IS UNDERSTANDING EPISTEMIC IN NATURE?

BY

GURPREET RATTAN and ÅSA WIKFORSS

Is understanding epistemic in nature? Does a correct account of what constitutes understanding of a concept mention epistemological notions such as knowledge, justification or epistemic rationality? We defend the view that understanding is epistemic in nature – we defend epistemological conceptions of understanding. We focus our discussion with a critical evaluation of Tim Williamson’s challenges to epistemological conceptions of understanding in The Philosophy of Philosophy. Against Williamson, we distinguish three kinds of epistemological conceptions and argue that Williamson’s arguments succeed against only the most heavily committed kind, and leave the less heavily committed kinds untouched. Further, we argue that Williamson’s elaboration of lessons from his arguments point in a direction opposite of his own conclusions and give vivid articulation and support to epistemological conceptions. We suggest also that skepticism about Williamson’s larger metaphilosophical conclusions – according to which understanding plays no special role in the epistemology of philosophy – may be in order.

What is it to understand or grasp a concept? Is understanding epistemic in nature? Does a correct account of what constitutes grasp of a concept mention epistemological notions such as knowledge, justification or epistemic rationality? Or is the nature of understanding wholly non-epistemic? In this paper we consider these questions. We defend the view that understanding is epistemic in nature – we defend epistemological conceptions of understanding (sometimes ‘epistemological conceptions’, for short).¹

To focus our discussion, we consider some work by Tim Williamson that vigorously challenges epistemological conceptions of understanding (Williamson 2007). We distinguish three kinds of epistemological conceptions and argue that Williamson’s arguments succeed against only the most heavily committed kind of epistemological conception, and leave the less heavily committed kinds untouched. Further, we argue that Williamson’s elaboration of the lessons to be drawn from his arguments point in a direction opposite of his own conclusions and give vivid articulation and support to the less heavily committed epistemological conceptions. We shall also, briefly, consider some potential consequences for the metaphilosophical questions that provide the initial motivation for Williamson’s view. What does conceptual competence or understanding make epistemically available for philosophy? Williamson’s answer is: “to a first approximation…nothing” (2007: 77). We suggest that skepticism about Williamson’s larger metaphilosophical conclusions may be in order.

The paper is arranged as follows. §1 explains and draws distinctions between three
kinds of epistemological conceptions of understanding, and explains why Williamson’s argument needs to generalize along certain dimensions in order to be effective against epistemological conceptions in general. §2 recounts Williamson’s argument against understanding-assent links, and asks whether there are resources in the argument to allow generalization along the necessary dimensions. §§3 and 4 elaborate, respectively, the epistemological conceptions that Williamson’s arguments do not challenge, but in fact, we argue, support. §5 concludes by articulating some distinctions in metaphilosophy that parallel those made in distinguishing epistemological conceptions. These distinctions, we suggest, form the basis for skepticism about Williamson’s larger metaphilosophical conclusions.

1. **Epistemological Conceptions of Understanding, Epistemological Conceptions of Analyticity, and Understanding-Assent Links**

A central idea behind epistemological conceptions is that understanding provides an epistemic source for explaining certain philosophically puzzling kinds of knowledge. This idea stands at the same level as the idea that some knowledge can be explained in terms of sense-experience or in terms of rational intuition. But what is an epistemological conception of understanding? How should one formulate clearly an epistemological conception of understanding?

One way to formulate an epistemological conception, following the logical empiricists, is in terms of the notion of analyticity, making understanding a matter of knowledge of analyticities and thereby making epistemological conceptions of understanding epistemological conceptions of analyticity.² Epistemological conceptions of analyticity explain philosophically puzzling knowledge by construing such knowledge as knowledge of analyticities. The explanatory strategy is to home in on two target ideas simultaneously: on an idea of just what is known in some philosophically puzzling knowledge – analytic truths; and on an idea of what understanding consists in – knowledge of analyticities. The outline of the explanation of some philosophically puzzling kinds of knowledge in terms of understanding is this: philosophically puzzling kinds of knowledge are knowledge of analytic truths and knowledge of analytic truths is what understanding consists in.

But how is this idea that understanding consists in knowledge of analyticities to be elaborated? One way – Tim Williamson’s way – is to construe the constitutive link between
understanding and knowledge of an analyticity as a *strict link*, in the sense that necessarily, one understands if and only if one has knowledge of the relevant analyticity (this is a gloss of Williamson’s official target, to be discussed §2 below). Call such a constitutive link a *strict understanding-knowledge link*. Assuming that some kind of assent is necessary for knowledge, one can then work with the slimmer and perhaps clearer notion of a *strict understanding-assent link*: a link such that, necessarily, one understands if and only if one assents to the relevant analyticity. For instance, on this view, in order to grasp the concept *vixen* a thinker must assent to the thought that vixens are female foxes. Strict understanding-assent links provide a kind of semantic/epistemological do-or-die explanation of philosophically puzzling kinds of knowledge: one knows on pain of failing to understand.

Williamson argues against the existence of strict understanding-assent links. He argues by example and on the basis of theoretical considerations for the existence of *understanding without assent*. We think his argument for the possibility of understanding without assent is devastating against the existence of strict understanding-assent links. We detail the argument in §2.

But our concern is with the general category of epistemological conceptions. And here it is important to remember that Williamson’s argument is directed against a particular, quite heavily committed, kind of epistemological conception. To see this, note that Williamson’s target

\[(EU^{++})\] construes the constitutive link between understanding and knowledge as requiring a *strict understanding-assent link* with an analyticity.

A weaker view retains a role for analyticity, but

\[(EU^+)\] construes the constitutive link between understanding and knowledge as requiring a *non-strict* understanding-assent link with an analyticity.

To say that the link is *non-strict* is to say that although there is a constitutive link between understanding and assent, thinkers can nevertheless (somehow) understand while failing to assent. We develop (§3 below) a specific version of this general idea according to which there is a constitutive link between *full understanding* and assent that nevertheless allows
thinkers to *incompletely understand* without assent.

A final constitutive account recognizes the existence of a kind of understanding-assent link, but has no truck with the notion of analyticity. This view

(EU) construes the constitutive link between understanding and knowledge as requiring *holistic* understanding-assent links without analyticity.

On the holistic view (§4 below) understanding exercises holistic constraints on assent, but this kind of understanding-assent link does not mandate assent to any particular sentences or thoughts that could be thought to have the status of analyticities.

