"Interpreting Intuition: Experimental Philosophy of Language"

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Introduction

Jonah, so the story goes, was swallowed by a whale. Yet, perhaps he still has something to teach us about the correct theory of reference. The plight of Jonah and the reference of his name forms one of many examples and thought experiments introduced by Saul Kripke to undermine the traditional descriptivist theory of reference. Kripke writes,

> Suppose that someone says that no prophet was ever swallowed by a big fish or a whale. Does it follow, on that basis, that Jonah did not exist? There still seems to be some question whether the Biblical account is a legendary account of no person or a legendary account built on a real person. In the latter case, it's only natural to say that, though Jonah did exist, no one did the things commonly attributed to him (Kripke, 1980, p. 67).

The descriptivist, however, might instead contend that if no prophet was swallowed by a whale, then "Jonah" does not refer. Since this prediction is contradicted by the available data, this case counts as evidence against the descriptivist view. The datum in question is the intuition that "Jonah" still refers to the historical person on whom the stories are based. At least, this is a standard analysis of this argument, one of several such arguments in Kripke's *Naming and Necessity*. This interpretation is of particular importance to contemporary philosophers in the wake of experimental investigation of intuitions about the Jonah case, intuitions which reveal cross-cultural variation in those intuitions.

In light of this experimental work and the philosophical debate surrounding it, there are three central questions that I am concerned with here. First, what does this variation say about Kripke's arguments? Should we be less confident that Kripke's critiques of descriptivism hold, or that his own theoretical proposals are well grounded? Second, is this the right interpretation of Kripke in the first place? Max Deutsch argues that Kripke's arguments should be understood as not relying on intuition at all (2009, see also Cappelen, 2012). Conversely, Machery, Mallon, Nichols and Stich (2004, hereafter, MMNS) characterize Kripke's arguments as following what they call the Method of Cases, according to which theories of reference are solely evaluated based on their consistency with our intuitions. Third, should speaker's intuitions count as evidence for or against semantic (or meta-semantic) claims in the first place?

In this essay, I will focus on the third of these questions. I will argue that it is only by understanding *why* intuition counts as evidence that we can evaluate the significance of MMNS' results (assuming that they are robust). I develop three interpretations of Kripke's appeals to intuition, each of which answers the *why* question in a different way. The first is that the intuitions play an exploratory role, motivating early work on reference without playing an evidential role in a mature state of the field. The second is that the reliability of (at least the right set of) intuitions can be defended by appeal to the expertise of those providing the intuitions. The third is a novel variation of the etiology approach commonly used to defend the use of intuition in linguistics. I make use of Kripke's theoretical aims to address two objections to applying the linguistics analogy to his work. While I explore the plausibility of attributing these interpretations to Kripke, space considerations prevent me from pursuing the exegetical project

too deeply.[1] Rather, my principal aims are two-fold. First, I aim to clarify the position-space by developing and distinguishing possible interpretations of the role of intuition in philosophical semantics. It is my intent that these interpretations might be profitably adapted to the study of other arguments. Second, I aim to show that whether or not intuitions are evidence for semantic and meta-semantic claims depends upon our theoretical commitments about the nature of semantic facts and our relationship to them.

This latter aim is particularly important given the prevalence of debates over the role of intuition in philosophy. Philosophical arguments relying on intuition are too diverse for us to expect a single methodological analysis to capture the full range of roles those intuitions play and the justifications for using them. In the philosophy of language arguments considered here, the key point is that the descriptive facts are not given to us prior to the evaluation of the competing meta-semantic theories. Rather, our meta-semantic theories also affect what counts as evidence for and against them. Therefore, understanding the role of intuition in any particular argument requires close examination of the theoretical backdrop of that argument. I will argue for this claim by developing three interpretations of the role intuition plays, each of which depends upon the theoretical commitments of the project in question. For this reason, I refrain from endorsing any of these interpretations. Each requires a full defense of contentious empirical and theoretical commitments which are beyond the scope of this present project. Nevertheless, developing these interpretations both substantiates the general lesson that

[1] To this end, I will not consider interpretations of Kripke's arguments on which Kripke's arguments can be understood as not appealing to intuition at all. While I have sympathy with aspects of this view, I am concerned here with interpretations of appeals to intuition which do give intuition a role to play in the argument (even if a limited one).

methodological analysis of the role of intuition in philosophy is best served by closely analyzing the theoretical commitments of the particular arguments relying on intuition and provides a toolkit for classifying and analyzing these arguments.

Kripke's Intuitions and the Experimental Challenge

The generic structure of an argument based on an intuition can be understood using a pair of useful distinctions. The first of these distinctions is between foundational and descriptive semantics (Stalnaker, 1997). Kripke's account of the reference relation belongs to foundational, rather than descriptive semantics, on the grounds that it tells us why terms refer to the things that they do (foundational semantics), rather than what it is that they refer to (descriptive semantics). The second useful distinction is between the data and the phenomena (Bogen and Woodward, 1988). Scientific theory predicts and explains the phenomena, but not necessarily the complex data used to investigate it. For example, a theory in physics might aim to explain certain features of sub-atomic particles (the phenomena), but it need not explain the data, produced by complex instruments and experimental design, used as evidence for claims about the phenomena.

The generic structure of an appeal to intuition about reference is that the intuitions are the data for claims about the descriptive semantics of some language (the phenomena). Kripke's theory, belonging to foundational semantics, attempts to explain the descriptive semantics. The role of an intuition in the study of reference, then, is to give us evidence about what an expression actually refers to. Both the descriptivist theory and Kripke's proposal are evaluated

based on their ability to predict and explain the reference relations that actually hold.[2] This generic structure is apparent in the arguments which are typically classified as "appeals to intuition." In those cases, intuitions serve indirectly as evidence for claims in foundational semantics because of their evidential role in descriptive semantics. In this section, I briefly review three examples from Kripke's *Naming and Necessity* which are typically classified as appeals to intuition, as well as the recent empirical work on intuitions about these cases.[3]

