

Correctible inquiry

Erik Hoversten

2017-01-12

0.1 Speculative profferment of information

Discourse between individuals who share a language can take a wide variety of forms, but academic study has been primarily concerned with the subclass of discourses that fall under the heading of cooperative, communicative exchanges of information. These discourses involve two or more individuals engaged in a project of achieving a mutual goal (generally, increased mutual knowledge), using each other's stock of information to increase their own. In this form, discourse implements a jointly undertaken *inquiry*. An inquiry is, in the words of Robert Stalnaker, "the enterprise of forming, testing, and revising beliefs" (1987 p. ix).

In the course of conversation, individuals will occasionally put forward information for which they do not possess conclusive evidence. Sometimes, the basis for such a maneuver is laziness, deceit, or obstinance. But sometimes, this kind of move is just what the conversation needs to move forward.¹ In these situations, speculative informational profferments form an important part of discourse as cooperative inquiry. To give them a name, I call these conversational moves *posits*.

The goal of this project is to motivate a model of discourse interpretation that captures the unique way in which posits contribute to inquiry. The motivation has 5 parts:

1. A development of a deeply collaborative model of discourse dynamics and an appeal for the inclusion of posits within this model via analogy to widely accepted elements of inquiry.
2. A historical and conceptual motivation for the notion of speculation and correction in inquiry.
3. A development of a formal model of posits and corrections within the update semantics tradition.
4. An application of the new proposal to the phenomenon of *contrastive focus*.
5. An application of the proposal to provide a novel way of looking at linguistic disagreement as an argument for relativist semantics.

0.2 Collaborative discourse dynamics

Posits are best understood as one half of a pair of moves in an inquiry. In this section I both spell out the notion of posit/correction pairs and motivate the notion by arguing in favor of a deeply collaborative model of discourse dynamics.

0.2.1 Advancing the inquiry

To say that accounting for posits constitutes an adequacy condition on semantic theory is to say that posits form a well-defined class of linguistic tools that do important interpretive work that cannot be done better by some other (set of) tool(s).

¹Think brainstorming sessions, the scientific context of discovery, or tip-of-the-tongue style paralysis.

A posit is a kind of conversational move. It is defined in terms of the role it plays in advancing the inquiry in which it occurs. While moves in an inquiry can be as varied as the language allows, there is a small set of *contribution types* derivable from the goals of inquiry.

The primary goal of inquiry is to come to know something one did not know at its outset. Thus, an individual can advance us toward that goal by submitting (proposing) information to be taken on as mutually accepted. We call this kind of contribution an *assertion*.

The end point of an inquiry depends in part on its starting point, which is the *issue* that is to be resolved by the process of inquiry. An individual can submit a new issue to the inquiry to be taken on as providing a new goal for the inquiry. We call this contribution a *question*.²³

These examples do not provide an exhaustive list of distinct contribution types, nor do I suggest that I can provide identity conditions specific to types of contribution. But these examples do share certain things in common, and their common traits can provide us with criteria for recognizing novel contribution types.

First, each type outlined above operates on information in a different way. The currency of inquiry is information, and its value is tied to the ways in which information can be put to use to advance the inquiry toward its goal. Second, each of these types anticipates an appropriate response, and places constraints on the form of the response. And last, each of the types above is carried by a conventionalized linguistic tool. If a contribution belongs to a specific type, language will have found a way to implement that type.

Criteria for genuine contribution types:

1. A genuine contribution type has a natural discourse pair complement.
2. A genuine contribution type implements a unique operation on information.
3. A genuine contribution type is realized by a conventionalized linguistic tool.

I wish to maintain that posits constitute a genuine contribution type distinct from the others listed. Posits are similar to assertions in that they seem to provide a proposal of added information, and they are similar to questions in that they seem to present an issue that is up for further discussion.⁴ But posits are distinct from each of these, and call for a unique treatment. That they earn such status is what I hope to show throughout the course of this project.

