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Tiivistelmä – Referat – Abstract <p>This thesis aims to defend the use of intuitions and intuition-based philosophy in light of the recent negative conclusions from the field of experimental philosophy. First, an account of intuitions and intuition-based philosophy will be given that is continuous with four questions from past conceptions of intuitions regarding their features and uses. The four questions are drawn from analyses of intuitions in Kant and in Aristotle (Chapter 2). The questions are concerned with whether intuition is best understood as (1) a special faculty, or a product of some faculty or capacity; (2) an immediate and noncognitive episode, or a more mediate and reflected-upon episode of understanding and competence; (3) a particular judgment only, or a generalizable judgment; (4) only correct in light of an appropriate level of expertise, or with a minimal level of competence.</p> <p>Following this, analogies will be made to the sciences and scientific method (Chapter 3), and to linguistic intuitions (Chapter 4), which will bring the four previous questions into contemporary understanding of intuitions and intuition use in standard philosophical methodology. Chapter 3 will focus more on the third and fourth points, while Chapter 4 will focus more on the first and second points. The science analogy will benefit from a more recent account of philosophical intuitions provided by George Bealer (1998), as well as from considerations of reflective equilibrium's role in the third point, and a discussion on moral and more general expertise in light of the fourth point. Chapter 4 will then focus on a contemporary account of philosophical intuitions by Jaakko Hintikka (1999), drawing on the analogy with linguistics and providing a negative foil from which to argue against. Chapter 4 will also benefit from discussion on experimental psychology's insights and confusions in their subject of "intuitional thinking", which will be contrasted with a more philosophical account of intuitions and reflective thinking drawing from Robert Audi (1996). Both chapters 3 and 4 will end with a recapitulation of the two-part features of each of the four questions from Chapter 2 in light of the contemporary discussions and respective analogies.</p> <p>Chapter 5 will introduce thought experiments as one of the best tools of intuition-based philosophy that makes use of a four-model taxonomy from Ray Sorensen (1992). The tripartite movement of experimental philosophy will be then be introduced, with a review of one of the first papers of the movement: Jonathan Weinberg, Shaun Nichols and Stephen Stich's (2001) "Normativity and Epistemic Intuitions." Criticisms and response will follow, based on the preliminary conclusions drawn by the divergences in intuitions across cultural and socio-economic divisions, as well as a criticism of the survey methodology employed by most experimental philosophers. Finally, the expertise defense from the armchair-ists will be made, in light of question 4 from Chapter 2, that also faces criticisms from the Experimental Restrictivists who attack intuition-based philosophy. With a broadened understanding of the prevalence of intuition in contemporary philosophy as provided in chapters 3 and 4, the attack will be seen as either premature, or as still allowing for progressive philosophical inquiry in the other camps of Experimental Descriptivism and Analysis.</p>		
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Intuitions and Experimental Philosophy

Michel Alain Lamblin

013594383

michel.a.lamblin@helsinki.fi

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Faculty of Social Sciences, University of Helsinki

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It is to be expected that we should start with a fragment that particularly appeals to us and seek to reconstruct the rest, near enough, from that fragment. Moreover, we must start from somewhere in current folk morality, otherwise we start from somewhere *unintuitive*, and that can hardly be a good place to start from.

Frank Jackson, *From Metaphysics to Ethics*, p.135

Of course, 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 for anything, ultimately speaking.

Saul Kripke, *Naming and Necessity*, p. 42

1 – Introduction

The use of intuitions in philosophy is synonymous with the very method of philosophy. It is difficult to get away from talk or mention of 'intuition', 'intuitive' or 'intuitively'; they are signposts that reveal a philosopher's overtures to her reader, asking for the courtesy of seeing the self-evident, obvious and clear propositions in the same way that she herself sees them. They are often used with little reflection on what they actually are. Are they a kind of belief? Are they a *sui generis* cognitive state? Are they just guesses or hunches? Some take a stand on claiming such descriptions as defining intuitions, while others quietly let it slide while still employing intuitions on the side. Others may have an intuitive notion of what an intuition is, and though this may beg circularity it might be closer to the truth than saying something relatedly circular, say that one has a precept of what a precept is, or knowledge for what knowledge is. Having such an intuitive understanding of intuitions and their use is not to fault intuitions, relegating them to the bin of philosophical absurdities; having an understanding of what it is to find something intuitive, and to have the intuition of that something, is, in my humble eyes, as central an idea, and a problem, to philosophy as any other.

Due to its difficult nature in being addressed directly, it may be better to 'observe' intuitions and intuition use in philosophy to get a better understanding: rather than

grabbing intuition by the horns, one ought to let it frolic (if that is what bulls even do) in its natural environment. This environment is philosophy, quite generally, but there are some favored pastures for intuitions that really bring out its qualities and uses. Thought experiments are one such optimal setting where intuitions can really shine, revealing their true, free and unfettered character that can lead to all sorts of interpretations depending from where one is watching the action. One observer in the open may witness some very wild and brutish behavior; another by a tree may see something more noble: a beast at the peak of its maturity and strength. A Spaniard may have a different view, and an ex-matador an even different and very specific view that releases a rush of memories and emotions of their former selves.

I do not need to draw this bullish analogy much further, and I hope some points are clear: the intuitions we have, as elicited by thought experiments, may be the same intuitions that others share, or they may be quite different. Depending on our familiarity with the scenario, we may have different intuitions from someone with little familiarity. While there may be a standard of correct intuitions to be had of some described situation (say, the matador or trainer having correct intuitions of the bull's immanent behavior), there are also more commonly held intuitions that are widely shared, or that largely conflict, depending on certain relevant (or irrelevant) factors that people are reacting to more than others. It is in this light that empirically minded philosophers in general, and experimental philosophers in particular, offer some insight into explicating what it is that people react to in a thought experiment that leads to intuitions that the traditional philosopher-inventor of the thought experiment had not anticipated or remotely foreseen.

Before reaching the discussion on thought experiments and experimental philosophy (Chapter 5), this thesis will begin with a short look into the past. From here, the somewhat outdated uses and conceptions of intuition will proffer some basic questions that underlie the features of intuitions and talk of intuitions (Chapter 2). These questions are whether intuition is best understood as (1) a special faculty or a product of some faculty, (2) an immediate and noncognitive intellectual event, or a more mediate and reflected point of understanding, (3) a particular judgment only, or a potentially generalizable judgment, and (4) only correct in light of an appropriate level of expertise, or with a minimal level of competence. These four points will be naturally elicited from the discussions on Kant and Aristotle, in that anachronistic order.

Chapters 3 and 4 will each take an analogy to quite separate domains with intuition-like uses that will further the picture of philosophical intuitions and tip the scales in each of the four point's polarities. Chapter 3 will look to the analogy with science, drawing a comparison between philosophical intuitions in standard philosophical methodology (as outlined by Goldman and Pust 1998) and observations in scientific methodology. It will also consider one of the more significant recent accounts of philosophical intuitions, that of George Bealer (1998), which will slowly flesh out the notion of intuitions and broaden it from what I see is an overtly narrow construal by Bealer to allow room for moral intuitions. Reflective equilibrium will provide a tentative answer to point (3), and the discussion of expertise in point (4) will lead to a very naturalized construal of intuition (Kornblith 1998) and a modestly naturalized notion (Goldman and Pust 1998). Chapter 4 will then take the analogy with linguistic intuitions as a platform from which to explore points (1) and (2) in more detail. This chapter will also feature some key points for more recent conceptions of intuitions, from Robert Audi (1996) and Jaakko Hintikka (1999), the latter contributing more negatively than the former. Before Hintikka is discussed, the linguistic analogy will preface the complications in experimental philosophy for getting at the right intuitions of the folk and the problems of divergence among intuitions, and will also draw on the insightful and yet confusion-inducing understanding of "intuitional thinking" from experimental philosophy. Chapter four will close with a reintroduction of an Aristotelian account of intuitions from Chapter 2, and, as with Chapter 3, end with a recapitulation of the four points drawn from Chapter 2.

A discussion on thought experiments will open Chapter 5, utilizing the four models classification of Ray Sorensen (1992), which will then be followed by an introduction to experimental philosophy and the three camps it is currently divided in. One of the first papers on experimental philosophy, Jonathan Weinberg, Shaun Nichols and Stephen Stich's (2001) "Normativity and Epistemic Intuitions", will then be reviewed, interspersed with objections and responses to the preliminary conclusions drawn. The careful methodological critique of Simon Cullen (2010) will follow, offering suggestions for how experimental philosophy might continue to cull only robust intuitions that are unmarred by framing and ordering effects, followed by further optimistic suggestions for experimental philosophy. Chapter 5 will close with an 'armchair' defense for the use of intuitions based on the fourth point's (from Chapter 2) notion of expertise.

While the divide in intuitions of the folk has led many philosophers (notably those in the Experimental Restrictivist camp)¹ to deny all use of intuitions by philosophers in their theorizing, I see such moves as premature and quite hopeless in light of the unavoidable prevalence of intuitions in all areas of philosophy. Even if the concept of an intuition is inchoate, or is explained away,² the label ‘intuition’ and its cognates still serve a philosophical function that not many philosophers are willing to give up. ‘Intuition’ refers to the noninferential, relatively certain and modestly pretheoretical judgments that allow for inquiry to begin. Like the wooden panels on Neurath’s ship, they may need fixing, exchanging, dismissing or fine-tuning, but dismissing them wholesale would lead to the drowning of any hope for philosophical knowledge

2 – Intuitions in the Past

A historical investigation into the use of the term ‘intuition’ in philosophy would go well beyond the scope of this thesis. One could arguably follow the usage and mention of ‘intuition’ in every chapter of the history of philosophy, from the ancients to the present, as its implementation is widespread and perhaps deeply integrated into many areas of philosophy: logic, aesthetics, metaphysics and ethics, just to name the big ones. Though the term ‘intuition’³ and the concept itself have undergone many changes and have been emphasized varyingly throughout history, I believe there are some important features that have remained and survive up to our present-day understanding of intuition in philosophical contexts. Rather than provide a definition of what I consider to be the key features of our current understanding of what intuition is and is not, I think a look into a few of the chapters of the history of philosophy will bring out these features for both positive and negative construals of the concept in question. This exercise in cherry-picking features may seem anachronistic on the one hand, or seriously misguided on the other, as I am focusing on instances of an English language term for insight into the (supposedly) universal concept it picks out when it may not be at all clear that the concept and the term have a concurrent history. I am likely guilty on both counts, and my only defense is that my query into the use of ‘intuition’ arises mainly from contemporary concerns that have

¹ See 5.2

² Williamson (2007) holds this view, see 5.1.3; also Lewis (1983) sees intuitions as “simply opinions” (x); and van Inwagen (1997) thinks they “are simply our beliefs ... [or] tendencies that make certain beliefs attractive to us, that “move” us in the direction of accepting certain propositions without taking us all the way to acceptance,” adding that “[p]hilosophers call their philosophical beliefs intuitions because “intuitions” sounds more authoritative than “belief.”” (309)

³ ‘Intuition’ and its other forms, ‘intuitive’ and ‘intuit’, will also be considered, as well as the count noun and non-count noun versions, i.e., ‘an intuition’ vs. ‘intuition’. This will become clearer in later sections, and I only mention them now to allay the reader’s concern that I may have skipped over important distinctions without an explanation.

been addressed in the English language, as will be seen in the later sections on thought experiments and experimental philosophy. As for anachronisms, I do not believe philosophy need be so concerned with etymological consistency or conceptual purity: much of the best philosophy may have arisen, and continues to arise, from the juxtapositions of ideas, trains of thoughts and argumentation found in various contexts. Even if the present understanding of intuition has little in common with its past, it does not hurt to make some connections there. The two sections that follow will focus on some of the features of intuitions brought out by Kant, and by Aristotle.

2.1 – Kant

Intuitions play a prominent though abstract role in Kant's *Critique of Pure Reason*. He opens the 'Transcendental Doctrine of Elements' with a definition:

In whatever manner and by whatever means a mode of knowledge may relate to objects, *intuition* is that through which it is in immediate relation to them, and to which all thought as a means is directed. (Kant 1929, A19/B33)⁴

For Kant, intuition, or *Anschauung*, is the immediate presentation of an object. It can be a sensible (i.e., sensory) presentation of a given object, and hence an empirical intuition (A20/B34). He contrasts this with another form of intuition that is a priori, and hence a pure intuition: this does not require a sensible object's presentation (which would be in experience, i.e., a posteriori), and rather exists in the mind as "a mere form of sensibility."⁵ (A21/B35) But an empirical intuition is only half of the story of experiencing an object, for by itself it amounts to nothing. What is needed is a corresponding concept for the full experience and knowledge of a determinate object's being presented to us in space and time. Without the concept, there is no relation between the object and the intuition; and without the intuition there would be nothing on which to apply the concept. Hence the famous phrase: "Thoughts without content are empty, intuitions without concepts are blind."⁶ (A51/B75) These elements are key to Kant's entire metaphysical outlook of Transcendental Idealism, considerations of which would take us afield. I would rather like to pause and look back to what has been said.

The first thing to note is the word itself, *Anschauung*. Like 'intuition', it can have the meaning of a capacity, "that through which" knowledge may relate to objects, or it can take

⁴ *Auf welche Art und durch welche Mittel sich auch immer eine Erkenntnis auf Gegenstände beziehen mag, es ist doch diejenige, wodurch sie sich auf dieselbe unmittelbar bezieht, und worauf alles Denken als Mittel abzweckt, die Anschauung.*

⁵ *als eine bloße Form der Sinnlichkeit*

⁶ *Gedanken ohne Inhalt sind leer, Anschauungen ohne Begriffe sind blind.*

the form of the count-noun version: ‘an intuition’, ‘intuitions’, or in German *Anschauungen*⁷ – those which result from intuition or a process of intuiting. This distinction between a capacity or process and its product/s will be of significance later in Chapter 3, as some philosophers, particularly moral intuitionists, have stressed the importance of a faculty of moral intuition that can detect morally relevant features of a real or described case, analogous to how our sensual faculties pick out the relevant features of our immediate surroundings. Suffice it to say for now, Kant does not elaborate much more on the faculty of intuition in general, maintaining only that it is a contingent fact that our sensibility, or sensual faculty, is the only species of intuition possible for beings like us with the spatio-temporal concepts to which we find ourselves committed (A27/B43, B72).