These distinctions amongst kinds of epistemological conceptions set the stage for a challenge to Williamson. The challenge follows from the recognition that an argument against the most committed epistemological conception EU++ need not be an argument against the less committed epistemological conceptions EU+ and EU. With these distinctions in place, it becomes clear that for Williamson’s argument to succeed against epistemological conceptions in general, it must carry within it resources to generalize from the most narrow conception to the broader conceptions.

So the question is: does Williamson give some reason to think that EU+ and EU are untenable? We will argue that Williamson does not give reason to think this, and that to the contrary, he gives much reason to think that these kinds of positions can and should be formulated to do justice to the nature of understanding. We shall start by presenting Williamson’s arguments against EU++ views.

2. **Williamson’s Argument Against Strict Understanding-Assent Links**

Williamson introduces epistemological conceptions of analyticity with an example:

> If someone is unwilling to assent to the sentence “Every vixen is a female fox,” the obvious hypothesis is that they do not understand the word “vixen.” The central idea behind epistemological conceptions of analyticity is that, in such cases, failure to assent is not merely *good evidence* of failure to understand; it is *constitutive* of such failure. [2007: 73]
According to epistemological conceptions of analyticity, whether one understands a particular word (or concept) is constitutively a matter of, at least, assenting to an analytic truth. Williamson describes these constitutive (or at least modal) “understanding-assent links” (2007: 74), as follows:

(UAl) Necessarily, whoever understands the sentence “Every vixen is a female fox” assents to it.

(UAt) Necessarily, whoever grasps the thought every vixen is a female fox assents to it. [2007: 73-74]

Understanding-assent links, like these ones for ‘vixen’ and vixen, are Williamson’s target.

Williamson describes concrete counterexamples against the alleged understanding-assent links. He imagines ‘deviant speakers’, speakers who fail to assent in the way mandated, but who nevertheless (intuitively) would be said to be linguistically and conceptually competent. Williamson develops a number of counterexamples, but perhaps the most extreme are those in which a speaker fails to assent to a basic logical truth, ‘Every vixen is a vixen’. Even in such a scenario, Williamson argues, we do not have to conclude that the speaker is linguistically or conceptually incompetent. The speakers may simply have a deviant background theory. Thus, Williamson imagines Peter, a logician who believes that there is a logical entailment from ‘Every F is a G’ to ‘There is at least one F’. Since, moreover, he has been spending too much time on the internet he has come to believe that there are no vixens. Consequently, he doubts the truth of ‘All vixens are vixens’ (2007: 86). Similarly, Williamson argues, we can imagine another speaker, Stephen, who takes ‘vixen’ to be a vague term and believes that sentences containing vague terms have truth value gaps (2007: 87). Hence, he too will fail to assent to ‘Every vixen is a vixen’. Nevertheless, he is fully competent linguistically. These cases are supplemented with the case of Vann McGee’s (1985) argument against the validity of Modus Ponens, but where inferring in accord with Modus Ponens is thought to constitute a strict constitutive understanding-assent link for the concept of the conditional (2007: 92ff.). On the basis of these examples, Williamson concludes that the alleged links between understanding and assent do not even hold in the case of simple logical truths.4

We may concede, and in fact do believe, that Williamson’s arguments are devastating
against strict understanding-assent links and EU++ views. But once the distinctions amongst the different kinds of epistemological conceptions are made explicit, it is clear that an argument against EU++ views (that make use of strict constitutive links) is not itself an argument against the less committed EU+ and EU epistemological conceptions – unless the considerations invoked in the argument generalize along some different dimensions.

The problem, as we shall argue, is not just that the semantic and epistemic phenomena that underlie the failure of EU++ fail to support such a generalization against EU+ and EU views; it is that these semantic and epistemic phenomena in fact provide direct positive support to EU+ and EU views. Moreover, this support can be found in clearly articulated form in Williamson’s descriptions of these semantic and epistemic phenomena. Williamson tells us that

The argument that Peter and Stephen mean what we mean by their words exemplifies two interlocking themes: Quine’s epistemological holism, on which the epistemological status of a belief constitutively depends on its position in the believer's whole system of beliefs, and Putnam and Burge’s semantic externalism… on which the content of a belief constitutively depends on the believer's position in a society of believers. [2007: 91]

Williamson’s counterexamples exemplify semantic externalist and holistic themes. We argue in the next two sections that developing these two themes along Williamson-inspired lines actually leads away from Williamson’s conclusions against epistemological conceptions and towards the view that understanding is epistemological in nature.

3. Epistemological Conceptions of Understanding (I): Semantic Externalism and Incomplete Understanding

3.1 Williamson on Semantic Externalism and Incomplete Understanding

Semantic externalism is a view, roughly, about how the determination of an individual’s meanings and concepts is constitutively constrained by a wider reality beyond the individual (cf. Burge 2006: 3). Putnam (1975) and Burge’s (1979/2006) early thought experiments highlighted the individual’s social environment as the relevant wider reality beyond the individual. Burge (1979/2006) emphasizes that what underlies the social determination of
content is a phenomenon of *incomplete understanding*, where an individual is competent with a concept in a minimalist sense of having or possessing the concept, but where she nevertheless fails to *fully understand* the concept that she possesses. In the thought experiments, an individual’s thinking is envisioned not only to contain erroneous attitudes, but also to have attitudes in which the error is “conceptual or linguistic” and not just “empirical in an ordinary or narrow sense” (Burge 1979/2006: 112). Believing that one has arthritis in one’s thigh is supposed to be an example of such a “conceptual or linguistic” error.\(^5\)

Now, if there is a distinction between incomplete and full understanding, then an individual can fail to assent to a conceptual truth while nevertheless having or possessing the relevant concept. For example, it will be possible for an individual to fail to assent to the conceptual truth that arthritis afflicts the joints only, while nevertheless having or possessing the concept of arthritis. The externalist view in this way *breaks* strict understanding-assent links: even though it is a conceptual truth that arthritis afflicts the joints only, and the individual fails to assent to it, she nevertheless possesses the concept of arthritis.