First, in the Gödel case, Kripke aims to show that descriptivism fails to account for misinformation. In situations where the information contained in the definite description is erroneous, descriptivism would have it that the name (by way of the associated description) will pick out the person that the information is true of (or nobody) rather than the intuitive referent. For example, suppose Gödel did not actually prove the incompleteness theorem, but rather stole it from Schmidt and took credit for it. If the description associated with the name "Gödel" is 'the person who proved the incompleteness of arithmetic,' then the name "Gödel" refers to Schmidt, since it is Schmidt that proved it. Yet, intuitively, it clearly is the case that "Gödel" continues to refer to Gödel and not Schmidt. Since these cases of misinformation can be multiplied

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[2] On this point, the generic structure is consistent with Deutsch's argument that intuitions do not play an evidential role in Kripke's arguments. Deutsch argues that experimentally collected intuitions do not bear on Kripke's arguments because his claims concern (and could possibly be falsified by) the semantic facts, rather than people's intuitions. Framing the generic structure in in this way clarifies the debate by distinguishing between two aspects of the debate: what it is that Kripke wants to explain (semantic facts rather than the intuitions) and what evidence he uses in the investigation (intuition or not). One could accept Deutsch's claim that Kripke's claims are to be tested against the semantic facts, but nevertheless hold that intuitions are relevant to claims about those facts.

[3] I am not making any assumptions here about whether these arguments exhaust Kripke's case against descriptivism. Nor is it necessarily the case that undermining Kripke's appeals to intuition does irreparable harm to his broader arguments (Ichikawa et al., 2011, Devitt, 2011).

indefinitely (e.g., Columbus as ‘the first European to discover the Americas’), descriptivism can (and likely does) make false predictions about the reference of a large swath of names.

What if the erroneous description picks out nobody at all? For example, suppose “Jonah” is associated with the description “the prophet who was swallowed by a whale.” If there was no prophet who was swallowed by a whale, then the name “Jonah” does not refer at all. This too, Kripke claims, is simply intuitively wrong. In that case, “Jonah” refers to the historical person upon whom the tales are based. This real Jonah might not have any of the properties typically associated with the name “Jonah,” but nevertheless be the referent of the term.

Kripke’s arguments for rigidity might similarly be cast in terms of intuitions. Consider the following sentence:

(1) Aristotle was fond of dogs.

This sentence is true if and only if Aristotle was fond of dogs. Let us assume that descriptivism is true, and that the description associated with “Aristotle” is “the teacher of Alexander.” On these assumptions, the truth conditions of (1) are equivalent to (2).

(2) The teacher of Alexander was fond of dogs.

Yet, these are intuitively the wrong truth conditions for (1). The sentence is only true if *Aristotle* is fond of dogs, not if whoever happened to teach Alexander enjoyed their company. Suppose we lived in a world where Aristotle did not teach Alexander, and was still fond of dogs,

but where the person who did teach Alexander was not fond of them.[4] Intuitively (and on the rigidity thesis), (1) remains true; but if descriptivism is true, then it is false.

If Kripke relies so heavily on intuitions, then it is important that these intuitions be widely shared.[5] Without any empirical evidence suggesting that people actually do share his intuitions, Kripke is forced to rely on an implicit premise that these intuitions are indeed universal. MMNS argue that this premise fails when put to the test. They supplied participants, naive about philosophical semantics, with versions of the Jonah and Gödel cases and asked the participants to determine the reference of a supplied term (as a speaker uses it) (Machery et al., 2004). The study was performed with both Western and East Asian participants, in order to test hypothesized cross-cultural variation.

In the Gödel case, MMNS found significant cross-cultural variation. East Asian respondents were more likely to give a descriptivist reply, while Westerners tended to give causal replies. While they did not find significant cross- cultural differences in the Jonah case, both cases exhibited a high degree of intra-cultural variation, with a very high standard deviation in all four conditions. MMNS argue that these results raise serious concerns about the methodology of the study of reference. The problem can be posed as a dilemma. If the correct theory must be consistent with these intuitions, then the correct theory of reference will differ cross-culturally, and indeed, intra-culturally as well. Not only might a causal theory be true of Westerners and a descriptivist theory be true of East Asians, but a causal theory might hold for

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[4] Note that the name "Aristotle" is used rigidly in this sentence.

[5] At least widely shared amongst the right people, e.g., experts. See discussion below.

some Westerners and a descriptivist theory for others. Alternatively, if their work has not gotten the intuitions which must be accommodated, then we cannot uncritically assume that the informal methods used by Kripke will also get at the correct intuitions. Either way, the traditional method is in trouble.[6]

The Exploratory Approach

The first role that intuitions might play with regard to the descriptive semantics is what I will call the *exploratory use*. On this view, developed independently by Michael Devitt (1996, 2006) and Hilary Kornblith (1998, 2002, 2006), intuitions are not strictly evidence for semantic claims. Rather, they are used to justify semantic claims only insofar as those claims help to promote early progress in the development of a meta-semantic theory. For example, our initial intuitions might classify certain linguistic phenomena as "semantic" (and thus belonging to our investigation), such as the ambiguity in "flying planes can be dangerous" (Chomsky, 1965).

[6] Evaluating MMNS' experiment and their results is beyond the scope of this essay, and here I will assume that their results are robust and replicable. In addition to design critiques, their results have been explored and challenged experimentally in a number of follow-up papers. Machery, Christopher Y. Olivola and Molly De Blanc tested whether replies differed when participants were presented with truth-value judgments rather than referential judgments (linguistic vs meta-linguistic, or use vs. mention, judgments), and found results consistent with MMNS' initial findings (2009). Others, however, have challenged those findings on empirical grounds. In the original MMNS study, the probes were presented in English to both Western and East Asian participants. Barry Lam conducted a similar study in native languages (English and Cantonese), and argues that making this adjustment erodes the cross-cultural variation (2010); though in a replication of the original MMNS study using native languages, Machery et al. got results which confirmed their original findings (2010). Justin Sytsma and Jonathon Livengood examined whether the perspective the subject took in rendering a judgment was at play, and they found that the MMNS results were predicted by whether the subject took the speaker's perspective or the narrator's perspective in reading and evaluating the probe (2011). These results hint at the rich questions which merit further empirical exploration.

When further investigation, however, yields evidence that the ambiguity is syntactic, the initial intuition is disregarded.[7] Kornblith writes:

> Intuition must be taken seriously in the absence of substantial theoretical understanding, but once such theoretical understanding begins to take shape, prior intuitive judgments carry little weight unless they have been endorsed by the progress of theory (2002, p. 14).