The second point to note is that for Kant there is no reflective, active or cognitive component to intuiting – it is just the bare presenting of an object in a passive and receptive way,⁸ whereas the spontaneous knowledge of the object arises by concepts and through the activity of understanding (A51/B75). Intuition requires a separate though related concept to constitute an experience of the object, so that the subject can come to know the object present. Without the concepts, “no knowledge of any object remains. For through mere intuition nothing at all is thought, and the fact that this affection of sensibility is in me does not [by itself] amount to a relation of such representation to any object.”⁹ (B309) As mentioned, this is part of Kant’s metaphysical and epistemological view of how it must be for us to know and experience the objects presented to us. And if intuition is to play this role in Kant’s systemizing theory, it would not only complicate but seriously derail our understanding of intuition were we to accept the whole package of what intuition amounts to for Kant. As this thesis will develop a naturalistic and empirically informed account of the use of intuition and of thought experiments, we will leave the extra baggage of Kantian transcendental metaphysics behind. One thing to take from the idea of blind intuitions and the supposed lack of any cognitive element in intuiting something is the opposite possibility that this is an untrue account of intuitions. When we have an intuition that some described or real act is wrong, or that an agent in a described or real scenario

⁷ Anschauung, 2012

⁸ Etymology for *Anschauung* suggest this bare and passive receiving of an object: *Anschauung* literally means “looking at”, from *anschauen*, “to look at” (Anschauung, 1999). The OED traces ‘intuition’ to the Latin verb *intuērī*, meaning “to look upon, consider, contemplate”, and cites pre-18th century (and now obsolete) usages in English that follow the Latin meaning (Intuition, n. 1989). The connotations of ‘consider’ and ‘contemplate’ are of interest for what follows.

⁹ ...so bleibt gar keine Erkenntnis irgendeines Gegenstandes übrig; denn durch bloße Anschauung wird gar nichts gedacht, und, daß diese Affektion der Sinnlichkeit in mir ist, macht gar keine Beziehung von dergleichen Vorstellung auf irgend ein Objekt aus.

does not have knowledge of a certain proposition in question,¹⁰ there is no reason to suggest that these intuitions are only spontaneous and unaffected or unmediated by reflection. When contemplating the act or scenario, we reflect on salient features that may reinforce or undermine our initial intuition. The very arrival of a spontaneous intuition sets the cognitive wheels in motion to better understand the features to which the intuition is responding, and the justifiedness of an intuition's arising from those features. There may be an element of passivity and mere receptivity when an intuition initially arrives "on the scene", but the intuition does not arrive stillborn: reflection and active contemplation usually ensues. Kant may be correct in that once we have an intuition *of* something we can only *fully know* that of which we have an intuition once a concept supports the intuition. However, as will be seen later in Chapter 5, some scenarios or acts are of an indeterminate nature: the concept of the explicit wrongness of an act is not easily available to us, or the concept of knowledge does not apply conclusively to agents in border-line cases. This does not mean that the intuition we have in these cases are without any reflective component; we try to bridge the gap between an initially spontaneous intuition and the concept or idea that it is suggesting and pointing towards through careful reflection and consideration.

A third point that emerges from the contrast between intuitions and concepts is that intuitions are always singular representations which do not reach a level of generality (B136n), while concepts are inherently general as they can apply to many intuitions of a certain kind (Gardner 1999, 66-7). This will be an important point to consider when philosophers use intuitions as evidence or as indicative of something more general – a concept or a theory. Both chapters 3 and 4 will address the issue of how philosophers get from particular intuitions to generalized accounts of the intuition's contents, finding insight in the analogies of philosophical intuition use with science and with linguistics. This account will constitute a general defense of intuition use in philosophical theorizing and conceptual analysis.

To summarize, the three features of intuitions from Kant that should be kept in mind and that bear on current conceptions and construals of intuition are (1) the contrast between talk of 'intuition' as a capacity, process or faculty, with talk of 'an intuition'/'intuitions' in its count noun form as being a product of some capacity, process or faculty of intuition; (2) the immediate and spontaneous nature of intuitions, yet *pace* Kant, the possibility for

¹⁰ ...And despite the agent's justifiably believing the proposition which is in fact true. This is a Gettier case which will be addressed in greater detail later; the actual case can be found at footnote 37.

reflection on and contemplation of an intuition and the features of the case or scenario that gave rise to it; and (3) the particularistic instantiations of intuitions and the possibility of generalizing from them to support or justify theories and to go about one of the standard programs of philosophy: conceptual analysis. These three points will be reiterated throughout, as well as in the following discussion of Aristotle and intuition that will bring out a fourth point.

2.2 – Aristotle

In Aristotle we find instances of modes of reasoning that can be deemed intuitive in the sense of entertaining an idea easily or quite confidently. One area in which intuitive reasoning takes place is logic. For valid syllogisms the conclusion follows necessarily from the two or more premises not based on the actual content of the premises but on the structure of the form of a valid syllogism. “All cats are mammals / All mammals are animals / Therefore, all cats are animals” is valid (and here true) not because of what we know or come to define as ‘cats’, ‘mammals’, ‘animals’, or any other premises, but because the form and structure of this syllogism, *viz.* “All As are Bs / All Bs are Cs / Therefore, all As are Cs” follows intuitively. This is a Perfect syllogism for Aristotle, because “its necessity *is clear* without our having to bring in any proposition over and above the original premisses.” (*An. Pr.*, 24b22-24) As with syllogisms, there are other starting points, or first principles, in logic that are clear and known without need of proof. These include the law of identity (A is A), the law of contradiction (A cannot both be B and not be B) and the law of excluded middle (A either is or is not B). While there may be intuitive starting points for logic, as well as a need for such starting points that do not require proof for fear of infinite regress in the search for ever-prior proofs, it is questionable whether there necessarily are such starting points in other areas, such as epistemology or ethics.¹¹

Intuitive reasoning also plays a central role in Aristotle’s comparison between deduction (*sullogismos*) and demonstration (*apodeixis*), the former being the method of logic which

¹¹ Some ethical intuitionists saw that the rational faculty which discerns the necessary relations (which constitute knowledge) of logical arguments or mathematical figures can also give rise to necessary moral judgments (Hudson 1967, 23-28). Samuel Clarke saw the necessary relations of agents and situations as giving rise to judgments of ‘moral fitness’: “...’tis undeniably ... fit, absolutely and in the nature of the thing itself, that all men should endeavour to promote the universal good and welfare of all, than that all men should be continually contriving the ruin and destruction of all.” (Selby-Bigge 1897, 483) Richard Price also saw moral ideas (right, fit, good, obligatory) as Cartesian “clear and distinct ideas” on the same level of logical ideas (e.g., necessity, identity), and reached by intuition rather than deduction or induction. (Hudson 1967, 25; Selby-Bigge 1897, 603) We will have more to say about intuitions as ‘self-evident’ starting points in 4.3.

depends, as we have seen, on intuitively known first principles, or forms of logical reasoning (e.g., syllogism), and the latter being the method of gaining and explaining scientific knowledge, also by means of deduction but with added premises of the causal structure of the world (Shields 2011, sec. 4.2). The idea is that with demonstration we move by inference from better known facts of the world to lesser known ones. The problem is that the better known facts may be inferred from even better known facts which can lead to an infinite regress. Aristotle rather contends that not all knowledge is demonstrable, and hence there must be some very well known, prior immediate premises that are indemonstrable in order to halt the regress (*An. Post.*, 72b21–23). The question is how do we come to know these prior immediate premises? As with deduction and logic there are indemonstrable first principles that we find intuitive and difficult to deny. For the problem of indemonstrable first principles in science, however, Aristotle suggests an inductive inferential route from particulars to their generalizations which ultimately relies on an act of “unmediated intellectual apprehension”, or *noûs*¹² (Shields 2011, sec. 4.2). To have these first principles already in us as innate ideas is an absurdity for Aristotle because we would then know everything about the natural world by deduction and have no need for demonstration (*An. Post.*, 99b20-30). So, in a question not unlike the paradox in Plato’s *Meno*, how do we come to be familiar with these first principles if we do not know them already? The answer¹³ is by a process of induction which is a capacity in us, though not a perfect one (99b31-34). We go from the perception of a particular, to the memories of similar particulars, to a single experience constituted by these memories, and

from experience, or from the whole universal that has come to rest in the soul (the one apart from the many, whatever is one and the same in all those things), there comes a principle of skill and of understanding – of skill if it deals with how things come about, of understanding if it deals with what is the case.

Thus the states neither belong in us in a determinate form, nor come about from other states that are more cognitive; but they come about from perception. ... And the soul is such as to be capable of undergoing this. (*An. Post.*, 100a3-14)

This passage speaks to the three points raised in the previous section on Kant: (1) the idea of *noûs* (understanding, intuition) as a *capacity* in us to grasp at indemonstrable premises or the general forms; (2) the immediacy of this capacity which does not require “other states that are more cognitive;”¹⁴ and (3) the intuitive grasping of the general form from a particular by induction. Though Aristotle does single out the understanding (*noûs*) as the

¹² *Noûs* has been translated in various ways as ‘mind’, ‘reason’, ‘intellect’, ‘insight’, or ‘intuition’ (Shields 2011, sec. 7; Smith 2011, sec. 6.4).

¹³ Though as an answer it is controversial and open to many interpretations, which perhaps raises more questions. See Shields 2011, sec. 4.2.

¹⁴ Though Aristotle does not explicitly state the immediacy of this process, the idea that it (a) begins with perception, a natural capacity, and (b) is unmediated by higher states of cognition, suggests a direct route from the perception to the intuitive grasping of the form.

final step in this process, it is not clear that the understanding is a capacity in its own right, i.e., as a capacity to be treated as a separate faculty. He seems to suggest that the whole process is continuous with perception, and that any being capable of perception, memory, and the combining of memories into one experience, is capable of the final step of understanding the form in question. As an alternative to intuition being seen as a separate and special faculty, I will consider Aristotle's passage to support the view that intuition is a capacity continuous with our natural capacities of perception and memory.¹⁵

It is worth mentioning again that one ought to avoid any commitment to metaphysical views when surveying the uses and point of intuitive reasoning in past philosophies. As most philosophers today likely do not believe in transcendental deductions, they also likely do not believe in Aristotle's account of the form and his theory of hylomorphism. Though Aristotle required *noûs* to explain his larger and more pressing theoretical goals, how it is that we come to know the form in matter, or the general in the particular, we do not have to follow through with his purpose for introducing and explaining the role of *noûs*. We can, from a safe distance, abstract some of the features that have been associated with intuition and relate them to present-day understandings and uses of intuition. The three points that roughly correlate from the discussions on Kant and Aristotle, (1) intuition as capacity or product, (2) intuition's immediacy and non/cognitive nature, (3) intuition's possibility for generalization, will remain as an underlying outline of important considerations and features that will guide the inquiry in this thesis. There is also a fourth point that arises from Aristotle, though it has no relation to *noûs*.

Jaakko Hintikka (1999) sees a connection between contemporary philosopher's use of intuitions and Aristotle's *endoxa*, rather than his *noûs* (Hintikka 1999, 130). *Endoxa*, often translated as 'reputable opinions', 'credible opinions', 'entrenched beliefs', 'credible beliefs', or 'common beliefs' (Shields 2011, sec. 3), are those opinions shared by "everyone or by the majority or by the wise." (*Top.* 100b20-21) For Aristotle they are a source of guidance for possible solutions to problems that arise when the appearances (*phainomena*) of things under scientific or philosophical investigation conflict and create puzzles. They are also a means to engage in dialectic argumentation for the purposes of training, for casual encounters, and for philosophical sciences (101a25-27). *Endoxa* can play the role of agreed upon first premises from which deductive argumentation can follow,

¹⁵ The discussion in 3.3 on Bealer and the contingent nature of intuitions bears on this continuity. See also footnote 30.

and as a way to address puzzles in the sciences by proposing *endoxic* principles when first principles are too prior (i.e., distant) or not yet understood. In this way, addressing puzzles “on both sides of a subject will make us detect more easily the truth and error about the several points that arise.” (*Top.* 101a34-37) Hintikka sees *endoxa* as more analogous to the intuitions philosophers theorize or argue from. Because philosophers no longer believe in the things that intuitions were committed to in past philosophies, such as “Platonic anamnesis, Aristotelian forms, Cartesian innate ideas, or Kantian transcendental deductions” (Hintikka 1999, 131), there is less certainty in what an intuition is or what it picks out; hence, it is just an entrenched belief that we find intuitive. In this sense, we find such an “intuition” intuitive because we find it is in agreement with what everyone, or many people, or many wise people, have had to say about it.