0.2.2 Levels of dynamism

It is folly, Frege warned, to ask for the meaning of a word in isolation, prescribing instead that the sentence as a whole be the proper unit of semantic investigation. The dynamic turn in semantics did Frege's *context principle* one better. On the basis of anomalous linguistic data involving anaphora resolution, attention was shifted from single sentences to the broader linguistic context in which their specific instantiations appear. Thus it has been suggested that the proper units of linguistic evaluation are extended texts or conversations, what I refer to here as *discourses*.

²Sometimes added to this list of contribution types is the *command*, which proposes a non-linguistic demand upon a participant in the inquiry. The appropriate response to such a contribution is to make the world such that the demand is met (or to reject the demand itself).

³Each of these contribution types has an associated linguistic mood. Inquiry is a structured process, in which it is important not only what information is available but also how it is to be put to use in reaching the goal. As an implementation of inquiry, linguistic discourse has conventional means of representing how the information is being put to use by a contribution. But the scope of contribution types is not limited by the set of conventional moods. Nor do I think the concept of *linguistic mood* cuts along the same joints as that of *contribution type*. What is important for a contribution type is that there is a recognizably unique way in which information is put to use to further the goals of the inquiry.

⁴They are also similar to suppositions in that they seem to be less than fully committal on the part of the speaker. Assertion is generally associated with a commitment that it generates for the speaker. This commitment involves some evidential relation between the asserter and the information conveyed, though it is controversial just what relation it is. But whatever the relation amounts to, it seems clear that we sometimes offer contributions to discourse that go beyond the evidence we have available. And we do this not just as a means of flouting the rules of discourse, but frequently in order to respect the project of the communicative exchange.

The many varieties of dynamic semantic accounts share in common a model of discourses in which there exists a theoretical platform upon which information is built in a stepwise manner over the course of the discourse. Each subsequent contribution to the discourse is analyzed in terms of what it constructs upon the platform or what previous construction it wipes away. The materials of which discourses are built include *possible worlds*, *situations*, *events*, *discourse referents*, and set-theoretic constructs thereof. This platform and its associated construction go variously by names such as *discourse representation*, *conversational scoreboard*, *common ground*, and *information state*. I couch my discussion within this broad tradition of theories and refer to the semantic representation variously as the *information state* or *state of information* of the discourse.

These semantic theories are dynamic in that they describe how new contributions to a discourse *respond to* and *modify* what has preceded, and discourse is very much dynamic in this sense. But by and large, they fail to capture another way in which discourse is dynamic. Contributions to discourse also *anticipate* what is to follow in the discussion, and this feature of how discourses proceed ought to be brought under the umbrella of semantic theory.

0.2.3 Collaboration and discourse pairs

Discourse is an essentially collaborative process.⁵ At a superficial level, successful discourse requires that the participants accurately understand each others' contributions. This requires constant feedback, step retracing, and repair to keep everyone on the same page. But the importance of collaboration goes deeper than this. Herb Clark and his contributors (1992) have documented a variety of discourse maneuvers in which individuals other than the interlocutor who initiates the contribution provide input essential to its completion. This has led Clark to suggest that discourse contributions involve two distinct phases: the *initiation* and the *completion*. Crucially (and in general), responsibility for the two phases of contribution is distributed among the conversational participants.

Clark is primarily concerned with the phonological and syntactic representation of discourse contributions, and with how the collaborative process determines the reference of individual words. But the same insights extend to the level of semantico-pragmatic representation as well.

A principle way in which the collaborative nature of discourse is realized is in the way that assertion updates the state of information. Following Robert Stalnaker (1978), I understand the principle effect of assertion to be the elimination of uncertainty, which is modeled as the elimination of previously open possibilities from the information state. But Stalnaker also recognizes that there are two stages to the impact of an assertion. The first is an automatic update that takes place implicitly. It involves incorporating information into the common ground that includes things such as the fact that the speaker is speaking, a record of the salient objects that have been introduced to the context, and perhaps other forms of not-at-issue content of the utterance. The second stage of assertion involves an expansion of the state of information to incorporate the at-issue content of the utterance. Unlike the at first stage, this expansion does not take place automatically. Instead, the speaker's fellow interlocutors are given the power to either accept or reject the proposal before the context set is updated.⁶ Thus, it is fitting to think of assertion as involving two distinct phases: an initiation, which involves the proposal of the asserted content by the speaker, and a completion, which involves either the acceptance or rejection of the asserted content by the hearer.

