The role of linguistics in the philosophy of language

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The interaction of linguistics and the philosophy of language regularly inspires florid description. One philosopher describes his discipline as the "initial central sun, seminal and tumultuous: from time to time it throws off some portion of itself to take station as a planet," and he goes on to suggest that linguistics may be among its satellites (Austin 1956, 232). In the words of one linguist, philosophy is more like "a rummage sale that sometimes offers useful items for the home improver" (Nunberg 2002, 679). Higginbotham 2002 offers the tantalizingly ambiguous observation that "linguistics and philosophy, like steak and barbecue sauce, have much to give each other" (575). And contemporary interactions between linguists and philosophers of language are so extensive that these descriptions fail to capture the extent to which it is increasingly difficult just to delineate the fields.

Following the maxim that it would be "better to show than tell" something about the role of linguistics in the philosophy of language, I will focus on a few case studies that illustrate key aspects of this relationship. This entry is necessarily limited in scope. Partee 2004b and 2005 provide an excellent account of early interactions between linguists and philosophers, so this entry focuses on contemporary literature rather than the historical role of linguistics in the philosophy of language. Furthermore, I set aside the extensive influence of linguistics on other subfields of philosophy, such as the influence of psycholinguistics in the philosophy of mind, the semantics of knowledge constructions in assessing *intellectualism* in epistemology (cf. Stanley & Williamson 2001), and the semantics of event-related counting in the metaphysics of persistence (cf. Moss 2010b). I focus on the relationship between philosophy of language and three branches of linguistics—syntax, semantics, and pragmatics. In

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1. Thanks to Ezra Keshet, Barbara Partee, Eric Swanson, and an anonymous reviewer for helpful comments.

each section, I discuss a case study in detail and then briefly mention other notable instances of the role of linguistics in the philosophy of language.

1 Syntax

The first case study is addressed most directly in Stanley 2000: the debate over whether there are in fact *unarticulated constituents* of the propositions expressed by utterances. For instance, it is uncontroversial that both (1) and (2) are context-sensitive, and that the place where they are uttered is relevant to their truth conditions:

(1) They are serving drinks at the bar near here.
(2) They are serving drinks at the local bar.

Some have argued that unlike (1), sentences such as (2) do not contain any element that designates the place of the context of utterance (cf. Pragmatic Enrichment for references and an assessment of this debate). Instead there is a "post-semantic" level of interpretation in which such unarticulated constituents of the proposition are identified. Perry 1986 introduces the notion of an unarticulated constituent, and Perry 1998 clarifies:

> In some cases of implicit reference there is a feature, a trace, a sort of phantom expression, that serves in place of an expression, so the referred to constituent really isn't unarticulated...I am interested in the theoretical possibility and coherence of truly unarticulated constituents. (9)

Against Perry, Stanley 2000 argues that sentences such as (3) are evidence against the unarticulated constituent analysis:

(3) Every newspaper reporter went to a local bar to hear the news.

Stanley argues that (3) contains a covert location variable that is semantically and hence syntactically bound on the natural reading of (3), and that is *a fortiori* present as a syntactically articulated element of the sentence.

Stanley also suggests that covert pronouns associated with expressions such as 'local' are responsible for *weak crossover effects*, restrictions on binding easily observed in sentences containing overt pronouns. For instance, one cannot hear a reading of (4) on which the overt pronoun 'her' is bound by the lower quantifier 'every reporter':

(4) *Her_i local bar sponsored [every reporter]$_i$.

Stanley argues that one can see the same effect in (5), viz. the absence of a reading that says that every reporter was sponsored by a bar local to that reporter:

(5) *A local bar sponsored every reporter.

In other words, the same syntactic constraints on binding seem responsible for the absence of the intended bound readings of (4) and (5) (though see Rothschild & Segal 2009 for dissent regarding such examples). Stanley concludes that the behavior of relational expressions (e.g. 'local') in weak crossover constructions such as (5) "strongly suggests the existence of a covert pronominal element in relational expressions" (423).

This is a classic case of syntactic arguments playing a role in the philosophy of language. The arguments in fact originate with linguists: Partee 1989 cites Mitchell 1986 as the first to identify a "much broader class of contentful context-dependent elements which can also exhibit bound-variable-like behavior, such as *local*" (260). Partee also points out weak crossover effects in sentences like (6), on the reading where each professor's local union is in question:

(6) *?The leader of the local union wrote a letter to every untenured professor.

Condoravdi & Gawron 1996 give similar examples and argue that such examples demonstrate that "the contextual determination of the interpretation of implicit arguments is not just a matter of pragmatic principles" (6). These linguists explicitly mention Crimmins 1992 as an advocate of unarticulated constituents, and as such they take him to be one philosopher targeted by their analysis.

