Search in this book

Philosophy of Linguistics

Robert J. Stainton

Abstract

Rather than attempting to survey the rich array of topics within the philosophy of linguistics, this article focuses on two questions: "What kind of thing is linguistics about?" and "What is the proper evidence-base for linguistics?" After describing various exclusionary answers—physicalism in linguistics as per Bloomfield, Quine and Devitt; mentalism in linguistics as per Chomsky and Jackendoff; Platonism in linguistics as per Katz, Postal and Soames—it argues for pluralism on both fronts: the objects of study in linguistics are metaphysical hybrids, with physical, mental, abstract, and social facets; and, in terms of linguistic methodology, evidence from every domain should in principle be welcomed.

Keywords: linguistic methodology, physicalism in linguistics, mentalism in linguistics, Platonism in linguistics, Noam Chomsky, Michael Devitt, Ray Jackendoff, Jerrold Katz, Barbara Partee, Paul Postal, W.V.O. Quine, Scott Soames

Subject: Philosophy of Language, Philosophy

Series: Oxford Handbooks

Collection: Oxford Handbooks Online

> "*a generous but disciplined pluralism was what we confessed*"
>
> —Michael Gregory

1. Introduction

The philosophy of linguistics is an expansive domain of inquiry. It encompasses issues in applied philosophy of science, such as the relationship between linguistic data and theory (e.g., ought we pursue "discovery procedures"?); what parsimony and explanation amount to in linguistic theorizing; the nature and plausibility of unobservable theoretical posits (whether these be particular elements, such as "traces," or entire levels of representation); and whether linguistics can be reduced to more basic sciences. It also encompasses issues that lie at the intersection of linguistics with philosophy, including especially the philosophy of language and mind, such as the nature of linguistic meaning and reference and whether such things even exist (i.e., semantic indeterminancy); interrelations between language and thought, including Whorfian "linguistic relativity"; whether there is knowledge of language properly speaking, and if so, to what extent it is innate and/or modular; the relationship between (alleged) unconsciously represented linguistic rules and linguistic intuitions/behaviors; and the boundaries of syntax/semantics/pragmatics.[2]

Obviously one cannot survey such richness is a single article, and the foregoing is but a partial list. I will thus focus on two especially central questions. They are:

Q_M: What kind of thing is linguistics about?

Q_E: What is the proper evidence base for linguistics?

Putting it in the material mode, the first addresses the metaphysics of natural languages and their parts. Are linguistic rules, sentences, words, bound morphemes, phonemes, and so on, and whole languages, physical, mental, abstract, or social entities? The second is epistemological/methodological. What data should we employ to find out about linguistic rules, sentences, words, bound morphemes, phonemes, and so forth, and whole languages? In particular are there, as a matter of principle, any limitations on it?

Be forewarned that my discussion will not be disinterested. After a simplified survey of various views, I will plump for my own position, which I call pluralism. Worse, mine is a minority view, and I can only sketch it here (though I will point readers to relevant prior work). What's more, in canvassing the options I will not be scrupulous in terms of exegesis: I will be content to characterize views with broad strokes, not worrying whether they correspond exactly to any one theorist. Still, this preliminary treatment will allow initiates to grasp the nature of the debates, to pursue the empirical and scholarly details in the primary literature, and ultimately to craft their own positions on Q_M and Q_E.

2. Four Familiar Answers to Q_M

Simplifying mightily and taking off from Katz's pioneering taxonomy, the scholarly literature in the philosophy of linguistics has been dominated by three answers to our first question.

Physicalism regarding linguistic ontology, familiar from the work of Bloomfield (1933) and Quine (1960), takes natural languages such as Arabic, English, Urdu, and Swahili to be concrete, material entities. Roughly, a word or sentence is a set of tokens or utterances, each understood as ink marks, acoustic waves, or bodily movements. A language is then a set of such sets. (Among more recent authors, Devitt [2006] fits approximately here.) Thus, at bottom, the objects of study in linguistics belong in the same family as rocks and their happenings.

This view captures some important aspects of both the formal and the meaning side of natural languages.[3] One encounters concrete particular words, phrases, and sentences everywhere, including on this very page. In addition, the features of our human auditory and articulatory apparatus play a large role in language. For

instance, beginning with the synchronic, the very contrast between vowel and consonant—the minimal parts out of which all linguistic sounds are built—involves whether the flow of air is constricted in the vocal tract or not. The physical aspects of our human vocal apparatus have also exercised an enormous force in the evolution of languages. In a word, the very existence of phonetics—so often ignored in philosophies of linguistics—in itself requires a physical aspect. (Nor should one dismissively excise the phonetic from the properly linguistic: although not everyone agrees, most linguists hold that the phonological is partly individuated in terms of interrelations with the phonetic; the morphological is then partly individuated in terms of interrelations with the phonological; and so on. See Carr 2012 for a survey, and Burton-Roberts et al. 2000 for detailed debates.) Physicalism also fits neatly with certain kinds of contents. Many words refer to concrete things, and many speakers so refer as well, using deictic pronouns (e.g., *he, it*) and the like. Thus *rock* refers to rock, and *that* can be used refer to a particular rock in a particular context. More interestingly, there are meanings that, by their very nature, invoke aspects of the temporal/material world to fix in-context content. That is, there are formatives that are designed to work their magic in concrete here-and-now circumstances: for example, it is the time of utterance that (partially) fixes the referent of *now* and of verb tenses; it is the place of the speaker that (partially) fixes the referent of *here* (and the place of the speaker, plus certain spatial relations, the referent of *there*); and so on. To come at the point another way, if, *per impossibile*, there were a community of creatures outside space and time, their language would surely lack such sensitive-to-concrete-context devices.

Mentalism, associated with thinkers like Chomsky (1986, 2000) and Fodor (1981), takes natural languages and their parts to be mental entities: complex representations dwelling within the human mind. The general idea, to be refined below, is that words and sentences—a noun like *dog*, a sentence like *The dog ran*—are less like rocks and more like belief states, pains, and hallucinations (Isacs and Reiss 2008, Jackendoff 2002, Laurence 2003, and Ludlow 2011 belong, very roughly, to this tradition). Thinking about Q_M in terms of relations among disciplines, mentalism takes linguistics to be a branch of cognitive psychology.

Here again, there are facets of natural languages, on both the "form" and "content" side, that fit neatly with this approach. To my mind, phonology affords the most powerful argument that natural languages such as Arabic, English, Urdu, and Swahili are, to use a purposely vague phrase, "mentally conditioned." Even what seems the most concrete aspect of language, the "sounding" side, is not narrowly concrete/physical in the way philosophers often presume. The same acoustic pattern can count as distinct linguistic sounds: for instance, although native speakers perceive a difference, the medial sound in *writer* and *rider* is actually acoustically one and the same. Moreover, as Isac and Reiss 2008 explain, quite different acoustic patterns can count as the same linguistic sound: for example, described in articulatory or acoustic terms, "the *t* sounds" in *two, stare, at*, and *didn't* are acoustically and articulatorily distinct. Typically the first is aspirated, the second is not, and the third is a glottal stop. And the *t* in a word like *cat* varies depending upon the environment it appears in: there is a glottal stop in *I saw a cat*, a flap in *The cat is on the mat*, and a plain stop in *I saw three cats*. To introduce some technical terminology, the sameness amounts to this: "the various *t* sounds" are allophones of the same phoneme /t/, and "the three versions of *cat*" are allomorphs corresponding to a single morpheme. (Notice that there is linguistic variation here: in Thai, the aspirated and plain *t* can mark a contrast of meaning, whereas in English, as allophones, the two pronunciations are simply "variants of the same phoneme.") The same point can also be made by considering the different physical media in which *cat* can be produced: spoken under water, screamed in a windstorm, by someone whose trachea has been removed, by someone with a cold, and so on. Or again, in a physician's scribble, finger-spelled, in Braille, in Morse code, and so on. Why are these instances of the same thing? Precisely because, to use a metaphor I have employed elsewhere (Stainton 2006) and will revisit below, a being lacking our mental concepts could not "see" or "hear" them.[4]