Perhaps there would not be such a problem with using these kinds of intuition in philosophical inquiry, so long as we realize them in Aristotle’s *endoxic* sense and the implications this has: (1) rather than being direct insights into the nature or reality of something being presented or described to us, intuitions (*endoxa*)¹⁶ reflect an entrenched belief held by (a) everyone, or (b) most people and/or (c) most wise people, and (2) we can argue or theorize from such intuitions as long as we explore and cross-examine *other* intuitions and the ways in which they hold in the dialectic if we are to approach anything like first principles (*Top.* 100a18-b4). If we disallow (2), then we would maintain a conservatism in which the majority (wise) intuition always trumps other intuitions. But in maintaining (2), which in itself sounds most wise and prudent if not essential for the dialectic to ensue, we must accept that there are a plurality of intuitions pertaining to a particular field (i.e., a particular puzzle or set of *phainomena*). Because we need *other* intuitions for the dialectic to work [(2)], then the assumed *one* intuition that (a) everybody, or (b) most people and/or (c) most wise people hold would always entail the possibility that (a') everybody is wrong, or (b') most people are wrong and/or (c') most wise people are wrong. For all it would take for this possibility to be realized is for some *other* intuition proffered by the philosopher to stand a better chance in the dialectic than the one intuition held by everyone, or the majority, etc. This would put in question the practice of appealing to *endoxa* in the first place. For the sake of Aristotle’s argument, if it is better to appeal to *endoxa* for the dialectic method, then we have to assume that there are always at least more than one *endoxa* that pertain to one particular puzzle or *phainomena* which (a) everybody,

¹⁶ I use ‘intuition/s’ as shorthand for ‘endoxic intuition/s’, i.e., ‘entrenched belief/s’, throughout this paragraph.

or (b) most people and/or (c) most wise people hold. Another prudent step would be to narrow the demographic of *endoxa*-holders that we should appeal to. If there is a plurality of *endoxa*, there is likely a lesser chance that (a) everybody or even (b) most people hold the same set of *endoxa* that apply to the relevant field of inquiry. Besides, how does one know what *everybody* or *most* people hold as their *endoxa*, without going short of asking them all? With that in mind, it makes more practical sense to only appeal to the *endoxa* of (c) most wise people.

The fourth, and new, point to add to our underlying outline of intuitions follows from this. (4) Intuitions are entrenched beliefs that have garnered some of the phenomenological characteristics associated with the Kantian or Aristotelian (*noûs*) intuitions, *viz.*, their immediacy, spontaneity and non-cognitive features. It is through training (one of the three purposes of the dialectic method [*Top.* 101a25-27]) that one comes to hold opinions and beliefs as *endoxic* intuitions. This can be done either *qua* wise person: by rigorously analyzing the belief and implementing the dialectic by proffering counter-beliefs against it; or, in the more likely (or common) scenario, *qua* student or learned person: not by blindly accepting the *endoxic* intuitions of the wise people, but by following their lead in at least understanding the method and argumentation through the dialectic that led to the conclusion that the *endoxic* intuition is most likely correct. Finally, to narrow the field of ‘most wise people’ further in a way that will connect with the debate between the intuitions of the ‘folk’ and the ‘experts’ in Chapter 5 I will instead prefer the label ‘experts’ over ‘most wise people’, as the latter is still too broad and ambiguous while the former pertains to more focused, highly trained persons with proficiency in the use of particular intuitions relevant to their area of expertise.

The corollaries, or more accurately, dissenting views, to point (4), that intuitions are only useful and correct if endorsed by the relevant experts, will also shape the analysis and debate. (4a) Who are the relevant experts, and how are they selected or known as such? (4b) What makes expert intuitions better than widely held intuitions? (4c) If there are large discrepancies between the intuitions of the experts and of the folk (and there usually are such discrepancies, as well as between subgroups of the folk as will be shown in Chapter 5), then what can be learned from such discrepancies?

With the four underlying features of intuition from Kant and Aristotle thus limned, it is time to see their relation with the uses and conceptions of intuition in the present-day

philosophical contexts and the important questions they raise. Some of the four points will receive more attention than others in the chapters that follow. Chapter 3, the analogy of philosophical intuitions to observation statements in the sciences, will have more to say on points three and four, while Chapter 4, the analogy of philosophical intuitions to linguistic intuitions, will have more to say on points one and two. Both analogies are to practices and methodologies largely independent of philosophy. The first models the scientific method, in which intuitions are treated as something similar to observation statements, i.e., as the basic inputs and evidential sources used to systematize phenomena (or in the case of conceptual analysis, concepts) into a coherent theory. The other models linguistics, in which intuitions of the grammaticality or acceptability, i.e., syntactic and morphologic competency, of a string of words are used to formulate a grammar.¹⁷ While both analogies provide some guidance for philosophers' use of intuitions in their standard procedures of theorizing, there are important differences that bring out not just the methods appropriate and conducive to philosophical theorizing, but also the aims and goals of such theorizing.¹⁸ I will take each analogy in turn.

3 – The Analogy with Science

As was seen in 2.2, to get scientific inquiry started for Aristotle was to begin with *endoxic* intuitions, or entrenched beliefs, as a kind of supposition for first (or prior) principles from which deductions can be inferred and tested in a broadly scientific or dialectic method.¹⁹ From there, other *endoxic* intuitions can be employed and their deductions can be compared with those of previously considered *endoxic* intuitions that best fit the *phainomena* or suggest solutions to puzzles. One way that the term 'intuition' has been used in the practice of science has been to denote a kind of 'feeling' or 'sense' for positing appropriate hypotheses that can best explain the puzzling *phainomena* observed, which can then lead to the systematization of the *phainomena* into an explanatorily (and predictively)

¹⁷ This is not the only view of linguistics' aim, but it is a prevalent one. "[T]hroughout much of the history of linguistics, judgments of the grammaticality/acceptability of sentences (and other linguistic intuitions) have been the major source of evidence in constructing grammars." (Schütze 1996, ix) "[A]ll the linguist has to go by ... is the native speaker's intuitions." (Haegeman 1994, 8) "[L]inguistics ... is characterized by attention to certain kinds of evidence ... largely, the judgments of native speakers." (Chomsky 1986, 36)

¹⁸ I leave it open as to what these procedures specifically consist in. Some philosophers may gravitate more around justificatory procedures to account for and systematize beliefs and theories in general, e.g., Bealer's (1998) standard justificatory procedure (204), while some philosophers focus more on conceptual analysis, either as traditionally conceived in its *a priori* guise, or in its more naturalized, *a posteriori* guise, the latter of which Graham and Horgan (1994) call postanalytic "ideological inquiry": "inquiry into the nature and workings of human ideas or concepts, and into the semantics of the terms that express these concepts; and also for the facts that such inquiry seeks to discover." (219)

¹⁹ Vaidya (2010) has called this the "*inquiry-production model of intuition*" (399).

successful theory. The way of ‘grasping’ or ‘seeing’ possible answers or hypotheses to an encountered problem is a very important part of scientific discovery, though it is often misunderstood and, unfairly, given a mysterious gloss.²⁰ ‘Intuition’ in science is what leads to gestalt switches, when all the pieces fit together and the scientist has a ‘Eureka!’ moment in which the answer clearly presents itself. Many scientists have spoken of the role of ‘intuition’ in science as antithetical to the axiomatic and deductive paths more appropriately followed in logic and mathematics. Einstein said “[t]here is no logical path to [the universal elementary] laws; only intuition, resting on sympathetic understanding, can lead to them....” (Hoffmann and Dukas 1972, 222) Though I am sure that scientists have meant something by ‘intuition’ in these contexts, I do not want to draw out an analogy of this ‘intuition’ in the sciences to that of intuition in philosophy. In the context of science the term ‘intuition’ seems to denote an openness to possibilities and hypotheses that can confront puzzling phenomena and from which theory can be explicated. ‘Intuition’ can also refer to the ‘Eureka!’ moment of when an answer presents itself quite suddenly and from seemingly unknown sources within the subconscious. What scientists have termed ‘intuition’ has been more aptly referred to as a tacit awareness and skill arising from years of experience and growing expertise in conducting successful scientific experiments.

3.1 – Tacit Discovery and Abduction

Michael Polanyi (1958, 1966) wrote extensively on the role that tacit knowledge plays in scientific discovery and progress, suggesting, before Thomas Kuhn (1962), that the paradigm shifts in scientific theory that can account for the previously unexplainable anomalies are not arrived at by any explicit methodology for ‘doing science.’ One’s personal knowledge – a combination of accepting the tacit dimensions of what we can know (but cannot speak of) and the ‘know-how’ skill of reading measurements, making observations and designing experiments, that only comes from years of training as an apprentice under the tutelage of a master – is what leads to scientific discovery. Polanyi saw the relevance of the tacit dimension in answering Plato’s problem in the *Meno*:

²⁰ Most of the contributors in Davis-Floyd and Arvidson (1997) do not help in dispelling the mystery. Some choice quotes: “[T]here is an eye of wider sweep than the telescope and more searching than the microscope. ... What nature denies to human sight she gives to the eyes of the soul.” (McCosh 1882, 3-4, quoted in Boucouvalas 1997); “[Intuition] may manifest as a visceral mental thought, an emotional feeling, a spiritual experience, or even in a visceral sense.” (Boucouvalas 1997, 7); “It is in the making of a hypothesis that intuition, dreams, fantasies ... enter.” (Monsay 1997, 113); “Correct intuition will be more likely if there is an emotional need for a solution to a certain problem.” (118); and, referring to one research project, the Princeton Engineering Anomalies Research Laboratory, as relying both on the scientific method and intuition, these two dimensions are described as a “marriage of the white coat and the white turban.” (Dunne 1997, 121)

[Plato] says that to search for the solution of a problem is an absurdity; for either you know what you are looking for, and then there is no problem; or you do not know what you are looking for, and then you cannot expect to find anything. ... [I]f all knowledge is explicit, i.e., capable of being clearly stated, then we cannot know a problem or look for its solution. And ... if problems nevertheless exist, and discoveries can be made by solving them, we can know things, and important things, that we cannot tell. (Polanyi 1966, 22)

Such is the context of discovery in science, which need not adhere to strict methodologies and logical procedures, but can be open to more imaginative (and perhaps less understood) approaches to problem-solving. Charles Sanders Peirce's (1958/1901) use of abductive reasoning in the scientific method is not unlike a tacit knowledge or 'sense' for positing an appropriate hypothesis. "A hypothesis then, has to be adopted, which is likely in itself, and renders the facts likely." (122, par. 202) He distinguishes between two ways that suggest a hypothesis's plausibility: "Under the head of value, we must place those considerations which tend toward an expectation that a given hypothesis may be true. These are of two kinds, the purely instinctive and the reasoned." (139, par. 220) While there may be more reasoned considerations for a hypothesis,²¹ more so than the instinctive characteristics (which might share something with Polanyi's tacit knowledge), the positing of a hypothesis still comes down to an educated guess that, if one is skillful and careful, will often lead to success.²² But when a possible solution or hypothesis is assumed (or presents itself in more 'imaginative' or tacit ways), the scientist's work has only just begun: the hypothesis must be tested in the context of justification. Here, more principled approaches are taken to infer from the hypothesis the widest range of necessary conclusions (Peirce's deduction), and then match these with the widest range of observations of phenomena elicited by the hypothesis in experimental tests (Peirce's induction). Depending on the degree of similitude between deduced and induced observations, and the extent to which anomalies are accounted for, the scientist may need to consider again, abductively, a new hypothesis and repeat the process until the best match is found.

If scientists use the term 'intuition' to speak about the 'sense' or 'feel' for conducting experiments, then they seem to mean a kind of capacity or way to see the relevant problems and their possible solutions, i.e., 'by intuition.' This would lend to the 'process/faculty' understanding of 'intuition' and not the 'product-of-a-process/faculty' understanding of 'an intuition'; the first point from 2.2. Elucidating on this inherently tacit

²¹ This includes notably pragmatic concerns, which Peirce calls "the economy of research," comprised of such factors as "cost; the value of the thing proposed, in itself; and its effect upon other projects." (Peirce 1958/1901, 138-139, par. 220)

²² "We cannot go so far as to say that high human intelligence is more often right than wrong in its guesses; but we can say that, after due analysis, and unswerved by prepossessions, it has been, and no doubt will be, not very many times more likely to be wrong than right." (Peirce 1958/1901, 140, par. 220)

domain, as I have come to understand it, would be a fruitless endeavor. (What can be said about what cannot be said about, anyway?) The focus for the analogy between intuitions in science and intuitions in philosophy should rather be, to borrow William Lycan's (1988/1986) distinction, on the *intuiteds*, not the *intuitings*. The contents of the intuitive judgments we make, not the dispositions (or, for the scientist, tacit skills) to invariably make such intuitive judgments, are what is of philosophical interest (211).²³ While the *intuitings* of trained scientists who can posit ingenious solutions to puzzling phenomena often takes center stage in our (perhaps over-romanticized) admiration for their work, there is a much more basic and fundamental piece to the puzzle of scientific discovery and justification that depends on successfully gathering and collecting *intuiteds*. These are the measurements and recordings of phenomena: observations. In Peirce's inductive part of the scientific method, the results of testing the hypothesis must be compared and contrasted with the necessary deductions from the hypothesis: a simple act of *seeing* the similarities or differences between the predicted output and the actual output of a hypothesis's test must take place. This is then dependent on even more basic and fundamental observations of the phenomena in question which themselves are judgments of the phenomena being members of a certain kind, falling under a certain category (it could be the observation that a liquid turned a litmus paper a certain color, hence the liquid is an acid; or that there was a vapor trail in a cloud chamber, hence a proton was present, etc.).²⁴ Observations, then, are the basic building blocks and ingredients to developing and defending scientific theories. If these are not procured and recorded correctly, then theorizing and systematizing of the

²³ Goldman and Pust (1998) shift the focus to *intuitings* rather than *intuiteds*, because, as they see it, there is no way to get at a proposition p (i.e., the content of an *intuited*) without actually *having* the intuition that p (i.e., *intuiting* that p), and, more importantly, an *intuited* has far less evidential weight than an *intuiting*. (196, n.5) More on the evidential role of intuition will follow below in the discussion of Bealer (1998). Lycan (1988) was concerned that 'merely' *intuiting* a moral proposition is a 'fact' that could be explained (away) without reference to any moral facts (cf. Harman 1977), i.e., "entirely in terms of socialization, and, perhaps, Nietzschean weakness of character." (Lycan 1988, 211) Lycan's notion of *intuited* does work as an analogy with science; after all, "[n]o scientist qua scientist explains why it *seems to him or her that* a spring stretched 15 centimeters; the scientist explains why the spring did stretch 15 centimeters..." (212) There would then appear to be a *prima facie* difference between intuitions of moral propositions and more "science-like" intuitions.