This is a problem for Williamson, and for his larger case against epistemological conceptions. For now one may hold that the failure of understanding-assent links is explained not by rejecting a constitutive link between understanding and assent to analytic truths, but by rejecting the idea that this link between understanding and assent is a *strict* constitutive link. The link holds only for full and not *incomplete* understanding. This allows the failure of understanding-assent links to be absorbed into the distinction between full and incomplete understanding. Epistemological conceptions of understanding that make use of the distinction between full and incomplete understanding can thus consistently insist on a constitutive link to assent for full understanding, but they must construe this link, because of the possibility of incomplete understanding, in a *non-strict* rather than strict way.\(^6\)

It should therefore come as no surprise that Williamson rejects the applicability of the distinction between full and incomplete understanding to his arguments against understanding-assent links (see Williamson 2007: 74, where he sounds this warning early in his discussion of understanding-assent links). Discussing the example of Vann McGee’s challenge to the validity of Modus Ponens, Williamson asks:

Could we invoke the division of linguistic labor (Putnam 1975: 228), and say that making any
given inference by modus ponens is a precondition only for full understanding of “if,” the kind of understanding characteristic of the expert rather than the layman?

Williamson answers:

The trouble is that McGee is an expert on conditionals. He publishes on them in the best journals. He does not defer in his use of “if” to any higher authorities. He may lack some theoretical understanding of conditionals, just as experts on neutrinos may lack some theoretical understanding of neutrinos, but none of that amounts to any lack of linguistic competence with “if” or “neutrino” at all. [Williamson 2007: 94]

Williamson’s idea is that the original externalist thought experiments tie the distinction between full and incomplete understanding, respectively, to the distinction between expert and lay; but in his own thought experiments, the thinkers that understand without assent are experts, like Vann McGee. Although, the line of thought continues, it may be intuitive that the lay in the original externalist thought experiments manifest an incomplete understanding of some of their concepts, it is not at all intuitive that the experts that figure in his own thought experiments manifest any incomplete understanding.

It is important to note here that Williamson takes himself to be articulating the deeper significance of semantic externalism itself, and pressing it and not some distinct or foreign phenomenon against epistemological conceptions. The deeper significance of semantic externalism is manifest in expert deviance and disagreement. From this Williamson concludes that the deeper significance of semantic externalism transcends the applicability of the distinction between full and incomplete understanding:

Cases of logical deviance [the cases of Stephen, Peter, and Vann McGee] hint at ways in which the failure of individualist accounts of meaning go deeper than the immediate lessons of the original anti-individualist arguments of Putnam (1975) and Burge (1979). Their cases are often analyzed in terms of a distinction between experts with full understanding and laypeople with partial understanding who defer to the experts, in virtue of which one may, correctly ascribe to them attitudes to the contents that experts determine… But, as we have seen, experts themselves can make deviant applications of words as a result of theoretical errors and still count as fully understanding their words… The social determination of meaning requires nothing like an exact match in use between different individuals; it requires only enough connection in use between them to form a social practice. Full participation in
For experts, or any full participant in the social practice, there is no meaningful distinction between full and incomplete understanding. So, the kinds of error or deviance involved in Williamson’s thought experiments cannot be understood in terms of the distinction between full and incomplete understanding.

We agree that the deeper significance of semantic externalism is manifest in expert deviance and disagreement. However, we disagree with Williamson about whether this deeper significance extends rather than transcends the applicability of the distinction between full and incomplete understanding.

### 3.2 Semantic Externalism and Incomplete Understanding: the Intellectual Account

What we want to argue now is that although the applicability of the distinction between full and incomplete understanding in Williamson’s thought experiments may not be wholly intuitive, it can be shown to be plausible on a more theoretical – indeed, semantic externalist – basis. The distinction does not arise from deference to experts, and in fact not at all from a relation to the social environment. It arises instead from the epistemology of critical reflection and deep disagreement, which contains an intellectual rather than social basis for the distinction between full and incomplete understanding. This is not a category error: the applicability of the distinction between incomplete and full understanding in expert deviance and disagreement is grounded in an epistemological conception of semantic externalism itself. In arguing for this, we will make use of some of Williamson’s own descriptions of the relevant epistemological phenomena, for part of our point is that Williamson’s conclusions run counter to his own best thinking about the issues.

Consider first the issue of just what kind of deviance or error is in question in Williamson’s thought experiments. The kind of error is, at the very least, one of the truth-value of the propositions about the relevant subject matter (for example, about whether all vixens are vixens). The error is factual and about the world. Williamson opposes this view to one that construes the kind of deviance at issue not as factual but as metaconceptual, in the sense of amounting to an error about concepts. As Williamson says,
the thought *vixens are female foxes* is not about the concept *vixen* or any other concepts; it too is about vixens, if anything. It is not to be confused with the metaconceptual thought *the thought VIXENS ARE FEMALE FOXES is true.* [Williamson 2007: 49]

Williamson here points the reader away from a metaconceptual construal of his thought experiments. This is part of Williamson’s larger ambitions in the first half of *The Philosophy of Philosophy* – to show that philosophical questions are not questions about concepts.

However, there is more to say about the kind of deviance or error that is involved in Williamson’s thought experiments. Although experts are capable of simple and obvious errors, and can fail to be in possession of relevant evidence, these are not in general the kind of errors or sources of error of interest in considering expert error. Williamson is not talking about the kind of deviance that is corrected by correcting a simple flaw in reasoning, or by becoming aware of evidence that one was previously unaware. The kinds and sources of error are supposed to be intellectually deeper than that. For example, in a passage that highlights how the failures of understanding-assent links need not be cases of error at all, but instead can be epistemically beneficial, Williamson writes:

> We cannot anticipate all our disagreements in advance. What strike us today as the best candidates for analytic or conceptual truth some innovative thinker may call into question tomorrow for intelligible reasons...If a language imposes conditions of understanding that exclude such a doubt in advance, as it were in ignorance of its grounds, it needlessly limits its speakers’ capacity to articulate and benefit from critical reflection on their ways of thinking. Such conditions are dysfunctional, and natural languages do not impose them. Similarly, conceptual practices do better not to restrict in advance their capacity for innovation. ⁸ [Williamson 2007: 126]

Williamson’s point here is that the so-called deviance involved in the failure of understanding-assent links in the thought experiments is part of the epistemology of “critical reflection”. We “benefit from” critical reflection and so critical reflection should not be and is not precluded by the nature of understanding (either linguistic or conceptual). The failure of understanding-assent links is a feature of innovation and, more generally, critical reflection.

The critical reflective nature of the failure of understanding-assent links invites a metaconceptual construal of Williamson’s thought experiments. What matters (at least in
part) is what one knows about the concept and what is analytic of it, knowledge that full understanding of the concept brings with it. This of course is the view that Williamson rejects. But the view, quite surprisingly, is reinforced in much of Williamson’s discussion, a discussion in which he assigns a significant epistemic role to metaconceptual thinking (via semantic ascent – see below).