Continuing with the "formal" side of language, even if the minimal elements of language really were acoustic blasts and drops of ink, larger wholes such as sentences clearly are not. While the locations of word

boundaries in "linguistic sounds" are discrete, the accompanying sound wave is continuous and does not correlate even very closely with where we hear breaks. (Intuitive evidence: Compare the sound of English to the sound of foreign speech. Can you hear the breaks in the latter?) Nor do acoustic waves have intonation contours, focal stress, and so on, the way sentences do. On a more familiar note for philosophers steeped in formal semantics, sentences are not strings of items, concatenated, one after the other. They are, instead, hierarchical trees, whose nodes are categorized into various syntactic classes such as noun, verb, determiner, inflection, and so forth. For example, something as simple as *The cat ran* is not, for a linguist, a serial list of three words. Closer to the truth, and still simplifying tremendously, is the following:
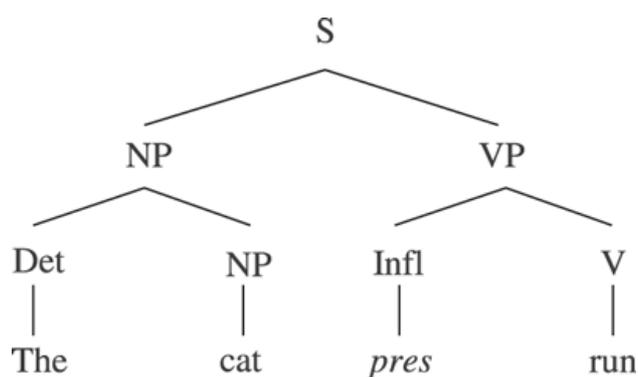
1.

Here again, what makes it the case that some physical marks on a page, say, manage to have such-and-such a tree structure is, inter alia, how they were produced and/or would be internally processed by the minds of native speakers.

Continuing with advantages of a mentalist answer to Q_M, there are aspects of the "content" side of language that it easily accommodates. To begin with the obvious, some linguistic items express attitudes and states (e.g., the conventionalized tone for sarcasm, and language-specific sounds for pain or surprise such as "ouch" and "wow"), and some of the things we talk about are overtly mental. Less obvious, and stressed early on by Partee (1979), certain facets of the semantics of natural languages trace to human cognitive limitations. For instance, various nonsubstitutivity phenomena highlight the sense in which "meanings are mentally conditioned." Even though *woodchuck* and *groundhog* appear to be mere names for the same natural kind, and hence synonymous, (a) seemingly does not entail (b):

2. a. John wonders whether woodchucks are groundhogs

   b. John wonders whether woodchucks are woodchucks

Similarly, even when *p* and *q* are logically equivalent sentences, seemingly (3a) does not entail (3b):

3. a. Irena believes that *p*

   b. Irena believes that *q*

Semantics has complex and subtle work to do here because of human psychology. For instance, if all speakers were omniscient and the only agents they talked about were omniscient, then (2a) and (2b) would never differ in truth value, nor would (3a) and (3b). Further relating to such limitations, a key reason for insisting that human languages not be taken as infinite sets of sound-meaning pairs, or even as massive lists thereof, is that the human mind cannot memorize, say, a trillion such pairs. That is, it is mental facts that provide one fundamental reason for insisting on a finitely based recursive semantics.

The previous paragraph affords three quite different and important senses in which "meanings are mentally conditioned": expressing psychological attitudes, referring to mental entities and happenings, and reflecting our cognitive limitations. I want to highlight one more because it connects to a theme that I'll return to below. Many external referents that seem prima facie nonmental turn out, upon reflection, to have surprising mental aspects. Consider two: weeds and clouds. Though they have properly botanical properties, part of what makes something a satisfier of *weed* is that it tends to grow where it is not wanted. What makes something fall in the denotation of *cloud* involves being composed of water but also being visible by humans, from an appropriate distance, using the naked eye. Thus it is not just "linguistic sounds" that are richly and surprisingly individuated in terms of human psychology: What holds these "linguistic referents" together also turns out to be something about how they interact with the human mind. (This is a point that Chomsky [2000] and Jackendoff [2002, 2006] have repeatedly stressed—though, unhappily, they often phrase it in terms of such objects "not really existing out there." See also Rey 2006.)

So far I have canvassed two very standard answers to Q$_M$. One remains.

Platonism, developed in different ways by Itkonen (1978), Katz (1977, 1984), Lewis (1970), Montague (1974), Postal (2009, forthcoming), and Soames (1984), holds that words, sentences, and entire natural languages are abstracta. A language like Polish or Tok Pisin, for instance, and their unlimited number of sentences, have no location, mass, color, odor, and so forth. This places languages in the same family as non-Euclidean algebras and the square roots of two. And it makes linguistics, the discipline, a cousin of logic and mathematics.

Yet again, Platonism fits neatly with certain facts on both the "form" and "content" side. Most obviously, there are not just word, phrase, and sentences tokens; there are also types. And an absolutely central linguistic property is exhibited only by types: In proclaiming the real infinity of sentences in a natural language, strictly speaking it must be types that one is referring to. As Postal (2009: 252ff, forthcoming) stresses, there is neither an actual infinity nor even a potential infinity of utterances: No set of utterances could be equinumerous with a proper subset of it. As with physicalism and mentalism, Platonism also handles certain aspects of linguistic meanings extremely well. Some sentences and words clearly pertain to the abstract realm: "Four is larger than two," "Arithmetic is incomplete." Other abstract contents include sets of worlds, truth conditions, functions from first-order functions to propositions, and so on. What's more, analytic sentences seemingly give rise to deep and abiding necessary propositions that may elude physicalists and mentalists (See Katz 1981, 1984; Katz and Postal 1991; Postal forthcoming. But compare Soames 1991). Beyond what our words and statements are about, the algorithmic machinery that takes one from formally specified structural descriptions to meanings is also logicomathematical. The physicalist at least needs to jump through sophisticated hoops to accommodate all this. Finally, revisiting types, it is they which bear one of the most important properties of language—namely, standing meaning: The meaning that a word, phrase, or sentence has, conventionally, in the common tongue, as opposed to the various meanings of its many in-context utterings. (Think of what "I love those," the English sentence, means. Think of what constrains a good translation of it. This is the meaning of the type. Contrast this to utterances thereof.) Closely related to this, it is types whose meaning is compositional and systematic: The meaning of tokens and speech acts is not exhaustively determined by the meaning of their parts and how these are combined, because of context and unpredictable speakers' intentions; the meaning of types, however, is so determined. (See Ezcurdia and Stainton 2013 for introductory discussion and Carston 2002 for an excellent and exhaustive survey.)

I said that the philosophical literature has been dominated by three answers to Q$_M$. There is a fourth that has received less attention. It treats natural languages as social, cultural activities. That, ontologically speaking, is the kind of thing linguistics is about. Languages belong in the same family as religions, folk dances, and games. (This is to be distinguished from Bloomfield-Quine style physicalism because, on this fourth view, the social actions are inherently normed.) This tradition—according to which the discipline of linguistics is

more comparable to cultural anthropology than to physics, psychology or mathematics—is more diffuse than the foregoing three. It does not even have a widely accepted name. But authors who defend something along these lines include J. L. Austin, Robert Brandom, Tyler Burge, Michael Dummett, John Searle, and the later Wittgenstein.