²⁴ The 'hence' clauses may be viewed as operationalizations that 'go beyond' the basic phenomena and are themselves dependent on theory, though this 'theory' is usually auxiliary or background and not the actual theory being tested. "Operationalizations are thus sensitive and subject to change on the basis of findings that influence their usefulness. Definitional or not, investigators in different research traditions may be trained to report their observations in conformity with conflicting operationalizations. Thus instead of training observers to describe what they see in a bubble chamber as a whitish streak or a trail, one might train them to say they see a particle track or even a particle. ... To the contrary, one might object that what one sees should not be confused with what one is trained to say when one sees it, and therefore that talking about seeing a colorless gas or an invisible particle may be nothing more than a picturesque way of talking about what certain operationalizations entitle observers to say. Strictly speaking, the objection concludes, the term 'observation report' should be reserved for descriptions that are neutral with respect to conflicting operationalizations." (Bogen 2011, Sec. 7)

phenomena will set out on the wrong foot, leading to error, very localized theory of a certain range of phenomena, largely unaccounted for anomalies, and so on.

3.2 – Intuitions as Observations, and Standard Philosophical Methodology

Why should an observation, a supposedly simple act of ‘just seeing’, be described as an intuition? Kant’s sense of intuition, *Anschauung*, might suggest this reading: the observations that scientists make are of phenomena that are immediately present and scientists only need to ‘look at’ them. But just as *Anschauung* was only half the picture (recall that a concept was required by the observer to have the intuition be an intuition of something), so too would be the mere passive observing of phenomena by the scientist. Far from passive awareness of some vague phenomena’s presence, the scientist makes a judgment of what the phenomena is an instantiation of, what category it falls under, and thus makes a ‘complete’ observation. There is, then, more to ‘just seeing’ than meets the eye; *pace* Kant, an intuition, like an observation, is ‘seeing’ that a token (example) is an instance of a type (kind). For Alvin Goldman and Joel Pust (1998) this amounts to ‘standard philosophical methodology’ and its use of intuitions:

The content of a typical intuition is a proposition about whether a case or example is an instance of a certain kind, concept, or predicate. In other words, the contents of intuitions are usually singular classificational propositions, to the effect that such-and-such an example is or is not an instance of knowledge, of justice, of personal identity, and so forth. ... [I]ntuited propositions are standardly of the form, “Example e is (is not) an instance of F,” and intuitions are spontaneous mental assentings to such classificational propositions. (Goldman and Pust 1998, 182)

The third underlying point from 2.2 bears on standard philosophical methodology: while an intuition may not be itself generalized, it does serve as evidence that the example, be it a case, scenario or proposition, is an instance of something more general.²⁵ From here, the intuition that p (the proposition that, say, example e is [not] an instance of F) provides evidence for the general truth of p, which can then be “used as positive or negative evidence for the truth of a general theory.” (182) This is the two-tiered view of most approaches to philosophy: (1) conceptual analysis, by means of intuitions of the applicability and appropriateness of a case or proposition being classified as an instance of a general concept; (2) theory construction, by means of systematizing a body of concepts (which have been given intuitive evidential grounds for being approximately true in [1]) to yield novel understanding and knowledge that not only explains the concepts more fully

²⁵ Sosa (1998) holds a position that intuitions are of propositions that are abstract, and that this is what makes them suitable for “armchair theorizing.” He does not go into detail what it is for a proposition to be abstract, but favors a “working grasp of the concept.” “As a first step toward explication, however, I would suggest that abstract propositions abstract away from any mention of particulars. Thus, we may allow, as abstract, propositions quite specific and determinate in the properties or relations that they involve.” (258) This ‘abstracting away from particulars’ notion would appear to be a generalizing process.

but also transcends the scope of the theory itself and can further theoretical progress in other domains, and so on. The analogy to science would be, roughly: (1') data analysis, by means of observations of (experimentally derived) phenomena and judgments as to their measurements, characteristics and classification; (2') theory construction, by means of systematizing the data and judging their relevance with regards to the proposed hypothesis that led the investigation and/or experiment.

Much of science and philosophical practice, then, is dependent on having correct and successful classificatory intuitions as described in (1) and (1'). What can guarantee for such success? Scientists must foster and cultivate their skills in conducting experiments, analyzing data, and making observation reports. At the bottom of these skills is the fundamental and basic functioning of the reliable²⁶ faculty of sense perception. To speak of it as reliable is not to say that it is infallible. We are often aware, with appropriate feedback from others and by comparing different cases in our immediate field of perception and our memory, of the systematic failures of perception due to poor lighting, distance, or other inhibitory influences in the environment or in our subnormal cognitive state at certain times. With this awareness, however, we do not downgrade wholesale the epistemic status of what we can know through perception: its reliability stays in check with the growing knowledge, through feedback and comparison of cases, of its failures.²⁷ In this way, for the purpose of furthering scientific knowledge (and knowledge in general), sense perceptions are treated as basic sources of evidence. George Bealer (1992; 1998) has argued for such a view, and it applies not only to sense perceptions but also to philosophical intuitions. For Bealer, the notion that a sense perception is a basic source of evidence is something that empiricists have never been able to explain, but only to describe. (1998, 214, 221) Likewise, philosophers have not been able to explain why intuitions are taken to be basic sources of evidence. Bealer's proposed answer is that "something is a basic source of evidence iff it has an appropriate kind of reliable tie to the truth." (215) Before considering his argument for modally strong reliable ties to the truth over contingent reliable ties to the truth, it is helpful to look at what he means by a basic source of evidence in its own right, though this does not receive as much attention as the argument for the appropriate kind of reliable tie to the truth.

²⁶ 'Reliable' in Goldman's (1976) sense: "A perceptual mechanism is reliable to the extent that contrary features of the environment (e.g., an object's being red, versus its being yellow) would produce contrary perceptual states of the organism, which would, in turn, produce suitably different beliefs about the environment." (771-772)

²⁷ "[T]he flaws are not just accidental and occasional; they are systematic and widely shared." (Sosa 1998, 261)

3.3 – Bealerian Intuitions

Bealer wants to distinguish basic sources of evidence from derived or “nonbasic” sources of evidence. The latter would include sources such as testimony, where the hearer would have to rely on some further theory that justifies the reliability of testimony in order to take an utterance as evidence, or as a reason to believe (Bealer 1998, 205, 214). Bealer implies that if one’s theory of the reliability of testimony was not correct, e.g., one was not able to differentiate liars from truth-tellers, then one would still take testimony as evidence, though doing so is unreliable; reliability is then not a necessary condition for evidence. Also, with “such things as nomologically reliable clairvoyance, telepathy, dreams, and hunches,” (214) reliability is not a sufficient condition for something to qualify as a basic source of evidence. Bealer throws out these putative sources of evidence because they are, intuitively, not basic sources of evidence. Relying on intuitive notions of what constitutes a basic source of evidence would seem to be a circular approach toward justifying the use of intuition in philosophy *based* on its being a basic source of evidence and having a reliable modal tie to the truth.²⁸ And this speaks toward the general difficulty of analyzing a concept in a noncircular way, but more specifically toward the difficulty in elucidating the concept of an intuition: for if intuitions are basic sources of evidence, then what evidence can be given for their prevalence and use in philosophy that is not itself a basic source of evidence and, therefore, an intuition? Despite this difficulty, or because of it, Bealer offers some “rough-and-ready principles”:

A source is basic iff it has its status as a source of evidence intrinsically, not by virtue of its relation to other sources of evidence. A source is basic iff no other source has more authority. A source is basic iff its deliverances, as a class, play the role of “regress stoppers.” Although examples and principles like these serve to fix our attention on a salient intuitive notion, they do not constitute a definition. (Bealer 1998, 235 n.17)

These notions are quite intuitive for the very reasons they themselves promote: one need not rely on another source of evidence to find these notions intuitive, and we cannot find ourselves “regressing” further back to give prior reasons for accepting them. The ‘real’ definition for Bealer, then, still remains: an intuition is a basic source of evidence iff it has an appropriate kind of reliable tie to the truth.

²⁸ Bealer claims in a footnote that the reliance on intuitive notions of basic sources of evidence is not circular “for it has already been established that intuitions are evidence. All we are doing here is appealing to intuitions to adjudicate the question of which sort of evidence intuition is, basic or nonbasic.” (1998, 235, n.20) He argues earlier that the contents of intuitions in response to the possibility that, say, Jackson’s (1992) Mary learns something new in the color world, or that Gettier’s (1963) Smith justifiably believes something that is true but cannot be said to know this, are evidence that establishes the *possibility* of such scenarios. (Bealer 1998, 204-206) “[E]xperiments are required to establish that [blind-sight, for example] *actually* occurs; but to establish that it is *possible*, intuition suffices.” (206)

Bealer's first candidate for the "appropriate kind of reliable tie" is contingent reliabilism. We are to imagine a creature who makes "reliable telepathically generated guesses" about "necessary truths of some very high degree of difficulty." This creature is to be contrasted with "beings on a distant planet who have arrived at [these truths] by ordinary a priori means (theoretical systematization of intuitions, proof of consequences therefrom, etc.)" Even if it is by nomological necessity that the first creature "guesses that p is true iff p is a necessary truth of the indicated kind," this is still contingent on the reliability of their guessing abilities which, as before, Bealer dismisses for not being a basic source of evidence (Bealer 1998, 215). From this example²⁹ Bealer concludes that the only alternative, which we are "forced to," (217) is modal reliabilism. Another piece of support for this conclusion is that phenomena and phenomenal experience, which is a basic source of evidence, likewise has a modal tie to the truth: "[F]or beings in good cognitive conditions, the on-balance reliability of phenomenal experience is not a mere contingent matter." (216-217) There are two significant problems with Bealer's move from contingent to modal reliabilism. The first is that his dismissal of contingent reliabilism does not seem to be based on contingency *per se*, but rather on the assumption that any mechanism that arrives at intuited truths by some contingent means is not (and neither are the intuitions) a basic source of evidence. His examples of telepathy and guessing employed by the creature are the same examples, as he notes himself (215), that he uses to deny that a nomologically reliable mechanism is a sufficient condition for a basic source of evidence (214). This leaves open the possibility that there are contingent matters of fact for how the "beings on a distant planet" arrive at *their* true (and basic) intuitions. Are not the facts that such beings *choose* to arrive at intuitions about (i.e., choose to focus their attention on) "necessary truths of some very high degree of difficulty" by "ordinary a priori means (theoretical systematization of intuitions, proof of consequences therefrom, etc.)" (215) a contingent matter? Is it not a contingent matter that such beings arrive at these complex truths *because* they have the capacity and appropriate psychological components and mechanisms to do so? The beings posited are not amoeba or bacteria, but rather beings with the *right kind* of mental capacities and mechanisms who can also employ methods of systematizing and deductive reasoning in regards to intuitions – and this all seems to be a contingent matter for the very possibility of arriving at "necessary truths" by intuition.³⁰

²⁹ There are two other examples: creatures that are "hardwired" to intuit that p is true iff p is true, and creatures who have evolved cognitive mechanisms contingently tied to the truth (due to their conduciveness to the species' survival) which enable them to intuit correctly (Bealer 1998, 216).

³⁰ Naturalists in epistemology are particularly sympathetic (as am I) to the contingent facts of cognition and the world on our epistemic practices. "[S]ubstantive [epistemic] methodology requires formulating strategies that are likely to yield good results, given the way *the world actually is*, and, consequently, identification of

The second problem with Bealer's dismissal of contingent reliabilism is that his focus throughout the chapter (1998; as well as 1992) is on rational intuitions. These are, for Bealer, to be contrasted with physical intuitions: the kind that are elicited from real life situations (the fireman's physical intuition that the burning house will collapse very soon) or from thought experiments³¹ (the physical intuition that the water in Newton's spinning bucket will or will not creep up the sides). Unlike physical intuitions, "[r]ational intuitions concern such matters as whether a case is possible (logically or metaphysically), and about whether a concept applies to such cases." (Bealer 1998, 207) It is clearer in this contrast how less contingent rational intuitions are than physical intuitions: physical intuitions have a world (or more accurately, *the* world) of contingent physical laws that determine the possibility of physical events occurring, and hence of having the physical intuition that such an event will or will not occur. Regardless of the question of whether or not there are contingent matters involved in the aforementioned "beings" arriving at intuitive necessary truths (which we are likely to better answer if we drop talk of posited "beings" and talk about ourselves instead), there would appear to be a range of intuitions between the rational and physical whose contingent dependencies gradually increase from the former to the latter. Bealer never mentions any other kinds of intuitions, but it is likely that moral intuitions would fall somewhere in the range between rational and physical intuition.