Devitt similarly argues that "intuitions are often needed to identify the subject matter for the descriptive task, and may be otherwise helpful, but nothing ultimately rests on them" (1996, p. 74). This role for intuition is exploratory in the sense that the intuitions are used to make initial distinctions and back our early methods for empirical investigation, but fade from the investigation as work progresses from this early stage. On this view, intuitions have an important role to play in investigation, but do not play an evidential role in a more mature state of the field. Thus, while the intuitions might help generate some plausible views about the descriptive semantics, they will not be used as evidence once improved methods become available.

Interpreting Kripke in this way makes his appeals to intuition relatively innocuous. It also renders them relatively toothless. The intuitions, in this approach, would be best understood as motivating Kripke's approach, but not substantiating it.[8] The experimental exploration of

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[7] The intuition in question here is that 'the ambiguity in 'flying planes can be dangerous' is semantic' and not the intuitions concerning the available readings of the sentence. Linguists do continue to use intuitions of the latter sort throughout the later stages of investigation.

[8] As an anonymous referee points out, descriptivism is a well-established and well-motivated theory. If intuitions are understood as purely exploratory, they should not have much force against the descriptivist theory. Kripke's arguments would thus have to be understood as motivating a hypothesis worthy of further examination, but as insufficient to actually justify abandoning the descriptivist theory in favor of a causal-historical one. Such an approach is suggested by some of Putnam's remarks, after developing a case similarly based upon our responses to hypothetical cases.

them might indicate ways in which Kripke himself misidentified the foundations for a new picture; however, as intuitions fade in significance, we would expect other arguments to pick up the burden. With this shift, the experimental testing of intuition would also fade in significance, simply on the grounds that the intuitions being tested are not the central evidence for the relevant (descriptive-)semantic claims.

Adopting the exploratory approach leaves open the central question as to whether intuitions can count as evidence for semantic hypotheses. It does so by distinguishing the question of the evidence for semantic claims from the essentially *pragmatic* justification required to use intuition to launch investigation. That is, one need not assume that the intuitions are veridical or indicative of the truth, but only hold that we need to start somewhere, and they provide a plausible place to start (owing, perhaps, to the history of successful inquiry which has begun in this manner). As such, the exploratory approach is best distinguished from the two accounts to follow on the grounds that it does not assume the evidentiality of intuition.

> The first problem is to account for the *determination of extension*. Since, in many cases, extension is determined socially and not individually, owing to the division of linguistic labor, I believe that this problem is properly a problem for sociolinguistics. Solving it would involve spelling out in detail exactly how the division of linguistic labor works. The so-called 'causal theory of reference,' introduced by Kripke for proper names and extended by us to natural-kind words and physical magnitude terms, falls into this province (Putnam, 1975, p. 246, emphasis in original).

The theory of reference belongs to sociolinguistics. It would be rather surprising if Putnam was committed to the further claim that sociolinguists can determine the correct theory simply by polling their own intuitions about the reference of terms. He makes a similar claim about the second problem of meaning, that of identifying the stereotypes associated with terms (information that is typically, but defeasibly, associated with a term):

> If the approach suggested here is correct, then there is a great deal of scientific work to be done in (1) finding out what sorts of items can appear in stereotypes; (2) working out a convenient system for representing stereotypes; etc. This work is not work that can be done by philosophical discussion, however. It is rather the province of linguistics and psycholinguistics (Putnam, 1975, p. 267).

The Expertise Approach

Perhaps intuitions are evidence for semantic claims on the grounds that they are reliable indicators of the truth of their contents. Thus, say, the Gödel intuition is evidence that Gödel is indeed the reference of the name "Gödel" on the grounds that Kripke is a reliable judge of reference relations (or perhaps we the audience who share his judgment are reliable). The success of this interpretation hinges on whether or not the reliability of the intuiters can be established. The simplest option would be to establish it empirically. It is possible that we do not know *why* we are reliable, but if a sturdy enough correlation could be found between our intuitions and the semantic facts, then this would license the conclusion that we are indeed reliable judges in these cases. This possibility cannot be ruled out without evidence, but neither can it be glibly assumed. MMNS' results cast doubt on this defense. Whether "Gödel" refers to Gödel or to Schmidt, the intra-cultural and cross-cultural variation in the responses suggests at least some substantial number of their respondents were simply mistaken, undermining a reliability attribution. If a sub-group is reliable (such as philosophers of language), this remains to be shown.[9]

[9] An anonymous referee asks whether we could take the success of Kripke's arguments as indicative of uniformity of the experts with regard to the intuitions. Coupled with the assumption that Kripke has got the facts right, we can use this (accurate) uniformity on the part of the experts to argue for their reliability. There are two lines of reply available. First, this argument requires the assumption that Kripke has got the facts right, which remains under contention. Other arguments in favor of Kripke's position may be sufficiently successful to establish that he has the facts right, but this is precisely the result that needs to be shown. Second, the success of the arguments may not reflect uniformity of intuition, but might rather result from the strength of other Kripkean arguments or even from sociological factors. The reliability of philosopher's intuitions might be championed in this way, but remains at present an open question.

Absent the straightforward empirical justification, we might instead defend the reliability of some set of intuiters by explaining why we should expect them to be reliable. I consider two possible defenses of this position. First, it might be that language users (or some sub-set of them, such as philosophers of language) are *experts*, and this expertise confers reliability upon our judgments. Second, it might be that the *etiology* of the judgment provides reason to believe that it is reliable, on analogy with intuitions in linguistics. I will address the former in this section, and turn to the etiology defense in the subsequent section.

Devitt champions the expertise defense, arguing that there are people who have a superior theory about the properties in question (such as reference relations), and so are, at the least, more reliable than the rest of us. He applies this approach in both the philosophy of language and linguistics, arguing that "we should prefer the linguistic intuitions of linguistics and philosophers because they have the better background theory and training" (Devitt, 2012).[10] While linguists and philosophers of language will have the most reliable intuitions, Devitt argues that the wealth of data that other competent language users have available gives us good reason to expect that they too will have some measure of expertise.

