Falsity and Retraction: New Experimental Data on Epistemic Modals

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Abstract

Dummett claimed that truth-conditional semantics can't fully explain the role of truth. To understand its role, we need an account of the point of truth in the practice of assertion, and of the consequence of making a false assertion – namely, the presumed requirement that the speaker retract. The requirement to retract has served as a reason to offer relativist semantics of, among others, epistemic modal sentences. That revision is arguably supported by speakers' intuitions. This paper reviews experimental work by Knobe and Yalcin on epistemic modals testing the connection between falsity and the appropriateness of a retraction, and reports two new experiments I carried out. The first tests English speakers' intuitions about falsity and the requirement to retract present tense epistemic modal sentences. The second tests Spanish speakers' intuitions about falsity, the requirement to retract, and the appropriateness of retracting present tense epistemic modal sentences. The surveys reveal diverging judgments about, on the one hand, appropriate retractions, and, on the other, required retractions and false assertions. Taken together, the results undermine relativism about epistemic modal sentences.

1   The roots of truth and falsity

In the preface to *Truth and Other Enigmas*, Dummett elucidates what he calls the roots of the notions of truth and falsity. First, truth and falsity are fundamentally tied to a speaker's being objectively right or wrong when she makes an assertion. Second, knowing the extensionally correct truth-conditions for sentences of a language is not sufficient to know how to speak the language. We do not grasp the concept of truth if we just know the conditions in which sentences of a language are true; to understand the point of truth, we must understand its normative role in assertion:

> [W]hat has to be added to a truth-definition for the sentences of a language, if the notion of truth is to be explained, is a description of the linguistic activity of making assertions... Of course, we can talk about what is required to be the case by an assertion; but this notion relates, once again, to how we recognize the assertion as incorrect. There is a well-defined consequence of an assertion's proving incorrect, namely that the speaker must withdraw it, just as there is a well-defined consequence of disobedience. (Dummett, 1978, 20)

Dummett draws here an analogy between assertions and orders, the blameworthiness of speakers who violate the norms for each speech act, and the appropriate consequences in each case: retraction in the case of assertions, and presumably punishment in the case of orders.[1]

Dummett's contention is that the well-defined consequence of an assertion being incorrect, i.e., false, is that it must be retracted. This yields the following requirement:

(R) A speaker must: retract an assertion if it is false.

The assumption that (R) is true plays an important role in the development of relativist semantic accounts of, for instance, epistemic modal sentences. This paper addresses the question of whether (R) is generally true, or partly constitutive of assertion. I will only address the question of whether its modification and use in the relativism/contextualism debate over epistemic modal sentences are warranted.

Epistemic modal sentences involve expressions like 'might', 'must', 'should', 'possibly'. They characterize epistemic states – what can or must be the case given the information available to speakers at a given time. The canonical interpretation of epistemic modal claims is contextualist. On standard accounts, when a speaker says 'might p', she says something *true* if p's truth is compatible with the evidence available at the time of utterance. The standard truth conditions for present tense epistemic possibility sentences raise no problems for Dummettian accounts of the correctness conditions of assertions. The assertion of 'might p' is *correct* if 'might p' is true; incorrect otherwise.

Competent language users allegedly share two intuitions:

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[1] For an interesting discussion of the norms of assertion, and their assessment through criticism and blame, see Kelp and Simion (2017).

1. They judge that a speaker who asserts 'might p' has said something false if p is incompatible with information available *to them*.

2. They judge that a speaker should take back her assertion of 'might p' when she acquires new evidence that excludes p's truth.

The alleged intuition that the speaker should take back what she said is sometimes cashed out as *appropriate* behavior, and sometimes as *required* behavior. There is a normative difference between these two interpretations, which will become clear later in the paper. Both interpretations are usually presented as being at odds with standard accounts of the semantics of epistemic modal sentences. As I'll argue, speakers' judgments about the *appropriateness* to retract is compatible with standard semantic accounts of epistemic modals, and is compatible with Dummett's (R) rule above.

The most radical alternative to standard accounts is MacFarlane's assessment relativism. MacFarlane claims that his theory has applications to a broad range of linguistic expressions, including deontic and epistemic modals. He accepts Dummett's contention that the point of truth is connected to the practice of assertion: when we assert correctly, and when we ought to retract. He motivates *assessment-sensitive truth* by offering relativized reflexive constitutive norms of assertions. Yet, unless his revisionist semantics captures a distinctive aspect of how people talk that other theories cannot explain, assessment relativism is unmotivated. In earlier work, I argued that assessment-relativism is problematic and has unwanted consequences (Marques (2014, 2015)).