It is perhaps regrettable that philosophers engaged in this dispute seldom mention that Partee 1989 and Condoravdi & Gawron 1996 ultimately reject the pronominal analysis of relational expressions defended in Stanley 2000. In particular, Condoravdi & Gawron 1996 argue that "implicit arguments pattern with definite descriptions rather than pronouns in allowing for associative anaphoric readings" (10). Partee 2009 notes that semanticists rarely advocate the covert pronoun analysis argued against in Partee 1989. But she mentions that semanticists do accept the main point of Stanley 2000:

> Formal semanticists are quite uniformly convinced that the Pragmatic Enrichment Approach cannot be right, because it does not predict any purely linguistic constraints on possible enrichment, and there are indeed strong anaphora-like constraints on what is possible. (8)

It is important for the opponent of pragmatic enrichment to consider a range of responses to the above syntactic arguments. For instance, one might claim that the effects of pragmatic enrichment may be semantically controlled by other expressions. See Cappelen & Lepore 2002, 2005 for responses to the above arguments and Cohen & Rickless 2007 for a rejoinder, and see Marti 2006 and Elbourne 2008 for further references and critical discussion of both camps. Regardless of one's opinion about

unarticulated constituents, it is clear that syntactic arguments have played a major role in this dispute.

Furthermore, the arguments just considered have consequences for other debates in the philosophy of language, far removed from discussions of pragmatic enrichment. For instance, take a topic that has been part of the philosophy of language canon since FREGE 1892: the correct theory of attitude ascriptions. Concerns raised by direct reference theorists (e.g. KRIPKE 1972, PUTNAM 1975) motivate many philosophers to claim that coreferential names have the same semantic value. Recent advocates of this doctrine give various proposals for reconciling two contrasting claims: first, that coreferential names have the same semantic value even when embedded in intensional contexts, and second, that sentences such as (7) and (8) can nevertheless have different truth conditions:

(7)   Lois believes that Superman is strong.
(8)   Lois believes that Clark Kent is strong.

Furthermore, (9) can have different truth conditions in different contexts, depending on which way of thinking of Paderewski is salient (cf. KRIPKE 1979):

(9)   Peter believes that Paderewski had musical talent.

CRIMMINS 1992 argues that different guises of Paderewski are unarticulated constituents of propositions expressed by (9) in different contexts, while SCHIFFER 1992 discusses the proposal that modes of presentation are covert implicit arguments of attitude verbs (cf. LUDLOW 1996 and SCHIFFER 1996 for syntactically driven assessments of hidden-indexical theories of attitude ascriptions). RICHARD 1990 takes a third approach: that 'believes' in (9) denotes different belief relations in contexts in which different sentences count as acceptable translations of sentences Peter accepts.

The same arguments marshalled against the theory that locations are unarticulated constituents of propositions expressed by 'local' sentences can be brought to bear on the theory that guises are unarticulated constituents of propositions expressed by 'believes' sentences. Consider the following case:

> You are approached by Cicero, a man you recognize to be a famous spy. Cicero says, "I see you know me as a notorious spy. But you also know me as one of your closest friends, and without realizing that I am a spy, you share secrets with me as with any trusted person. And the same goes for every woman in this room: each knows me as one of her closest friends, and none yet realizes that I am a spy."

In such a case, you may truly say:

(10)   No woman in this room yet realizes that Cicero is a spy.

Arguably this utterance has the following reading:

(11)   No woman in this room yet realizes that Cicero is a spy when thinking
      about Cicero in the one-of-her-closest friends way.

But this bound reading tells against the unarticulated constituent analysis of (10) and other attitude ascriptions as much as the bound reading of (3) tells against the unarticulated constituent analysis of 'local' sentences. Stanley 2000 generalizes his argument to refute a narrow indexical analysis of relational expressions. I leave it to the reader to decide if the analogous variant of the above argument presents an equal challenge for the narrow indexical semantics for attitude ascriptions defended in Richard 1990. Here the central point is simply that syntactic arguments are relevant in the context of an entirely self-sufficient philosophical debate.

There are a range of other notable instances of syntactic arguments bearing on classic questions in the philosophy of language. Several arguments regarding quantifier scope have been applied in assessing quantificational analyses of definite descriptions; see Glanzberg 2007 for critical discussion of some of this literature. Others have applied syntactic arguments in assessing quantificational accounts of complex demonstratives; see King 2001 for one example and Lepore & Johnson 2002 and King 2010 for critical discussion. And it has been suggested that the appropriate syntactic representation of tense has implications for the nature of the objects of assertion, e.g. for whether such objects vary in truth value across times; see Ninan 2010 for a critical discussion of the role that syntactic arguments play in this literature.