3.4 – Moral Intuitions

Moral intuitions are highly contingent on beings like us, who have dispositions to make intuitive moral judgments, in reality or in thought experiments, that depend on a number of things: the kinds of things, acts, virtues, and persons we value, the kind of world we want to live in, the kind of expectations we have of others, the kind of feelings and emotions we often deal with in moral situations, and so on. While they are quite contingent, there is a pull for moral intuitions to be more like rational intuitions (i.e., to have a stronger modal tie to the truth): to have moral intuitive judgments be necessarily so, for them to have wide-ranging applicability and generality, and, importantly, for them to indicate consistency in our understanding and usage of the morally relevant terms like 'good', 'bad', 'right', 'wrong', 'duty', 'virtue', 'obligatory', 'permissible', 'forbidden', etc. Moral

these strategies must draw on empirical information about the world." (Kitcher 1992, 85, emphasis in original)

³¹ Bealer's notion here of thought experiments is quite narrow, as he is only concerned with the variety of thought experiments made famous by Galileo and Newton that deal with the physically or nomologically possible events based on physical or mechanical laws. My notion of a thought experiment will be broadened in 5.1.

intuitions would also seem to be decent candidates for Bealer's intuitive notion of a basic source of evidence quoted above in 3.3. The moral intuition that "torturing a child for pleasure is wrong" can be seen as a "regress stopper" – one does not need to provide further evidence or explanation for why torturing a child for pleasure is wrong, and one need not construe such an intuition as evidential in virtue of its relation to other sources of evidence (i.e., it is intrinsically a basic source of evidence).³² Whether or not a moral intuition, as a basic source of evidence, has more authority than any other source of evidence (e.g., a convention endorsed by one's community or an actual law that conflicts with the moral intuition) is a more contentious issue.³³

What I would like to take from this discussion on moral intuitions is: (1) there are intuitions, *viz.*, moral intuitions, of a more contingent nature than rational intuitions, which (2) are still basic sources of evidence (in some intuitive respects).³⁴ Because Bealer shifts the focus of his attack on the untenability of contingent reliabilism from the problem of contingency itself to the issue of what counts as a basic source of evidence, (1) and (2) do not support his dismissal of contingent reliabilism. It is perhaps not surprising that Bealer does not discuss moral intuitions at all, let alone try to fit them in his "Phenomenology of Intuitions" (1998, 207-214); the only intuitions of interest to him are the rational variety because his main aim has been to defend the autonomy of philosophy,³⁵ i.e., the a priori method of intuition-based philosophy which can answer most philosophical questions without relying on science (1998, 201). While I believe that even rational intuitions are themselves based on contingent matters regarding the beings who have them,³⁶ it should be much clearer that moral intuitions are based considerably more on contingent matters of the beings who have them. Because contingency is not as problematic as Bealer finds it

³² Though a moral intuition can be basic because it is intrinsically so, this does not exclude the possibility that other sources of evidence can contribute to the moral intuition's *strength* or status as a moral intuition *held with conviction*. In wide reflective equilibrium, theories other than the moral theory being considered could bring a subject's moral intuitions and moral theory into greater (wider) reflective equilibrium. The theory of personhood would contribute to a fuller understanding of the tortured child *qua* autonomous person, right-bearing person, person entitled to respect, dignity, etc. Wide reflective equilibrium will be discussed more in 3.5

³³ Someone like Ross (1930) would probably favor moral intuitions as having ultimate authority: "to ask us to give up at the bidding of a theory our actual apprehension of what is right and what is wrong seems like asking people to repudiate their actual experience of beauty, at the bidding of a theory which says 'only that which satisfies such and such conditions can be beautiful'." (40) Also see Williams 2006/1985, 99.

³⁴ And, though not directly applicable to the argument against Bealer: (3) Moral intuitions often, though not exclusively, arrive immediately and do not require a great deal of cognition (the second point from 2.2). This might be so *because* a moral intuition is a basic source of evidence, which itself has intuitive plausibility though I need not take a stand on defending such a claim here.

³⁵ Bealer's main aim in 1998 is continuous with his 1992; 1996a; and 1996b.

³⁶ This is perhaps the general thrust of naturalized epistemology. Cf. Quine 1979; Goldman 1978; Kitcher 1992.

(who is, regardless, more concerned about the ‘non/basic source of evidence’ question), the conclusion that modal reliabilism must be adopted loses its strength. It is true that some rational intuitions, especially logical ones, support a highly modal tie to the truth, such as Bealer’s favored example that “if P then not not P;” which “presents itself as necessary: it does not seem to us that things could be otherwise.” (Bealer 1998, 207) Modal reliabilism, then, is only the appropriate kind of tie to the truth for a certain range of intuitions. When considering the Gettier case,³⁷ the intuition that Smith has a justified true belief but no knowledge does not present itself as necessary *always*: one may vacillate between the “favored” intuition and the “conservative” intuition that knowledge *just is* justified true belief. It may also depend on which Gettier-style case is considered that would lead a cognizer to assent to (or dissent from) the necessity of the intuition being so.³⁸ Even less clear is the appropriateness of seeing the necessity of an intuition in a moral thought experiment: is it necessarily so that one must pull the switch to divert the trolley, killing one person instead of the five who would have otherwise died, or that one must push the fat man off the bridge to stop the trolley, also killing one person instead of the five? (Foot 1967; Thomson 1985) The contingent nature of moral intuitive judgments may lead to their unlikelihood in having any wide, modal reach; but this need not detract from them being taken as basic sources of evidence that can fit in a larger moral theory in a similar way that observation statements can fit in a scientific theory. Taking the notion of basic sources of evidence from Bealer (1988), I will leave behind his equivalence requirement for basic sources of evidence, that they have a highly modal and reliable tie to the truth, as this does not apply to a wide enough range of philosophically significant intuitions, and only applies (with a certain degree of contingency) to rational intuitions.

³⁷ This might be a good place to have as a reference the first case from Gettier (1963): “Suppose that Smith and Jones have applied for a certain job. And suppose that Smith has strong evidence for the following conjunctive proposition: (a) Jones is the man who will get the job, and Jones has ten coins in his pocket. Smith’s evidence for (a) might be that the president of the company assured him that Jones would in the end be selected, and that he, Smith, had counted the coins in Jones’s pocket ten minutes ago. Proposition (a) entails: (b) The man who will get the job has ten coins in his pocket. Let us suppose that Smith sees the entailment from (a) to (b), and accepts (b) on the grounds of (a), for which he has strong evidence. In this case, Smith is clearly justified in believing that (b) is true. But imagine, further, that unknown to Smith, he himself, not Jones, will get the job. And, also unknown to Smith, he himself has ten coins in his pocket. Proposition (b) is then true, though proposition (a), from which Smith inferred (b), is false. In our example, then, all of the following are true: (i) (b) is true, (ii) Smith believes that (b) is true, and (iii) Smith is justified in believing that (b) is true. But it is equally clear that Smith does not *know* that (b) is true; for (b) is true in virtue of the number of coins in Smith’s pocket, and bases his belief in (b) on a count of the coins in Jones’s pocket, whom he falsely believes to be the man who will get the job.” (122) (I have adjusted the proposition letters from the original.)

³⁸ Perhaps Goldman’s (1976) fake-barn scenario or Dretske’s (1970) zebra vs. cleverly-disguised mule scenario would lead cognizers to assert differently that the intuition of ‘no knowledge’ ascription is or is not apparently so.

Back to the analogy between observations in science and intuitions in philosophy. As was seen earlier in 3.2, there is a two-tiered approach in philosophical practice that has a rough analogue in science: (1) conceptual analysis (data analysis); (2) theory construction. Much of what has passed, and what will be addressed in Chapter 5 in terms of the goals and methods of experimental philosophers, is concerned more with the project of conceptual analysis (i.e., using intuitions to outline the boundaries and applicabilities of the concepts in question) than the project of theory construction (i.e., systematizing intuitions of a relevant field into a coherent body of knowledge that can have deductive inferential support from some more general principles). However, the project of theory construction based on intuitions is perhaps most evident in moral philosophy.³⁹ Ethical intuitionism depends almost exclusively on moral intuitions in two ways: in an epistemological regard, as a view that some moral propositions are self-evident; and/or in a methodological regard, as a commitment to the plurality of first principles (e.g., duties) that may conflict and for which no rules are given on how to adjudicate such conflicts (Stratton-Lake 2002, 2; Williams 1995, 182). Some moral theorists are committed to epistemological intuitionism, without being committed to methodological intuitionism: intuitive moral propositions may support one principle from which they are all derived, and the principle itself is found to be intuitive as well (Sidgwick 1907/1874). Other moral theorists, perhaps ‘ethical intuitionists proper’, are committed to both epistemological and methodological intuitionism (Prichard 1912; Ross 1930). And most moral philosophers do, perhaps inadvertently or even reluctantly, prescribe to epistemological intuitionism without calling themselves moral intuitionists (Audi 1996, 102). Though I do not want to commit myself to methodological intuitionism in my general defense of the prevalence and use of intuitions in philosophy, I believe that W. D. Ross (1930) holds a view in the following passage that is amenable to the general defense for intuition use, making use of the analogy of intuitions to observations in science, as well as suggesting some further points:

[T]he moral convictions of thoughtful and well-educated people are the data of ethics just as sense-perceptions are the data of a natural science. Just as some of the latter have to be rejected as illusory, so have some of the former; but as the latter are rejected only when they are in conflict with other more accurate sense-perceptions, the former are rejected only when they are in conflict with other convictions which stand better the test of reflection. The existing body of moral convictions of the best people is the cumulative product of the moral reflection of many generations, which has

³⁹ Audi (1996): “The appeal to intuitions is a pervasive and approved strategy in contemporary philosophical discourse. A good philosophical theory is widely taken to be one that gives an adequate account of our intuitions about the subject matter of the theory. A good ethical theory, for instance, should largely explain our intuitions about when we are or are not being unfair, when we must go out of our way to help others, and when we may or may not break a promise.” (101); also Baier (1985): “Moral theories usually appeal to clear moral intuitions as confirmers of their theory, which is presented as a systematization of and endorsement of such intuitions, and as a way of deciding cases in which no clear intuition was forthcoming, a way of inducing intuitions in a wider range of areas.” (214)

developed an extremely delicate power of appreciation of moral distinctions; and this the theorist cannot afford to treat with anything other than the greatest respect. The verdicts of the moral consciousness of the best people are the foundation on which he must build; though he must first compare them with one another and eliminate any contradictions they may contain. (Ross 1930, 41)

One shared feature of observations in science and intuitions in philosophy that Ross alludes to is that they are corrigible and fallible. We reject sense-perceptions in science that are illusory when we have reason to think that they are so, i.e., when we know the general reliability of our sense perceptions is being undermined by exogenous factors or inattentive readings of measurements, etc. Likewise in philosophy we reject intuitions that may be illusory, but also, by way of reflection and careful attention to the details and concepts of a case or proposition, we reject intuitions that conflict with ‘clearer’ intuitions that “stand better the test of reflection.” This would speak to the cognitive nature of intuitions which goes against the second point from 2.2 of the phenomenological immediacy and seemingly noncognitive nature of intuitions. The test of reflection would seem to be a requirement to hold on to the considered and better intuitions and dismiss the conflicting and weaker ones. More will be said in 4.3 about the roles of reflection and understanding in intuition use (the first point from 2.2 about the faculty/product-of-a-faculty construal of ‘intuition’ will also be addressed more in Chapter 4). For now, the third and fourth points from 2.2 will be considered as they are importantly relevant to the analogy with science so far discussed, and to Ross’s quoted analogy above. I shall take each point in turn.

3.5 – Particular Intuitions in Reflective Equilibrium

Recall the third point being that intuitions, as singular instances of ‘seeing’ something present (i.e., *intuiting* an *intuited*), do not themselves infer a generalizable concept. This is a remnant of Kant’s *Anschauungen*, that we need to have a concept stand in relation with the intuition, or else we are blind as to what the intuition is an intuition of. However, in the quoted passage from Goldman and Pust in 3.2 we saw that the first tier of standard philosophical methodology is classificatory in nature: our intuitive judgments about whether *e* is an example of *F* are largely pretheoretical and based on competency and familiarity with identifying instances of *F*. The intuitive judgment here goes further than an intuition for Kant, in that it involves placing an instance of a particular token as being an example of a more general type. For this judgment to take place, a competency with and understanding of the concept or type that the intuition is an example or token of are required.⁴⁰ Such conceptual competence is, however, not dependent on an explicit theory

⁴⁰ Intuitions are pretheoretical, not preconceptual: “without at least a minimal understanding of the concepts figuring in a proposition, one is not even in a position to find it intuitive.” (Audi 1996, 110)

laid out in propositional form – a tacit awareness and understanding of the concept may be enough to make an intuitive judgment that something is an example of the concept.⁴¹ When philosophers say that Smith justifiably believes something true but does not have knowledge, they mean this to be an intuitive judgment that does not rely on any explicit theory – in fact, it is a pretheoretical judgment that can itself support or guide construction for a post-Gettier theory of knowledge. Also, because it is intuitive and independent of explicit theories, most people will have the same intuition based on a tacit understanding of what counts as a case of knowledge. This is, of course, the hope that intuition-based philosophers have for what they believe are common and widespread intuitions. However, as will be seen in Chapter 5, this view may be challenged – philosophers may have different intuitions from the folk, as well as the folk having different intuitions from culturally or socio-economically different folk.

If we focus on the second tier of standard philosophical methodology, that of theory construction and defending or attacking theories based on intuitive judgments, we can see that there is no real problem for intuitions being particular instantiations or lacking generality. Rather, they serve as argumentative or evidential support for a more general principle or theory in reflective equilibrium. John Rawls (1971) has defined reflective equilibrium as the state in which the contractors of the original position would come to accept his two principles of justice as closely accommodating and respecting the commonsense moral convictions of everyone (45). More generally, reflective equilibrium is a state of affairs (and not an explicit methodology⁴²) in which our intuitions that have passed the test of reflection⁴³ are matched up with more general principles that support

⁴¹ Cummins (1998) holds “the majority view” that all concepts are theories, either explicit or tacit. If they are explicit, then the intuitions that arise from such theories cannot play the appropriate role in reflective equilibrium (Cummins’s main target) as no adjustments would be made to the theory because the intuitions are just axiomatic deductions that invariably support the theory (i.e., they should not even be called ‘intuitions’, but rather ‘deductions’). If the theories are tacit, all the worse, as most tacit theories are innate (or acquired) and thus evolutionarily (or contextually) effective, but quite likely wrong (or biased). (121-124) While I agree with his view on explicit theories rendering intuitions useless, I do not agree with his view on tacit theory. The intuitions of scientists rely on some tacit skills and theory, and they are not only “effective” in scientific experimentation and discovery but can also approach the truth. “Tacit or intuitive judgments in science are reliable because they are grounded in a theoretical tradition (itself partly tacit) which is, as a matter of contingent empirical fact, relevantly approximately true.” (Boyd 1998, 193)

⁴² Dworkin (1973) is perhaps guilty of misinterpreting Rawls’s reflective equilibrium as a *technique*, rather than a state of affairs. See Mikhail 2011, 288-289. On the other hand, it is difficult *not* to regard reflective equilibrium as a method. See DePaul 1986; Ebertz 1993.