Applied to Kripke's arguments, we might suppose either that Kripke himself is a reliable judge of the semantic facts and so we ought to trust his intuitions, or that we (as competent speakers) are reliable judges and Kripke's appeals to intuition are invitations to see if we share his intuitions. Our expertise might be derived simply from the fact that we are native speakers

[10] This is a controversial interpretation of the use of intuitions in linguistics. See Maynes and Gross, Forthcoming for a review.

of the language (and so our first person reports of meaning are reliable, see Cavell, 1969) or because we possess good theories which lend credence to our judgments.

The expertise defense, however, does not come cheap. Weinberg, et al. identify two important limitations of expertise (2010). First, it is not easily predictable. Some tasks lead to expertise (e.g., chess and meteorology) and others do not (e.g., some judgments in psychiatry, stock brokerage and polygraph testing) and it is unclear what conditions are required for expertise to develop (and thus if referential judgments share in those conditions). Second, expertise is task-specific. Simply because one is an expert in one task does not entail that one will be an expert in related or similar tasks. Both points apply readily to this case. Our expertise in *using* language does not entail that we possess a similar expertise at judging the semantic properties of expressions in that language. It remains an open question whether referential judgment is a task which lends itself to the development of expertise, and whether expertise in using language leads to expertise in judgments about it.

Machery also provides some empirical evidence that training in the study of language does not improve the reliability of one's intuitions (2012). Linguists and philosophers of language were polled about a Gödel style vignette, and their answers were sorted by their area of specialization (e.g., semanticist, philosopher of language, sociolinguist, historical linguist, etc.). These intuitions were then compared to the intuitions of educated individuals who are not trained in the study of language. Machery found that the effect of training was inconsistent across groups. That is, while semanticists and philosophers of language had intuitions more Kripkean than the folk, historical linguists and sociolinguists had *fewer* Kripkean intuitions. While different sub-disciplines may plausibly have *greater* expertise than others, we would still expect all trained

linguists to have intuitions in the same direction (e.g., all more Kripkean or less Kripkean) if that training makes the intuitions more reliable. On Machery's data, it seems that training makes at least some intuitions *less* reliable![11]

Resolving the debate over expertise is beyond the scope of this essay. It suffices to note that while this strategy is available to the defender of the reliability interpretation, it is also fraught with controversy, both theoretical and empirical.[12] At the least, Kripke does not offer any defense of our expertise, and it is one we ought to be cautious about ascribing to him.

The expertise debate also suggests ways in which our theoretical commitments shape the relationship between intuitions and the semantic facts. For some set of speakers to be experts in the facts, the facts need to be such that those speakers have access to them. In Devitt's view, those facts are ascertained through reflection on the use of language; while Cavell argues that our expertise is a consequence of our first person authority. For both, the expertise claim is justified by appeal to a further thesis about our relationship to the semantic facts. Resolving the intuition question when the expertise defense is in play thus requires that we first resolve this relationship

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[11] Devitt counters that we have theoretical reasons in favor of believing philosophers of language to be reliable experts, on the supposition that they have a better theory of language than the lay folk, or even other experts on language. Against Machery's results, he argues that the difference is precisely what we ought to expect on the expertise defense - semanticists (those likely to have the greatest expertise relevant to Kripke cases) had more Kripkean intuitions than their colleagues in other areas of linguistics. It is not, he argues, training in the study of language which makes on an expert, but having good theories on the subject matter at hand (Devitt, 2012).

[12] For a defense of the expertise approach, see Williamson, 2011. For recent empirical exploration of the expertise defense in various sub-fields of philosophy, see Schwitzgebel and Cushman, 2012; Tobia, et al., forthcoming; Livengood, et al., 2010, and Schulz, et al., 2011.

and related questions about the nature of the semantic facts themselves. The evidential value of intuition depends upon the theoretical commitments lying behind their use.

The Etiology Approach

Even if the expertise defense fails, the reliability premise might be defended on other grounds. It may be that the judgment being *intuitive* itself is a mark of reliability. That is, reliability is not based upon properties of the speaker that matter, but rather on properties of the judgment, or the judging. Such an interpretation is suggested by Kripke's famous remark that

> Some philosophers think that something's having intuitive content is very inconclusive evidence in favor of it. I think it is very heavy evidence in favor of anything myself. I really don't know, in a way, what more conclusive evidence one can have about anything, ultimately speaking (1980, 42).

The reliability of intuitive judgments might plausibly be defended by appeal to the *etiology* of the judgment. Such a justification has been used to defend the use of intuition in linguistics. Linguists make extensive use of intuitions about particular sentences and utterances, such as judgments about whether or not a particular sentence is acceptable. In the generative tradition, the object of study in linguistics is taken to be the language faculty, an innate set of capacities to learn language (Chomsky, 2000). The use of intuitions has been defended on the grounds that the present state of this faculty is causally implicated in the production of the intuitions used as evidence. Since the intuitions are (highly mediated) causal consequences of

the object of study, they are a natural source of evidence for that investigation (see Fitzgerald, 2009 and Maynes, 2012 for recent defenses of this view).[13]

There are two closely related problems with applying an etiology defense to Kripke. First, the etiology is more complex, tracing back to features of the world rather than to features of the speaker's psychology. Second, defenses of the etiology account mask a reliability assumption, precisely the claim that the etiology account is intended to substantiate.

Alvin Goldman and Joel Pust (1998) argue that intuition cannot serve as a basic source of evidence (basic as in containing a default presumption of evidential relevance) concerning extra-mental objects. The problem is that the reliability of the relationship with those extra-mental objects needs to be discerned on a case by case basis. If we are to distinguish intuitions from other judgments which are causally connected to extra-mental objects, we need to be able to show that the connection between those intuitions and those objects is such that it confers reliability upon the intuitions. That is, it has to have an etiology which is reliable. By contrast, they argue that for mental objects such as one's concepts, it is almost true by definition that one's intuitions will reliably indicate the content of those concepts since the dispositions to produce the intuitions are part of that concept (Goldman and Pust, 1998, p. 188).