2   Semantics

A second case study for the influence of linguistics in the philosophy of language is presented in the discussion of subjunctive conditionals in von Fintel 2001. Giving an analysis of subjunctives has been of philosophical interest since Chisholm 1946 and Goodman 1947. Stalnaker 1968 and Lewis 1973 advocate competing theories of subjunctives, and many others pursue details of their dispute (see Subjunctive Conditionals). But the competing accounts given by these philosophers do share a central feature: according to both, Antecedent Strengthening is invalid. For instance, consider the following felicitous sequence from Lewis 1973:

(12)   a.   If the USA threw its weapons into the sea tomorrow, there would be
        war.
     b.   If the USA and the other nuclear powers all threw their weapons into
        the sea tomorrow, there would be peace.

Stalnaker and Lewis both advocate *variably strict* conditional analyses, according to which 'if p, would q' expresses a proposition that is true roughly just in case all the closest p worlds are q worlds. In particular, LEWIS 1973 says that 'if p, would q' expresses a proposition that is non-vacuously true at a world just in case some p-and-q world is closer to that world than any p-and-not-q world. STALNAKER 1968 says that 'if p, would q' expresses a proposition that is true at a world just in case the closest p world is a q world. Both predict that strengthening the antecedent of (12-a) need not preserve truth, so (12-a) and (12-b) can both be true.

Recent papers in formal semantics challenge the variably strict conditional analysis. In VON FINTEL 1999, 2001, von Fintel argues that Stalnaker and Lewis fail to explain the infelicity of other sequences such as:

(13) a. If the USA and the other nuclear powers all threw their weapons into the sea tomorrow, there would be peace.
      b. #If the USA threw its weapons into the sea tomorrow, there would be war.

In order to account for the asymmetry between (12) and (13), von Fintel endorses a strict conditional analysis (cf. GILLIES 2007 for a similar challenge and response). He argues that 'if p, would q' is true just in case all the p worlds in a contextually determined domain are q worlds, and he adds that 'if p, would q' itself demands that the relevant domain contain some p worlds. So after a speaker utters (13-a), the context shifts so that the domain of the strict conditional expressed in (13-b) contains worlds where all nuclear powers disarm, and (13-b) therefore fails to be true. In brief, von Fintel argues that he can beat Stalnaker and Lewis at their own game, since the variably strict analysis that does so well at accounting for (12) fails to account for our judgment about (13) (cf. Moss 2009 and Moss 2010a for responses on behalf of the variably strict conditional analysis).

Furthermore, von Fintel is not only interested in accounting for judgments about more creative sequences of subjunctives. He also raises distinctively semantic concerns that bear on the dispute. The most interesting linguistic motivation for his strict conditional analysis comes from facts about negative polarity items (NPIs), expressions that are licensed only in the scope of negation and other "negative" expressions. English 'ever' is one example:

(14) I haven't ever watched that movie.
(15) #I have ever watched that movie.

LADUSAW 1979 argues that NPIs are licensed in *downward entailing* environments, i.e. environments that reverse entailment relations (such as the relation between 'fat cat'

and 'cat'). For example, 'every' is downward entailing in just its first argument and 'no' is downward entailing in both, as evidenced by the following entailment relations:

(16) Every cat sat. ⇒ Every fat cat sat.
(17) Every cat sat. ⇏ Every cat sat on the mat.
(18) No cat sat. ⇒ No fat cat sat.
(19) No cat sat. ⇒ No cat sat on the mat.

And 'ever' is licensed in the environments that are downward entailing (cf. VON FIN-TEL 1999 for a catalog of literature disputing and refining this generalization):

(20) Every boy who ever watched that movie liked it.
(21) #Every boy who watched that movie ever liked it.
(22) No boy who ever watched that movie liked it.
(23) No boy who watched that movie ever liked it.

Furthermore, antecedents of conditionals—including subjunctives—license NPIs:

(24) If you had ever watched that movie, you would have liked it.

In 2001, von Fintel argues that this fact is evidence for the strict conditional analysis of subjunctives. Recall that on the variably strict conditional account, antecedents of subjunctives are not downward entailing environments, i.e. Antecedent Strengthening is semantically invalid. But the strict conditional acccount holds that antecedents are downward entailing, as the behavior of (24) suggests. One might respond that superlatives also license NPIs, as in 'the oldest boy who ever watched that movie liked it'. Fans of the variably strict analysis could argue that a superlative element (e.g. 'closest') in the logical form of subjunctives licenses NPIs in sentences like (24). See VON FINTEL 1999 for a critique of this proposal. Whatever one may make of this debate, it is clear that facts about negative polarity items present further data for any philosopher developing a theory of subjunctive conditionals.

