure functions (at-issue), which preserve qualitative orderings (not-at-issue). The question to be pursued on empirical grounds is whether the effect of graded access to each content part correlates with formal properties of the measure function linking the qualitative and quantitative ordering.

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