Consider Williamson’s discussion of the issue of how logical deviance is to be evaluated:

What can prompt ascent to the metalogical level are hard cases in which one feels unclear about the permissibility of a given move at the logical level…Even to discuss the contentious reasoning we must semantically ascend. We cannot hope to resolve the dispute undogmatically if we never leave the lower level. [Williamson 2007: 41]

Semantic ascent in theories of thought and language is, according to Williamson, essential for resolving first-order disputes undogmatically. This is not inconsistent with Williamson’s view that such disputes are first-order and not metaconceptual, but there here is mismatch here nevertheless. We may know from critical reflective practice that ascent to the metaconceptual is necessary for the epistemic improvement that critical reflection brings, yet not know how it is possible that semantic ascent to the metaconceptual should be of any epistemic help. If what we want to know is something about the world, how can semantic ascent to the metaconceptual help?

Williamson immediately articulates this problem. He writes, of trying to answer a first-order question, not one about but one that involves the application of a vague predicate or concept:

The argument so far has reached two conclusions at first sight hard to reconcile with each other. First, the original question is not about thought or language. Second, to answer it adequately one must assess rival theories of vagueness in thought and language. How can that way of reaching an answer be appropriate to the original question? [Williamson 2007: 43]

Call this the puzzle of conceptual of knowledge. On one side, critical reflective practice seems to make use of metaconceptual resources in theories of thought and language in order to answer certain questions; on the other, the contents of the answers to these questions are
first-order and about the world. The puzzle is: how can the metaconceptual give or improve knowledge not just about concepts but also about the world? Responding to the puzzle will lead to a distinction between full and incomplete understanding that is applicable to the kind of expert deviance and disagreement that is under discussion in Williamson’s thought experiments.

What is Williamson’s response to the puzzle of conceptual knowledge? In answering the question about the application of a vague predicate or concepts, Williamson writes:

>a theory of vagueness validates some deduction that concludes with an answer to the original question. That deduction uses but does not mention vague thought or language…But discursively to justify trusting that deduction, rather than one that reaches another conclusion by other rules, one must assess the rival theories of vagueness. [2007: 43]

Williamson’s idea here is that semantic ascent to the metaconceptual is required for justification of one’s first order beliefs (like about whether Mars was always either dry or not dry) and in particular for having “discursive” justification for the first-order deductions (that use but do not mention vague thought or language) that we use to justify first-order belief.

Note that the ascent to the metaconceptual does not arise in an epistemological vacuum. It occurs in the context of discursive justification. It is part of a larger project, namely that of maintaining a critical reflective perspective on the world. So the ascent to the metaconceptual that is relevant for discursive justification presupposes a more basic, first-order, conceptual, competence.10 The externalist theme – how a wider reality beyond the individual constitutively constrains the determination of her meaning and concepts – bears exactly here. The metaconceptual resources that discursive justification uses have a nature that is explained in terms of the role of the metaconceptual in discursive justification and maintaining a critical reflective perspective on the world. The metaconceptual does not float free of the first-order conceptual and its tie to the world.

The tie to the world in the metaconceptual – the instantiation of the externalist theme in discursive justification – is the fundamental basis for responding to the puzzle of conceptual knowledge. Semantic ascent to the metaconceptual can help because the metaconceptual resources deployed have a nature that requires competence with the first-order conceptual about the world. This closes the gap between what critical reflective
thinking is reflection on, namely concepts, and the epistemic benefit of critical reflective thinking, which is an improved epistemic status for one’s thinking about the world.

But what work is the metaconceptual doing that the first-order conceptual cannot do? For example, in philosophy, what work is the metaconceptual doing? We may be able to close a gap between the metaconceptual and the conceptual, but why should there be a gap to close in the first place if what is of interest is first-order knowledge about the world? Here is Williamson’s answer:

The paradigms of philosophical questions are those that seem best addressed by armchair considerations less formal than mathematical proofs. The validity of such informal arguments depends on the structure of the natural language sentences in which they are at least partly formulated, or on the structure of the underlying thoughts. That structure is often hard to discern. *We cannot just follow our instincts in reasoning; they are too often wrong…In order to reason accurately in informal terms, we must focus on our reasoning as presented in thought or language, to double-check it, and the results are often controversial.* Thus questions about the structure of thought and language become central to the debate, even when it is not primarily a debate about thought or language. [Williamson 2007: 45; emphases added]

The role of semantic ascent to the metaconceptual, according to Williamson here, is to allow us to “double-check” our reasoning because “we cannot just follow our instincts”. However, we think that semantic ascent does significantly more than “double-check”, and, moreover, we think that Williamson articulates just what more it does. The problem is that double-checking and correcting our instincts in reasoning do not reach down to the kind of depths required for Williamson’s innovation. The relevant kind of expert error is not corrected by correcting a simple flaw in reasoning, nor by becoming aware of evidence that one was previously not aware. But this is how double-checking and correcting our instincts in reasoning helps. Critical reflection does not (just) double-check reasoning but instead involves the most careful and comprehensive evaluation of reasoning that thinkers can manage. What is at issue is not just correction in some generic sense, but critical reflective evaluation and the possibility of, in Williamson’s term, “innovation”.

How does the metaconceptual serve critical reflective evaluation? Here is how Williamson summarizes his view about the role of the metaconceptual in philosophy, in particular:
Analytic philosophy at its best uses logical rigor and semantic sophistication to achieve a sharpness of philosophical vision unobtainable by other means. To sacrifice those gains would be to choose blurred vision. Fortunately, one can do more with good vision than look at eyes. [Williamson 2007: 46]

Analytic philosophy uses “logical rigor and semantic sophistication” to achieve a “sharpness of philosophical vision” that it otherwise unattainable. The reference to sharpness of philosophical vision is obviously a metaphor, but for what? What kind of sharpness does logical rigor and especially semantic sophistication non-metaphorically produce? The answer is that it produces the sharpness of clarity of understanding, in the form (ideally) of explicit semantic knowledge, used in reflective justifications of first-order beliefs. This clarity of understanding is clarity over the thoughts one is thinking with in one’s first-order beliefs.