Like the previous three, the social norms view captures some important things about natural languages. It explains why we treat certain uses as mistakes rather than as different idiolects: A speaker has subjected herself to the rules of a shared tongue, and she is violating those. Related to this, language learning involves aiming for a mastery of something shared and public. We do not say, and theorists of language acquisition do not say, of a five-year-old that he has mastered his idiolect; rather, one says that he is still acquiring English, French, or what have you. And when we classify someone as bilingual, trilingual, or whatever, we do so on the basis of how many public languages she knows. (Presumably each of us has either one single idiolect or thousands of them.) Consider too what Putnam (1975) called "the division of linguistic labour." One does not need to know the difference between elms and beeches to use the words *elm* and *beech* with distinct meanings. The speech acts one performs will differ even if one's "mental dictionary entries" for *elm* and *beech* are the same. For instance, if a speaker says "I promise to plant two elm trees in your backyard," she cannot keep her promise by planting two beech trees—because she is speaking a shared public language, English, and in that language *elm* does not refer to beech trees.[5]

Turning specifically to linguistic contents, certain ones are easily accommodated by the social norms view, including especially performatives ("I hereby promise …," "I hereby swear … ") and phatic expressions. Since the former will be familiar, I will emphasize the latter. Phatic terms are words such as *hello, bye, hey, ciao, 'sup, ball, fore, hut, amen, hallelujah, gesundheit, hurray, congrats, cheers*, and *mazel tov*. They are linguistic expressions whose sole point is to structure social interactions rather than to convey propositions. What is important about phatics for present purposes is that, though the types do have a standing meaning, their meaning is clearly not (exhausted by) a logicomathematical function or a set of possible worlds, nor do phatics correspond (solely) to a truth-evaluable mental representation, a Mentalese sentence. Instead, what one learns when one learns the meaning of a phatic expression are the social circumstances in which it is to be deployed and toward what end. Put otherwise, examples like *hello* and *congrats* are ones that a Wittgensteinian use-theoretic semantics is true of: Their meaning really is exhausted by the rules governing their social use.[6]

3. Q$_M$ and Metaphysical Pluralism

It should be plain from the foregoing that all four traditions bring something important to the table. Equally obvious, at least to me, is that each leaves something out. What's more, none of them fits well with actual linguistic practice: They may afford adequate philosophies of something, but all are impoverished qua philosophies of linguistics. Why not combine them? This is exactly what I will propose.

My own view on Q$_M$ is that natural languages, the subject matter of linguistics, have, by equal measures, concrete physical, mental, abstract, and social facets.[7] The same holds for words and sentences: They are metaphysical hybrids. There seems, however, to be an insurmountable obstacle to this pluralist answer to Q$_M$, namely that we are faced with four mutually exclusive ontological categories (Postal forthcoming: 13). Nothing can be inside the mind yet outside it. Nothing can be abstract, hence lacking spatiotemporal location, yet be physical. No physical thing is inherently normed. And so on. Hence linguistics simply cannot be about such things. Much of this section will be devoted to addressing this quandary.[8]

There is an obvious rebuttal on behalf of pluralism, namely that "the linguistic" is a complex phenomenon with parts that belong to distinct ontological categories. This shouldn't surprise, since even "the mathematical" is like this: Two wholly physical dogs plus two other wholly physical dogs yields four dogs;

there certainly is the mental operation of multiplying 26 by 84, the mental state of thinking about the square root of 7, and so on. Similarly, goes the idea, there are the physical parts of "the linguistic" (e.g., the tokens and the vocal tract), the mental parts (e.g., the mental representation of the rules), the abstract parts (e.g., the types and sets of worlds), and so on. This quick and dirty rebuttal, however, misses something very important: the interdependence of the aspects in the case of natural languages. To introduce a slogan I have used elsewhere, *a language is a system of symbols which we know and use* (Stainton 1996). This doesn't merely mean that there is the abstract system; I and many others mentally represent it; and this shared knowledge provides a bridge between the abstract side and the physical (e.g., we use this knowledge of types to create plenty of tokens). This cannot be the whole story because, as the foregoing will have made clear, the nature of the abstract system is profoundly shaped by the minds and concrete circumstances of the users: A natural language has the properties it does, causally and constitutively, because of human mental states and activities, the spatiotemporal properties of our bodies, and our physical/social environment. (It is hard to even make sense of the idea of a phonetic feature, or an allophone, in complete abstraction from human speakers. But without such things, there are no natural language expressions.) Put epistemologically, the point is that one cannot understand either the essence of natural languages or their nomic relations without studying how they are learned, stored, processed, deployed in speech, reading, and so on. In sharp contrast with "the mathematical," one cannot first catalogue the properties of an abstract linguistic system and its elements and then (if one is so disposed) consider our knowledge and use thereof.

A better rebuttal, and the one I will pursue, is that the worry rests on an equivocation on three key terms—*physical, mental*, and *abstract.* If one focuses on the wrong senses of these words, the pluralist view looks inconsistent.

There are two relevant senses of *physical.* One amounts to something like an object quantified over by sciences like physics and chemistry. Put epistemically, something is physical only if such a science can "see" it. Crucially, many objects of immediate everyday experience are not "physical" in this sense. As noted above, neither weeds nor clouds would count. The other relevant sense of "physical" is something more like an object with extension, location in space and time, and (possibly) secondary properties like color, odor, and taste. In this sense, weeds and clouds are physical things. (Interestingly, not only are there "physical" things in the second sense that aren't "physical" in the first but the reverse also appears true: The wave function and loop quantum gravity, for instance, don't look to be "physical" in the broad, everyday sense.)

In a similar vein, there are two relevant senses of *mental.* One is an item inside the individual mind—in the way that a pain, hallucination, or tickle is. The other sense at issue is the neo-Kantian one of being individuated in terms of mental states—something "mentally conditioned," to revisit my purposely vague term. An example: It is a familiar philosophical confusion to say that green or bitterness are *in* the human mind. Although an image or memory of a bitter green apple may be inside my mind, no bitter green apple is to be found therein. Bitter green apples are not themselves inner mental items, as pains are; they are concrete material things. And yet to use the philosophical jargon, bitterness and green are both widely regarded as response-dependent secondary qualities. That is, what makes an object bitter or green is the kind of mental episodes it can give rise to. In this highly specialized sense alone are they "mental things."

Last, in one philosophical usage, *abstract* is synonymous with *Platonic object*, and the only instances are numbers and other logicomathematical things. What is most characteristic of Platonic objects is that their properties are wholly independent of the physical world in general and human activities in particular; their nature is not discovered empirically. There is another sense of *abstract*, however—namely, things that are not inside the mind yet are not concrete particulars either. They are neither fish nor fowl. Let me coin the term *abstractish* for these. Examples include the U.S. Constitution, Beethoven's Fifth Symphony, and the 2009 Ford Focus (the model, that is). These do depend on us and must be discovered empirically, yet they aren't like tickles, and they aren't like rocks either.

With these first terminological clarifications at hand, it is clear that something can indeed intertwine the physical (in the broad, everyday sense), the mental (in the neo-Kantian sense), and the abstract (as in "abstractish"). Indeed, our world is replete with such hybrid objects: psychocultural kinds (e.g., dining room tables, footwear, bonfires, people, sport fishing, Caribbean cruises, lasagna, the gel pen, eye makeup, ginger ale, champagne, civic unrest, color television, punk rock, pornography, incest); intellectual artifacts (college diplomas, drivers' licenses, the Canadian dollar, the heliocentric theory of our solar system, abstract expressionism, *Angry Birds*, Microsoft Office, the U.S. Constitution); and institutions (MIT's Department of Linguistics and Philosophy, Disneyworld, ethnomusicology, the IBM corporation, Hinduism and Christianity, the NBA, NAFTA).[9] What pluralism holds, with respect to Q_M, is that natural languages and their elements are metaphysical hybrids in the same sense in which the very many items above are.[10] Revisiting a previous example, the word *dog* is an abstractish thing, constituted by physical, mental, and social relations. So is *the dog ran*, each of its linguistic features, and the rules that build it from the latter. Similarly for English, the language to which *dog* and *the dog ran* belong.

4. The "No Science" Objection to Metaphysical Pluralism

Our first question was: What kind of thing is linguistics about? That is, which metaphysical category do sentences, words, bound morphemes, phonemes, rules, and whole languages belong to? I surveyed— briefly, and without concern for exegesis—three answers that dominate the literature: physicalism, mentalism, and Platonism. In addition, I sketched a social norms view. I highlighted facts about natural language, on both the "form" and "content" side, that fit with each. Ideally, their various advantages might be harnessed by a hybrid view according to which natural languages are, by equal measures, physical, abstract, mental, and social. A main obstacle to this pluralist endeavor is that the ontological categories appear to be mutually exclusive. By disambiguating the key terms, however, I hope to have shown that our world abounds with metaphysical amalgams. Linguistics, I maintain, is about one subvariety thereof.

By way of transitioning to Q_E, consider another worry about pluralism. Let it be granted that there are metaphysical hybrids. Public languages like Urdu and Salish and their parts (e.g., words and sentences) are examples. Many generative grammarians, following Chomsky (2000, 2012), are prone to claim that, even granting this, we cannot have a science of them. (The argument is explained and elaborated upon, but not endorsed, in Stainton 2006). Hence that cannot be what linguistics is about. In response, we need to contrast again senses of a key term, this time *science*.