Collaboration is even more evident in the case of questions and answers. Questions can of course be accepted or rejected, but they also *call for* a particular form of response. That is, questions present an *issue*, which carries with it certain *felicity conditions* that acceptable responses must meet, and the question cannot be considered closed until a response meeting those conditions is proffered.

An assertion combines with an acceptance or rejection and a question combines with an answer to form what we can call a *discourse pair*. Each pair involves an initiation (assertion or question) and a completion (acceptance/rejection or answer). The initiation phase presumes the possibility of a completion, and the

⁵Here I turn my attention primarily to conversations held among multiple interlocutors in real time. Though I think many insights touched on in what follows apply also to individually composed texts, they admittedly demand extended discussion.

⁶Even if rejected, the proposal is likely entered into the conversational record in some form for the purpose of anaphoric reference later on.

completion depends upon the nature of the initiation. And, crucially, responsibility for the elements of the pair is distributed among the conversational participants.⁷

Discourse pairs thus exhibit a recognizable pattern. A contribution is an initiation if it presumes, or *anticipates* a completion, which is accomplished by means of exerting felicity conditions on adequate responses.⁸ A contribution is a completion if its content depends on, or *responds to* an initiation from prior discourse.

The deeply collaborative nature of discourse suggests another shift in semantic attention, expanding on the idea of discourse dynamics, and treating discourse pairs as the primary units of semantic evaluation. The novelty to this proposed shift is that semantic evaluation must trespass not only the boundaries between sentences but also the borders of turns taken in the conversational exchange.⁹

0.3 Speculation and correction in inquiry: historical perspectives

The significance of posit/correct pairs to discourse analysis is supported in part by the role the pair plays in inquiry more generally. In this section, I approach the subject from a historical perspective by examining three classic models of inquiry with an eye toward the importance of speculation and correction.

0.3.1 William James and the will to believe

In *The Will to Believe*, William James (2009) drew a distinction between two independent and sometimes conflicting goals for those engaged in the pursuit of knowledge. The first is to acquire true beliefs. The second is to avoid believing falsehoods. One could meet the goal of believing truths simply by believing everything, but doing so sacrifices entirely achieving the second goal. And one could meet the goal of avoiding falsehoods by believing nothing at all, thereby forfeiting the virtue of believing truths. As James saw it, a strategy of inquiry that floats between these extremes is the path we ought to search for.

James famously argued that if one's belief choice is *live*, *momentous*, and *forced*, then the will to believe outstrips the fear of being wrong. But as a set of necessary requirements, this restricts speculative endeavors too much. Inquiry need not be momentous or forced for a jump to a conclusion to be fruitful. James' model makes inquiry an optimization task between taking on too many falsehoods and leaving out too many truths. And it is a task that is undertaken by fallible individuals in real time. Such agents have limited access to information and limited resources to dedicate to the process of inquiry (Bratman, Israel, and Pollack 1988). Frequently, action is required when certainty cannot be obtained. And on many quotidian decision points, the risk of being incorrect is fairly low. It is *because* not every inquiry is momentous that striving for truth (and risking falsehood) is sometimes to be preferred.

A preference for belief in the face of uncertainty is further supported by the fact that inquiries are packaged with corrective feedback mechanisms. An important such mechanism is the build-and-test update procedure that inquiry exhibits. Inquiries are cumulatively built in a step by step process. One contributor to the inquiry adds a proposal to the mutual inquiry workspace at which point it can be played around with by all members of the inquiry before being ultimately accepted or rejected. Collaboration makes speculation worthwhile.

The success of this procedure depends heavily on a shared understanding of each party's role in the inquiry. An individual can only feel comfortable in proposing a speculative addition to the common ground if they believe that their collaborators will correct their contribution to the best of their ability. And this requires interlocutors to be more than passive recipients of information. They must use openings in the conversation to voice disapproval or uncertainty in addition to registering understanding and acceptance of what has been presented.