Why think of “sharpness of philosophical vision” in terms of clarity of understanding? Why not, for example, as a kind of intellectual clarity of rational intuition modeled on clarity of visual perception? We need not argue that sharpness of philosophical vision does not also include some kind of intellectual clarity of rational intuition, only that it also does and should include clarity of understanding. But it is hard to see the metaconceptual nature of the epistemic achievement that semantic sophistication involves – an epistemic achievement concerning the correct application of concepts themselves – as not being about the nature of understanding. It may be objected that semantic sophistication is too theoretical to be a matter of understanding, but it is important to see that Williamson’s semantic sophistication is not a purely theoretical matter. Semantic sophistication has to mesh with first-order competence and understanding in discursive justification. This provides a ready explanation of what more one can do with “good vision”: with clarity in understanding, one can improve the epistemic status of one’s first-order beliefs about the world. We use clarity of understanding “discursively to justify” first-order belief about the world. Semantic sophistication contributes to knowledge by clarifying what, at the first-order level, is known – the content of knowledge.

The fact that there can be this kind of clarity of understanding shows that a distinction between incomplete and full understanding is applicable even in the kinds of expert deviances and disagreements that Williamson’s thought experiments invoke. So
although the applicability of the distinction between incomplete and full understanding in expert cases may not be wholly intuitive, it is grounded in theoretical considerations about the role of metaconceptual resources and “semantic sophistication” in justifying first-order attitudes in critical reflective thinking.\textsuperscript{13}

Williamson thinks that no theory of concepts should make unintelligible what epistemic practice already shows to be of cognitive value – namely, failing to adhere to strict understanding-assent links. We agree. But, against Williamson, we have contended that exactly what epistemic practice shows to be of cognitive value is the idea of the possibility of intellectual or critical reflective advance – expert epistemic advance based in clarity of understanding. This brings with it the applicability of the distinction between full and incomplete understanding, which in turn allows epistemological conceptions of understanding to absorb the failure of understanding-assent links with non-strict links between understanding and assent.

4. Epistemological Conceptions of Understanding (II): Metasemantic Holism

In this section, we shall assume that Williamson is right to reject the distinction between incomplete and full understanding, and thus to reject the standard versions of social externalism as well as the intellectual version described in §3. Even so, we shall argue, it is possible to defend epistemological conceptions. Indeed, we shall suggest, the metasemantics Williamson himself ends up defending is a version of EU precisely because of its appeal to semantic holism.

It is of some importance that Williamson provides the outlines of an alternative account of meaning and concept determination. If we are to accept that Peter and Stephen use their words with their standard meanings, and share our concepts, Williamson needs to explain how this could be possible. If no explanation is forthcoming to this question, the EU\textsuperscript{++} view may well be thought to stand after all.\textsuperscript{14} Williamson recognizes this. Despite the evidence against the existence of strict understanding-assent links, he writes, “it can be hard to resist the idea that there must be such links, otherwise the distinction between understanding and not understanding would dissolve: speakers who all understood the same
term might have nothing substantive in common to constitute its shared meaning” (2007: 121).

In order to spell out an alternative picture of understanding, Williamson appeals to the idea that synonymous expressions have exactly the same semantic properties, and proceeds to spell this out in terms of truth-conditional semantics (2007: 127-128). He then adds this to the picture of a shared language as a complex web of interrelations:

Whether an expression in one language is synonymous with an expression in another language is not a matter of whether the two speech communities associate similar beliefs with the expressions. Rather, the practices of each community (including their beliefs) determine the semantic properties of its expressions. Synonymy is the identity of the properties so determined, irrespective of similarities in belief. ... In particular, synonymy is consistent with the total absence of shared platitudes. [2007: 128]

However, it is far from clear how this can provide a reply to the question of an alternative conception of semantic competence. The account of synonymy tells us what it means for two terms to have the same meaning but, again, what we wanted to know is something about the facts that make it true that two terms have the same meaning. Since, as Williamson notes, two terms may have the same meaning without in any way being part of the same practice, without the speakers using the terms being causally related, the appeal to the community simply does not answer the metasemantic question. We need to know how, as Williamson puts it, “the practices of each community (including their beliefs) determine the semantic properties of its expressions”. Williamson therefore needs to say something more substantive in order to make a compelling case that there is an alternative metasemantic story on offer.\footnote{15}

Although it has not been much discussed in the literature, in the final chapter of the book Williamson does actually proceed to present such a theory.\footnote{16} This is of particular interest, we think, since the theory he presents is an epistemological conception of understanding, in particular an EU kind of view according to which there are holistic understanding-assent links.

If one wishes to defend a fully non-epistemic metasemantics, the most obvious option would be to endorse a version of the causal theory of meaning and content determination.\footnote{17} One would therefore expect Williamson to be a proponent of such a theory.
However, Williamson expresses significant skepticism about the prospects of providing a causal theory of meaning and content determination. In particular, he expresses skepticism about the idea that concepts are determined by the speaker’s dispositions to assent under optimal conditions. Instead he suggests that we need a holistic theory of meaning and content determination. A plausible theory, he argues, must involve constraints on interpretation that “apply at the level of the subject’s total system of thoughts, not at the level of individual constituents” (2007: 259). This is wholly in line with the appeal to holistic considerations in his discussion of deviant speakers, his claim that epistemological holism explains how “unorthodoxy on one point can be compensated for by orthodoxy on many others” (2007: 91). That is, the reason the deviant speaker can be said to use her words with their standard meaning is because the facts about meaning and content are determined holistically, by the speaker’s overall use of the term. Although there is no sentence S such that S must assent to it, as long as there is an appropriate background of (dispositions to) assent and dissent to sentences, competence is ensured.