One can use *science* such that it applies only to disciplines like physics and chemistry. So used, it is not just true but entirely obvious that there can be no "science of public languages."

Another usage is far less austere. *Science* in this broader sense encompasses disciplines such as anthropology, criminology, economics, epidemiology, ecology, human archeology and geography, social psychology, and so on. Could there be a "science" of public language in this second sense? The foregoing certainly quantify over ontological mixtures: assassinations, exchange rates, ecosystems, parasites, sexually transmitted and airborne illnesses, and others. To pick examples that will be familiar from the headlines, economists not only identify unemployment rates but also use sophisticated statistical tools like multivariate analysis to isolate the role of, say, minimum wage and free trade laws in determining them (see Card and Krueger 1995 for a survey). Criminologists not only uncover the incidence of homicides but also isolate the role of gender, gun control laws, income disparity, and so forth as predictors (e.g., Hemenway, Shinoda-Tagawa, and Miller 2002). Especially pertinent for us, economists, criminologists, and others regularly take, as variables in their analyses, things like native language, parents' first language, speaking more than two languages, and so on. Another existence proof is ready to hand—namely, most of linguistics. The literature in the philosophy of linguistics tends to focus almost exclusively on theoretical linguistics.

Indeed, it tends to focus almost exclusively on syntax in the generative tradition—as I noted above, even phonetics is given short shrift. Dropping these blinders, a whole range of scientific pursuits that unquestionably treat of metaphysical hybrids come to mind: clinical linguistics, computational linguistics, dialectology, discourse analysis, educational linguistics, forensic linguistics, historical linguistics, lexicography, pragmatics, and others.[11]

The foregoing strongly suggests that, although there is one sense of "science" in which one cannot have a science of "abstractish" things in general, and languages in particular, there is another in which one can. An impertinent objector might, of course, deny that anthropology or dialectology are sciences at all, thereby sticking to the sweeping claim that there simply cannot be *any* science of public languages. I want to address a less dismissive move. One might reasonably urge that linguistics should aim to be something higher than a social science—falling, instead, in the middle ground between physics and sociology, occupied by things like biology and cognitive neuroscience. This line of thought introduces our third sense of "science," namely *hard special sciences*, and a novel twist on the original objection—that no such discipline can treat of metaphysical hybrids. (So, one shouldn't take the latter to be the subject matter of linguistics.)

My response is avowedly polemical. Generative grammarians insist, plausibly enough, that their discipline belongs to just this middle ground. It is less developed than biology or plate tectonics, but it is in the same family. If so, however, it itself affords an example of a hard special science that discovers facts not just about hybrids in general but also about languages, their parts, and the relations among these.

Everyone grants that generativist *practice* includes what *look* to be claims about, and data from, extramental public languages and their expressions. Here are some examples, selected pretty much at random:

- "It is a well-established fact that mismatches in the voice of an elided verb phrase and that of its antecedent are tolerated, provided that certain discourse relations hold" (Merchant 2013: 78).

- "The *wh*-questions of Tlingit do not at first appear very different from those of more familiar *wh*-fronting languages. Nevertheless, when examined carefully, Tlingit *wh*-questions challenge certain common notions regarding *wh*-fronting and pied-piping" (Cable 2010: 564).

- "Attract F adjoins a set of formal features (FF) to an attracting head. A second operation, Move Cat(egory), raises the category to a specifier position where it is in a local relation with its formal features adjoined to the attracting head" (Fitzgerald 2000: 707).

- "Unlike English verbs which can only mark agreement with the subject, Yup'ik verbs are somewhat like Hungarian in that they can mark both subject and object agreement" (Isac & Reiss 2008: 200)

- "Each element is a symbolic system, consisting of atomic elements (primes) and objects constructed out from them by concatenation and other operations" (Chomsky and Lasnik 1995: 34, cited in Postal forthcoming).

What should one make of this? Following Postal (forthcoming: 6), one might simply say that generative grammar is about "abstractish" things like ellipses, verb phrases, morphological features, null complements, and languages like English, Hungarian, Tlingit, and Yup'ik. To make the point stick, one would need to distinguish practitioners' metatheorizing in polemical introductions to articles and booksfrom actual day-to-day research. In the former, generative grammarians are adamant that they are not describing shared public languages. Instead, they insist that they are describing species-specific mental representations within individuals. But sometimes scientists exhibit false consciousness. Another way to understand the appearances is this. The ultimate aim of Chomsky and his followers is to discover something about human neurobiology. However, along the way, they are accumulating countless fascinating discoveries about words, public languages, and so on, such as those above.[12] A final gloss: The practice is all

sloppy, loose talk—which is strictly speaking false, and will eventually have to be reconstructed as corresponding truths about mental states and processes.

Consider now the implications of each. Importantly, the first two have generative grammar—granted, I stress, to be a hard special science in good standing—discovering truths about the pluralist's hybrids. At best, then, only the third explanation would rescue the revised objection. But it is a hard pill to swallow. It would mean that, far from being a hugely successful enterprise, *strictu dictu* Chomsky and his colleagues have provided (hardly?) any concrete discoveries over the last sixty years. Instead, they have compiled tens of thousands of pages of loose talk, plus some massive promissory notes. Besides, there's no pill-swallowing required: the only grounds for not taking the seeming discoveries at face value are suspicions—in this context, question begging suspicions—about the remit of the genuine sciences.[13]

To summarize, it stretches credulity too far that there is simply no such thing as Noam Chomsky, Oxford University Press, online publication, the discipline of linguistics, the English language and its many dialects, and this very sentence. That was one lesson of section 3. Paradox is easily avoided, however, by recasting the ontological claims as something methodological, namely that there can be no sciences of such things. That, rather than any sort of ontological eliminativism, is why one should not construe linguistics as characterizing "abstractish" entities. Now if by "science" is meant basic physical sciences like physics and chemistry, this is unquestionably true. However, if "science" is allowed to include the social sciences, there are existence proofs galore of things which are studied scientifically and which cross-cut the physical, mental, abstract, and the social. Of particular relevance here, there are sciences (in the requisite sense) of shared public language: forensic linguistics, dialectology, and others. Finally, if by "science" is meant "something broad enough to include hard special sciences like biology and plate tectonics, but narrow enough to exclude sociology," even so we seem to have a parade example, namely generative grammar itself —in its quotidian practice.

5. Q_E and Epistemological Pluralism

I will shortly turn to contrasting positions on Q_E, repeated here:

> Q_E: What is the proper evidence base for linguistics?

First, however, some remarks are in order about the nature of the question. In the previous sections, we looked at linguistics as it is actually practiced, and reconstructed a metaphysics that is presupposed therein. This was largely a descriptive enterprise. In what follows, in contrast, we will be considering what linguists ought to do, what their evidence base should be. This normative question can be read in at least two ways. One can take it to be a practical issue, pertaining, for example, to where to begin looking for evidence, which sorts of evidence are likely to prove most reliable or most cost-effective, and so on. This is tremendously important—it faces working linguists all the time—but it will not be my concern here. I will be asking about the in principle evidence base for linguistics. Specifically, are there empirical findings that simply cannot be relevant? (It is important to pursue this question for several reasons. It bears, of course, on the practical issue: if certain data should be set aside come what may, one obviously should ignore it in day-to-day inquiry. But it also has widespread philosophical repercussions—for instance, with respect to the indeterminacy of linguistic and mental content, and even metaphilosophy. See Davidson 1973, 1977, Lewis 1974, 1975, and Quine 1987 for some examples, and Iten et al. 2007 for critical discussion.)

So much for preliminary remarks. I will now address Q_E in three steps. Paralleling the discussion above, I will begin with three exclusionary views: Physicalism, Platonism, and the social norms approach. (Not accidentally, each corresponds to an eponymous metaphysical position.) As above, I will sketch them briefly, foreswear exegesis, and provide only minimal evidential support—just enough for readers to

appreciate their prima facie plausibility. I then present pluralism as an alternative, and provide arguments in its favor.