⁷Interestingly, discourse initiations need not be immediately followed by their completions. A question may not be (fully) resolved until after a number of clarificatory amendments or sub-questions are introduced and resolved.

⁸Compare to the notion of discourse coherence in, for example, Grosz et. al.

⁹A key consequence of this insight is a solution to some worries regarding the semantic interpretation of speech acts and embedding data.

Disagreement is the tool by which interlocutors can check each other's flights of fancy. And, I maintain, it is a tool we both know how to wield, and are prepared to let others wield against us. The primary role of joint inquiry is to expedite what would be an extremely tedious task if attempted alone. Even alone, the task can be sped up via judicious application of speculative intellectual leaps, though the risk involved cannot be wholly eliminated. The collaborative facet of joint inquiry provides extra motivation for assuming the risk – the cooperative interlocutor, to the extent she is able, will pull you back from the ledge by voicing her disagreement.

David Lewis (1975) spoke of language as a convention of truth and trust in a community. His idea was that our shared language is supported by a tacit agreement to speak truthfully, and to trust that others will do so as well. While the Jamesian model accepts the importance of speaking truthfully, it maintains that the convention may sometimes call for speaking rather than remaining silent even when truth cannot be guaranteed. The importance of trust remains paramount, but it is not just the hearers' trust in the speaker to utter truly. It is also the speaker's trust in his hearers to correct him when he doesn't.

0.3.2 J. S. Mill

John Stuart Mill's (2011) defense of liberty centrally relies on the corrective value of dispute. Even in the face of certainty regarding the answer to certain questions, dispute plays an important role. In successful inquiry, it is not enough that the participants in the inquiry come to accept truths about the world. The process of inquiry, when faithfully undertaken serves to provide its participants with justification for coming to accept the outputs of the process. Having gone through the inquiry is also necessary for the right to believe its outputs.

But this makes one's right to believe dependent upon the interlocutors with whom one interacts. Not only are asserters expected to be able to provide reasons for the propositions they propose, hearers are expected to challenge assertions when their content contradicts either their own expectations, or the shared conversational record.

These commitments of cooperative exchange are realized in certain discourse mechanisms. The hearer has tools at her disposal for challenging assertion. Primary among these is flat out denial, but often it is not maximally cooperative to flatly deny an assertion for this response has the effect of derailing the progress of the inquiry, and it is too sweeping in its effect. Utterances involve a great number of parts, any of which may be subject to criticism, but criticizing one part may leave others unscathed. Thus, hearers also have means for correcting utterances without issuing a blanket denial.

Mill's model of inquiry makes collaboration essential to the process. It is not just that individuals can make use of each other to acquire true beliefs about the world. Earning the right to those beliefs requires individuals to work together, and it foists commitments upon each party: speakers must be ready to defend their claims and hearer's must be prepared to correct claims when they can.

0.3.3 C. S. Peirce

For C. S. Peirce, scientific inquiry involved 3 distinct components, each of which provides a distinctive justification for the outputs of the process, and each of which is subject to a distinctive form of evaluation. Given a proposed scientific inquiry, *abduction* generates a set of hypotheses which serve as potential answers to the issue. *Deduction* then generates necessary consequences of the hypotheses generated in the first phase. It is followed by phase of *induction* in which the hypotheses are tested by comparing their deductive commitments to the outputs of empirical investigation. Finally, a phase of *selective* abduction uses the results of the inductive phase to select the best hypothesis for whatever purposes such a selection is needed: further testing, belief updating, or being proclaimed as scientific fact.

Abduction, in both its creative and selective forms have been subject to severe criticism as logically governed elements of inquiry. Many philosophers of science have maintained that analysis of creative abduction, sometimes called the *context of discovery*, ought to be limited to investigating the psychology of scientists,

and that selective abduction, or *inference to the best explanation*, is nothing more than a trivial extension of inductive reasoning. But Peirce¹⁰ maintained that abduction is a logically governed process in its own right, and that its application is subject to evaluation and criticism.