This strongly suggests an account of deviant speakers along the lines of Davidson’s semantic holism. On Davidson’s view, there are no understanding-assent links of the sort stated in (UAt) or (UAl) (see §2 above), since meaning is determined not by assent to particular statements but by the speaker’s overall pattern of assent and dissent. This allows for the possibility that a speaker dissents from a very central statement, or assents to an obvious falsehood, and yet uses her words with their standard meaning. For example, discussing the case of the speaker who utters ‘There’s a hippopotamus in my refrigerator’, Davidson suggests that we may be right to interpret him as having said that there is a hippopotamus in the refrigerator. However, whether we are right depends on the speaker’s further use of the relevant terms. Thus, Davidson says, if under questioning the speaker does not come up with a plausible story, but goes on saying that the hippopotamus is round with wrinkled skin and makes delicious juice, Davidson argues, “we slip over the line where it is plausible or even possible to say correctly that he said that there was a hippopotamus in the refrigerator” (Davidson 1984: 100-101). That is to say, the ‘unorthodox’ assent to ‘There’s a hippopotamus in my refrigerator’, is not compensated for by orthodoxy (agreement) on other points, and hence it cannot be said that the speaker uses ‘hippopotamus’ with its standard meaning. Indeed, at points Williamson echoes Davidson: ‘imputed disagreement on any given point can be compensated for by imputed agreement on others’ (2007: 125).
However, this raises an obvious question. Davidson’s holistic metasemantics is part of an epistemological conception of meaning and content. The guiding idea is that interpretation is constrained by the principle of charity. The principle of charity functions as a principle of meaning and content determination, according to which facts about use are mapped on to meaning and content facts in such a way as to make the speaker come out as having a set of largely true and rational beliefs – beliefs that, by and large, stand in inferential (logical and evidential) connections with one another, and serve to explain action (in conjunction with the subject’s desires). This does not mean that there are no internal links between understanding and assent, but instead only that these links are to be construed holistically. It follows, for instance, that two speakers cannot use the term ‘vixen’ with the same meaning unless there is much overlap in their use with the term, unless there is much agreement in belief. Contrary to Williamson, therefore, synonymy is not consistent with the total absence of shared beliefs.

Can Williamson’s holism avoid this implication? Williamson suggests that the principle of charity should be replaced with a distinct principle of determination: The principle of knowledge maximization. To motivate the principle and show how it differs from Davidson’s principle, Williamson considers a subject, Emanuel, who mistakenly believes that he can read off a person’s character just by looking at her face. Emanuel sees a stranger, Celia, and forms the beliefs ‘She is F,G, H,...’. As it turns out, these descriptions do not fit the stranger but someone else, Elsie. If the goal were to maximize truth, then we should ascribe Emanuel true beliefs about Elsie. But this would be absurd since Emanuel does not see Elise and does not know anything about her. Hence, Williamson argues, what should be maximized is not true beliefs, but knowledge: “The proposal is to replace true belief by knowledge in a principle of charity constitutive of content. ... The right charitable injunction for an assignment of reference is to maximize knowledge, not to minimize ignorance (which is always infinite)” (2007: 265).

Now, we are not convinced that Davidson’s principle would not deliver the same result in this case. However, we shall not here try to sort out whether the principle of charity can indeed account for the cases that Williamson discusses. Instead, we shall argue that even if Williamson’s principle of knowledge maximization differs from Davidson’s principle of charity, it too involves rationality constraints that imply that there is an internal link between meaning and belief. In order to see this, it is helpful to make explicit three features of
knowledge maximization.

First, knowledge maximization is not a practical constraint but a constitutive metasemantic constraint telling us something about the function from use to meaning and content: A thinker’s contents are metasemantically determined so as to maximize knowledge. In his discussion of deviant speakers, Williamson rejects the idea that these kinds of rationality constraints are essential to meaning determination. The need for a background story, he argues, is merely practical, and does not show that there is a constitutive link between belief and understanding. Much of the practical value of language, he suggests, consist in its capacity to facilitate communication between individuals in “epistemically asymmetric positions”, and disagreements are easier to negotiate against a background of extensive agreement. But, Williamson goes on to say, we should not conflate practical constraints with constitutive ones: “A practical constraint on useful communication should not be confused with a necessary condition for literal understanding” (2007: 125). However, if the connection with belief were merely practical and did not provide constitutive constraints of any sort, there would be no principled reason why the speaker could not be ‘unorthodox throughout’; why unorthodoxies at one point should not be compensated for by orthodoxies at others, as Williamson puts it. Instead, we should be able to dispose of the background story altogether.

Second, and related, although knowledge maximization operates holistically, and involves knowledge in a constitutive role, it is not a kind of epistemological holism. It is rather a metasemantic holism that assigns a constitutive role to epistemic facts. To give an account of conceptual competence in the minimalist sense that Williamson pursues is to give an account of the metasemantic facts in virtue of which meaning and content facts hold; that is, it is to give an account of the determination of meaning and content. The determination relation is metaphysical and not epistemic: it concerns the supervenience of meaning and content facts on non-semantic facts, such as facts about use. The principle of knowledge maximization tells us how to map these non-semantic facts on to meaning and content facts: so as to maximize the subject’s knowledge. Just like the principle of charity that Davidson deploys, therefore, knowledge maximization is a principle concerning the metaphysical determination of content; one, moreover, which takes epistemic considerations to play a constitutive role in the account of conceptual competence.

Third and finally, knowledge maximization is distinct from truth maximization, as
Williamson stresses, since it requires knowledge and knowledge involves evidence. This means that the principle will involve rationality constraints. Although on Williamson’s view the notion of evidence is not a wholly internal notion but involves truth and objective probability relations, it is partly internal involving ordinary rational relations of consistency and coherence. For instance, Williamson says, knowing \( p \) excludes “believing \( p \) solely for sufficiently confused or irrational reasons” (2000: 57). Consequently, if the principle of knowledge maximization functions as a principle of meaning and content determination it should impose rationality constraints on interpretation much like the principle of charity, in which case it follows that there is a constitutive link between meaning and belief also on Williamson’s view. Indeed, it follows that there is a constitutive link between meaning and content facts and knowledge. As Williamson puts it: “Knowledge maximization implies that our ancestors had some primitive knowledge as soon as they had some primitive beliefs” (2007: 276).

These features of knowledge maximization – that it is not practical but constitutive, metasemantically rather than epistemologically holistic, and such as to involve not only reference and truth but also rationality constraints – strongly suggest that from the point of view of assessing the viability of epistemological conceptions, the differences between Davidson and Williamson are minor compared to what they have in common. They differ on whether evidence should be understood in ‘internal’ or ‘external’ terms, in terms of rational belief or knowledge. But they both defend a holistic account of the determination of meaning and content, where rationality constraints play an essential, constitutive role. And both accounts imply that agreement in meaning and concepts requires substantial agreement in belief.