Physicalism regarding Q_E, best illustrated by Quine 1960, would have us study languages using the general methods of physics, applied in this instance to the subdomains of behavioral psychology. The evidence base is restricted to behaviors in principle observable to a hypothetical "field linguist." One thing that moved Quine to emphasize concreta of this sort was his conviction that all the facts there are are physical. By stressing the restriction to the narrowly physical in linguistic methodology, Quine hoped that philosophers and linguists would not "discover" more; in particular, that they would not be distracted by alleged inner mental processes and meanings afloat in the third realm.

Platonists such as Katz, Montague, and Postal take the evidence base for linguistics to be very similar to that for logic and mathematics, namely intuitions—in this case, intuitions about grammatical and semantic properties. In general, recherché psychological evidence is precluded: at best, it can serve to set some intuitions aside as not properly linguistic, for instance, in "garden path" sentences or those with multiple center embedding (Soames 1984). Their main motivation is that drawing on such psychological evidence risks confusing the study of our mental representation of a language and the study of the language itself. (Compare: it is one thing to investigate logarithms, quite another to investigate how humans learn to calculate them, store information about them, etc.) Soames (1984) offers a related argument involving multiple realizability. He urges that we could encounter a Martian, or a human with a radically different brain, who spoke just as we did and had all the same intuitions about grammaticality, ambiguity, entailments, and so forth. Such a creature, says Soames, would be a speaker of English. This again suggests that evidence about what goes on "inside" the agent cannot tell us much about the language spoken. (See also George 1989 and Devitt 2003.)

Connected to this, and stressed by the social norms theorists, is that all linguistic facts must be publicly available. What goes on "behind the scenes," in an individual speaker's mind, cannot be instructive about how we, collectively, should speak outwardly. In contrast to Quine, however, the (diffuse group of) social norms theorists would typically not restrict the data to bodily movements, individuated in narrow physical terms. Instead, the evidence base for them would consist in observable, norm-bound speech acts.

Following Chomsky and most metaphysical mentalists, the alternative I favor is that there should in principle be no restrictions on the evidence base. The foregoing exclusionary approaches do point to genuine sources of evidence. Field methods, native speaker intuitions, and sociolinguistic observations all have their place. The problem is the insistence that, as a matter of principle, only certain data sources should be relied upon. Space being short, rather than respond to each exclusionary view and its specific rationales, I will highlight three considerations in favor of this methodological pluralism. (A thorough discussion may be found in Iten et al. 2007 and Stainton 2001, 2011.)

I myself am deeply suspicious of the idea that one can infer the nature of a discipline's evidence base from its ontology. Suppose, however, that I am wrong—an appropriate supposition in the present context, since almost all of my opponents presume a bridge from metaphysics to methodology, that is, from Q_M to Q_E. Above, I provided grounds for a pluralist answer to Q_M. In terms of "form," for instance, I noted that vowels and consonants are physically individuated in terms of the human vocal tract, and that the allophone [t] is mentally conditioned. Recall, too, a few examples at "the meaning level": the use-theoretic meaning of phatic expressions is ineliminably social; spatiotemporal context is crucial to the functioning of various indexicals and tenses; and the meanings of *weed* and *cloud* are individuated mentalistically. So someone who supposes that metaphysical ties yield evidential ones must grant, on these grounds, that a linguist could deploy concrete physical, social, and psychological evidence to find out about, for example, English semantics. Hence, methodological pluralism.

Second consideration. Suppose, for the sake of argument, that my discussion in the first half of this paper is entirely wrongheaded, and that rules, words, and so on, and whole languages, are not metaphysically multifaceted. Even so, it would be a mistake to limit the evidence base for linguistics. That's because, at best, all that is required for evidential links between two domains are explanatory connections, whether nomic or otherwise. Here are several examples. (Additional cases, spelled out in more careful detail, may be found in Iten et al. 2007 and Stainton 2011.) It has turned out that there are laws that connect the ability to understand sarcasm to neural clusters in the left middle and inferior frontal gyri (Cummings 2009: 95ff). It must be granted that the comprehension of sarcasm need not have been neurologically localized at all, let alone being localized there. Nonetheless, given this merely contingent connection, we can compile defeasible evidence about sarcasm—about, say, whether it must involve a specific, conventional tone, how it relates to irony, or even whether a particular person had spoken sarcastically on such-and-such occasion —from brain scans of speakers. Here is another example: whether the use of curse words as emotional exclamations is a properly linguistic phenomenon. As is now widely known, this kind of "speech" is retained in Broca's aphasia. (So, frequently enough, are song lyrics.) This latter datum could lead one to conclude that, although yelling *fuck* when hitting ones finger with a hammer is superficially like using the corresponding verb in an assertion, they do not belong to the same natural kind. These are examples of links between the neurocognitive and the linguistic. Here is an example of surprising evidence from the physical/social. Clark and Fox Tree (2002) discovered a surprising pattern in large corpora of spontaneous speech. English speakers use *um* before a major delay in speech, and *ah* before a minor one. They take this to show that speakers signal, by means of a language-specific lexical convention, how long a speech interchange is to be suspended: that is, these are English words with a social/interactional meaning. Correlations between the abstract (especially the logical/mathematical) and natural language will, no doubt, be harder to come by. Two candidates, however, come to mind. Langendoen and Postal (1985) have urged that traditional mentalist grammars are descriptively inadequate because they only generate a countable infinity of sentences—whereas, insofar as the familiar arguments for linguistic infinity work at all, they argue, the collection of sentences in a natural language is not recursively enumerable. (Simplifying, one may think of the point this way: It isn't just that the set of sentences is of infinite size, it's that the set contains sentences that are infinitely long.) Consider too the strong correlation between, on the one hand, the set-theoretic notion of downward entailing environments and the properly grammatical notion of a negative polarity item. (That is, expressions that must occur in a "negative environment" such as *at all, ever, a red cent, give a damn*, and *budge an inch*. For an accessible introduction, see Isacs and Reiss 2008: 127ff.) The lessons to be drawn are these: none of field methods, native speaker intuitions, or ethnography, taken alone, could have uncovered all of these; and some of the connections are extremely surprising and would not have occurred to one a priori. Note too, it does not matter, in considering Q_E, whether information about, say, the neural correlates of sarcasm or dysfluencies in corpora could ever provide overriding evidence, but only whether such evidence can be immediately discounted as in principle beside the point.

Final consideration in favor of methodological pluralism. Suppose you find these examples wholly noncompelling. Suppose, indeed, that you have the same reaction to every other proposed case. Even without a single example of an explanatory connection, considerations from general philosophy of science underscore that one should nonetheless embrace an open-ended evidence base for linguistics. To begin with, investigators discover the nature of their discipline a posteriori. Their job is to find out what connections obtain between their pretheoretical subject matter and other things. More than that, their job is to find out the essence of the thing they are studying—which may depart in important ways from how it is initially conceived of. (Recall the issue of whether cursing is properly linguistic.) This is a first reason why the most successful sciences avoid building a priori assumptions into their methodologies. (See Fodor 1981 and Antony 2003.) Second, Duhem-Quine style confirmation holism entails that it is whole theories which are tested, and whole theories which are judged simple, elegant, and so forth. This means that "properly linguistic hypotheses"—even if we already know which they are—will be assessed against the backdrop of a

whole host of assumptions, from a whole host of domains. This again precludes in principle restrictions to the evidence base. Finally, and most radically, there may simply be no such well-defined thing as "*the* evidence" for claim such-and-such, any more than there is such a thing as "*the* relations" an object stands in. In particular, then, there is simply no such thing as *the* evidence-base for linguistics! (Revisiting the distinction with which I began this section, I must stress that no one should be the least bit tempted by such methodological anarchism *in practice*. Making progress requires setting a research agenda and sticking to it.)

I end where I began. No one article could survey all of the foundational issues that arise about the discipline of linguistics—not even those specific to theoretical linguistics. Still less could a single article cover all of the issues that lie at the crossroads of philosophy with linguistics. My hope is at best to give the flavor of two especially central issues about metaphysics and methodology, providing some limited evidence for my own view (according to which the kind of thing linguistics about is *all of the above*, and the proper evidence base for linguistics is *all of the above*.) By defending pluralism on both fronts, I hope as well to move us a small step beyond unhealthy internecine battles within linguistics by presenting the attractions of a more inclusive, ecumenical approach. May those proverbial thousand flowers bloom.