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[13] One variation of the etiology approach in philosophy is to link an intuition to the concept which is involved in its production. Kirk Ludwig, for example, argues that "to possess a concept is to be in a certain sort of epistemic state, one that puts one in a position to articulate its application conditions. ... [This implicit knowledge is] expressed in a skill we have in deploying the concept appropriately" (2007, p. 131). Successfully deploying the concept is applying the concept in judgment, or rendering an intuition. For example, the intuition that a subject in a Gettier scenario does not have knowledge is merely the application of the concept KNOWLEDGE to the scenario. Since, it is presumed, I competently possess the concept, my intuition ought to be taken as a good guide to the contours of that concept. The etiology of the intuition is traced back, through the intuiter's competence, to the content of the concept itself (this sort of approach is defended in Bealer, 1998 and Goldman, 2007). I will leave this variation of the etiology approach aside in this essay, on the grounds that Kripke offers no indication that he is studying our concept of reference, rather than the reference relation itself.

This concern can be readily applied to Kripke's account of the reference relation. The actual reference relations that hold between our words and the world are (at least partially) constituted by some set of causal connections, taken together (such as on Putnam's view) with features of the social context. It might well be that the connection between our intuitions and some facts tends to produce reliable intuitions, while in other cases, the relationship between our intuitions and the facts is insufficient to underwrite their reliability. In Kripke's case we would need to not only show that the influence of reference relations is preserved (even if mediated) through to our judgment, but that the influence was truth-preserving with regard to at least some features of the reference relation.

A similar problem can be posed for the linguistics analogy. The mind is complex, and features of the output (the judgment) might reflect the cognitive capacities under investigation, other capacities, or the interaction among them. For example, the intuition that "the horse raced past the barn fell" is unacceptable is a classic example of a performance error. The sentence is often classified as grammatical, and it is supposed that the subject's judgment that it is unacceptable is a consequence of how the sentence is parsed, rather than the subject's grammatical competence. The mere fact that this competence is implicated (in some way) in the judgment does not thereby allow us to conclude that our judgments reliably indicate its properties.[14] Indeed, it does not even suffice to establish the general reliability of intuition (as opposed to the reliability of a particular intuition). If competence is regularly implicated, but its effect is also regularly swamped by intervening factors, those intuitions would not reliably tell us

[14] Maynes, 2012 argues that such an argument can be provided for linguistics in the form of empirical calibration between data sources. Without independent access to the semantic facts, this strategy is unavailable to Kripke.

about that competence without a way of controlling for the influence of those intervening factors. An additional argument is required in order to establish the reliability of these judgments. The etiological defense simply pushes us back to where we started, needing a reason to believe that these intuitive judgments are reliable.[15]

A solution to these problems, however, is suggested by the *aims* of Kripke's project. Consider the following passages (all from Kripke, 1980):

> Eventually I came to realize ... that the natural intuition that the names of ordinary language are rigid designators can in fact be upheld (p. 5).
>
> It also became clear that a symbol of any actual or hypothetical language that is *not* a rigid designator is so unlike the names of ordinary language that it ought not be to be called a 'name' (p. 5, fn. 5, emphasis in original).
>
> We will use the term 'name' so that it does not include definite descriptions of [the logician's] sort, but only those things which in ordinary language would be called 'proper names' (p. 24).
>
> One of the intuitive theses I will maintain in these talks is that *names* are rigid designators (p. 48, emphasis in original).
>
> Occasionally I have heard such loose usages adduced as counterexamples to the applicability of the present theory to ordinary language. Colloquialisms like these seem to me to create as little problem for my theses as the success of the 'Impossible Mission Force' creates for the modal law that the impossible does not happen (p. 62, fn. 25).

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[15] One might try to defend the linguistics analogy by pointing to the disquotational nature of many of the intuitions which Kripke relies upon. For example, one may not need any information about the world to judge that "Gödel" refers to Gödel if one can make this judgment on the basis of some disquotational principle. The speaker may not be able to say anything about Gödel, or even differentiate him from Schmidt if she were presented with the pair of them. Yet, she nevertheless can judge that "Gödel" refers to Gödel.

It is indeed plausible that this could explain a number of intuitions about reference. What's more, if we wanted to get at this disquotational principle, the linguistics analogy would indeed be apt. Such an account, however, is unsatisfactory for Kripke's arguments. It would remain open for the descriptivist to argue that this disquotational intuition is consistent with her view. When I judge that "Gödel" refers to Gödel, my use of the name is a disguised definite description, and so (perhaps) picks out Schmidt. For Kripke's argument to have force, it must be the case that my use of the name "Gödel" picks out Gödel rather than Schmidt, and that I have good reason to believe that it does.

One of Kripke's aims is an analysis of *ordinary language*. Kripke's focus on ordinary language also provides the bridge to connect our intuitions to the semantic facts. As a pretheoretic notion, "ordinary language" is likely not amenable to a precise definition. Two things that constitute it, however, are our own linguistic behaviors and the social mores that govern them. Included amongst those linguistic behaviors are our own referential assignments and our interpretations of the assignments of others. We regularly use names in conversation, and coordinate our behavior towards objects on the basis of them. This simply is ordinary language, and these are the assignments we make (both for our own uses of names and in interpreting the uses of others).[16] The semantic facts, the descriptive semantics that Kripke aims to explain with his foundational account of reference, are the facts about reference in ordinary language.

On the interpretation of Kripke I will develop in this section, ordinary language is taken as an explanandum of the project. The reference assignments speakers make partially constitute ordinary language, and intuitions are a plausibly reliable source of evidence for identifying those reference assignments. Intuitions, then, are worth studying because consistency between the explanandum and explanans is a theoretical virtue and intuitions provide evidence about the

[16] While this range of passages provides evidence that Kripke's aim is an analysis of what he calls ordinary language, the final passage also suggests that this is not his only aim. He clearly does not think that his view needs to account for every expression, colloquialism and sloppy use involved in spoken language. The approach developed here does not require that all assignments must be accounted for by the theory. Indeed, by focusing on semantic facts, one is already limiting the set of assignments that matter, and this similarly will rule out other vagaries of ordinary language. Rather, the point is that at least some of these assignments will be crucial to this enterprise, and with them, intuitions.

properties of the explanandum. Our theory of reference ought, therefore, to be consistent with our reference assignments, and with our intuitions about reference, *ceteris paribus*. [17]

