

Subjective assertions are Weak: exploring the illocutionary profile of perspective-dependent predicates.¹

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Abstract. Sentences containing subjective predicates – e.g., “The movie was *awesome*” – are intuitively anchored to a particular perspective; this makes them different from sentences describing objective facts – e.g., “The movie was set *in 1995*”. While authors have long debated on whether this intuition tracks a lexical distinction between subjective and factual predicates, much remains to be explored on whether, and how, the difference between these two assertions is reflected at the illocutionary level. Relying on evidence from two experiments, we show that assertions containing subjective predicates display different discourse behavior from objective assertions. We take these findings to support the idea that SAs should be assigned a special illocutionary profile, unveiling a genuine empirical difference between subjective and factual speech.

Keywords: subjectivity, discourse, assertion, Common Ground.

1. Introduction: Subjectivity and Discourse

Sentences containing subjective predicates – e.g., *awesome* in (1) – are intuitively anchored to a particular perspective, contrary to sentences describing objective facts (as in (2)).

(1) The movie was awesome. Subjective Assertion

(2) The movie was set in 1995. Factual Assertion

A lively debate in linguistics and philosophy revolves around the best way to model the distinction between subjective and factual predicates at the lexical level. Among extant proposals, it has been suggested that subjective predicates are interpreted relative to a judge (Lasersohn 2005; Stephenson 2007; Stojanovic 2007; Sæbø 2009; for a judge-free account, see Pearson 2013; Umbach 2016); that they involve “first person genericity” (Moltmann 2010); that they share a common semantic core with other subjective expressions like evidentials and epistemic modals (Korotkova 2016); and that, at the same time, they do not constitute a homogeneous class (McNally and Stojanovic 2017).² Less explored, however, is whether, and how, the distinction between subjective and objective predicates is reflected in the dynamics of the conversation. In the current paper, we take a step forward towards investigating this issue by asking the following question: How do assertions with and without subjective predicates differ in shaping the Common Ground between two conversation partners? Relying on two experiments, we show that assertions with subjective predicates (henceforth **SAs**) display different discourse behavior from objective assertions (henceforth, **OAs**): **(i)** they do not lead to up-

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²For space constraints, providing an exhaustive review of the literature on the semantics of subjectivity goes beyond the scope of this paper. But see van Wijnbergen-Huitink (2016) for an overview.

dating the Common Ground when followed by silent responses; (ii) they do not engender a conversational crisis when targeted by a denial. We take these findings to highlight a genuine empirical difference between subjective and factual speech, suggesting that SAs should be assigned a special illocutionary profile. The paper is structured as follows: Section 2 summarizes the standard view of how OAs and questions shape the Common Ground; Section 3 reviews current proposals of the illocutionary profile of SAs; Section 4 and 5 present the two experiments comparing SAs to OAs with respect to two crucial properties of assertions: the effect of silence responses and the aftermath of denials; Section 6 provides a general discussion of the experimental findings; Section 7 concludes.

2. Preliminaries: Assertions, Questions, Common Ground

Conversation is central to human cognition. As we engage in dialogues with other speakers, we constantly pool our epistemic resources with those of our interlocutors; by doing so, we inch closer to a correct representation of the current world, the ultimate goal along our quest for knowledge. For the purpose of the current paper, I follow two standard ideas concerning the dynamics of this activity. First, we increase our stock of mutual knowledge by constantly establishing and updating the Common Ground (henceforth, **CG**), the set of worlds compatible with what all conversational participants believe (Stalnaker 1978). Second, different types of speech acts place different constraints on how the conversation evolves and the CG is updated (Farkas and Bruce 2010). A particularly important distinction, in this respect, is the one between assertions and questions, which I now turn to review.

On the one hand, assertions are *informative* moves; that is, they aim at directly increasing the CG. This idea is captured by modeling assertions as *proposals* to add the anchor proposition to the CG, which the listener can either accept or reject. Let us consider (2) above again in (3).

(3) The movie was set in 1995. Assertion

In this view, this assertion has three effects. First, the speaker publicly commits to the proposition “The movie was set in 1995”. Second, the speaker proposes to add p to the Common Ground of the conversation. Third, the interlocutor has the power to either accept the proposal, which effectively amounts to enriching the CG with p ; or to reject it, which prevents the CG from being modified. Concerning this last effect, it is important to observe that, from a pragmatic perspective, acceptance and rejections are not on a par. While acceptance is the default outcome of an assertion, rejection is a highly marked response, as shown by a crucial piece of evidence: besides affirmative responses, absence of an explicit response on the part of the interlocutor is normally taken to indicate acceptance; by contrast, rejection needs to be overtly signaled by a denial.