Besides tests involving negative polarity items, several tools from semantics regularly appear in the philosophy of language literature. Philosophers use minimal pairs of sentences in constructing and testing hypotheses. Discussions of verb phrase ellipsis and constraints on binding are scattered throughout the literature. Cross-linguistic studies have introduced constraints on philosophical theories of language fragments (e.g. connections between research on evidentials and epistemic modals, and discussions of non-English demonstratives outlined in WOLTER 2009). Tests for distinguishing predicational from specificational copular sentences have played a role in debates about the referents of 'that'-clauses (cf. PRYOR 2007). These examples suggest that perhaps semantics also is a source of useful items for the home improver.

In addition to providing philosophers with useful tools, semantics is a source of research interests common to linguists and philosophers of language. Semanticists have studied literally every topic in the first section of this volume (cf. Parts of Speech). Obviously there has been much shared research on the semantics of various referring expressions, including anaphoric expressions (cf. Anaphora), indefinite and definite descriptions (cf. Descriptions), and complex demonstratives (cf. Indexicals and Demonstratives). Semantic analyses of other language fragments have implications for foundational questions about the nature of assertion, e.g. research on epistemic modals (cf. Swanson 2008 for references) and other language of subjective uncertainty and predicates of personal taste (cf. Relativism). Philosophers have also actively engaged in linguistics research at the developmental stage of novel semantic frameworks, e.g. from the development of formal semantic systems (Lewis 1970, Montague 1970, 1973) to event semantics (Davidson 1967), double-indexing (Kamp 1971, Kaplan 1977), alternative semantics (Hamblin 1973), dynamic semantics (Stalnaker 1974, 1978, Lewis 1975, 1979a, 1979b, Kamp 1981, Veltman 1996), situation semantics (Barwise & Cooper 1981), and structured propositions (Cresswell & Stechow 1982). In each instance, philosophers have contributed to the development of research areas squarely situated in the field of formal semantics.

3 Pragmatics

In a number of cases, philosophers have also been present in the early stages of research programs in pragmatics. Recently linguists (e.g. Potts 2005) have developed more formal approaches to theories of speech acts first introduced by Grice 1987, and the same can be said for early discussions of presupposition in Stalnaker 1970, 1974, Lewis 1979b and Kripke 2009 (originally delivered as a lecture in 1990). The third case study I shall discuss involves applying some more recent literature on presupposition in giving an account of the following classic pair of sentences:

(25) Hesperus is Hesperus.
(26) Hesperus is Phosphorus.

Since the introduction of these sentences in Frege 1892, philosophers of language have confronted the challenge of accounting for the fact that sentences differing only by the substitution of coreferential names can nevertheless convey different information.

Several direct reference theorists have argued that pragmatic differences between (25) and (26) are responsible for their difference in informativeness (cf. Salmon 1986, Soames 2002, Thau 2002). Recent considerations raised by linguists confirm this general strategy but suggest a novel pragmatic vehicle for the content conveyed in (26),

namely *presupposed* contents. Here again the account is informed by empirical considerations, namely a relatively straightforward test battery for presuppositions. For example, possessives typically introduce presuppositions that project through negation and antecedents of conditionals, so that each of the following sentences conveys that John has a dog (see Ch. 1 of GEURTS 1999 for more detailed discussion of projection tests for presuppositions):

(27) John's dog is hungry.
(28) John's dog is not hungry.
(29) If John's dog is hungry, then John should feed him.

But presuppositions can also be locally accommodated in the consequent of a conditional. Such conditionals will therefore fail to convey the same presupposition, e.g. the following does not convey that John has a dog:

(30) If John has a dog, John's dog is hungry.

Several theorists have argued that names convey contents that exhibit similar behavior. For instance, the following are only appropriate if the name 'Fido' meets some familiarity condition (cf. SOMMERS 1982 for an early instance of this observation):

(31) Fido is hungry.
(32) Fido is not hungry.
(33) If Fido is hungry, then someone should feed him.

But this condition of familiarity can be met by a local context, so that e.g. the speaker of (34) does not presuppose that the name 'Fido' is familiar to his audience:

(34) If Fido is that pink poodle over there, then Fido is hungry.

MAIER 2009 argues that "dynamic semantics and presupposition theory have given rise to a fruitful analysis of proper names as presupposition inducers" (265).