⁴³ Or as Rawls (1971) puts it, “considered judgments duly pruned and adjusted.” (20) Rawls only seems to prefer the terms ‘considered judgment’ or ‘considered moral judgment’ over ‘intuition’ because he wants to disassociate his theory of justice from the foundationalism of traditional intuitionism (34-40). He often describes a considered judgment as being *intuitively held*, before a subject takes any considerations of accepting principles that might also support such intuitively held convictions in reflective equilibrium (19-20).

and/or are supported by the intuitions. Through mutual adjustments, at both subjective and more socialized levels,⁴⁴ a balance is attained in which: principles are rejected or amended that do not align well with considered and reflected-upon intuitive judgments we are unwilling to give up, and considered and reflected-upon intuitive judgments are rejected or amended when they do not align well with principles we are unwilling to give up.⁴⁵ The more stable intuitions that have survived reflection, and that are in reflective equilibrium with general principles, need not themselves be regarded as deductions of those principles. In this way, intuitions still retain a particularistic character, though they can be seen to ‘reflect’⁴⁶ more general principles. What is important, and what Ross also mentions in the above quoted passage in 3.4, is that intuitions are not foundational and can always be revised or abandoned with further reflection (Rawls 1971, 47-49; Daniels 1979, 266-267) – and what particularly allows for such revisions is a widened conception of reflective equilibrium.

Reliance on background theories is quite important for wide reflective equilibrium⁴⁷ in order to overcome the limitations of the narrow version, as well as to provide a broader context in which intuitive judgments and principles can be tested by reflection. In terms of moral theory, Norman Daniels (1979) argues that relevant background theories are needed to “bring out the relative strengths and weaknesses of the alternative sets of principles (or competing moral conceptions).” (258) Rather than thinking of a two-level account for equilibrium of moral theory, where principles are amended by some considered intuitive judgments while other considered intuitive judgments are filtered out by principles in narrow reflective equilibrium, the scope is widened to a three-level account with relevant

⁴⁴ Though reflective equilibrium is often seen as a subjective project, i.e., a subject getting his or her intuitions and principles in reflective equilibrium, Rawls (1996/1993) has suggested the need to expand equilibrium intersubjectively into *full reflective equilibrium*. (384, n.16) “[T]hrough discussion, our ideals, principles, and judgments seem more reasonable to us and we regard them as better founded than they were before.” (385)

⁴⁵ Rawls borrows his idea of reflective equilibrium from Goodman (1965), whose formulation is concerned with how we can justify rules and instances of good induction (and whose structure I just borrowed): “A rule is amended if it yields an inference we are unwilling to accept, an inference is rejected if it violates a rule we are unwilling to amend. The process of justification is the delicate one of making mutual adjustments between rules and accepted inferences; and in the agreement thus achieved lies the only justification needed for either.” (66-67, emphasis in original)

⁴⁶ It’s common to think of the ‘reflective’ in ‘reflective equilibrium’ as having the same meaning as in the “test of reflection” in Ross (1930, 41); after all, some cognitive activity (to counter the second point from 2.2) being involved in selecting our stronger intuitions can help correct for errors and to come up with reasons for why an intuition should be held or dropped. Reflection in this sense is key to achieving equilibrium, and foregoing reflection entirely would be highly irrational (DePaul 1998, 301-302). While Rawls (1971) is of course in favor of such reflection, ‘reflective’ in its first use (20) is explicitly synonymous with ‘mirrored’: the status of reflective equilibrium “is reflective since we know to what principles our judgments conform and the premises of their derivation.”

⁴⁷ Wide reflective equilibrium is implicit in Rawls (1971, 49), according to Daniels (1979, 258 n.3), and made explicit in Rawls (1974, 8).

background theories. For example, in Rawls's theory of justice the contract apparatus is at level two and is in partial reflective equilibrium with considered intuitive judgments at level one. To be persuaded that the contract apparatus is appropriate, "inferences [are drawn] from a number of (*Level III*) background theories – of the person, of procedural justice, of the role of morality in society (including the ideal of the well-ordered society)." (Daniels 1996/1980b, 50)⁴⁸ The background theories give more credence to the generalizations reached by the level-two principles, showing that they are not just accidental; this is also what happens with theory selection in science.

In science, we have evidence that we are not dealing with accidental generalizations if we can derive the purported laws from a body of interconnected theories, provided these theories reach, in a diverse and interesting way, beyond the "facts" that the principle generalizes. (Daniels 1979, 259)

Contra Bealer, then, the reliability of intuitions can depend on many contingent factors from a broad range of background theories.⁴⁹ And the basis on which the test of reflection takes place can include such contingent factors and background theories. While the inferences of the level three theories can test the level two principles and/or theories, the level one considered intuitive judgments do not need to be themselves the inferences of level two or level three theories in order to be validly held – they only need to pass the test of reflection. This does not rule out the possibility that the intuitive judgments may one day be seen to be deducible from some 'reflected' general principles.⁵⁰ This would seem to be a shared goal of intuition-based philosophy and the natural sciences: as intuitions of a certain kind are discovered to be prevalent and relatively robust, they support the formulation of a theory from which the same intuitions (now 'judgments' or 'inferences') can be deduced; and in science, observations of certain phenomena that receive intersubjective corroboration from repeated tests will lead to a very likely hypothesis that can, as a theory, account for the phenomena (now 'results') and predict, or at least explain, their occurrence. For both philosophy and the natural sciences, the process of explaining or accounting for

⁴⁸ I have simplified Daniels's account somewhat, as he has a fourth level that includes social theories that can test for 'feasibility' of level one intuitive judgments and level three theories. A distinction between levels three and four does not seem necessary, as long as we allow for some theories within level three's background theories (relevant to the principles at level two and intuitive judgments of level one) to test each other for 'feasibility' (Daniels 1979, 260-261).

⁴⁹ Rawls also saw this: "The analysis of moral concepts and the a priori, however traditionally understood, is too slender a basis. Moral philosophy must be free to use contingent assumptions and general facts as it pleases. There is no other way to give an account of our considered judgments in reflective equilibrium." (1971, 51)

⁵⁰ Audi (1996) puts this (a little tongue-in-cheekishly): "yesterday's intuitions can be today's theory-laden assumptions." (112) Kornblith (1998) holds a view generally skeptical of intuitions and reflective equilibrium, preferring a natural approach into inquiries of knowledge, justice, the good, etc. that lead to theories: "prior intuitive judgments carry little weight unless they have been endorsed by the progress of theory. The greater one's theoretical understanding, the less weight one may assign to untutored judgment." (135)

the robust intuitions or phenomenal observations can rely on background theories.⁵¹ However, in order to account for many intuitions (particularly moral intuitions), wide reflective equilibrium may be the best state of affairs achievable that can allow for some coherentist justification, rather than deductive and foundational justification (Daniels 1979; Hooker 2002, 162).⁵² This should not be surprising if reflective equilibrium is regarded as “just the standard methodology of any empirical inquiry, social or otherwise,” (Boyd 1988, 207; cf. Daniels 1979, 262) and that observations and intuitions are taken to be revisable in light of better tests, empirical or reflective, respectively.

3.6 – Moral Expertise

Ross’s appeal to the “verdicts of the moral consciousness of the best people” (from the quoted passage in 3.4) suggests a level of expertise in moral matters. Perhaps the analogy of expertise in a scientific context and moral context would lead to the view that expertise in moral thought and judgment comes only from pedantry, years of training, and institutional recognition of one’s skills and merits as a ‘moralist’ (i.e., ‘scientist of morals’). This view would be misleading: where scientists gain their experience and expertise through specific engagements with a body of phenomena in the laboratory (or in a particular real world field), ‘moralists’ *qua* anybody can attain a level of expertise and familiarity with judgments of what is good and right in the broadest of social contexts – everyday life. The only ‘experiments’ are the everyday experiences, which do not require lab coats or measuring instruments, but just a reflective conscience that is engaged when observing and interacting with others.⁵³

The fourth point from 2.2, of the reliance on experts to determine accurate and useful intuitions, might be problematic when it comes to determining who the relevant experts of moral intuitions are. (This is similar to the problem that virtue theory faces of defining the virtuous person or character that should be emulated as a means to guide one’s actions.) In keeping with the view of morality as accessible and knowable (in a perhaps ‘less philosophically strict’ way) to all human beings *qua* social beings, the capacity for being

⁵¹ In science, perhaps they *must* rely on background theories, or ‘auxiliary hypotheses’, in order to test the theory in question and its observational consequences. This is in keeping with the Duhem-Quine thesis. See Duhem 1981/1914, 183-188; Quine 1951.

⁵² But see Ebertz (1993) for a different view of reflective equilibrium as modestly foundationalist.

⁵³ Mill (1999/1859) spoke of “experiments in living” in a more historical and societal context that can, over time, establish moral judgments as true: “There must be some length of time and amount of experience, after which a moral or prudential truth may be regarded as established: and it is merely desired to prevent generation after generation from falling over the same precipice which has been fatal to their predecessors.” (Ch.4 par.9)

moral and having sound moral intuitive judgments about acts and agents must be a possibility for us without relying on a comparison with the intuitive judgments of purported moral experts. If the virtuous or moral agent is seen as an ideal for everyone to aspire to, this ideal must be realizable within ourselves without necessitating the actual ‘measuring up’ of our moral verdicts with the “verdicts of the moral consciousness of the best people.” In this regard, I do not think Ross’s “best people” picks out a group of relevant experts in moral judgments, but rather a group of any thoughtful persons who have considered their moral intuitions as passing a level of reflection and assessment in a pre-(moral)-theoretic way.⁵⁴ As was seen with Aristotle’s *endoxic* account of intuitions, *endoxic* intuitions are just the best available opinions from wise (or the wisest) people, which does not guarantee their truth but only affords them the status of suitable starting points to get scientific inquiry and the general dialectical method going. The “verdicts of the moral consciousness of the best people” for Ross could then be seen to be similar to *endoxic* intuitions.⁵⁵ However, would this not complicate the general analogy, of this chapter and of which Ross makes in the quoted passage, between sense-perceptions in the natural sciences and the moral convictions or verdicts of thoughtful persons? Surely a sense-perception is not like an *endoxic* intuition; the tacit skills and opinions of ‘wise’ scientists that guide scientific discovery may be like *endoxic* intuitions, but the more fundamental and basic sense-perceptions that make up *endoxic* intuitions are something else. What, then, could serve as a better analogy in the moral realm to that of sense-perceptions in the natural sciences?

This question brings us back again to the first tier of standard philosophical methodology as laid out by Goldman and Pust in 3.2: classificatory intuitions in conceptual analysis. The “moral verdicts” are thick and highly particularized, like most moral judgments we make about this or that case. What they are dependent on, and what the “theorist”⁵⁶ is perhaps more interested in, are the ways in which the moral concepts are utilized within the moral verdicts, e.g., how the concepts *good*, *right*, *morally permissible*, etc., apply to one case but not another when some features of the cases are varied. An expert in moral judgments

⁵⁴ In reading the passage of Ross closely in 3.4, we find that he is prescribing the method for a *theorist* to follow, not a ‘regular’ person. I am not certain if much turns on this point (Ross does not specifically mention a ‘theorist’ anywhere else in the first three chapters (1930), often using the plural ‘we’ to refer to his readers and himself), though I suspect that the theorist, the “best people” and ourselves are mostly interchangeable as long as thoughtful and reflective approaches are taken to selecting and rejecting moral intuitions; the method is open to all.

⁵⁵ Ross’s intuitionism is often regarded as being quite influenced by Aristotle’s methodology. Cf. Nielsen 2007

⁵⁶ See footnote 54.

would then have an awareness to the ways moral concepts are applied from case to case, having intuitions as to when a moral concept is appropriately applied or not, knowing (at least intuitively) which relevant features of a case or scenario are involved in making a moral concept's use appropriate or not, and then, ultimately, theorizing an account that explains the correct usage of the moral concepts in question. This is the kind of work that most moral philosophers are engaged in, which has led to more variegated formulizations of standard ethical theories: deontological ethics (agent-centered, patient-centered, contractarian, Kantian, etc.),⁵⁷ consequentialism (utilitarianism, act-consequentialism, rule-consequentialism, etc.)⁵⁸ and virtue ethics (eudaimonism, agent-based, ethics of care, etc.).⁵⁹ It also describes the kind of work involved in more specific problems within ethics, such as the doctrine of doing and allowing, and how it can explain diverging intuitions in some moral problems like the trolley and rescue dilemmas.⁶⁰

3.6.1 Naturalizing Concepts

Discovering the boundaries of morally relevant concepts is a notably holistic, contextualized and complex task. The classic view, that concepts can be known by some definition when a series of necessary and sufficient conditions are met, and that concepts are for the most part atomistic, has largely fallen in to disrepute since Wittgenstein's (1953) take on tokens of a type as bearing "family resemblances" with other tokens. Each token does not necessarily (or sufficiently) share the same elements with other members of a type, but shares at least one with a neighboring token (e.g., AB, BC, CD, DE, etc.). Empirical studies (Rosch 1973; Smith and Medin 1981) have shown that people tend to think of members of a category as having family resemblances with one another, and where some members are more prototypical (and hence easier and quicker to think of as being a member of the category) than others: a robin is more prototypical than a penguin for the category 'bird', i.e., it has more bird-like features. When identifying a token as