References

Antony, Louise (2003). "Rabbit-Pots and Supernovas: On the Relevance of Psychological Data to Linguistic Theory". In A. Barber (ed.) *Epistemology of Language*. Oxford: Oxford University Press, pp. 47–68.
Google Scholar   Google Preview   WorldCat   COPAC

Barber, Alex (ed.) (2003). *Epistemology of Language*. Oxford: Oxford University Press.
Google Scholar   Google Preview   WorldCat   COPAC

Barber, Alex, and Robert J. Stainton (eds.) (2010). *Concise Encyclopedia of Philosophy of Language and Linguistics*. Oxford: Elsevier.
Google Scholar   Google Preview   WorldCat   COPAC

Barber, Katherine (ed.) (1998). *The Canadian Oxford Dictionary*. Toronto: Oxford University Press.
Google Scholar   Google Preview   WorldCat   COPAC

Bloomfield, Leonard (1933). *Language*. New York: Henry Holt.
Google Scholar   Google Preview   WorldCat   COPAC

Bromberger, Sylvain (2011). "What Are Words?" *Journal of Philosophy* 108(9): 486–503.
Google Scholar   WorldCat

—— (1989). "Type and Tokens in Linguistics". In A. George (ed.) *Reflections on Chomsky*. Oxford: Blackwell, pp. 58–89.
Google Scholar   Google Preview   WorldCat   COPAC

Burton-Roberts, Noel, P. Carr, and G. Docherty (eds.) (2000). *Phonological Knowledge: Conceptual and Empirical Issues*. Oxford: Oxford University Press.
Google Scholar   Google Preview   WorldCat   COPAC

Cable, Seth (2010). "Against the Existence of Pied-Piping: Evidence from Tlingit". *Linguistic Inquiry* 41(4): 563–594.
Google Scholar   WorldCat

Cameron, Margaret, and Robert J. Stainton (eds.) (forthcoming). *Linguistic Meaning: Essays on the History of Philosophy of Language*. Oxford: Oxford University Press.
Google Scholar   Google Preview   WorldCat   COPAC

Cameron, Margaret, Benjamin Hill, Henrik Lagerlund and Robert J. Stainton (eds.) (forthcoming). *Sourcebook in the History of Philosophy of Language*. Dordrecht: Springer.
Google Scholar   Google Preview   WorldCat   COPAC

Card, David, and Alan B. Krueger (1995). "Time-Series Minimum-Wage Studies: A Meta-analysis". *The American Economic Review* 85(2): 238–243.
Google Scholar   WorldCat

Carr, Philip (2012). "The Philosophy of Phonology". In R. Kempson, T. Fernando, and N. Asher (eds.) *Philosophy of Linguistics*. Oxford: Elsevier, pp. 403–444.
Google Scholar   Google Preview   WorldCat   COPAC

Carston, Robyn (2002). *Thoughts and Utterances*. Oxford: Blackwell.
Google Scholar   Google Preview   WorldCat   COPAC

Chomsky, Noam (1986). *Knowledge of Language*. New York: Praeger.
Google Scholar   Google Preview   WorldCat   COPAC

—— (2000). *New Horizons in the Study of Language and Mind*. Cambridge: Cambridge University Press.
Google Scholar   Google Preview   WorldCat   COPAC

—— (2012). *The Science of Language*. Cambridge: Cambridge University Press.
Google Scholar   Google Preview   WorldCat   COPAC

Chomsky, Noam, and Howard Lasnik (1995). "The Theory of Principles and Parameters". In N. Chomsky, *The Minimalist Program*. Cambridge: MIT Press, pp. 13–127.
Google Scholar   Google Preview   WorldCat   COPAC

Clark, Herbert H., and Jean E. Fox Tree (2002). "Using Uh and Um in Spontaneous Speaking". *Cognition* 84: 73–111.
Google Scholar   WorldCat

Cummings, Louise (2009). *Clinical Pragmatics*. Cambridge: Cambridge University Press.
Google Scholar   Google Preview   WorldCat   COPAC

Davidson, Donald (1973). "Radical Interpretation". *Dialectica* 27: 309–323.
Google Scholar   WorldCat

—— (1977). "Reality without Reference". *Dialectica* 31: 247–253.
WorldCat

—— (1986). "A Nice Derangement of Epitaphs". In E. LePore (ed.) *Truth and Intepretation*. Oxford: Blackwell, pp. 433–446.
Google Scholar   Google Preview   WorldCat   COPAC

Devitt, Michael (2003). "Linguistics Is Not Psychology". In A. Barber (ed.) *Epistemology of Language*. Oxford: Oxford University Press, pp. 107–139.
Google Scholar   Google Preview   WorldCat   COPAC

—— (2006). *Ignorance of Language*. Oxford: Oxford University Press.
Google Scholar   Google Preview   WorldCat   COPAC

Devitt, Michael, and Kim Sterelny (1989). "Linguistics: What's Wrong with 'The Right View'?" *Philosophical Perspectives* 3: 497–531.
Google Scholar   WorldCat

Ezcurdia, Maite, and Robert J. Stainton (2013). "Introduction: *The Semantics-Pragmatics Boundary in Philosophy*". In M. Ezcurdia and R. Stainton (eds.) *The Semantics-Pragmatics Boundary in Philosophy*. Peterborough, ON: Broadview, pp. xiii–xxxiv.
Google Scholar   Google Preview   WorldCat   COPAC

Fitzgerald, Colleen M. (2000). "Vowel Hiatus and Faithfulness in Tohono O'odham Reduplication". *Linguistic Inquiry* 31(4): 713–722.
Google Scholar   WorldCat

Fodor, Jerry (1981). "Some Notes on What Linguistics Is About". In N. Block (ed.) *Readings in Philosophy of Psychology*, Vol. 2. Cambridge: Harvard University Press, pp. 197–207.
Google Scholar   Google Preview   WorldCat   COPAC

George, Alexander (1986). "Whence and Whither the Debate Between Quine and Chomsky?" *Journal of Philosophy* 83(9): 489–500.
Google Scholar   WorldCat

—— (1989). "How Not to Get Confused about Linguistics". In A. George (ed.) *Reflections on Chomsky*. Oxford: Blackwell, pp. 90–110.
Google Scholar   Google Preview   WorldCat   COPAC

Gregory, Michael (2009). "Systemic Functional Linguistics and Other Schools: Retrospectives and Prospectives". In J. de Villiers and R. Stainton (eds.) *Communication in Linguistics*, Vol. 2: *Michael Gregory's Proposals for a Communication Linguistics*. Toronto: Éditions du GREF, pp. 312–328.

Grice, H. Paul (1989). *Studies in the Way of Words*. Cambridge: Harvard University Press.
Google Scholar   Google Preview   WorldCat   COPAC

Heck, Richard G. Jr. (2006). "Idiolects". In Judith Jarvis Thomson & Alex Byrne (eds.), *Content and Modality: Themes from the Philosophy of Robert Stalnaker*. Oxford: Oxford University Press, pp. 61–92.
Google Scholar   Google Preview   WorldCat   COPAC

Hemenway, David, Tomoko Shinoda-Tagawa, and Matthew Miller (2002). "Firearm Availability and Female Homicide Victimization Rates among 25 Populous High-Income Countries". *Journal of the American Medical Women's Association* 57(2): 100–104.
Google Scholar   WorldCat

Higginbotham, James (1985). "On Semantics". *Linguistic Inquiry* 16(4): 547–593.
Google Scholar   WorldCat

Isac, Daniela, and Charles Reiss (2008). *I-Language*. Oxford: Oxford University Press.
Google Scholar   Google Preview   WorldCat   COPAC

Iten, Corinne, Robert J. Stainton, and Catherine Wearing (2007). "On Restricting the Evidence Base for Linguistics". In P. Thagard (ed.) *Philosophy of Psychology and Cognitive Science*. Oxford: Elsevier, pp. 219–246.
Google Scholar   Google Preview   WorldCat   COPAC

Itkonen, Esa (1978). *Grammatical Theory and Metascience*. Amsterdam: Benjamins.
Google Scholar   Google Preview   WorldCat   COPAC