It might be questioned whether holism of this sort really suffices to support epistemological conceptions of understanding properly speaking. Indeed, Williamson suggests that if one adopts a holistic approach it is impossible to rescue the idea that understanding provides an epistemic basis since it would be impossible to rescue epistemic analyticity. To say that meaning supervenes on use in a holistic fashion, is to say that the basis on which meanings and contents supervene include a miscellaneous mix of cognitive capacities, capacities that are not semantic or conceptual in the relevant sense and do not yield a base for analyticity (2007: 131). Williamson sums it up:
Linguistic competence plays the same role when we know ‘Vixens are female foxes’ as when we know ‘There is a vixen in the garden’. It does not gain a role just because perception loses one. The contribution of linguistic competence amounts to this: you won’t get very far if you conduct your inquiry in a language you don’t understand (2007: 133).

We think this is too quick. Williamson is right, of course, that if one rejects epistemological conceptions of analyticity of the sort defended by Boghossian and adopts a more holistic conception of the relation between understanding and assent, it will not be possible to employ a metasemantic strategy in support of epistemological analyticity. But it cannot be concluded from this that understanding could not play an epistemic, justificatory role of any sort.

Consider the example mentioned by Williamson. If indeed perception loses its justificatory role in the case of ‘Vixens are female foxes’, then what justification is left? It is possible to hold that linguistic competence provides a prima facie, defeasible justification, without accepting the analytic-synthetic distinction. The idea could simply be that assent to certain statements is more central to our competence than others, and that assent to some is so central that an individual who fails to assent to them is semantically incompetent – unless, indeed, she provides a justification for the dissent that rationalizes it and that (if true) would override the prima facie justification.\textsuperscript{21} If a statement enjoys such a privileged status it is a priori in the sense that it does not need support from more peripheral statements. However, to say that it is thus a priori, is not to say that peripheral statements cannot force a revision of it: apriority does not entail unrevisability.\textsuperscript{22}

If one adopts this picture of center and periphery, it would seem plausible that understanding provides a defeasible source of justification. The statements (beliefs) central to understanding the meaning of a word (grasping a concept) provide a starting point for all investigations, and are not to be questioned unless a rival theory is presented; i.e. only if some defeaters are in place. This is precisely why the expert (such as Peter or Stephen) who dissents from ‘Every vixen is a vixen’ should be treated differently from the non-expert who similarly dissents: in the first case there is a theoretical disagreement (assuming the expert justifies the dissent, as Peter and Stephen both do), in the second there is an obvious failure of understanding.\textsuperscript{23}

That Williamson’s account of understanding has epistemological implications is also brought out if we consider recent discussions of the so-called ‘method of cases’ within
A central idea is that intuitions about particular cases provide important evidence for or against philosophical theories. Williamson questions the tendency to construe intuitions as reports of one’s own psychological states, and argues that the relevant evidence should simply be understood as judgments about the world (2004: 119). Moreover he suggests that there is a continuity between judgments about ordinary cases (‘x is a vixen’) to the philosophically more contentious cases (‘x is an instance of knowledge’). The philosopher who is skeptical of the method of cases, then, is expressing a form of judgment skepticism, “skepticism about our practices of applying concepts in judgments” (2007: 220). The function of the principle of knowledge maximization is precisely to question judgment skepticism: “Knowledge maximization is a factor, typically unnoticed by judgment skeptics, that makes their scenarios more far-fetched than they realize” (2007: 275).

The principle of knowledge maximization therefore defends the method of cases as a source of knowledge in philosophy. The method does not presuppose that there are strict understanding-assent links, as in epistemological analyticity, but simply that our judgments (in virtue of our concept grasp) are by and large reliable in tracking the relevant properties (of being a vixen or being an instance of knowledge), and this is precisely what the principle of knowledge maximization guarantees. Williamson’s positive account of understanding, his metasemantics, therefore does have important epistemological implications, notwithstanding his rejection of epistemological analyticity.

5. **Conclusion: Metaphilosophical Implications?**

We have argued in this paper that Williamson’s attack on epistemological conceptions of understanding fails. Even if the arguments Williamson gives are virtually decisive against a strongly committed EU++ view, they do not generalize to less committed EU+ and EU views. We have argued, further, that Williamson’s own elaborations of the lessons to be drawn from his arguments in fact point in the opposite direction. Williamson’s arguments against epistemological conceptions harbour lessons and rationales that support the idea that understanding is, in one way or another, fundamentally epistemic in nature.

As indicated above, this would seem to leave open the metaphilosophical view according to which philosophy finds an epistemic basis in the nature of understanding. We
cannot elaborate the possibilities opened up, but we note in closing the state of play if what we have said in this paper is correct. Our distinction amongst different kinds of epistemological conceptions suggests a parallel metaphilosophical taxonomy. We close with a brief description of this taxonomy and its significance.

Williamson’s target, EU++ views that employ strict constitutive links, suggests a parallel metaphilosophy according to which

\[(MP^{++}) \text{ Understanding provides an indubitable epistemic starting point for philosophy.}\]

Next, EU+ views, which employ non-strict constitutive links, and which have been exemplified in this paper by a semantic externalist view that emphasizes the importance of incomplete understanding, suggest a metaphilosophy according to which

\[(MP^{+}) \text{ Incomplete understanding provides a genuine but dubitable starting point for philosophy.}\]

An ambition complement to this would hold in addition that full understanding provides an endpoint for philosophy. Next EU views, which link understanding and assent holistically and without a reliance on analyticity, suggest a metaphilosophy according to which

\[(MP) \text{ Understanding provides flexible and dubitable starting points for philosophy.}\]

An ambitious complement to this would hold in addition that reflective equilibria provide endpoints for philosophy. Finally Williamson’s own, skeptical, view about understanding is that

\[(MP_w) \text{ Understanding does not provide a starting point for philosophy.}\]

Our criticism of Williamson’s argument against epistemological conceptions, then, may suggest a metaphilosophical parallel: that a rejection of MP++ does not itself suffice for a move to MP_w. Understanding the distinctions between different kinds of epistemological
conceptions of understanding is a starting point for a metaphilosophy that is non-skeptical about the epistemic role of understanding.

University of Toronto
Stockholm University

References


We use ‘epistemological’ to mean, roughly, ‘having to do with the theory of knowledge’ and ‘epistemic’ to mean, roughly, ‘having to do with knowledge’. Epistemological conceptions of understanding explain how the theory of understanding needs to make use of resources from the theory of knowledge – they explain how the theory of understanding and the theory of knowledge intertwine. To say that understanding is epistemic in nature is to say that the nature of understanding is explained in terms of knowledge, justification, epistemic rationality, and the like.

This route has been most vigorously pursued by Paul Boghossian (see his (1996), (2003), and (2011), for example).