⁵⁷ Cf. Alexander and Moore 2008

⁵⁸ Cf. Sinnott-Armstrong 2011

⁵⁹ Cf. Athanassoulis 2010

⁶⁰ Quinn (1993) uses the rescue dilemma and the common intuitions it elicits as evidence for the doctrine of doing and allowing: we would rather *allow* for some harm (e.g., one person drowning) if it is a foreseen consequence of (or even a means to) some greater good (e.g., rescuing five persons from drowning) than *do* some harm (e.g., driving over and killing one person) as a foreseen consequence of (or a means to) some greater good (e.g., rescuing five persons from drowning). Horowitz (1998) has argued that this doctrine is accounted for by a psychological tendency (Kahneman and Tversky's (1979) prospect theory) to seek risks in a situation framed as a status quo loss (e.g., the one drowning victim is 'dead anyway', so save the five) and to avoid risks in a situation framed as a status quo gain (e.g., the person on the road is and will be alive if we do not try to save the five, so let's not risk saving the five). But some are not convinced that a psychological explanation can be philosophically illuminating; van Roojen (1999): "We might be interested in explaining the fact that we tend to think that running over one to save five is wrong or we might rather be interested in explaining the fact that running over one to save five is wrong." (850)

being a member of some category, we access a list of exemplars we have come to know as representative instances of the category and compare them for similarity with the new token in question (Goldman and Pust 1998, 194; Estes 1994). It may be argued that such an approach to identifying (i.e., having intuitions of) certain tokens as falling under a category is overly subjective and not guided by suitably objective standards: it may just describe how the folk go about categorizing types and tokens of quite familiar and everyday objects. A scientist, on the other hand, does not investigate new phenomena by solely relying on their purported similarities with other known phenomena that share a family resemblance, but rather investigates the phenomena themselves. The common intuitions of the folk in physics and zoology have been notoriously misguided, relying heavily on the family resemblance approach to categorize phenomena and natural objects. The sun's trajectory through the sky resembles all instances of an object rotating around another stationary object, and this has engendered the stubborn geocentric intuition that has survived through much of human history. The common intuition that a whale more 'obviously' resembles a fish rather than a cow or other mammals also proved to be quite stubborn. The scientist may need to begin with the family resemblance method to initially collect and organize the natural phenomena under investigation, but must then continue with a more fine-grained approach to test for relevant and identifying features of a natural kind. It is this investigation into the characteristics and features of natural kinds that Hilary Kornblith (1995; 1998), in his naturalistic outlook, claims to be the appropriate method for philosophers as well to investigate the concepts within their purview.

Kornblith maintains the view that *knowledge, justice, the good*, and other concepts of philosophical interest can be investigated as natural kinds, comparing the method to how a scientist investigates a natural kind.

When we appeal to our intuitions about knowledge, we make salient certain instances of the phenomenon that need to be accounted for, and that these are genuine instances of knowledge is simply obvious, at least if our examples are well chosen. What we are doing, as I see it, is much like the rock collector who gathers samples of some interesting kind of stone for the purpose of figuring out what it is that the samples have in common. ... Understanding what the theoretical unity is is the object of our study, and it is to be found by careful examination of the phenomenon, that is, something outside of us, not our concept of the phenomenon, something inside of us. (Kornblith 1998, 133-134)

The use of intuitions is a preliminary step in gathering examples that may proffer the delineation of a natural kind against other examples that share a family resemblance. Once theoretical unity advances, the reliance on initial intuitions wanes: "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..." (135)

The attaining of theoretical understanding also suggests a distinctly expertise-driven endeavor (a point to which I will return later) that the folk rarely if ever engage in. While there is much to commend a naturalistic outlook of philosophy as being continuous in certain respects with the natural sciences, it is not clear that *knowledge* or other philosophical concepts should be treated as phenomena outside of us.⁶¹ The question of whether the *nature* or *essence* of philosophical concepts lies outside of us, and, moreover, that we can have intuitions of such “extra-mental”⁶² phenomena is difficult to answer conclusively. Goldman and Pust (1998) argue that intuitions would not be able to ‘get at’ outside phenomena approached in an extra-mentalistic fashion. A natural kinds approach to conceptual analysis would cease relying on intuitions after the ‘collecting/gathering’ phase, for “[h]ow can intuition get any reliable purchase on the constitutions of *both* a natural kind *and* an example so as to decide whether the latter matches the former?” (187, emphasis mine) Goldman and Pust prefer a mentalistic approach that is still within a naturalistic framework. If ‘concepts’ are understood to refer to the “psychological structure or state that underpins a conceiver’s deployment of a natural-language predicate,” then the gloss that “e satisfies my concept that I express through the predicate F” will largely overlap (though not precisely indicate by way of definition) the propositional content of the intuition “e is an instance of F.” (187-188) This maintains an appropriate naturalistic continuity of philosophical concepts with scientific understanding of the psychological structures and states involved in deploying a concept; intuitive judgments rest on a body of background theories in wide reflective equilibrium that can include those of the natural sciences, psychology in particular, without conceiving philosophically significant concepts as extra-mental phenomena that our intuitions would have no purchase on.

3.6.2 Expertise and the Folk

Furthermore, moral and other philosophical intuitions do not need to rely on sufficient levels of expertise for their proper use and deployment, unlike the trained and highly skilled intuitions of scientists. Scientists’ intuitions of their relevant field of expertise are not just comprised of *endoxic*-like intuitions, i.e., largely correct opinions and tacit skills

⁶¹ If we shifted our focus to *the good*, the discussion of ‘where the phenomena lies’ could be carried out further as a general defense of moral realism, viewing moral facts as at least supervening on natural facts and whose truth is largely independent from our theories or beliefs about them; i.e., there is something to moral facts and *the good* as being phenomena outside of us (Boyd 1988, 182).

⁶² Goldman and Pust (1998) prefer a mentalistic understanding of philosophical analysis, rather than an extra-mentalistic view which includes three approaches to treating the phenomena under investigation: (1) the universals, or Platonistic, approach; (2) the modal equivalence approach; and (3) the natural kinds approach. (183-187)

that are involved in experiment design, measurement readings, abductive inferences, etc. Scientists also have highly theory-dependent intuitions for very complex phenomena that result from empirical investigations and the increased development of a theory that explains the phenomena and/or provides definition-like necessary and sufficient conditions to identify the phenomena as instances of some natural kind(s). As Kornblith rightly asserts, these intuitions “give way to well-integrated theoretical judgments, and, in addition, to new intuitions about matters not yet fully captured in explicit theory.” (1998, 137) Such intuitions, then, do not fully satisfy the ‘pre-theoretical’ condition expected of, say, moral or epistemological intuitions. There is, however, a continuum of degrees to which an intuition is laden with a theory depending on how fully developed the theory itself is and how wide the range of phenomena is that the theory can account for (i.e., the fewer unaccounted for anomalies, the better). In a sense, most intuitions are pre-theoretical if a theory is understood as a continually evolving account of some phenomena which never reaches an endpoint of complete explanatory or predictive efficacy: intuitions are always pre-*that*-theory, the theory that is aimed at but is always slightly out of reach. The point is that theory-dependent intuitive judgments can still be regarded as intuitive in the sense that they satisfy the ‘immediacy’ or ‘less-cognitive’ condition for intuitions (the second point from 2.2). And it is scientists’ level of expertise and specialization with regard to the theory they are developing that allows them to make quick and almost unreflective intuitive judgments about the relevant phenomena. This does not preclude, of course, the fact that they can be mistaken in their intuitive judgments, nor does it suggest they are forbidden from using their reflective capacities to determine the strength or correctness of their intuitions. What is significant is that we expect a level of expertise in the sciences that leads to intuitions far removed from common intuitions of natural phenomena held by the folk – in fact, the intuitive judgments of scientists can seem highly counterintuitive to the folk. This type of expertise should not be sought after in epistemology and ethics. Goldman and Pust’s (1998) standard philosophical methodology maintains that the common intuitions of the folk are relevant (187), as philosophers in the recent experimental philosophy camp explicitly maintain as well:

[I]n general, we want our theories to be about intention, not some guild-specific variant, shmintention, as it were It’s common to analogize folk psychology with folk physics. But, of course, professional physicists can happily leave folk physics far behind as they tinker with their Calabi-Yau Manifolds and Gromov-Witten invariants. By contrast, moral psychology, however reflective, can’t be dissociated from our moral sentiments, because it’s basic to how we make sense of one another and ourselves. ... [M]oral thought and experience “must primarily involve grasping the world in such a way that one can, as a particular human being, live in it.” [Williams 1981, 52] (Appiah 2007, 15)

The only expertise in moral philosophy should be one that is continuous with the common intuitions of the folk regarding the deployment of moral terms and the concepts they represent, and that is not reliant, as in the natural sciences, on the creation of sophisticated theoretical models (which may lead to more theory-dependent intuitions) that require equally sophisticated cognitive capacities to envision and direct solutions to particular problems.

Some preliminary answers to the corollaries of the expertise point in 2.2 present themselves. (4a) *Who are the relevant experts, and how are they selected or known as such?* Ross's "best people" suggests that the 'experts' are those who have given their moral convictions, arrived at intuitively, a suitable amount of reflection that not only allays conflicts with other convictions, but also provides a body (though not a foundational base) of considered moral judgments in wide reflective equilibrium with more general moral principles and rules, and with background theories that constrain (and are constrained by) the considered moral judgments and principles. (4b) *What makes expert intuitions better than widely held intuitions?* Expertise in science allows for the prevalent use of theory-dependent intuitions in explaining and predicting natural phenomena, and such intuitions are very different from those commonly held by the folk. These intuitions are better in the sense that they are utilized to systematize theoretical accounts of phenomena that have a greater chance of becoming (approximately) true, while commonly held intuitions of the phenomena (if such common intuitions even exist) would not fare well in reaching theoretical unity. In the moral realm, common intuitions are respected as being themselves the phenomena that moral theory attempts to explain, which involves not only giving a descriptive or psychological account for why and how certain moral intuitions are held, but also explains why and how the moral intuitions are right. Finally, (4c) asked: *If there are large discrepancies between the intuitions of the experts and of the folk, then what can be learned from such discrepancies?* In the sciences this question is moot as the folk often have common intuitions that are simply wrong; all that we learn is that nature, cut at the organic, chemical, molecular, subatomic levels, is nearly infinite in its complexity and that only the best trained among us can begin to bring that complexity under some more generalized and parsimonious explanatory descriptions. For moral intuitions, the discrepancies among the folk lead to moral relativity at one end, or to the view that some 'expertise', unlike that for scientists, is amenable to the idea that moral intuitions require reflection and perhaps some guiding principles that can bring them into wider and fuller reflective equilibrium. Where the intuitions of 'experts', say, philosophers, becomes

relevant is when there are discrepancies between the folk and philosophers in the application of other philosophically significant concepts, like *knowledge*. This will be addressed further in Chapter 5 where some of the arguments for philosophical expertise providing better intuitions than those of the folk will be analyzed. The next chapter will move the analogy of philosophical intuitions to a discussion of and comparison with linguistic intuitions.

4 – The Analogy with Linguistics

The linguistic model of the philosopher's appeal to intuitions provides many revealing similarities between linguistic and philosophical intuitions. One such feature is the second point sketched in 2.2 regarding the immediacy of such intuitions. Competent speakers of a language, both linguists and laypersons, can quite readily and quickly determine the grammaticality/acceptability⁶³ of a string of words counting as a sentence of that language. A competent speaker of the English language will quickly regard the sentence "Furiously sleep ideas green colorless" as not only meaningless but grammatically incorrect, while the same words rearranged to "Colorless green ideas sleep furiously" will be quickly judged as grammatically (i.e., syntactically) correct, though still meaningless (i.e., semantically vacuous).⁶⁴ Such linguistic intuitions of acceptability arise from competence in a language. They are part and parcel of the process of learning a language: to make a judgment of a sentence's acceptability is to have successfully and tacitly learned and applied (unconsciously) a grammatical rule. Without entering the debate of *how* grammatical rules are learned in the natural development of a child's first language, be it by the nativist, emergentist, empirical, or interactionist theory, there is wide agreement that competent language speakers are unconscious of the grammar rules that underlie their competency during quotidian language use (Jackendoff 1994, 6; Cowie 2011).⁶⁵ Given that competent

⁶³ Grammaticality intuitions are theoretical as decided by the linguist and her best theory; acceptability intuitions are what native speakers *qua* native speakers can only have (Chomsky 1965, 10-15; Haegeman 1994, 7-8). Speaking of intuitions as being both grammatical and acceptable does not imply that they are always so, but only that linguist's proper interest are intuitions that both (a) come naturally and are expressed confidently by a native speaker (i.e., they are acceptable), and (b) that these intuitions comport to a linguist's best available (on-going) grammatical theory (i.e., they are grammatical). (a) does not always imply (b); only the acceptability intuitions of a competent native speaker who is free from performative errors, as best judged by the linguist's available theory (her skill in making performance-competence distinctions), are grammatical intuitions. More on the performance-competence distinction in what follows.

⁶⁴ These sentences are from Chomsky (1957), where they were employed in a different context as examples of the failure of probabilistic models of grammar to distinguish between syntax and semantics (15).

⁶⁵ Though there are of course alternate views: that there are no representations of grammar rules in the competent speaker's mind at all (Soames 1984; Devitt 2006); or that even if competent speakers came to know (i.e., propositionally) what they know tacitly about the grammar rules of their language, they would not be able to make much sense of such rules (Stich 1971).

language speakers can make intuitive judgments of acceptability quickly and relatively unconsciously, and that competent language speakers go about producing language relatively unconsciously (i.e., by not consciously applying grammatical rules to most, if not all, utterances), it is not unreasonable to assume that linguistic intuitions are the product of a competency, *viz.*, the language faculty. In this way, in regards to the first point from 2.2, linguistic intuitions have a direct relationship to the unique faculty that produces them. It is then the goal of linguists to explicate and uncover the structures of the language faculty, either those of one language in particular or those of one Universal Grammar for all human languages.