This paper presents experimental data that tests the connection between speakers' intuitions about the falsity and the retraction of epistemic modal sentences. I review some recent experimental results of Knobe and Yalcin (2014) that show that speakers don't share the first intuition above: they don't tend to judge that a speaker who asserts 'might p' has said something false if p is incompatible with information available *to them*. I then report the results of two different experiments I carried out. My results show that competent speakers don't judge that a speaker should take back a previous assertion of 'might p' when she acquires new evidence that excludes p's truth. This shows that assessment-relative epistemic modal sentences is unmotivated.

2 Epistemic modals

The examples discussed in the present paper are related to those discussed in the literature on relativism about epistemic modals. The examples are in English, and I give comparable translations with epistemic possibility modals in Spanish.

(1) Joe might be in Boston.

(2) For all I know, Joe might be in Boston.

(3) José puede estar en Barcelona.

(4) Por lo que sé, José puede estar en Barcelona.

On standard accounts, an utterance of (1) is true if Joe is in Boston is possible, given the information available in the context where (1) is uttered. (1) is a bare epistemic modal possibility sentence (a BEP). (3) is a Spanish sentence that expresses another epistemic possibility – that José might be in Barcelona. Unlike (1) and (3), sentences (2) and (4) make it explicit that the relevant information for assessing whether Joe being in Boston (or José in Barcelona) is the information that is available to the speaker at the time of utterance.

On Kratzer's canonical theory, the modals 'might' and 'must' are treated semantically as quantifiers over possibilities (Kratzer (1977, 1991)), where the domains of quantification are contextually restricted. Modal sentences contain parameters that require context to determine a circumstantial accessibility relation on a world of evaluation w. This determines a modal base, i.e., a set of worlds accessible from w that are circumstantially like w in relevant ways. Furthermore, context must supply a standard as a function of w – i.e., a standard that orders the worlds in the modal of base. Thus, context contributes to determine a proposition by determining both a modal base and an ordering standard. Generally, an epistemic modal sentence, 'might ϕ', is true just in case the prejacent ϕ comes out true in at least one of the worlds in the modal base.

For epistemic modals, the context of use determines a set of possible worlds compatible with the relevant epistemic state of the context of use, which is normally understood as the information available to the speaker at the time. In (1), 'Joe is in Boston' is the prejacent – the sentence that is evaluated as true or false with respect to each possible world in the modal base given by the context. 'Joe might be in Boston' is then true if it is compatible with the information available to the speaker in the context of use that Joe is in Boston. Kratzer's account can be described as an *indexical contextualist* theory, since

modals contain parameters that must be filled in the context of use.

3 Relativist Revisions

Challenges to the canon allege that it fails to make the right predictions about speakers' judgments about the falsity and (appropriate/required) retractions of epistemic possibility claims. These judgments are elicited with dialogues like the one below between Sally and George. In the dialogue, Sally's response in (i) would arguably be more intuitive than her response in (ii).

(5)   BOSTON

      a. Sally: Joe might be in Boston.

      b. George: He can't be in Boston. I saw him in the hall five minutes ago.

    (i) Sally: Oh, then I guess I was wrong.

    (ii) Sally: Oh, OK. So he can't be in Boston. Nonetheless, when I said 'Joe might be in Boston,' what I said was true, and I stand by that claim.

There are two ways that intuitions about retractions are used against contextualism. First, intuitions about retraction may be used against indexical contextualism. Upon learning that Joe is down the hall, it is *natural* for Sally to retract her assertion that he might be in Boston. It follows that the content of her assertion must not be that her information was compatible with Joe being in Boston, as the indexical contextualists claim, since that content is true (MacFarlane, 2014, 260).