(4) A: The movie is set in 1995.

- | | | |
|----|-----------------------|--|
| a. | B: Yes, that’s right! | Affirmative response $\rightarrow p$ added to CG |
| b. | B: [silence] | No response $\rightarrow p$ added to CG |
| c. | B: No, it isn’t! | Denial $\rightarrow p$ not added to CG |

On the other hand, polar questions are *inquisitive* moves; they do not aim at directly increasing the CG, but they request for information, calling on the interlocutor to enrich the CG in the next conversational turn. Once again, let us examine this with an example:

(5) Was the movie set in 1995? Polar Question

On the standard view, asking $?p$ has three effects. First, the speaker publicly commits to raising an issue about whether the movie is set in 1995. Second, the speaker proposes to add either p or $\neg p$ to the Common Ground. Third, the interlocutor is ultimately requested to decide to shape how the CG will be updated with their response. Contrary to assertions, however, we do not observe the same asymmetry between positive and negative responses: since two alternative proposals have been put forward by the speaker, the interlocutor has to actively choose one of them; failure to do so, i.e., remaining silent, will *not* lead to an update in either direction.

(6) A: Is the movie set in 1995?

- | | | |
|----|-----------------------|--|
| a. | B: Yes, that's right! | Affirmative response $\rightarrow p$ added to CG |
| b. | B: [silence] | \rightarrow neither p nor $\neg p$ is <i>not</i> added to CG |
| c. | B: No, it isn't! | Denial $\rightarrow \neg p$ is added to CG |

Building on this distinction, I ask the following: how do SAs shape the procedure whereby the CG is updated? More specifically: How does the perspective-dependent nature of the predicate shape the illocutionary force of the assertions that contain them? I first turn to review three proposals, each of which makes different testable predictions with respect to the discourse effects of these moves.

3. The illocutionary profile of SAs: current proposals

In light of the substantive amount of work concerned with subjectivity in language, the discourse status of assertions like (1) remains surprisingly underexplored. When it comes to the pragmatic correlates of subjectivity, in particular, most of the literature has focused on cases in which these forms are embedded under attitude verbs such as “I find that”, or come with an overt argument specifying the anchor of the judgment. The crucial observation is that in such cases, contrary to regular assertions, these predicates cannot be challenged, even in case the interlocutor has a different view/experience on the matter. (7) reports an example from Stephenson (2007).

(7) Mary: How is the cake?
 Sue: It tastes good to me.
 Sam: # No, it doesn't! It tastes terrible.

A common view is that, in such contexts, subjective predicates are simply *presentative*: they merely express an opinion, but effectively fail to make an actual proposal to increase the Common Ground. This idea is cashed out in different ways: Dechaine et al. (2017) suggest that these constructions merely update the *Origo Ground*, a discourse space where perspective-dependent

content is represented, and which is distinct from the Common Ground; Umbach (2016) and Stephenson (2007) propose that these moves are simply not made available to the interlocutor for acceptance or rejection.

Less consensus, however, surrounds uses of subjective predicates as in (1), where no anchor is specified. Three accounts, in particular, have been proposed. According to Dechaine et al. (2017), subjective predicates “lexicalize presentative force” independently of whether the anchor is specified or not: as such, both (7) and (1) should be treated as inert with respect to the goal of increasing the Common Ground. According to Umbach (2016), SAs with no explicit anchor or no embedding attitude verb are interpreted as assessments *tout court*: similar to regular assertions, they do aim at increasing the CG and, once asserted, wait for confirmation or denial, in the same way in which an objective statement would. Finally, Stephenson (2007) suggests that assertions like those in (1) are associated with an *autocentric* norm of assertion: p can be asserted as long as the speaker judges it to be true; however, it is only added to the CG if *all* participants in the conversation judge it as true (see Coppock 2018 for a variant couched within the framework of outlook semantics). On this view, the norm of assertion of SAs is distinctively *weak*: a speaker can legitimately make these without having any expectation that the interlocutor will share the same view, and thus that the proposition will end up being added to the Common Ground. This contrasts with OAs, which, barring exceptional circumstances, normally require that the speaker expects that the asserted proposition will be accepted. At the same time, SAs are still proposals that are aimed at enriching the CG, and that can be either accepted or rejected by the interlocutor. The emerging picture is one in which the view that SAs rely an autocentric norm of assertion occupies a middle ground between the other two views presented above: they do not encode acceptance of p as their default outcome, similar to what is predicted by the view that they are presentative moves; but they are nevertheless inscribed in the participants’ project of enriching the CG, similar to the view that they are assessment *tout court*. I now proceed to test the predictions of these proposals experimentally, comparing the behavior of SAs, OAs and PQs with respect to two distinctive parameters of assertions: the effects of silent responses, and the aftermath of denials.