If Peirce is right that these components each represent general processes of human reasoning, then we would suspect that inquiry generally manifests the same set of steps. As an inquiry in its own right, discourse, too, should exhibit each of these components. Questions play a role parallel to creative abduction, supposition captures the function of deduction, and assertion is pretty clearly a selective process. But for the inductive phase, we need a means of submitting hypotheses to a testing process, and posits, along with their associated corrections, fill this role nicely.

0.4 Incorporating posits and corrections within update semantics

I situate the formal implementation of my proposal within the class of theories known as *update semantics*. The key feature setting update semantics apart from classical, static semantics is that the semantic values of meaningful linguistic particles (or mental entities) are not worldly objects to which those particles *refer*. Instead, semantic values characterize the way in which a *state of information* is changed in response to a linguistic contribution.¹¹

I follow Sarah Murray (2014) in proposing that updates fall into one of three broad categories based on the nature of the change they bring to the state of information. *Direct updates* alter the makeup of the state of information, principally by eliminating elements thereof; *structural updates* alter the relations holding between elements of the state of information, perhaps by instituting an ordering among them; and *def updates* introduce a new element to the state of information, the principle purpose of which is to make them available for anaphoric reference.

Posits involve both direct and structural updates. Understanding why this is requires making sense of their role within the context of a posit/correction pair. It also requires addressing two key properties of the use of posits in discourse.

1. Posits have *disputative potential*. The use of a posit calls out for correction if an interlocutor can provide it. Corrections can address a wide variety of features of an utterance, and an account of the semantic value of posits must make these features available for potential correction. I account for this feature by making use of the fact that within an update theoretic model, individual utterances (or even portions thereof) can contribute a multitude of independent updates to the state of information. Corrections can address any of these many updates without impugning the others.¹²
2. Posits are *resilient*. The use of a posit need not be completely withdrawn in the face of disagreement. Posits update the common ground, but they don't seem to carry the level of commitment that is generally associated with assertions. This property is captured in part by the previously noted fact that even when corrected, utterances make multiple updates that pass unscathed. But this doesn't fully capture the power of making posits over assertions. To account for this, I introduce the notion of a *default saturation* of property level updates.¹³

0.5 The discourse contribution of contrastive topic

Focus is a linguistic tool whose use serves primarily to *package* information as opposed to providing its own contribution. It distinguishes the elements of a sentence that are new to the discussion from those that have

¹⁰Along with others. Cf. (CITE XXX).

¹¹*Update semantics* further differ from merely *dynamic semantics*, in that states of information are built up with each new update as opposed to being erased and rewritten (cf. (Groenendijk and Stokhof 1991, ???)).

¹²Since, in an update theoretic model, a semantic value need not be linked to a distinct worldly entity, sentences (or thoughts) can be semantically complete and meaningful without the need to posit some thing that the sentence (thought) picks out. Instead, semantic values of complex meaningful particles can be treated as complexes of semantic values, each of which changes the state of information in its own way, and sequentially.

¹³Also important to capturing posit resilience is the idea that discourse pairs constitute the basic unit of semantic evaluation.

already been introduced, thus showing to the other participants in the discourse how the contribution is intended to fit in with what has preceeded. In this sense, focus has a distinctly *backward looking* function. It depends on, and responds to, previous moves in the conversation. So it makes sense that the most common analyses of focus interpretation assign it a *presuppositional* semantic function. Focus adds a *felicity condition* to the overall import of a sentence; the sentence is interpretable in situ only if material matching the focus semantic value of the sentence can be found in the previously constructed conversation.

0.5.1 Question/answer congruence

The star bit of data that is marshalled in support of this proposal is that of question/answer congruence. Questions are generally understood to have as their semantic value, the set of propositions that constitute answers to the question; alternatively, a set of resolutions of the issue raised by the question (Hamblin (1958), Groenendijk and Stokhof (1984)). The most popular account of focus, due to Mats Rooth (Rooth (1992)), assigns as the semantic value of focus, an alternative set generated by replacing the focused element of a sentence with elements from the domain (of the same type as the focused element and constrained by context). The account predicts that a focused sentence will count as a felicitous response to a question only when the focus is positioned in such a way that the generated alternative set matches the semantic value of the preceding question. And this is exactly what we find.¹⁴

0.5.2 The problem of contrastive focus

Analyzing focus interpretation in terms of a pragmatic rule connecting focus semantic values to semantic antecedents in prior discourse is incredibly fruitful. But now consider the following example:

- (1) • What did people bring to the picnic?
 • The [children]_{cf} brought [unbridled enthusiasm]_f.