The apparently natural response suggests that an alternative to the standard indexical contextualist view is right. For example, the alternative can be that the domain of possible worlds compatible with the information available to an agent is not part of a parameter contained in the modal sentence, but is instead a parameter on which the truth of the modal depends. Egan (2007)'s proposal that bare epistemic modals express centered world propositions exemplifies the alternative:

It might be the case that P is true relative to a centered world (w, t, i) iff it's compatible with everything that's within i's epistemic reach at t in w that P. (Egan 2007: 8)

Centered world alternatives like Egan's can be described as nonindexical contextualist views. Nonindexical contextualism predicts that a speaker asserts correctly when she says 'it might be the case that p' when p is compatible with the information available to her at the time of utterance. It further predicts that if the prejacent of the epistemic modal sentence is false with respect to information available to the audience, then the epistemic modal claim is judged as false by the audience. It could be added that it would be natural for the speaker to retract when p is excluded by her newly acquired information, since 'it might be the case that p' would now be false.

There is nonetheless a stronger normative view about the retraction of epistemic possibility modals. The alternative view is not that it would be natural for a speaker to retract, but that she *ought to*. This is the second way to interpret intuitions about retractions, and it goes against both indexical and non-indexical contextualism. If, upon learning that Joe is down the hall, Sally *ought* to retract her assertion that Joe might be in Boston. Indexical and non-indexical contextualists lack the resources to explain this fact, since their account of the norm of assertion appeals only to the notion of truth relative to the context of assertion, a feature that Sally's assertion has (MacFarlane, 2014, 256).

This objection to contextualism relies essentially on the strength of the intuition that the retraction is *obligatory*, as does MacFarlane's revisionist account of epistemic modals. His alternative gives an assessment sensitive analysis of epistemic modal sentences. What is revisionist about MacFarlane's account is the introduction of contexts of assessment to which truth is relativized, besides contexts of use:

> According to a Contextualist Postsemantics, $\ulcorner \Diamond_e \phi \urcorner$ is true at c just in case $[\![\Diamond_e \phi]\!]^c_{\langle w_c, t_c, i_c, a \rangle} = $ True for some $w' \in i_c$, that is, just in case ϕ is true at some world in the information state of the context of use. A similar derivation shows that, on a Relativist Postsemantics, $\ulcorner \Diamond_e \phi \urcorner$ is true as used at c and assessed from c' just in case $[\![\Diamond_e \phi]\!]^c_{\langle w_c, t_c, i_{c'}, a \rangle} = $ True for some $w' \in i_{c'}$. MacFarlane (2014: 264).

MacFarlane agrees with Dummett's claim that a truth-definition must be accompanied by an account of the role of truth in the practice of assertion (MacFarlane, 2014, 99). To that end, he offers two constitutive rules of assertion:

> **Reflexive Truth Rule**. *An agent is permitted to assert that p at a context c_1, only if p is true as used at c_1 and assessed from c_1.* (MacFarlane, 2014, 103)

> **(Reflexive) Retraction Rule.** *An agent in context c_2 is required to retract an (unretracted) assertion of p made at c_1 if p is not true as used at c_1 and assessed from c_2.* (MacFarlane, 2014, 108)

The Reflexive Truth Rule does not suffice to distinguish in practice assessment relativism from indexical and nonindexical contextualism. On all three theories, a speaker who asserts p at a context where p is true has asserted correctly. It is the reflexive retraction rule that is supposed to reveal the significance of assessment-relative truth. If we only had Dummett's (R) rule, with non-relativized truth, speakers would be under no obligation to retract an assertion that is true (as assessed at the circumstances given by the context where the assertion is made). Only the reflexive retraction rule reveals the possibility of different truth-assessments of the same speech act, depending on the context from which it is being assessed. But do competent speakers judge that there is such a reflexive retraction rule in force? If competent speakers do not judge that speakers have an obligation to retract assertions that were true, as made, then assessment-relativism is unmotivated.

4 Falsity - Knobe & Yalcin

In recent experimental work, Knobe and Yalcin (2014) tested the first of the two intuitions that competent speakers are represented as having, which they rephrase as principle (J):

(J) Competent speaker/hearers tend to judge a present-tense bare epistemic possibility claim (BEP) true only if the prejacent is compatible with their information (whether or not they are the producer of that utterance); otherwise the BEP is judged false.

Objectors to the canonical theory predict that extra contextual assessors do not judge a BEP to be true, and judge it to be false, if the prejacent is not compatible with the information available to them. The canonical view predicts that assessors do judge a BEP in those conditions to be true.