4. Experiment 1: the effect of silent responses

In this study, I explore the behavior of SAs with respect to silent responses. As can be recalled from the discussion in Section 2, adding p to the CG represents the unmarked outcome of an assertion (see e.g., Stalnaker 1978, Farkas and Bruce 2010). As such, while rejection needs to be overtly signaled with a denial, silence typically leads accepting the proposal, on a par with an explicit affirmative reply. By contrast, because Polar Questions do not make a univocal proposal, they require an explicit response from the interlocutor for the CG to be updated. Concerning Subjective Assertions, each of the three accounts above make different predictions. If SAs work like regular assertions, they should put forward a proposal in the same way in which OAs do: on this view, silent responses should likewise lead to updating the CG with p . If SAs are merely presentational, no proposal is made at all: this predicts that silent responses should not lead to update the CG. Finally, if SAs rely on a weak norm of assertion, an explicit response should be required from all participants before an update is made: this, again, predicts that silence should not be interpreted as a sign of acceptance of the proposition.

4.1. Methods

4.1.1. Design

Two factors were crossed in a 3x3 design. Each trial consisted of a written dialogue in which Greg makes one of three possible moves – OA, SA or Polar Question (PQ) – and Mary provides one of three possible responses – Confirmation, Denial or Silence. Following each dialogue, participants were asked to assess whether, according to what they had just read, the proposition was part of the participants' Common Ground. The assessment was operationalized on a 1-7 Likert scale (7="totally agree"; 1= "totally disagree") response to the statement "It is now part of Greg and Mary's mutual knowledge that p ". The higher the score, the higher the likelihood that the update went through according to the participant. (8) illustrates a sample dialogue.

- (8) *Greg: OA:* The movie was awesome.
Greg: SA: The movie was set in 1995.
Greg: PQ: Was the movie set in 1995?
Mary: Confirm: Yes, indeed!
Mary: Denial: No, not really!
Mary: Silence: [Keeps listening, says nothing.]
Statement to assess: "It is now part of G and M's mutual knowledge that {The movie was awesome/the movie was set in 1995}."

4.1.2. Procedure and Statistical analysis

27 items, each with a different set of predicates, were distributed in 9 lists with a Latin Square Design. Each list was completed by 26 fillers. All fillers consisted of dialogues between Greg and Mary, where Greg would ask a Wh-Question, and Mary would provide a response. 54 self-declared native speakers of American English were recruited on MTurk and paid \$1.50 for participation. 3 subjects were excluded due to missing responses. For statistical analysis, a mixed-effects model was run with the responses as the dependent variable, fixed effects for Move and Response and random slopes for Subjects and Items. The models were run with the *lmer* test in R (Kuznetsova et al. 2016). Given the theoretical motivation of the study, a crucial comparison is the one between OAs, SAs and PQs in silent responses. No difference should be observed for these moves with the other responses: while all confirmations should lead to adding p to the CG, all denials should not lead to updating the CG with the proposition. OAs and Confirmation were entered as reference levels in the model.

4.2. Results

The results are plotted in Figure 1 below.

Table 1 reports the results of the model.