This response involves two focused elements. For both elements, it is easy enough to generate the requisite alternative sets, and the alternative set generated for the second focused element (marked with a subscripted *f*), is perfectly congruent with the preceding question. But a difficulty arises when we attempt to apply the felicity condition to the element labeled with *cf* (for *contrastive focus*). Its alternative set is distinctly not congruent with the preceding question, so we would expect the entire utterance to be marked as infelicitous.

Daniel Buring (Büring (2003)) has offered a technique to locate the requisite antecedent. Building on the notion of the question under discussion developed by Cragie Roberts (Roberts (1998)), Buring posits the existence of a *discourse tree*, which imbues the state of information with additional structure. Each question governing the inquiry is a node in the tree and is associated with an array of subquestions, complete answers to which constitute partial answers to the parent question. The idea is that the subquestions provide a *plan of inquiry* for addressing the parent question. The objective of the inquiry is to answer the top-most question in the tree. The plan for doing so is to answer each of the subquestions in turn. Felicitous use of contrastive

¹⁴Compare the responses to the following question:

- (A) Who ate the last cookie?
 (i) [Caitlin]_f ate the last cookie.
 (ii) Caitlin ate the last [cookie]_f

While response (i) is a perfectly natural answer, the placement of focus in (ii) makes it stand out as unacceptable. Following (Hamblin (1958)), a (suitably contextually constrained) semantic value for question A might be:

(A') {*Albert ate the last cookie, Betsy ate the last cookie, Caitlin ate the last cookie, ...*}

And, the proposed analysis of focus renders the following focus semantic values for the given responses:

(i') {*Albert ate the last cookie, Betsy ate the last cookie, Caitlin ate the last cookie, ...*}

(ii') {*Caitlin ate the last apple, Caitlin ate the last beet, Caitlin ate the last cookie, ...*}

The alternative set generated by the focus in (i) is the same as the semantic value for question A, and that generated by the focus in (ii) is not. Add in the proposed felicity condition, and you have a great explanation of question/answer congruence.

focus, it is suggested, generates an alternative set that is congruent to a subquestion present within the discourse tree.

To make sense of the current case, in which contrastive focus is present in the absence of an explicit (sub)question, we must appeal to the ever present *implicit* question under discussion. All discourses, it would be maintained, whether questions have been explicitly introduced or not, are governed by a plan of inquiry, which records necessary subquestions whether they are actually uttered or not.

0.5.3 Challenges to the QUD model

This proposal is a natural extension of the question under discussion (QUD) representation of information states. But it is not without downside. First, it seems to strain the notion of presupposition pretty heavily. Not only is there no direct representation to stand as antecedent to the generated focus semantic value, contrastive topic is quite resilient to infelicity. In (1), many different subsets of the class of picnic goes could have substituted felicitously for “children”, and it’s hard to see how the information state could plausibly have all of these options ready to hand. The common response to this sort of worry is to appeal to accommodation. If the state does not contain the d-tree needed to provide the antecedent for the contrastive focus, then straightaway it comes about. This reliance on accommodation is not without its own set of issues, predominantly stemming from the unconstrained character of accommodation as a theoretical posit.

But what I take to be the central issue with this sort of approach to the problem of contrastive topic is a conceptual one having to do with the role of corrections in discourse evolution. The question under discussion model of contrastive topic makes its discourse contribution entirely backward looking. Whatever role the focus plays is just a matter of checking prior discourse for an antecedent to the focus-generated alternative set.

0.5.4 Plans of inquiry

But now consider the following discourse:

- (2) • Bears are dangerous.
 • [Grizzly]_{cf} bears are dangerous.