Knobe and Yalcin (2014) carried out several surveys to test (J). Here, I report the one survey that is directly related to retraction and falsity. The survey focuses on the BOSTON case above. One hundred and fifty-nine participants were recruited on Amazon Mechanical Turk 100 to complete a paid Qualtrics online survey. The IP address location was restricted to the United States. The

experiment used a 2x2 design in which each participant was assigned to receive a particular statement (*epistemic modal* vs. *nonmodal*) and a particular question about that statement (*falsity* vs. *retraction*). Each participant had to report to what extent they agreed with the statement received on a 7 point Likert scale ranging from complete disagreement (1) to complete agreement (7).

Participants in the *epistemic modal* condition received the following vignette:

> Sally and George are talking about whether Joe is in Boston. Sally carefully considers all the information she has available and concludes that there is no way to know for sure. Sally says: "Joe might be in Boston." Just then, George gets an email from Joe. The email says that Joe is in Berkeley. So George says: "No, he isn't in Boston. He is in Berkeley."

Participants in the *nonmodal condition* received a vignette that was exactly the same, except that Sally says "Joe is in Boston." Some participants received the retraction question:

> *We want to know whether it would be appropriate for Sally to take back what she said (for example, by saying 'Ok, scratch that.'). So please tell us whether you agree or disagree with the following statement:*

>> - **It would be *appropriate* for Sally to *take back* what she said.**

The remaining participants received the falsity question:

> *We want to know whether what Sally said is false. So please tell us whether you agree or disagree with the following statement:*

> - **What Sally said is *false*.**

The results are displayed in figure 1 below.

The results for the nonmodal condition did not show any significant difference between the *appropriateness of retraction* and the *falsity* of the claim (the mean rating for appropriateness to retract was above 6 and the mean rating for falsity was 6.) In the modal condition, there was a disparity in the mean ratings for
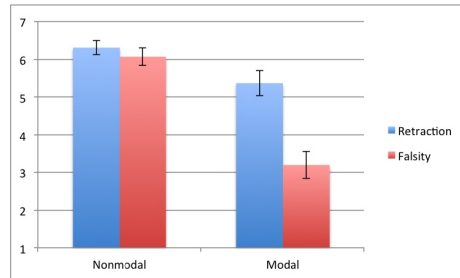
Figure 1: Knobe and Yalcin's 2014 Falsity x Retraction

judgments of falsity (around 3) and for appropriateness to retract (around 5,5). Although the respondents did not agree that what Sally said is false, they tended to agree that it would be appropriate for her to retract.

Knobe and Yalcin's results indicate that native speakers' judgments about the *falsity* of an epistemic possibility modal and about the *appropriateness of the retraction* of the modal diverge. Even if speakers are inclined to think that a retraction of an assertion of BEP is *appropriate*, that is not evidence that speakers think that the assertion is false. There is a significant difference in the *falsity* judgements in the modal and non-modal condition, which wouldn't exist if (J) were true.

5 Falsity and required retractions: North-American and Spanish participants

Knobe and Yalcin's survey asked about the *appropriateness* of retracting. Because of this, their survey did not directly address the presumed *requirement to retract* an epistemic possibility modal with a prejacent that is consistent with information that was available at the context of utterance, but inconsistent with information that is available at the context of assessment. For all we know, survey participants may have answered the falsity question having in mind the context of use, but may have answered the retraction question having in mind a context of assessment. However, being appropriate and being required are two very distinct normative requirements: it may be appropriate for me to accept a dinner invitation, but it does not follow that I'm required to it.

I carried out a new survey designed to test whether MacFarlane's reflexive Retraction Rule applies to epistemic modal claims. If competent speakers agree,

or tend to agree, that upon learning that Joe is in the hall, Sally *ought* to retract her assertion that he might be in Boston, this would give support to the claim that epistemic modals are assessment-sensitive. It would moreover undermine indexical and non-indexical contextualists, who lack the resources to explain this. I carried out two experiments designed to test whether speakers judge that a speaker should take back her assertion of 'might p' when she acquires new evidence that excludes p's truth. [2]

5.1 First experiment: US English speakers

I replicated Knobe and Yalcin's experiment, modifying only the *requirement* question. Two hundred and three participants were recruited on Amazon Mechanical Turk to complete a paid Qualtrics online survey.[3] The IP address location was restricted to the United States. Each participant was randomly assigned one of the two conditions of the BOSTON scenario. The formulation of the scenario was exactly the same as in Knobe and Yalcin's experiment reported above.