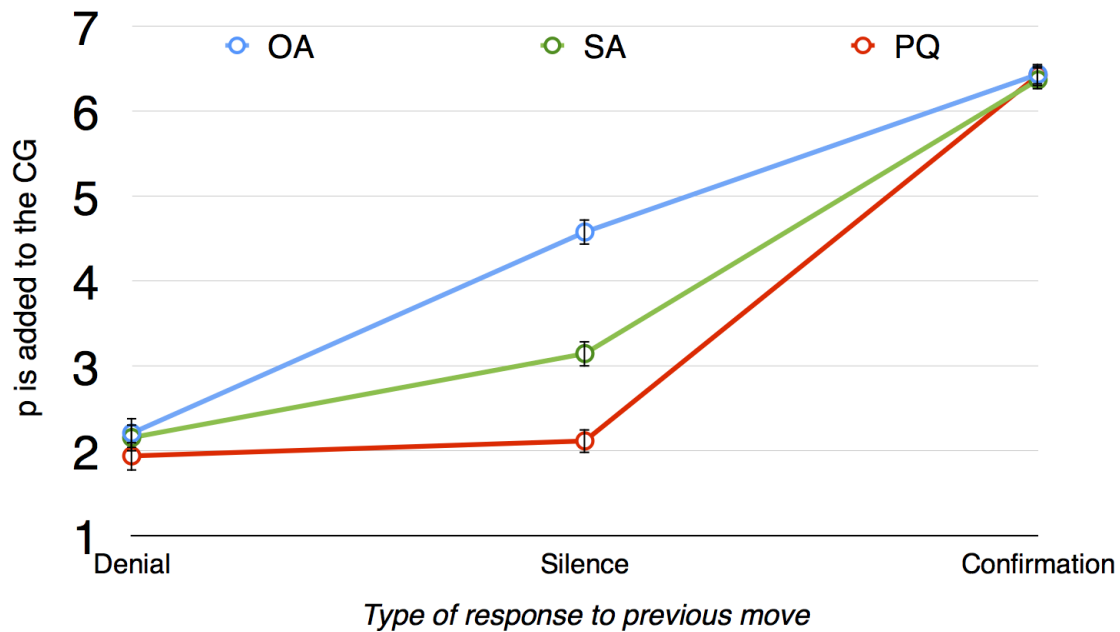


Figure 1: Average ratings for Experiment 1

Table 1: Mixed effect model summary for positive attributes. Intercept: OA & Confirmation

Factor	Coefficient	Standard Error	t-value	<i>p</i>
Intercept	6.44	0.17	37.8	<.0001
PQ	-0.02	0.15	-0.14	0.88
SA	-0.07	0.13	-0.52	0.60
Denial	-4.22	0.30	-13.61	<.0001
Silence	-1.84	0.25	-7.33	<.0001
PQ:Den	-0.24	0.16	-1.51	0.12
SA:Den	0.01	0.16	0.08	0.929
PQ:Sil	-2.45	0.16	-15.14	<.0001
SA:Sil	-0.77	0.16	-4.79	<.0001

The model reveals two main effects of Response, as well as two interaction effects Move:Response. To better understand these results, we carried post-hoc comparisons with the application of a Tukey correction for multiple comparisons. We are especially interested in comparing the ratings associated with PQs, SAs and OAs in the presence of silent responses. The analysis reveals that SAs significantly differ from both OAs ($t(22.57)=5.4, p < .001$) and PQs ($t(22.57)=5.4, p < .001$). No significant difference is found between these three moves following either confirmations or denials.

4.3. Discussion

In Experiment 1, we explored how different responses to PQs, SAs, and OAs affect CG updates. As predicted, confirmations lead to adding the proposition to the CG across moves, while denials blocked CG updates across moves. The three moves, however, behave differently when followed by silent responses. In particular, following OAs, silence leads to updating the CGs to a considerably greater extent than for SAs, suggesting that, in the presence of subjective predicates, adding p to the CG is less of a default outcome than it is for assertions containing factual predicates. At the same time, the CG-acceptance rating for silence following SAs is higher than for PQs, suggesting that SAs still retain some kind of assertive force with respect to plain questions.

5. Experiment 2: the aftermath of denials

In Experiment 2, we compare SAs and OAs with respect to another distinctive property of assertions: the aftermath of disagreement. Let us consider these two examples.

- (9) a. A: The movie was set in 1995.
B: No, it wasn't!
- b. A: The movie was awesome.
B: No, it wasn't!