By a “reference assignment”, I mean a word-object pair, where the object is what the speaker understands, explicitly or implicitly, as the object picked out by the term on that occasion of use (real or hypothetical). By “understands”, I mean the object which the speaker will report as the one picked out if asked, acts with respect to, and which makes the speaker’s remarks consistent and interpretable. Reference assignments are performance level properties, that is, they need not be understood as outputs of any particular faculty for assigning referents to terms. Indeed, the imprecise language of the object which is “picked out” is important here. It covers a range of possible word-world relations, including, for example, cases we would typically classify as pragmatic (e.g., speaker’s reference). That is, assignments do not come pre-sorted into those which are relevant to the various technical distinctions drawn by linguists and philosophers of language.[18] Since reference assignments are defined dispositionally (in terms of what is understood as the object picked out by a term on various occasions of use), we can understand intuitions as a consequence of those dispositions (along with other linguistic

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[17] The *ceteris paribus* clause is crucial here, since assignments are not the sole explanandum of a theory of reference, nor is consistency with the facts the sole desideratum of a theory of reference. In what follows, this clause is always in effect.

[18] One might worry that this notion of “picking out an object” is intolerably ambiguous or unclear. It may line up precisely with a technical concept (such as speaker’s reference), or it may range over a wide variety of word-world relations. This sort of lack of clarity is precisely what we should expect from such terms at the beginning of inquiry. On the Devitt-Kornblith model these notions are crafted to do a job until more finely-grained distinctions can be offered. It may turn out that we only have reason to care about a certain range of assignments, and the term could be sharpened further.

behaviors). If I assign Abraham Lincoln as the object picked out by the name "Abraham Lincoln," then I am disposed to have the intuition that Lincoln is the referent of that name.

As consequences of those dispositions, intuitions have a clear role to play in determining reference assignments. One way to figure out if I have assigned *o* as the referent for "o" is simply to ask me what "o" picks out on some occasion. The philosopher or linguist can also draw inferences about reference assignments from data about the assigned interpretations or truth-conditions. If I know that a speaker judges "Gödel was born in 1906" to be true, and that the speaker knows Schmidt was not born in 1906, then I can reasonably infer that the speaker does not assign "Schmidt" as the reference of "Gödel". This only tells me about the reference assignment, as it might still be that "Gödel" refers to Schmidt, and "Gödel was born in 1906" is false. These intuitions are but one source of evidence which linguists and philosophers can bring to bear to uncover data about reference assignments. Various methods used by linguists and psycholinguists, including eye-tracking data (Tanenhaus et al., 1995), behavioral tasks (Crain and Thornton, 1998) and corpus analysis (Biber et al., 1998) all offer other experimental paradigms through which to acquire data about reference assignments.[19]

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[19] Marti argues that we ought to distinguish between data about how people use terms and their intuitions about them. She writes that

> In testing people's intuitions, I think it is important to distinguish carefully between observations that will reveal how people do things (in this case, use names) and observations designed to reveal how they think they do them. The latter will only provide grounds to determine how they are disposed to theorize about their practices, i.e. predict which theories about what they do they are disposed to favour (Marti, 2009, p. 44).

Usage data, which she deems "linguistic," is more likely to tell us about the reference of terms, because intuition data, which is "metalinguistic" is mediated by the explicit theories that the speakers have available. By asking the speakers to provide the reference of a term, we prompt them to think about how reference is determined, and it is not their theories which we are interested in. It is not obvious, however, that when asked about the

Indeed, Kripke's own presentation of the Jonah case involves the use of corpus data. He cites an illustrative passage from work in Biblical scholarship, remarking that "the 'hero' of this tale, the prophet Jonah, the son of Amittai, is a historical personage … (but) this book is not history but fiction" (from *The Five Megilloth and Jonah* by H.L. Ginbserg, cited in Kripke, 1980, p. 67). Not only does Ginsberg explicitly remark that Jonah is the historical person, but the remark is only sensible on Kripke's analysis. On the descriptivist model, it reports that the prophet swallowed by a whale is a historical personage, but that the prophet swallowed by a whale is a fiction![20] Eye-tracking data provides another means to get at assignments. As Tanenhaus et al. (1995) note, eye-movements are time-locked to hearing referential expressions. Subjects' eye-movements can be used to track which objects the subject considers as possible referents for an expression, and the object that the subject determines as the referent, without requiring any explicit judgment on the part of the subject. The variety of investigative techniques developed in linguistics and psycholinguistics provides a range of possible tools to confirm and check our intuitions.

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reference of a term, speakers reflect on how that referent is determined rather than determining the reference assignment in the same way they do when they use the term. Indeed, in their reply to Marti, Machery, Olivola and de Blanc compared intuitions about the reference of terms to those about the truth-values of sentences (2009). They found considerable agreement between these two types of intuitions, suggesting that our intuitions about reference line up with the ways we use names (or, rather, with our intuitions about sentences which use the names). These results shift the burden of proof on to Marti to show that intuitions really do differ in the ways she suggests. It may turn out that intuitions really are subject to confounds powerful enough to justify ignoring them in favor of usage data, but this will only come out through careful empirical analysis of those intuitions in conjunct with other sources of evidence.

[20] This analysis does, however, make use of intuition in the interpretation of it. When we use the corpus data, we need to consider the possible readings, and determine which are available and which could be sensibly attributed to the author/speaker in this context. It is difficult to see how any analysis of language could avoid using intuitions of this sort. Any coding or categorization of the phenomena (language use and linguistic items) will involve some interpretation by the investigators.

It is useful to contrast this account with the exploratory approach. On that model, our intuitions might play a role at the early stages of the field, but do not constrain future hypotheses. For example, a lexical semanticist might begin with an intuitive conception of "meaning," but move on to technical notions which are inconsistent with our intuitions about meaning. On this version of the etiology account, however, the intuitions are a continuing constraint on any theory, as getting those intuitions right is one of the explanatory aims of the theory. Consider Goldman's defense of the use of intuitions in philosophy. On his view, not only do intuitions play a role in fixing the topic of a study, but they play a role in *maintaining* the connection between explanandum and theory (Goldman, 2007). That is, if we stray too far from our initial intuitions about the subject matter, this indicates that we have strayed off- topic. The new investigation may be fruitful and worth pursuing in its own right, but it is no longer an exploration of the same subject matter.