Details of presuppositional theories of names vary widely. GEURTS 1997 argues that "the meaning of a name *N* is 'the individual named *N'*, where the semantic contribution of the definite article is to be analysed in presuppositional terms" (340). SWANSON 2006 claims that the speaker of (31) presupposes merely that "the thing she associates with 'Fido' in the context of utterance is the thing the addressee associates with 'Fido' in that context" (11). MAIER 2009 operates in a framework according to which names introduce discourse referents that are themselves objects of presupposition. ROBERTS 2009 argues that names are special because the discourse referent that satisfies the familiarity presupposition of a name "carries the information that the individual bearer... does so by virtue of a socially recognized, causal dubbing event by

an (authorized) agent, and the subsequent social propagation of the name-individual association...to the current occasion of use" (7). But these disparate accounts are unified in spirit: they say that sentences such as 'Hesperus is Phosphorus' convey presupposed information that distinguishes them from trivial identity sentences.

Direct reference theorists are interested in the difference in the cognitive import of (25) and (26). In explaining this difference, they also aim to give a theory of our judgments about attitude ascriptions:

(35) John believes that Hesperus is Hesperus.

(36) John believes that Hesperus is Phosphorus.

So we have arrived where we began: insofar as the original syntactic arguments outlined in §1 are dispositive, general pragmatic theories of differences in cognitive import are constrained by syntactic considerations. For instance, they must accommodate bound readings of ascriptions such as (10):

(10) No woman in this room yet realizes that Cicero is a spy.

Providing for these considerations is compatible with a pragmatic account. Presuppositions introduced by names may be locally accommodated in attitude ascriptions. STALNAKER 1988 introduces the notion of a "derived context" corresponding to embedded clauses in ascriptions, and there are other formal variations of this notion (cf. SWANSON 2010 for an alternative approach and further comparisons between names and other presupposition-inducing expressions). In the course of giving any such account, it will be an important fact that locally accommodated presuppositions can be bound by higher operators. For instance, roughly speaking, (37) presupposes that every woman in the room believes that she herself already met John:

(37) No woman in this room believes that she will meet John again.

For pragmatic theorists, similar readings of locally accommodated presuppositions are apt to figure in explanations of syntactic considerations raised by bound readings of attitude ascriptions such as (10). Just to take one example, advocates of Discourse Representation Theory may claim it as an advantage that their frameworks easily model such behavior (e.g. see ASHER 1986 for a DR-theoretic analysis of puzzles about attitude ascriptions, such as those in KRIPKE 1979). In any case, one can see that constraints delivered by linguistics may be useful guides to further progress here.

4 Reflections

Semanticists are separated from philosophers of language in virtue of being alert to quite different adjacent fields: morphology, phonology, and syntax as opposed to

metaphysics, epistemology, and the philosophy of mind, for instance. As a result, even linguists and philosophers engaging in similar research programs sometimes find different questions interesting and different arguments most useful for theory-building. Examples given here illustrate that the different perspective of the linguist is a valuable asset; it is a reason why linguistics offers the philosophy of language so many useful tools for constraining theory development. In this respect, linguistics is like other disciplines discussed in this section of the volume, while unique in the extent to which some of its practitioners and some philosophers are engaged in a common enterprise.

Ultimately the case studies canvassed here point to a simple conclusion: linguistics plays a variety of distinctive roles in the philosophy of language. Linguists have contributed empirical constraints on theories about classic topics in the philosophy of language, in some cases thereby reinvigorating or redirecting otherwise settled debates. Linguists have been in direct dialogue with philosophers as collaborators and opponents of particular theories. And linguists sometimes continue philosophical debates until they may fairly claim to have appropriated that debate as part of linguistics proper. On some occasions, linguists and philosophers of language have operated in parallel on problems, and the role of linguistics in philosophical discussions has not always been as great as it could have been.

Thomason & Pelletier 2002 point out one particularly unique facet of the role of linguistics in philosophy: "the results of linguistics—and especially the results of the branches of linguistics concerned with semantics—provide direct intuitions of the sort that have always served as the starting points of philosophical positions" (509). In light of this observation, it is understandable that the role of linguistics in the philosophy of language is not only varied but malleable. The question of what role linguistics should take is in part a philosophical question about the role of intuitions in philosophical inquiry, and answers to this question vary according to the philosopher, the particular inquiry under discussion, and the times. The roles played by intuitions in each field are themselves evolving in the twenty-first century as online engines become more refined guides for linguists' corpus searches and as experimental philosophy research expands, inciting metaphilosophical debate. But even as the role of linguistics in the philosophy of language is constantly changing, one may recognize it as a constant fact that the relationship between the disciplines is greatly productive for both.

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