On the one hand, there is consensus that disagreement following an objective statement tends to be highly disruptive for the conversation. First, it undermines the felicity of the assertion itself, implying that the speaker is not using language in a congruous way. Second, it creates a situation of *conversational crisis*, where the two interlocutors have incompatible commitments, and the CG ends up being an absurd belief state. As a result, this situation needs work to be solved: it can be sorted out via retraction, for example, or via a mutual negotiation to leave the issue unsettled and “agree to disagree” (Farkas and Bruce 2010). This experiment directly compares SAs and OAs on this basis by operationalizing and measuring the actual degree of disruptiveness of disagreement following each of these moves. Specifically, the study compares the perceived naturalness of two types of reactions to a denial: “Aha, interesting to hear!”, which signals a welcoming disposition towards disagreement; and “No way! That can't be true”, which signals willingness to react to the denial. Following the idea that denying assertions leads to a conversational crisis, insisting responses should be rated as more natural than welcoming reactions to denials following OAs. By contrast, for a “No” answer directed at a question, a welcoming response should be more natural than an insisting one to be inappropriate, since questions do not put forward proposals in the first place. Concerning subjective predicates, different theories make divergent predictions. If SAs have mere presentational force, no proposal for the CG is put forward: as such, insisting responses on the part of the speaker should be rated as unnatural as insisting responses following denials to questions; by contrast, welcoming responses should be rated as natural as welcoming responses following denials to questions. If SAs behave like regular assertions, insisting responses should be as natural as they are for OAs, while welcoming responses should be as unnatural. Finally, if SAs are linked to a weak norm of assertion, both types of responses should have intermediate naturalness:

welcoming responses should be more natural than they are for OAs, since disagreement does not undermine the felicity of the assertion that it targets; at the same time insisting responses should also be natural than they are for question, since a proposal for the CG is still put forward, motivating the speaker's effort to push the assertion further.

5.1. Methods

2 factors were crossed in a 3x2 design. Each trial consisted of a written dialogue in which Greg makes one of three moves (OA, SA or a PQ); Mary responds with a denial; and Greg follows up with one of the two reactions above. Subjects provided a 1-7 naturalness judgment (1="totally unnatural"; 7="perfectly natural") on the final reaction. An example is below.

- (10) *Greg: SA:* The movie was awesome.
Greg: OA: The movie was set in 1995.
Greg: PQ: Was the movie set in 1995?
Mary: No, it was not!
Greg: Welcoming: Aha, interesting to hear!
Greg: Insisting: No way! That can't be true!

How natural does the underlined part sound? "1.....7"

5.2. Procedure and statistical analysis

18 items were distributed in 6 lists with a Latin Square Design, together with 20 fillers. 54 self-declared native speakers of American English were recruited on MTurk and paid \$1.50 for participation. 1 subject was excluded due to missing responses. To ensure that welcoming and insisting replies were perceived as such, subjects were explicitly instructed to assume that Greg was *not* being sarcastic. For statistical analysis, a mixed-effects model was ran with the responses as the dependent variable, fixed effects for Move and Response and random slopes for Subjects and Items. The models were ran with the *lmer* test in R (Kuznetsova et al. 2016). OAs and Insisting were entered as reference levels in the model.

5.3. Results

The results for Experiment 2 are plotted in Figure 2 below.