The point is a simple one, though one easily overlooked with the focus on the reliability of intuition. If a theory of reference posited a referential relation *R*, which yielded a systematically counter-intuitive set of referential axioms, we would reject *R* as an analysis of how reference works in ordinary language. Perhaps *R* is a useful relation for various purposes, but not this one, and as long as this aim is one of the desiderata of the theory, this failure is evidence against it. Similarly, a description of ordinary language that was systematically at odds with the assignments we make would not be an adequate description. Kripke's theory permits systematic error, but he cannot contend that this possibility is *actual* without giving up on his goal to describe natural language.

Let us reconsider the Gödel case in light of the approach proposed here. Speaker *S*'s intuition that "Gödel" refers to Gödel is evidence that *S* assigns Gödel as the referent of "Gödel." *S*'s assignment is partially constitutive of the reference assignment that "Gödel" refers to Gödel in the ordinary language S speaks or belongs to. Given the convergence of other evidence regarding *S*, and other speakers of that language, the semanticist might conclude that, in that language, "Gödel" refers to Gödel. Kripke's account of reference predicts the semantic fact (given by the descriptive semantics) that "Gödel" refers to Gödel, while the descriptivist theory does not make this prediction. Therefore, this case provides evidence in favor of Kripke's proposal and against the descriptivist.

This interpretation also suggests a general feature of Kripke's arguments which is missed if one focuses too narrowly on the Gödel case. A single intuitive failure is unlikely to be a serious problem for a theory of reference. Yet, if a theory consistently fails to account for features of natural language, features that it cannot explain away, this is a more serious failing. In Kripke's argument, the Gödel case does not stand alone; it is supported by both the Columbus and Peano examples. The objection is not that descriptivism gets *these* cases wrong; it is that descriptivism gets cases of misinformation wrong. "Such illustrations," Kripke reminds us, "could be multiplied indefinitely" (1980, p. 85). It is when a theory so regularly conflicts with ordinary language that it fails ones of its aims, rather than a single case where intuition and theory diverge. As such, appeals to intuition should not be used to provide immediate counter-examples, but to discover patterns in our assignments, which are (or are not), accommodated by available theories.

This approach resolves the concerns with the etiology account mentioned above. First, Goldman and Pust's worry is addressed by the fact that our reference assignments are likely manifested in dispositions to produce intuitions about the reference of terms. While it remains an open empirical question whether our intuitions do reliably indicate the properties of our reference assignments (given the possibility of confounds or conflicting dispositions), it is plausible that they do. More importantly, however, we can also address the second concern. Since intuition is but one source of possible evidence about speaker's reference assignments, the reliability of those intuitions is open to empirical confirmation. Errors in our intuitions might similarly be detected through this process of comparing what intuition tells us to what we learn from these other sources of evidence. This etiology, given Kripke's aim to explain ordinary language, explains why intuition is a plausibly reliable source of evidence and provides the means to empirically confirm its reliability.

Kripke's aim is not shared by everyone working in foundational semantics. Russell, for example, intends the descriptivist theory of reference as a philosophical tool, part of a refined language which permits clearer discussion of difficult topics. In his reply to Strawson, he is explicit on this point:

> [Strawson is] persuaded that common speech is good enough not only for daily life, but also for philosophy. I, on the contrary, am persuaded that common speech is full of vagueness and inaccuracy, and that any attempt to be precise and accurate requires modification of common speech both as regards vocabulary and as regards syntax. Everybody admits that physics and chemistry and medicine each require a language which is not that of everyday life. I fail to see why philosophy, alone, should be forbidden to make a similar approach towards precision and accuracy.
>
> ...

> My theory of descriptions was never intended as an analysis of the state of mind of those who utter sentences containing descriptions (Russell, 1957, p. 387-388).

This reveals one of the ways this etiology defense relies on the metaphysical commitments of the theorist, as well as their aims. The notion of a public, shared, "ordinary language" is highly controversial, and many argue that no satisfactory analysis can be given as to what counts as an ordinary language (for example, see Chomsky, 1986 and Stainton, 2006). One might alternatively hold that our intuitions are constitutive of our own idiolect, rather than a shared dialect or language. If so, then our focus ought to be on the explanatory aims of the theorist in question. This defense of the etiological approach is only available to a theorist who takes their goal to be explaining the semantics of some idiolect or dialect which is constituted (in part) by the intuitions of its speakers. Russell, or the lexical semanticist working with a highly technical notion of "meaning," could not avail themselves of this defense. Yet, it suggests ways in which intuition might play a role in the development of a theory of reference given antecedent commitments on the part of the theorist and further shows how the intuition question hinges on such commitments and whether they can be successfully defended

Conclusion

In this essay I have endeavored to clarify three distinct approaches to the use of intuition in the philosophy of language. My local aim is to contribute to how intuition is understood in Kripke's arguments, and to clarify the space of possibilities for arguments in the philosophy of language. More broadly, however, the lesson we should draw from this is that an evaluation of the role that intuition plays in an argument, and thus the proper interpretation of experimental investigation of those intuitions, should be approached on a case by case basis. Rather than

reading the various defenses of the use of intuition as competing accounts of a single category of argument, we should instead understand them as providing a toolkit. While an explanatory account might be the right description of the methods of some fields, an etiological defense of reliability might be appropriate in others.

Consequently, experimental investigation of intuitions is similarly not an endeavor that can be evaluated on a singular criterion. The value, and consequences, of such work depends inextricably on the arguments which are being explored, and the intuitions being tested. Those intuitions might play substantively different roles in different works, and even variable roles within a single argument. Indeed, it may turn out that arguments which seem to rely on intuition do not actually make use of intuition at all. Such debates will only be resolved through careful examination of the arguments in question. In Kripke's case, this involves appraising the competing interpretations developed here, resolving the difficulties they face (such as establishing the reliability of some set of intuiters) and weighing the (at times competing) demands for textual fidelity and charitable interpretation.

References

Bealer, G. (1998). A Theory of Concepts and Concept Possession. *Philosophical Issues*, 9, 261–301.

Biber, D., Conrad, S., & Reppen, R. (1998). *Corpus Linguistics: Investigating Language Structure and Use*. Cambridge University Press.