The experiment repeated the $2x2$ design in which each participant was assigned to receive a particular statement (*epistemic modal* vs. *nonmodal*) and a particular question about that statement (*falsity* vs. *required retraction*). Each participant had to report to what extent they agreed with one of the statements received on a 7 point Likert scale ranging from complete disagreement (1) to complete agreement (7). The vignettes received by participants were identical to Knobe and Yalcin's, and the falsity question was also the same. The only difference was the retraction question.

Is Sally required to take back what she said?

The mean response for each condition is displayed in Figure 2. The data were analyzed using a 2(question: falsity vs. retraction) x 2 (sentence: modal vs. nonmodal) ANOVA. There was a main effect of question, $F(1, 201) = 13.1, p < .001$, and a main effect of sentence, $F(1, 201) = 68.9, p < .001$. Importantly, there was also a significant interaction, $F(1, 201) = 6.5, p = .01$. To further explore this interaction I used separate t-tests to examine the difference between questions

[3]Sixty-seven participants (33%) were female.

for each sentence. For the modal sentence, there was no significant difference between questions, $t(100) = .66, p = .51$, with participants tending to disagree with the claim that the statement was false and with the statement that the speaker should retract. By contrast, for the non-modal sentence, there was a highly significant difference such that participants agreed more that the sentence was false than that the speaker should retract, $t(101) = 5.1, p < .001$.
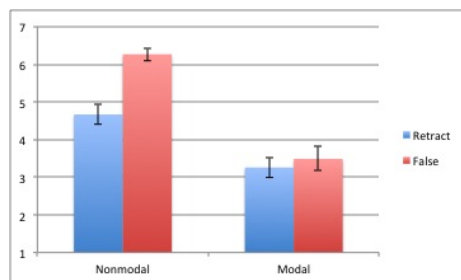

Figure 2: Mean responses by condition for Experiment 1 with US participants. Error bars show standard error of the mean.

The results confirm that speakers judge a BEP to be true if the prejacent is compatible with information available to the speaker at the context of utterance. The results don't support the claim that speakers would judge that a speaker should take back her assertion of 'might p' when she acquires new evidence that excludes p's truth. The disparity in the response in the nonmodal case was unexpected. I do not offer a hypothesis for this disparity in North American participants' judgments about falsity and required retractions.

Unfortunately, this survey did not compare people's judgements on falsity, the requirement to retract, and the appropriateness of retracting.

5.2 Second experiment: Spanish Castilian speakers

I decided to carry out a new survey with Spanish Castilian speakers, contrasting the replies to three questions about identical situations to the ones tested before. This decision is motivated by the perception, anecdotally confirmed by other people, that native Spanish Castilian speakers are more "straightforward" than other speakers. This characteristic seemed to offer a good opportunity to test semantic theories.

With the support of the Behavioral and Experimental lab at Universitat Pompeu Fabra, I asked three hundred and thirty-four participants (from BES Lab's subject pools) to fill in an online questionnaire using Qualtrics.[4] The participants were asked to confirm if they were Spanish nationals and native Castilian speakers. Participants were randomly assigned one question only. Each participant had to report to what extent they agreed with one of the statements received on a 7 point Likert scale ranging from complete disagreement (1) to complete agreement (7). The vignettes received by participants were translations into Spanish of the story in Knobe and Yalcin's vignettes. The experiment used a $2x3$ design, in which each participant was assigned to receive a particular statement (*epistemic modal* vs. *nonmodal*) and a particular question about that statement (*required retraction*, *falsity*, or *appropriate retraction*).

Below, I present the vignette's in Spanish distributed to participants.

Vignette: Non-modal

> Sara y Jorge están hablando sobre si José estará en Barcelona. Sara considera cuidadosamente toda la información que tiene a su disposición y concluye que no puede saberlo con seguridad. Sara dice:
>
> > José está en Barcelona.
>
> Justo después, Jorge recibe un mensaje de José por correo electrónico. El mensaje indica que José está en Valencia. Jorge dice: No, José no está en Barcelona. Él está en Valencia.

Vignette: Modal

> Sara y Jorge están hablando sobre si José estará en Barcelona. Sara considera cuidadosamente toda la información que tiene a su disposición y concluye que no puede saberlo con seguridad. Sara dice:
>
> > José puede estar en Barcelona.
>
> Justo después, Jorge recibe un mensaje de José por correo electrónico. El mensaje indica que José está en Valencia. Jorge dice: No, José no está en Barcelona. Él está en Valencia.