Jackendoff, Ray (2002). *Foundations of Language*. Oxford: Oxford University Press.
Google Scholar   Google Preview   WorldCat   COPAC

—— (2006). "*Locating Meaning in the Mind (Where It Belongs)*". In R. J. Stainton (ed.) *Contemporary Debates in Cognitive Science*. Oxford: Blackwell, pp. 219–236.
Google Scholar   Google Preview   WorldCat   COPAC

Katz, Jerrold (1977). "The Real Status of Semantic Representations". *Linguistic Inquiry* 8(3): 559–584.
Google Scholar   WorldCat

—— (1981). *Language and Other Abstract Objects*. Totowa, NJ: Rowman and Littlefield.
Google Scholar   Google Preview   WorldCat   COPAC

—— (1984). "An Outline of Platonist Grammar". In T. G. Bever, J. M. Carroll, and L. A. Miller (eds.) *Talking Minds*. Cambridge: MIT Press, pp. 1–33.
Google Scholar   Google Preview   WorldCat   COPAC

—— (ed.) (1985). *The Philosophy of Linguistics*. Oxford: Oxford University Press.
Google Scholar   Google Preview   WorldCat   COPAC

—— (2002). *Foundations of Language*. Oxford: Oxford University Press.
Google Scholar   Google Preview   WorldCat   COPAC

Katz, Jerrold J., and Paul M. Postal (1991). "Realism vs. Conceptualism in Linguistics". *Linguistics and Philosophy* 14: 515–554.
Google Scholar   WorldCat

Kempson, Ruth, Tim Fernando, and Nicholas Asher (eds.) (2012). *Philosophy of Linguistics*. Oxford: Elsevier.

Google Scholar   Google Preview   WorldCat   COPAC

Langendoen, D. Terrence, and Paul M. Postal (1985). "Sets and Sentences". In J. J. Katz (ed.) *The Philosophy of Linguistics*. Oxford: Oxford University Press, pp. 227–248.

Google Scholar   Google Preview   WorldCat   COPAC

Laurence, Stephen (2003). "Is Linguistics a Branch of Psychology?" In A. Barber (ed.) *Epistemology of Language*. Oxford: Oxford University Press, pp. 69–106.

Google Scholar   Google Preview   WorldCat   COPAC

Lewis, David (1970). "General Semantics". *Synthese* 22: 18–67.

Google Scholar   WorldCat

—— (1974). "Radical Interpretation". *Synthese* 23: 331–344.

WorldCat

—— (1975). "Languages and Language". In K. Gunderson (ed.) *Minnesota Studies in the Philosophy of Science*, Vol. 7. Minneapolis: University of Minnesota Press, pp. 3–35.

Google Scholar   Google Preview   WorldCat   COPAC

Ludlow, Peter (1999). "Simplicity and Generative Linguistics". In K. Murasugi and R. Stainton (eds.) *Philosophy and Linguistics*. Boulder, CO: Westview Press, pp. 191–205.

Google Scholar   Google Preview   WorldCat   COPAC

—— (2006). "The Myth of Human Language". *Croatian Journal of Philosophy* 6(3): 385–400.

WorldCat

—— (2011). *The Philosophy of Generative Linguistics*. Oxford: Oxford University Press.

Google Scholar   Google Preview   WorldCat   COPAC

Malinowski, Bronislaw K. (1923). "The Problem of Meaning in Primitive Languages". In C. K. Ogden and I. A. Richards (eds.) *The Meaning of Meaning*. New York: Harcourt, Brace, pp. 451–510.

Google Scholar   Google Preview   WorldCat   COPAC

McGilvray, James (2013). *Chomsky*. 2nd ed. Malden, MA: Polity.

Google Scholar   Google Preview   WorldCat   COPAC

Merchant, Jason (2013). "Voice and Ellipsis". *Linguistic Inquiry* 44 (1): 77–108.

Google Scholar   WorldCat

Montague, Richard (1974). *Formal Philosophy*. New Haven, CT: Yale University Press.

Google Scholar   Google Preview   WorldCat   COPAC

Partee, Barbara (1979). "Semantics—Mathematics or Psychology?" In R. Bauerle, U. Egli, and A. von Stechow (eds.) *Semantics from Different Points of View*. Berlin: Springer, pp. 1–14.

Google Scholar   Google Preview   WorldCat   COPAC

Postal, Paul M. (2009). "The Incoherence of Chomsky's 'Biolinguistic' Ontology". *Biolinguistics* 3(1): 104–123.

Google Scholar   WorldCat

—— (forthcoming). "Chomsky's Foundational Assumption".

Putnam, Hilary (1975). "The Meaning of 'Meaning.'" In K. Gunderson (ed.) *Language, Mind and Knowledge. Minnesota Studies in Philosophy of Science*, Vol. VII. Minneapolis: University of Minnesota Press, pp. 131–193.

Google Scholar   Google Preview   WorldCat   COPAC

Quine, W.V.O. (1960). *Word and Object*. Cambridge: MIT Press.
Google Scholar   Google Preview   WorldCat   COPAC

—— (1970). "Methodological Reflections on Current Linguistic Theory." *Synthese* 21 : 386–398.
WorldCat

—— (1987). "Indeterminacy of Translation Again". *Journal of Philosophy* 84 (1): 5–10.
WorldCat

Rey, Georges (forthcoming). "The Possibility of a Naturalistic Cartesianism Regarding Intuitions and Introspection". In Matthew Haug (ed.) *Philosophical Methodology: The Armchair or the Laboratory?* London: Routledge.
Google Scholar   Google Preview   WorldCat   COPAC

—— (2006). "The Intentional Inexistence of Language—But Not Cars". In R.J. Stainton (ed.) *Contemporary Debates in Cognitive Science*. Oxford: Blackwell, pp. 237–255.
Google Scholar   Google Preview   WorldCat   COPAC

Scholz, Barbara C., F. Jeffry Pelletier, and Geoffrey K. Pullum (2011). "Philosophy of Linguistics". In Edward N. Zalta (ed.) *The Stanford Encyclopedia of Philosophy*. URL = <http://plato.stanford.edu/archives/win2011/entries/linguistics/>.
WorldCat

Schütze, Carson (1996). *The Empirical Base of Linguistics: Grammaticality Judgments and Linguistic Methodology*. Chicago: University of Chicago Press.
Google Scholar   Google Preview   WorldCat   COPAC

Searle, John R. (1965). "What Is a Speech Act?" In M. Black (ed.) *Philosophy in America*. Ithaca, NY: Cornell University Press, pp. 221–239.
Google Scholar   Google Preview   WorldCat   COPAC

Soames, Scott (1984). "Linguistics and Psychology". *Linguistics and Philosophy* 7: 155–179.
Google Scholar   WorldCat

——(1991). "The Necessity Argument". *Linguistics and Philosophy* 14: 575–580.
WorldCat

Stainton, Robert J. (1996). *Philosophical Perspectives on Language*. Peterborough, ON: Broadview Press.
Google Scholar   Google Preview   WorldCat   COPAC

—— (2001). "Communicative Events as Evidence in Linguistics". In J. de Villiers and R. Stainton (eds.) *Communication in Linguistics*, Vol. 1: *Papers in Honour of Michael Gregory*. Toronto: Editions du GREF, pp. 329–346.

—— (2006). "Meaning and Reference: Some Chomskyan Themes". In E. Lepore and B. Smith (eds.) *Handbook of the Philosophy of Language*. Oxford: Oxford University Press, pp. 913–940.
Google Scholar   Google Preview   WorldCat   COPAC

—— (2011). "The Role of Psychology in the Philosophy of Language". In D. Graff Fara & G. Russell (eds.) *Routledge Companion to the Philosophy of Language*. London: Routledge, pp. 525–532.
Google Scholar   Google Preview   WorldCat   COPAC

—— (2012). "In Defense of Public Languages". *Linguistics and Philosophy* 34(5): 479–488.
WorldCat

Stich, Stephen(1971). "What Every Speaker Knows". *Philosophical Review* 80(4): 476–496.