Bogen, J. & Woodward, J. (1988). Saving the Phenomena. *Philosophical Review*, 97(3), 303–352.

Cappelen, H. (2012). *Philosophy Without Intuitions.* Oxford University Press.

Cavell, S. (1969). Must We Mean What We Say? In *Must We Mean What We Say?* Cambridge University Press.

Chomsky, N. (1965). *Aspects of the Theory of Syntax*. The MIT Press.

Chomsky, N. (1986). *Knowledge of Language: its Nature, Origin and Use*. Praeger.

Chomsky, N. (2000). *New Horizons in the Study of Language and Mind*. Cambridge University Press.

Crain, S. & Thornton, R. (1998). *Investigations in Universal Grammar: A Guide to Experiments on the Acquisition of Syntax and Semantics*. The MIT Press.

Deutsch, M. (2009). Experimental Philosophy and the Theory of Reference. *Mind & Language*, 24(4), 445–466.

Devitt, M. (1996). *Coming to Our Senses*. Cambridge University Press.

Devitt, M. (2006). *Ignorance of language*. Oxford University Press.

Devitt, M. (2011). Experimental Semantics. *Philosophy and Phenomenological Research*, 82(2), 418–435.

Devitt, M. (2012). Whither Experimental Semantics? *Theoria*, 27(1), 5–36.

Fitzgerald, G. (2009). Linguistic Intuitions. *The British Journal for the Philosophy of Science*, 61(1), 123–160.

Goldman, A. I. (2007). Philosophical Intuitions: Their Target, Their Source, and Their Epistemic Status. *Grazer Philosophische Studien*, 74, 1–26.

Goldman, A. I. & Pust, J. (1998). Philosophical Theory and Intuitional Evidence. In DePaul, M. and Ramsey, W., (Eds.), *Rethinking Intuition: The Psychology of Intuition and Its Role in Philosophical Inquiry*, (pp. 179–197). Rowman & Littlefield Publishers.

Ichikawa, J., Maitra, I., & Weatherson, B. (2011). In Defense of a Kripkean Dogma. *Philosophy and Phenomenological Research*, 85(1), 56-68.

Kornblith, H. (1998). The Role of Intuition in Philosophical Inquiry: An Account with no Unnatural Ingredients. In DePaul, M. and Ramsey, W., (Eds.), *Rethinking Intuition: The Psychology of Intuition and Its Role in Philosophical Inquiry*, (pp. 129–141). Rowman & Littlefield Publishers.

Kornblith, H. (2002). *Knowledge and Its Place In Nature*. Oxford University Press.

Kornblith, H. (2006). Appeals to intuition and the ambitions of epistemology. In Hetherington, S., (Ed.), *Epistemology Futures*, (pp. 10–25). Oxford University Press.

Kripke, S. (1980). *Naming and Necessity*. Harvard University Press.

Lam, B. (2010). Are Cantonese-speakers really descriptivists? Revisiting cross-cultural semantics. *Cognition*, 115(2), 320–9.

Livengood, J., Sytsma, J., Feltz, A., Scheines, R. & Machery, E. (2010). Philosophical Temperament. *Philosophical Psychology*, 23(3), 313-330.

Ludwig, K. (2007). The Epistemology of Thought Experiments: First Person versus Third Person Approaches. *Midwest Studies in Philosophy*, XXXI, 128–59.

Machery, E. (2012). Expertise and Intuitions about Reference. *Theoria*, 73, 37–54.

Machery, E., Deutsch, M., Mallon, R., Nichols, S., Sytsma, J., & Stich, S. P. (2010). Semantic intuitions: reply to Lam. *Cognition*, 117(3), 361–6.

Machery, E., Mallon, R., Nichols, S., & Stich, S. (2004). Semantics, cross- cultural style. *Cognition*, 92, B1–B12.

Machery, E., Olivola, C. Y., & De Blanc, M. (2009). Linguistic and metalinguistic intuitions in the philosophy of language. *Analysis*, 69(4), 689–694.

Marti, G. (2009). Against semantic multi-culturalism. *Analysis*, 69(1), 42–48.

Maynes, J. (2012). Linguistic intuition and calibration. *Linguistics and Philosophy*, 35(5), 443–460.

Maynes, J. & Gross, S. (Forthcoming). Linguistic Intuitions. *Philosophy Compass*.

Putnam, H. (1975). The Meaning of "Meaning". In *Mind, Language and Reality*, (pp. 215–271). Cambridge University Press.

Russell, B. (1957). Mr. Strawson on Referring. *Mind*, 66(263), 385–389.

Schulz, E., Cokely, E.T. & Feltz, A. (2011). Persistent bias in expert judgments about free will and moral responsibility: A test of the Expertise Defense. *Consciousness and Cognition*, 20(4), 1722-1731.

Schwitzgebel, E. & Cushman, F. (2012) Expertise in Moral Reasoning? Order Effects on Moral Judgment in Professional Philosophers and Non-Philosophers. *Mind & Language*, 27, 135-153.

Stainton, R. J. (2006). Meaning and Reference: Some Chomskian Themes. In Lepore, E. & Smith, B., (Eds.), *Oxford Handbook of Philosophy of Language*. Oxford University Press.

Stalnaker, R. C. (1997). Reference and necessity. In Hale, B. & Wright, C., (Eds.), *A Companion to the Philosophy of Language*, (pp. 534–554). Oxford University Press.

Sytsma, J. & Livengood, J. (2011). A New Perspective Concerning Experiments on Semantic Intuitions. *Australasian Journal of Philosophy*, 89(2), 315–332.

Tanenhaus, M. K., Spivey-Knowlton, M. J., Eberhard, K. M., & Sedivy, J. C. (1995). Integration of visual and linguistic information in spoken language comprehension. *Science*, 268(5217), 1632–4.

Tobia, K., Buckwalter, W. & Stich, S. (Forthcoming). Moral intuitions: Are philosophers experts? *Philosophical Psychology.*

Weinberg, J., Gonnerman, C., Buckner, C., & Alexander, J. (2010). Are philosophers expert intuiters? *Philosophical Psychology*, 23(3), 331–355.

Williamson, T. (2011). Philosophical expertise and the burden of proof. *Metaphilosophy*, 42(3), 215-229.