There were three questions about the modal and the non-modal conditions:

> *Falsity*: *Queremos saber si lo que Sara ha dicho es falso. Díganos por favor si está de acuerdo, o no, con la siguiente afirmación*:

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[4]Two hundred and eitghteen (65%) participants were female.

Lo que Sara ha dicho es falso.

Required retraction: *Queremos saber si le parece que Sara tiene la obligación de retirar lo que ha dicho (por ejemplo, diciendo, "ok, olvídate de eso"). Díganos por favor si está de acuerdo, o no, con la siguiente afirmación:*

Sara tiene la obligación de retirar lo que ha dicho.

Appropriate retraction: *Queremos saber si le parece que es apropiado que Sara retire lo que ha dicho (por ejemplo, diciendo, "ok, olvídate de eso"). Díganos por favor si está de acuerdo, o no, con la siguiente afirmación:*

Es apropiado que Sara retire lo que ha dicho.

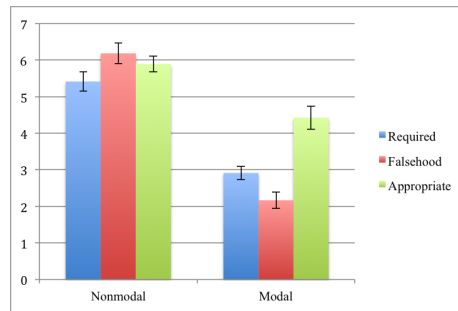The mean response for each condition is displayed in Figure 3.

Figure 3: Mean responses by condition for Experiment 2 with Spanish speakers. Error bars show standard error of the mean.

The data were analyzed using a 3 (question: required retraction vs. falsity vs. appropriate retraction) x 2 (sentence: modal vs. non-modal) ANOVA. There was a main effect of the question, $F(2, 334) = 10.5, p < .001$, and a main effect of the sentence, $F(2, 334) = 171.5, p < .001$. Importantly, there was also a significant interaction, $F(2, 334) = 13.5, p = .01$. To further explore this interaction, I examined responses to each vignette separately. For the non-modal vignette, a oneway ANOVA showed a significant effect of the question, $F(2, 165) = 3.1, p = .048$. Post-hoc Tukey's tests showed that there was a significant difference between responses to the falsity question and responses to the

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required to retract question (p=.038). No other pairwise comparisons yielded significant effects. For the modal vignette, a oneway ANOVA showed a highly significant effect of the question, $F(2, 169) = 17.3, < .001$. Post-hoc Tukey's tests found a significant difference between the required to retract question and the appropriate to take back question ($p < .001$) and a significant difference between the falsity question and the appropriate to take back question ($p < .001$) but no significant difference between the required to retract question and the falsity question ($p = .13$).

6 Discussion

Relativists have questioned standard, contextualist, accounts of epistemic modal sentences by pointing to two intuitions that competent speakers allegedly share:

1. They judge that a speaker who asserts 'might p' has said something false if p is incompatible with information available *to them*.

2. They judge that a speaker should take back her assertion of 'might p' when she acquires new evidence that excludes p's truth.

All three experiments reported here argue strongly against the first intuition, i.e., the claim that speakers tend to judge a BEP as false if its prejacent is inconsistent with information available to them. On the contrary, people don't agree that a bare epistemic possibility modal is false if the prejacent of the modal is consistent with information available to the speaker at the context of utterance.

Knobe and Yalcin's experiment was not conclusive about speakers' judgments about the second claim. Their survey asked whether it was appropriate for the speaker to retract. As §3 made clear, assessment-relativism needs intuitive support for the claim that speakers must retract when they acquire information that disproves the truth of the prejacent.

The two experiments I carried out asked explicitly if the speaker was required to retract. The results weigh against there being a Reflexive Retraction Rule. Us English speakers and Spanish Castilian speakers do not agree that the speaker in the story *must* retract. This is an embarrassment for the motivation underlying assessment-relativism about epistemic modals.