Google Scholar　　WorldCat

—— (1972). "Grammar, Psychology and Indeterminacy". *Journal of Philosophy* 79(22): 799–818.
WorldCat

Thomasson, Amie (2007). *Ordinary Objects*. Oxford: Oxford University Press.
Google Scholar　　Google Preview　　WorldCat　　COPAC

Wetzel, Linda (2009). *Types and Tokens*. Cambridge: MIT Press.
Google Scholar　　Google Preview　　WorldCat　　COPAC

Wiggins, David (1997). "Languages as Social Objects". *Philosophy* 72: 499–524.
Google Scholar　　WorldCat

2　　It would be unwieldy to provide anything like a comprehensive list of papers on the foregoing topics. Instead, I will mention some semicanonical ones not discussed below. On the data-theory relationship, see Bromberger 1989, Quine 1970, and Stich 1972. For parsimony and explanation, see Ludlow 1999 and Stich 1971. For indeterminacy, see Quine 1987. On knowledge of language and nativism, see Devitt and Sterelny 1989, George 1986, and Stich 1971. On the nature and probative role of intuitions, see Devitt (2006) and Schütze (1996). (Rey [forthcoming] offers insightful criticisms.) For an introduction to Chomsky's views on all of the above, I highly recommend McGilvray (2013). A useful overview of the philosophy of linguistics is Scholz et al. 2011. The best collections are A. Barber 2003, Barber and Stainton 2010, Katz 1985, and Kempson et al. 2012.

3　　What follows does not reflect all or only the considerations historically proffered by physicalists. Here as elsewhere, my disavowal of exegesis applies. My aim is to highlight contrasts among the views, and points that will prove essential later on.

4　　Sylvain Bromberger (2011) draws attention to other important but seldom mentioned mentalistic features of natural language. Throat sounds, even if articulated just like a phonetic string, are not speech sounds at all if not produced by the right intentions. And inner speech is patently mental. (He points out, interestingly, that even "within thought" one uses various allophones of a single phoneme. Equally, one reduces vowels not only in quick and informal speech but also in thought: for example, a native speaker may think the word *can* as [kŋ] rather than [kæn] or think the word and as either [ænd] or [ən].)

5　　Searle (1965) anticipates this point with his famous example of an American soldier, intending to induce the belief that he is a German officer, who utters "Kennst du das Land wo die Zitronen blühen?". Whatever his intentions, the nature of the soldier's speech act is constrained by what this sentence means in German. Here is a personal example. My wife and I had a Hindu wedding and our vows were read entirely in Sanskrit. In voicing them, and without knowing just what we were saying, we undertook a series of commitments. We managed to do so because we intended to commit ourselves to *whatever such-and-such sound patterns meant in Sanskrit*. Note too that even the pundit who performed our ceremony could have been wrong about exactly what was promised that afternoon since he could have been wrong about the Sanskrit phrases he taught us.

6　　I insert the qualifiers *exhausted by* and *solely* because, although phatic expressions don't embed easily, there are examples in which propositional contents embed under them: *Goodbye to my darling wife, Congrats on your well-deserved*

promotion, Three cheers for young Tony, etc. These are not "pure performatives": they combine use-theoretic content of the sort that is my focus here with the kind more familiar to formal semanticists. I should also make a terminological remark. As Deirdre Wilson pointed out to me, there is a long-standing use of *phatic*, tracing to Malinowski (1923), which applies not to expressions but to speech acts. She provides the example of two people waiting at a bus stop, where one may say to the other *The bus should be along soon*, or *It looks like rain*. The point of such utterances is to initiate a conversation or to fill an awkward gap in one—i.e., to create or maintain some kind of social union—as opposed to stating something. Because this is not the standing meaning of *The bus should be along soon* or *It looks like rain*, these are not phatics in my specialized sense.

7   Pluralism is by no means original with me. Nearly all pre-twentieth-century philosophers—Aristotle, Locke, Humboldt, etc.—tended, to lesser or greater extent, to what would now strike us as hybrid views on linguistic ontology. (See Cameron and Stainton forthcoming for discussion and further references, and Cameron et al. forthcoming for a sampling of original sources.) Another precursor is Grice's (1989) attempt to bridge formal and ordinary language approaches. I should note, however, that my view does *not* take its inspiration from Lewis (1975): although he grants that we use them, Lewis characterizes languages themselves as human-independent abstracta in a way that fosters confusions and blind alleys. What's more, he treats them as mere sets of sentences and denies any interesting role to the mental. See Higginbotham 1985 for critical discussion.

8   To be clear, this is not the only possible objection to metaphysical pluralism. Other reasons have been given for denying the reality of shared public languages: that their boundaries are vague and variable, that knowledge of a shared language is neither necessary nor sufficient for interpretation, etc. Although I am unmoved by all such arguments, they are not addressed here. (The sloppiest, in my view, takes the following form: "On the one hand, Cantonese and Mandarin, though dialects of Chinese, are not mutually intelligible. On the other hand, some dialects of Dutch are mutually intelligible with some dialects of German. Therefore there is no such thing as Cantonese, Mandarin, Dutch, or German, and no such thing as dialects thereof.") For more on these issues, see Davidson 1986, Heck 2006, Isaacs and Reiss 2008, and Ludlow 2006 against public languages, and Stainton 2012 and Wiggins 1997 in favor.

9   My classification is rough and ready. The threefold taxonomy is neither exclusive nor exhaustive. Hybrids that do not strike me as fitting naturally therein include the use-mention distinction; revenge; B flat major; the equine digestive tract; my birthday; my mortgage; third grade; Tuesday, Easter, and Chanukah; the Olympic Games; the 2012 Summer Olympics; racism; Netflix; nominalism; and the *New York Times*. See Wetzel 2009 for many, many more examples.

10 Both arch physicalists and arch mentalists are prone to explain all of this away by appeal to perceptual illusions. In reply I rest content here with noting that, although visual and auditory illusions certainly occur (the Muller-Lyer lines are not different lengths, and the moon is not larger at the horizon), unlike in the hearing of speech and reading of words, these genuine illusions involve something going awry. Our senses are tricked somehow by an ecologically abnormal circumstance. Coming at the point another way, if public words and languages are only as "illusory" as ripe red strawberries and bitter green apples, I take linguistic eliminativism to be false. See, e.g., Chomsky 2000, Jackendoff 2006, Rey 2006, Isacs and Reiss 2008, and Bromberger 2011 in favor of the "illusion" approach and Thomasson 2007 and Wetzel 2009 for insightful discussion of what such a stark metaphysics forces us to eliminate, and compelling reasons for resisting.

11 Here is one simple example. (Perusing any introductory text would afford literally hundreds more.) Dialectologists track microvariations. For instance, in Canadian English the word *premier* (i.e., the first minister of a provincial or territorial government) is most commonly pronounced /ˈprimjər/, but both /ˈprɛmjɛər/ and /ˈprimjɛər/ are possible variants (K. Barber 1998). Historical linguists and others study language contact and change. Continuing with this example, one might trace the comparative influence of British versus American pronunciations on Canadian *premier*, not to mention the possible role of contact with Canadian French. But how can such an inquiry even make sense without public words belonging to shared public languages?

12 One might insist that discoveries about "abstractish" movement rules, morphemes, structural relations, etc., will ultimately reduce to exceedingly complex neurocognitive claims. Be that as it may, this would not yield the elimination of the former. To give some familiar comparisons, insofar as lightning reduces to massive electrostatic discharges, lightning does exist; and if *plastics* is just complex shorthand for something like *moldable organic polymer derived from petrochemicals*, then, because there are moldable organic polymers derived from petrochemicals, there really are plastics.

13 Consider too an interesting sociological fact, indicative of their practice when not overtly discussing linguistic methodology. Generative grammarians join other linguists in devoting serious energy to preserving endangered tongues

—languages such as Abaga in Papua New Guinea, Bikya in Cameroon, and Forest Enets in Russia—but not to preserving even especially interesting idiolects (e.g., Henry Kissinger's or Meryl Streep's). More than that, working as linguists, they readily categorize shared public languages by degree of endangerment, in terms of number of extant speakers and their ages. E.g., all of Abaga, Bikya and Forest Enets are "critically endangered," whereas Agul is merely "definitely endangered" because no children are currently learning it. For more (depressing) information about which languages are endangered, the degree to which they are threatened, and criteria for the latter, see UNESCO's *Atlas of the World's Languages in Danger*, <http://www.unesco.org/culture/languages-atlas>.