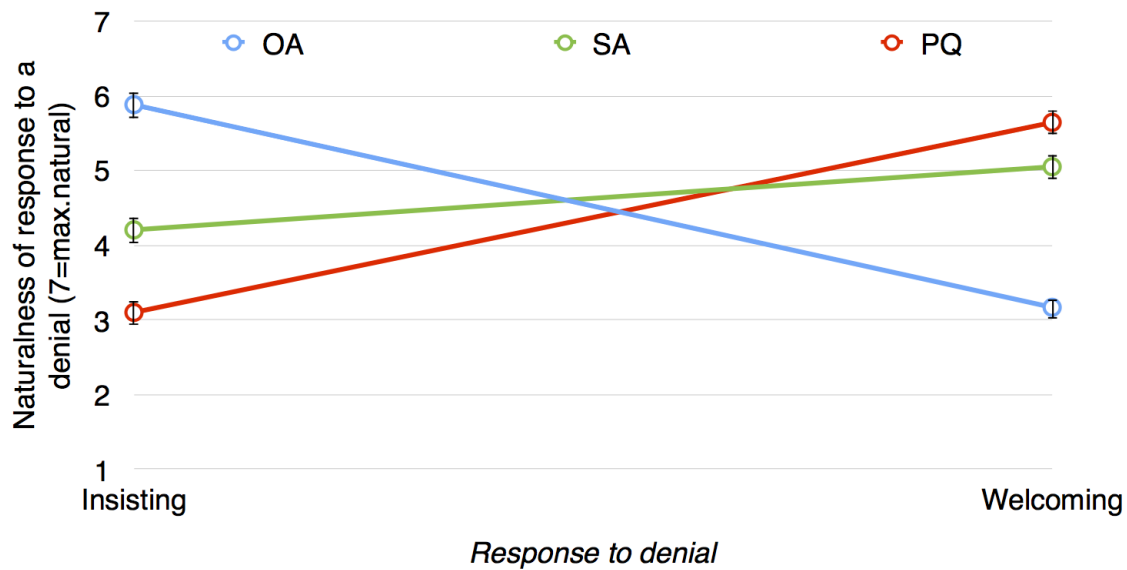


Figure 2: Average ratings for Experiment 2

The results from the mixed-effects model for Experiment 2 are reported in Table 2 below.

Table 2: Mixed effect model summary for positive attributes. Intercept: OA & Insisting

Factor	Coefficient	Standard Error	t-value	<i>p</i>
Intercept	5.87	0.18	31.1	<.0001
PQ	-1.72	0.21	-8.3	<.001
SA	-1.91	0.20	-9.4	<.001
Welc	-2.71	0.23	-11.6	<.0001
PQ:Welc	4.25	0.23	17.8	<.0001
SA:Welc	3.80	0.13	15.9	<.0001

All main effects and interactions are significant. To better understand the interactions, post-hoc comparisons with the application of a Tukey correction for multiple comparisons were carried out. As far as the contrast between welcoming and insisting responses, insisting responses were rated higher than welcoming ones for OAs ($t(32.3) = 11.6, p < .0001$); for SAs and PQs, instead, welcoming responses were rated higher (For SAs, $t(32.3) = 4.6, p < .001$; For PQs, $t(32.3) = 4.5, p < .001$). As far as the contrast between different types of moves, welcoming responses were rated higher for SAs than for OAs ($t(20.0) = 9.2, p < .0001$), and were rated higher for PQs than for either SAs or OAs (PQs vs SAs: $t(20.0) = 3.1, p < .05$; PQs vs OAs: $t(20.0) = 11.2, p < .0001$). Conversely, insisting responses were rated higher following SAs than following PQs ($t(27.5) = 4.2, p < .01$), and were rated higher following OAs than following either SAs or PQs (OAs vs SAs: $t(20.0) = 9.4, p < .0001$; OAs vs PQs: $t(34.2) = 8.3, p < .0001$).

5.4. Discussion

These findings suggest that disagreement targeting SAs behaves differently than disagreement aimed at OAs. Insisting responses and welcoming responses are rated respectively higher and lower for SAs than for OAs; in addition, within SAs, welcoming responses are rated higher than insisting ones, while the reverse is the case for OAs. The emerging picture is one in which denials targeting SAs come with a degree of disruption that is lower than the one associated with OAs, and yet higher than the one associated with PQs. This suggests once again that assertions containing subjective predicates occupy a middle ground between polar questions and regular assertions.

6. General Discussion

The findings from these two studies suggest that, from an empirical perspective, the illocutionary behavior of SAs is different from the one of OAs. Two differences are supported by the experimental results. First, as shown in Experiment 1, SAs do not lead to an update of the CG with p in the absence of an overt response. Second, as shown by Experiment 2, denials following SAs are less disruptive – i.e., more likely to be accepted and less likely to be resisted – than denials following OAs. With respect to both these properties, the behavior of SAs is remarkably similar to that of questions. In particular, both PQs and SAs appear to require some sort of explicit response before a proposition is added to the CG; and both SAs and PQs do not engender a conversational crisis when followed by denials. At the same time, the profile of SAs remains different from the one of questions: when followed by a silent response, SAs still lead to update the CG to a higher extent than PQs; and in the aftermath of denials, it is still more natural for authors of SAs to defend the proposition than it is for authors of PQs. Taken together, these observations suggest that OAs and SAs are empirically distinct moves from the perspective of discourse. In particular, with respect to both properties that were tested the behavior of SAs is consistent with the idea that SAs rely on a weaker norm of assertion, where a speaker utters the proposition as long as they judge it to be true, but the proposition is added to the CG only if all discourse participants share the same evaluation: this would explain the absence of default acceptance in case of silence, as well as the mild flavor of disagreement in case of denials.