MacFarlane's motivation for the post-semantic analysis of epistemic modal claims hinges crucially on the presumed obligation imposed by the Retraction

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Rule, an obligation that no other theories could explain:

> Why should Sally retract her claim after hearing what George has
> to say? Our framework assumes that retraction is governed by the
> Retraction Rule (§5.4). So Sally ought to retract her original asser-
> tion if its content is false, as used at the context in which she made
> the assertion (c_1) and assessed from the context she is in now (c_2).
> These contexts are different in at least one key respect. In c_1, Sally
> did not know anything that would preclude Joe's being in China.
> But in c_2, she has learned from George that Joe does not yet have
> his visa. This means that the proposition she asserted is false as
> assessed from c_2, and she ought to retract her claim.(MacFarlane,
> 2014, 257)

It would be odd if epistemic modal sentences were assessment-sensitive, if
the speech-act of assertion were partly constituted by the (Reflexive) Retraction
Rule, but people judge (as they do), that the Retraction Rule does not apply to
assertions of epistemic modal sentences. This is what was shown by the results
of the surveys testing people's judgments about required retractions. We have
evidence that people do not judge that the assertion of a BEP is false when
the prejacent is inconsistent with information they have; nor do they judge that
the assertion of the BEP is false when the prejacent is inconsistent with *new
information available to the speaker herself.* And finally, they do not judge that
the speaker *ought to retract*.

Whatever explanation there is of the judgments about the appropriateness
to retract, it must respect two features of retractions:

(i) It is permissible to retract a past assertion that is true, and

(ii) It may be appropriate to retract a true assertion for reasons that do not
directly concern truth.

It is not the aim of this paper to develop such an account. However, I must
point out that it was always consistent with Dummett's (R) rule that it may be
appropriate to retract an assertion for reasons that does not concern truth.

To recap, Dummett's contention was that the well-defined consequence of
an assertion being false, is that it must be retracted:

(R) A speaker must: retract an assertion if it is false.

(R) is followed whenever a speaker asserts truly and retracts the assertion. So, the fact that people judge that it is appropriate to take back a past claim is no direct indication of the falsity of the claim. This means that permissible, natural, or appropriate retractions, by themselves, do not warrant semantic revisions.

This paper does not address the question of whether (R) is generally true, or partly constitutive of assertion. It only addresses the question of whether its modification and use in the relativism/contextualism debate over epistemic modal sentences is warranted.

Knobe and Yalcin (2014) offer a hypothesis for an account of retraction that would fit the judgments about appropriate retractions. They suggest that the experimental data on bare epistemic modals could be explained by their conversational dynamics and not by their truth-conditions. For instance, by retracting an assertion of a BEP, the speaker could be indicating that she no longer wishes to be in a context that could be updated with the prejacent ("Joe is in Boston").

Knobe and Yalcin (2014)'s characterize retraction as a mechanism to deploy in exchanges of information through a conversation. Is it true that retraction is not—or not generally—a way of manifesting a view about the truth-value of a claim? Surely, one may retract for reasons other than truth, and retract speech acts other than assertion. That in itself does not disprove that Dummett's retraction rule (R) is in force.[5]

It is an open question whether retraction is just a mechanism for updating a conversational common ground, or if it is more than that, as Dummett suggested. The recent public reaction to a statement by Donald Trump seems to indicate that a retraction of a false assertion should be accompanied by an admission of *error*. After repeating doubts about President Obama's place of birth for years, doubts that many interpreted as questioning Obama's legitimacy as president, in September 2016 Trump declared publicly,

(6)   I believe Obama was born in the US.[6]

What outraged many people was the fact that Trump failed to make a proper retraction, which would have included an admission of error or of fault, e.g.,

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[5]In March 2017, John McCain stated that the president should either provide evidence that a claim he made was true, or he should retract that claim. https://www.theguardian.com/us-news/2017/mar/13/john-mccain-tells-trump-present-wiretapping-evidence-or-retract-the-claim.

[6]http://www.reuters.com/article/us-usa-election-trump-obama-idUSKCN11M06Z

(7)   It was wrong of me to express doubts that President Obama was born in Hawaii.

If retractions were *just* mechanisms for updating conversational contexts, (6) should count as a public retraction. But the public disapproval of (6) indicated that this update of the context was not sufficient, and that admitting fault was required. Although this is only incidental evidence, it gives some support to Dummett's view connecting judgments of truth and falsity, correctness conditions, speaker's blameworthiness, and retractions. The disparity in responses to questions of *falsity*, *appropriate*, and *required* retractions registered in the studies reported here suggest that a more comprehensive investigation into these normative connections is still lacking.

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