This is an example of what I take to be a felicitous use of contrastive focus, in which there is no explicit question on the table at all. It seems to me that the role of the focus in (2) is more than simply to mark the way the response fits into previous discourse; it genuinely advances the inquiry along by correcting what predeeded. But to capture this added feature, we needn’t dispose of Buring’s useful plans of inquiry entirely. What we need is an expansion of the structure involved in such plans to include posit/correction congruence in addition to question/answer congruence. Focus, fundamentally, serves to indicate information structure, but information structure includes much more than just what is given and new. It also incorporates a record of where the inquiry has been as well as where it is going.

0.6 Disagreement and the relativism v. contextualism debate

Disagreement has been a bit of a star figure in recent debates in the philosophy of language. Primarily, it has been used as a tool for assessing the adequacy of different proposals for the semantic contribution of certain expressions. Genuine disagreements, as opposed to spurious or merely apparent ones, intuitively require in the linguistic context or the minds of the disputants, the presence of some kind of content toward which the participants have incompatible commitments.

The contestants in battle disagreement are *absolutism*, *contextualism*, and *relativism*, and the standard scorecard has absolutism and relativism coming out on top in virtue of their ability to secure the requisite constant content across uses of the expression. Contextualism, it is charged, assigns contents to the utterances

and thoughts of different individuals that have them incurring different, compatible commitments as a result of their utterances or thoughts.

Whatever stance we take on the outcome of this debate, disagreement does seem to be a valuable tool to have in the linguist's toolkit. Language users have intuitions about the compatibility of sentences used in discourse, and linguistic theories ought to respect those intuitions. But simply marking the presence of incompatible contents in a discourse is a relatively peripheral role for disagreement to play in linguistic theorizing. As they stand, the semantic theories considered above give no insight into disputative discourse itself; they merely accord to a greater or lesser extent with one interesting consequence of such discourse.

The previous discussion has shown that, in at least one way, disagreement plays a significant role in the very structure of communicative exchange; namely, in the posit/correction discourse pair. If the model provided is sound, it provides us with a different avenue for exploring the importance of disagreement as linguistic data. And, I believe, following the data where it leads provides us with a new motivation for incorporating relativism in semantic theory.

References

- Bratman, Michael, David Israel, and Martha Pollack. 1988. "Plans and Resource-Bounded Practical Reasoning." *Computational Intelligence* 4 (4): 349–355.
- Büring, Daniel. 2003. "On d-Trees, Beans, and B-Accents." *Linguistics and Philosophy* 26: 511–545. <https://app.box.com/language-library>.
- Clark, Herbert H. 1992. *Arenas of Language Use*. University of Chicago Press.
- Groenendijk, Jeroen, and Martin Stokhof. 1984. "Studies in the Semantics of Questions and the Pragmatics of Answers." PhD thesis, University of Amsterdam.
- . 1991. "Dynamic Predicate Logic." *Linguistics and Philosophy* 14 (1): 39–100. <https://app.box.com/language-library>.
- Hamblin, Charles. 1958. "Questions." *Australasian Journal of Philosophy* 36: 159–168.
- James, William. 2009. *The Will to Believe and Other Essays*. 26659. Project Gutenberg.
- Lewis, David. 1975. "Languages and Language." In *Minnesota Studies in the Philosophy of Science*, 7:3–35. Minneapolis: University of Minnesota Press.
- Mill, John Stuart. 2011. *On Liberty*. Project Gutenberg.
- Murray, Sarah E. 2014. "Varieties of Update." *Semantics and Pragmatics* 7 (2) (March): 1–53. doi:10.3765/sp.7.2. <https://app.box.com/language-library>.
- Roberts, Craige. 1998. "Focus, the Flow of Information, and Universal Grammar." In *Syntax and Semantics: the Limits of Syntax*, edited by Peter Culicover and Louise McNally. Vol. 29. Academic Press.
- Rooth, Mats. 1992. "A Theory of Focus Interpretation." *Natural Language Semantics* 1: 75–116. <https://app.box.com/language-library>.
- Stalnaker, Robert. 1978. "Assertion." *Syntax and Semantics* 9.
- . 1987. *Inquiry*. MIT Press.