Other commentators have questioned Williamson’s focus on strict understanding-assent links. For example, Magdelen Balcerak-Jackson and Brendan Balcerak-Jackson make the point that “to base the epistemology of an armchair discipline on certain cognitive capacities does not require [one] to assume that those capacities provide any guarantee that their possessor comes to know the truths to which they provide access” (2011: 195; emphasis in original). Gillian Russell argues that for analyticity to have an interesting role in philosophy “it is not necessary that an analytic sentence be a kind of override key for assent” (2010: 44). We agree. But we wish in addition to emphasize both how epistemological conceptions of understanding are supported by weaker theses than the strict thesis and how these weaker theses are instantiated by different theories of content.

Moreover if the links do not hold for basic logical truths it is unlikely that they will hold for analyticities like vixens are female foxes.

In fact, Burge (1979/2006) takes the presence of incomplete understanding to be both necessary and sufficient to run the thought experiments that lead to the externalist or anti-individualist conclusions (1979/2006: 107, 111-112), and describes the possibility of incomplete understanding as the “key to the thought experiment” (1979/2006: 107). See Wikforss (2001) where it is argued that Burge’s thought experiment does indeed depend on the assumption of incomplete understanding. Also, the bulk of Burge’s explanation of the thought experiment consists in justifying the attitude attributions made in the first step of the thought experiment, the step that invokes incomplete understanding (this is the central preoccupation of the final two-thirds of Burge (1979/2006), as well as of much literature directed against externalism or anti-individualism). For criticism of the third and final step of the thought experiment, according to which (to use Burge’s example)
a thinker in the counterfactual circumstance would be incapable of having thoughts with the concept *arthritis* as a constituent, see Begby (2011).

6 Ichikawa and Jarvis make use of a similar idea in their argument for the constitutive role of the “rules of thought” for the propositional attitudes:

Being governed by the conclusive rational relations between propositions so as to be capable of having propositional attitudes is not the same as being *strictly* and *absolutely* governed by the conclusive rationality relations between propositions. [2013: 38].

“Extraordinary mastery” of a concept requires “a straightforward psychological implementation” but “ordinary mastery” does not (2013: 90).

7 Although we will not be able to develop the case for this in detail here, the main move is to put a focus on the *objectivity* of the *norms* governing thinking instead of on the *externality* of the *objects* the thinking is about, in the externalist account of the determination of meaning and content. We think that the discussion here can proceed without working through the details of such an account. For related discussion, see Rattan (2010).

8 Cf. Burge and his pithy summary of what lies behind his extension of anti-individualism beyond a relevance for the social environment: “Our conception of mind is responsive to intellectual norms which provide the permanent possibility of challenge to any actual practices of individuals or communities that we could envisage” (Burge 1986/2006: 274).

9 For further discussion, see Rattan (manuscript).

10 Cf. Burge, on the nature of conceptual analysis and disagreement: “These disputes usually concern two matters at once. One is how correctly to characterize the relevant entities…other is how to state the meaning of the term as such…” (Burge 1986/2006: 260-261).

11 We agree with Williamson that the results of evaluating our reasoning in thought and language will often be controversial, but it is not clear why the results of mere double-checking should be controversial. Did we lock the door? Did we alphabetize the list correctly? Did we deny the antecedent in the proof? Of course some subjects are controversial, but it is not at all clear why double-checking in and of itself should introduce controversy.

12 This interaction between theoretical semantic sophistication and first-order competence and understanding is a potentially fruitful lens through which to consider Michael Glanzberg’s (forthcoming) view that “the use of disquotation in semantic theories precisely marks the places where [semantic theories] lose their explanatory force”.

13 To say that the applicability of the distinction between incomplete and full understanding in the case of experts is not wholly intuitive is not to say that it is not intuitive at all. Williamson’s Peter and Stephen are semantically sophisticated and explicitly endorse deviant semantic theories that reflectively justify first-order deviance. Their deviance is intuitively *also* semantic or conceptual. Against this intuitive idea, Williamson writes: “[g]iving an incorrect theory of the meaning of a word is not the same as using the word with an idiosyncratic sense” (2007: 89). That’s right – giving an incorrect theory of meaning is not the same as use with an (or of an) idiosyncratic sense – but from this it follows that there is no conceptual error only if conceptual errors must be understood as use of an idiosyncratic sense. The metaconceptual construal does not construe semantic or conceptual error in terms of *use* of a deviant, idiosyncratic sense or concept; it instead construes it in terms of error about a non-idiosyncratic concept.

14 This, indeed, is Boghossian’s reaction, suggesting that at least when it comes to the logical constants (and the theoretical terms in science) there is no serious metasemantic alternative to inferentialism of the EU++ sort (2011: 495).

15 This is especially urgent given that Williamson makes clear that an orthodox semantic externalist metasemantics is insufficient.

16 For some discussion see McGlynn (2012) and Baz (2014).

Although it is less clear how it is in line with the appeal to the social practice, since what seems to be matter is the subject's total system of thoughts. However, we shall leave this complication be here.

See Wikforss (2010) for a discussion of this point.

Williamson accepts this, see 2007: 260-261.

In a footnote, Boghossian suggests that it would be possible to defend a holistic version of inferentialism. Even if there are no atomic UA-links, he writes, there may be clusters of such links of the form “necessarily, anyone who understands w accepts S(w) or S’(w)...or S*(w)” (2011: 495, fn 5). This may be similar to the idea proposed here, depending on how the idea of ‘clusters of links’ is spelled out.

This idea is obviously reminiscent of Quine’s picture of the web of belief where some statements belong to the periphery, some are more central and some so central that overthrowing them would require very substantial changes in the web. Indeed, Quine himself suggested that the truths of logic belong to the center and that the deviant logician is better interpreted as having changed the topic (Quine 1970: 81). It is also an idea that can be found in Davidson: “Some disagreements are more destructive of understanding than others, and a sophisticated theory must take this into account” (1984: 168-169).

In a recent paper Avner Baz notes this and suggests that Williamson’s commitment to holism supports an epistemological conception of understanding. Discussing Williamson’s account of deviant speakers, he writes: “That we must imagine some story in order for the deviance not to undermine the competence suggests that there is truth, however holistic, in epistemological conceptions of analyticity” (2014: 12).

See Mallon et.al. (2009) and Baz (2014).

For a discussion of the anti-skeptical implications of Williamson’s principle of knowledge maximization see McGlynn (2012) and Baz (2014).