Looking at the broader picture, two questions arise. First, how should SAs be modeled within a formal theory of speech acts and discourse moves? At the very least, the observed behavior of these statements suggests that SAs present significant overlap both with OAs and PQs, two moves that are located at opposite ends of a spectrum (see Section 2). This intuition could be cashed out by suggesting that SAs are effectively a hybrid type of speech act. Similar to OAs, they are *informative*: they require the speaker's commitment to the anchor proposition, as they present a proposal that is supposed to directly enrich the CG. Similar to PQs, however, they are *inquisitive*: they raise the issue as to whether the interlocutor also judges the proposition as true, explicitly requesting for an explicit stance on this issue before the CG can be updated. This idea could be captured by positing that SAs obtain the two following effects whenever they are uttered by a Speaker A in a conversation with Speaker B. In the notation above, pA and pB refer to p as judged by Speaker A and Speaker B respectively.

- **Informative part:** A publicly commits to p_A (\approx OAs)
- **Inquisitive part:** A proposes to update the CG by raising the issue $?p_B$ (\approx PQs)
- **Update procedure:** the CG is updated with p_{AB} if and only if the interlocutor agrees

If this is the illocutionary profile of SAs, it becomes possible to explain why a response from the interlocutor is always needed, and why disagreement isn't disruptive. A negative response, under this account, is not a rejection of the speaker's proposal, but merely a way of choosing one of two available options, just like it normally happens with polar questions. As a further empirical observation, it can be noted that SAs, similar to PQs, license response particles like *totally* or *yes!*, suggesting that they indeed raise an issue that can be addressed by the interlocutor. The status of such responses appears to be degraded with OAs (Beltrama 2018).

(11) A: The movie was awesome.

B: Totally!

(12) A: The movie was set in 1995.

B: #Totally!

While I leave the proper formulation of this idea to further research (but see Beltrama 2018 for a preliminary attempt), it is important to point out that, if correct, this proposal highlights SAs as a further instance of speech act with declarative syntax and idiosyncratic discourse profile, on par with raising declaratives (Jeong, to appear; Rudin 2018) or declaratives modified by tags (Malamud and Stephenson 2014). As such, modeling the illocutionary profile of SAs could crucially contribute to enriching our understanding of the land in between assertions and questions, informativity and inquisitiveness, a territory that remains relatively uncharted in the study of discourse.

A second theoretically relevant question is the following: How do the properties of SAs highlighted in these studies shed light on the debate concerning the representation and interpretation of subjective predicates? A particularly contested notion in this literature revolves around the nature of disagreement following perspective-dependent expressions. According to some authors, subjective predicates give rise to the phenomenon commonly labeled as *faultless disagreement* (Kölbel 2002, Lasersohn 2005, Stephenson 2007). On this view, disagreement is seen as much less disruptive than with OAs: although the interlocutors are producing conflicting assertions, neither of them is saying something false, or making a pragmatically infelicitous move. Other authors, however, question the very existence of faultless disagreement altogether, suggesting that disagreement following subjective predicates is not distinct from genuine, factual disagreement (Stojanovic 2007; Umbach 2016); on this view, the intuition that no participant is blameworthy is a misconception arising from the fact that, when such predicates are used, a general perspective on the CG is not available to the speakers. While Experiment 2 was not designed to provide support in favor or against either view, it is worth observing that the non-disruptive flavor of disagreements following SAs can be accounted for rather straightforwardly under a view in which these are disputes are genuinely faultless, and thus distinct

from those about objective matters. By contrast, explaining this result in light of the competing view would instead require a more complex explanation – e.g., one that links the lack of disruptiveness of denials to more general pragmatic principles about reasoning with evaluative meanings, and not to their status as speech acts with distinctive properties. In sum, while the findings from the second study cannot provide conclusive evidence supporting either view of the nature of disagreement, they do highlight experimental methods as a potentially viable technique to cast light on this debate, as well as on other theoretical issues related to the encoding of subjectivity in language (see Solt 2018; Kaiser and Lee 2018 for recent approaches).

7. Conclusion

The two studies discussed in the paper suggest that the distinction between subjective and factual language is empirically reflected in the way in which different types of assertion shape discourse. As such, these findings raise a number of questions concerning the modeling of the pragmatic and discourse correlates of subjective language. While providing an answer to these issues would go beyond the scope of the current paper, it is my most sincere hope that these results, together with the discussion provided above, can be a useful starting point for further research on a seminal topic across linguistics and philosophy.

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