4.1 – Roles of the Linguist

The linguist need not be solely concerned with uncovering the structure of the language faculty. This is but one of the roles of a linguist, that of a grammar theorist; the other role, as Jens Kipper has put it, is that of a grammaticographer (Kipper 2010, 512). The grammaticographer seeks to describe a grammar of an as yet undescribed language. This can be done by examining a corpus of texts: a distinctly solitary affair usually reserved for the study of dead languages. It can also be done with the aid of a competent, native speaking informant, or a number of competent, native speaking informants, who can elicit data for the grammaticographer (or ‘field linguist’, we might call her). As the collected corpus grows the grammaticographer can tweak some of the syntactic and morphologic features of previously elicited sentences and ‘test’ these with the informants, asking “questions of the sort ‘would it be correct to say...?’ or ‘what would you say in such and such a situation?’” (514) This experimentation on informants’ linguistic capacities and competencies yields vital data for the linguist. In this way the linguist may extend the applicability of her working grammar theories to as yet unuttered and ungathered forms of possible sentences. “[L]anguages typically employ a small number of forms in text [or speech], though many forms are possible.” (Payne 1997, 368) The linguist can work with a finite set of actual elicitations and from those produce further possible forms to be tested for acceptability with the informant(s).

The grammar theorist, not necessarily a separate person from the grammaticographer, but a separate and somewhat overlapping role of the linguist, goes a few steps further. The grammar theorist works with an already well-described language and seeks to find more comprehensive descriptions of the language, and, more importantly, to systematize the linguistic data (Kipper 2010, 515). There is a tendency for the grammar theorist to rely less

on the empirical data elicited by the grammaticographer and more on her own introspection. It is up to the grammar theorist to decide between competing grammars when conflicts arise. Appeals to the corpus data alone are insufficient in regards to this task for two reasons: “the existing data is often neutral with respect to the disagreement between the competing grammatical models,” and the fact that a grammatical model is *actually* used among competent language speakers does not always mean that it is *actually* correct (Kipper 2010, 516). Some elicited data may have been the result of performance errors on the language speakers’ part. The grammar theorist then has a responsibility to judge when performance errors have been made, essentially judging herself the correctness of the linguistic data. If the grammar theorist has a sufficient level of expertise in the language and is able to judge the correctness of the data herself, then her linguistic intuitions should be all the data that she needs and there is no need to go out in the ‘field’. Why, then, appeal to the linguistic intuitions of native speakers at all?

One possible answer to this question is that the grammar theorist is missing an important element of the language when relying just on her own linguistic intuitions: “the student of his own intuitions, producing both data and theory in a language abstracted from every social context, is the ultimate lame.” (Labov 1972, 292) A social context may be a key ingredient in the correct systematization of a language and grammar of a certain dialect or subgroup of a language; Labov’s study, in fact, was of the black vernacular dialect of English spoken in urban areas. Linguistic intuitions elicited from within a social context would then reflect that language’s own social context, leading to a closer study of the peculiarities and subtleties of a language rather than the “controlled, systematic, and rule-dominated parts of language.” (Payne 1997, 368) Depending on the grammar theorist’s aim, then, the fact that a social context is lost when she relies on her own intuitions might be an advantage for her purposes, i.e., less emphasis on descriptively capturing certain peculiarities of a subgroup of a language, and more emphasis on broader issues of a language’s systematization and grammar rules. There may be another problem with the socially decontextualized and solely introspective method of the grammar theorist: her intuitions may be biased toward a particular theory for pragmatic reasons. She may have championed a certain grammatical theory in the past that she finds her research projects committed to, and though she is aware of discrepancies between her linguistic intuitive judgments with those of native speakers (or even those of other linguists), she adheres to her own linguistic intuitions that favor grammatical theories that would be too costly for

her to give up at this crucial time of her ongoing research.⁶⁶ There may also be biases of which she is unaware, i.e., no pragmatic reasons come into play for her favoring a particular grammar over another, but she is susceptible to confirmation biases that more consistently pick her own linguistic intuitive judgments that select or support a certain grammatical theory.⁶⁷

4.2 – Appeal to Linguistic Intuitions

There would then appear to be a *prima facie* reason for the grammar theorist to appeal to more and not less empirical data. This is clearest in the case of a linguist who gravitates more towards describing a language than to systematizing it: the grammaticographer's role. Also, in terms of possible bias on the grammar theorist's part, an appeal to the linguistic intuitions of non-linguists would ideally provide unbiased linguistic data, as most laypersons are not beholden to any explicit grammatical theory: they have no theoretical axe to grind, as it were. As with the analogy between observation statements and intuitions in Chapter 3, there is a question here of whether we (laypersons and linguists) can have pretheoretical linguistic intuitions, unfettered by and noncommittal to theory, *viz.*, not theory-laden. On one view, broadly Chomskyan, since one's linguistic competence is a product of the successful learning of a language in the developmental stages, i.e., the language acquisition device functioning on some innate operative principles (rather than on the meager stimuli from the environment) to learn the correct usage of grammatical constructions, then linguistic intuitions are only pretheoretical in the sense of being *pre-explicit*-theoretical. Competent language speakers do not need to have any explicit theory of grammar to refer to when constructing sentences, though they may be working unconsciously with some *tacit* theory.⁶⁸ Linguists seek to explicate the grammatical theory to systematize competent language usage and intuitions because their goal is an explicit, or generative, theory (Chomsky 1965, 4). Regardless of whether Chomskyan, or nativist, theories are completely wrong, and the more favored empiricist, computational, or interactionist models turn out to be (more) correct, competent language speakers will,

⁶⁶ Scholz, Pelletier and Pullum (2011) cite such bias as a problem for linguists who rely on their intuitions, as they may "have a stake in what the evidence shows." (Sec. 3.1)

⁶⁷ Confirmation biases often result from an unchecked availability heuristic: the intuitions of linguistic competency or acceptability that she herself elicits are more readily available to her than those of other native speakers, or even other linguists, and thus tend to be favored. See Tversky and Kahneman 1973; Lord, Ross, and Lepper 1979.

⁶⁸ An important distinction in Chomsky (1965, 8) is that between, what Mikhail (2011, 19-21) has labeled, *operative* and *express* principles: the former are what is actually at work in a language-user's producing language and having linguistic intuitions, while the latter are what is referred to by a language-user in describing, explaining or justifying correct usage of a phrase or sentence, or a particular linguistic intuition. Operative principles, then, are what contribute to a linguist's explicit theory, while express principles are what possibly contribute to a language-user's tacit theory.

ceteris paribus, always attain language. While linguists' explicit theories may continually change as they approach something more or less true and correct, whatever tacit theory, if any,⁶⁹ is used in an indirect and unconscious way by competent speakers will have little, if anything at all, to contribute to linguists' theories.⁷⁰ In this way the linguistic intuitions of competent speakers are pretheoretical because of the lack of cognizance of the explicit theory, and hence the lack of theory-ladenness affecting the linguistic intuitions.⁷¹

In appealing to linguistic intuitions of native speakers there is always a concern for the grammar theorist to check for performance errors among her sampling base. If she can successfully weed out elicitation suffering from performance errors due to either subpar functioning of a native speaker's "memory structure, mode of organizing experience, perceptual mechanisms and attention span," (Mikhail 2011, 18) or to "inebriation, inattention, fatigue," (Daniels 1996/1980a, 68) and so on, then she will have a suitable stock of linguistic intuitions. The ability to detect performance errors in face-to-face situations may be a relatively easy and learnable skill for a field linguist. However, when cases of possible error are not clearly or obviously instances of a performance-based error, or the linguist is relying mostly on texts or a corpus of elicited linguistic intuitions in which performance-based errors are much more difficult to detect, an important judgment takes place between whether the error results from poor performance or results from poor competence. Such a judgment is heavily theory-dependent (Daniels 1996/1980a, 68-69), and relies on the linguist's level of expertise in the performance-competence distinction

⁶⁹ Devitt (2006) argues there is no representational theory of grammar rules, tacit or explicit; Daniels (1996/1980a) has a different approach: "the competency that is attributed to the speaker of a language by Chomskyan theory may never – as a whole – have been possessed by the speaker at a given time. It may have existed only in bits and pieces prior to the acquisition of the program for the speaker's on-line processor. Still, the theory is needed to explain what enabled the programming of the on-line processor to take place in the bits and pieces manner that characterizes its evolution." (n.11)

⁷⁰ There may appear to be a gap between linguistic theories of grammar and the developmental theories of language acquisition; that they are speaking about entirely different things. One is a theory about the stable and systematic functioning of language use, and the other is a theory of the developmental process of learning a language. But there is at least a dependence of the former on the latter's having reached its natural end point: competence in a language. Theories of grammar may be affected by new knowledge and understanding from the developmental sciences. Both areas of study are the grounds for the first two of Chomsky's three main questions that language study is organized around: (1) What constitutes knowledge of language? [linguistic competence]; (2) How is knowledge acquired? [language acquisition device, Universal Grammar, for Chomsky]; (3) How is knowledge of language put to use? [linguistic performance] (Chomsky 1986, 3; 1991, 6)

⁷¹ Might the tacit theory, or set of express principles (see footnote 68), affect the language-user's intuitions in any significant way? It is unlikely, as the tacit theory is referred to by the language-use only *after* a linguistic intuition has been made and serves as a kind of ad hoc confabulation of reason(s)-giving for having the linguistic intuition. A poorly systematized tacit theory that gave too much weight to certain express principles could possibly overturn an initial linguistic intuition for the worse. The onus would be on the linguist successfully employing her skills to determine such a performative error. See below.

which comports as best as possible to her ongoing grammatical theory.⁷² But even with an adequately workable performance-competence distinction, the linguist may be faced with some troubling empirical data when assessing the linguistic intuitive judgments of non-linguists.

In a study by N. J. Spencer (1973) 150 sentences gathered from six professional linguistic articles, and deemed by the authors to be either clearly grammatical or clearly ungrammatical, were evaluated by non-linguists (n=65). Of the 150 sentences, there was unanimous agreement on the un/acceptability of only 77 of the sentences. It is difficult to chalk this up entirely to performance errors as it would imply that every subject was prone to at least one performance-related error. It rather shows that there is some disagreement between what linguists and laypeople take to be intuitively acceptable and unacceptable sentences in a language. What can be concluded from such a result? That laypeople do not have the level of competency to make acceptability judgments of even the clearest example sentences, according to the linguists? That the linguists have standards of competency that are too different from those of most laypeople? That linguists conceive of and theorize about a grammar completely different from that of laypeople, and thus speak a different language entirely? Or perhaps those 150 sentences collected from the six linguistic articles do not share the level of universal agreement among linguists assumed by the authors of those articles and Spencer himself. Perhaps a survey among linguists should be conducted first to determine whether those 150 sentences really are clear examples of un/acceptability. Supposing that this were done and there was in fact unanimous agreement among linguists regarding those 150 sentences, and supposing further that the surveys conducted on the subjects were done in such a way as to elicit their best performance-error-free linguistic intuitions, and disagreement was *still* found among those subjects on the un/acceptability of those 150 sentences, what, to borrow the linguist's eliciting question, are we to say about that? These questions pertain significantly to the experimental philosophers and their studies that will be addressed in Chapter 5, where the divergences of philosophical intuitions among laypeople (or the 'folk') and against the intuitions of philosophers lead to varying interpretations and conclusions. Putting this question on hold until then, I would like to turn now to the comparison between linguists and philosophers in their use of and methodologies regarding intuitions.

⁷² Daniels (1996/1980a) suggests that the "performance-competence distinction is itself revisable in light of theory" (71) in a process of narrow reflective equilibrium.

4.3 – The Analogy, Intuitions as Competence

I hope that in this discussion of linguists' use and methodology surrounding intuitions, some of the striking similarities and differences in philosophical methodology and practice have already presented themselves to the reader.⁷³ Of the four points from 2.2, the first two were mentioned in passing: that linguistic intuitions appear to be products of a unique and dedicated language faculty, and, perhaps due to this direct relationship of competency in the language faculty producing competent (and performance-error-free) linguistic intuitions, the linguistic intuitions are often spontaneous and do not require much cognitive activity. By way of analogy between linguistic and philosophical intuitions, however, we cannot conclude that the presence of a language faculty in one domain implies the presence of a philosophical intuitional faculty in the other domain.⁷⁴ With language acquisition the competency reached in being able to produce language and make intuitive judgments of grammaticality/acceptability are both indicators of (and perhaps constitutive of) competency in a language. There is a theoretically and empirically informed notion of a language faculty or language acquisition device that is directly involved in attaining a level of linguistic competence. A corollary to this in philosophy is not at all clear. If intuitions in philosophy are used to guide the analysis of concepts that can answer significant questions about knowledge, justice, goodness, etc.,⁷⁵ can we reasonably subsume such a diverse body of intuitions, pertaining to the plethora of questions philosophers raise, under one faculty of philosophical intuition?⁷⁶ Rather than speculate further of what a philosophical intuitional faculty could mean or amount to, I believe that the competency relation should be redrawn for philosophical intuitions. Instead of assuming the constitutive relation

⁷³ Perhaps these similarities and differences have presented themselves in an intuitive manner!

⁷⁴ Some philosophers have taken the analogy seriously, and have pursued projects to describe our moral sense and capacity as a kind of moral grammar. See Harman 1999; Hauser 2006; Hauser et al. 2008; Mikhail 2007; 2011. They take inspiration from Rawls's linguistic analogy (1971, 46-50) and the moral corollary of linguistics' 'projection problem': "Any grammar of a language will *project* the finite and somewhat accidental corpus of observed utterances to a set (presumably infinite) of grammatical utterances. In this respect, a grammar mirrors the behavior of the speaker who, on the basis of a finite and accidental experience with language, can produce or understand an indefinite number of new sentences." (Chomsky 1957, 15) Through developmental studies, cognitive sciences, psychology, and even primatology, these and other moral grammarians seek to adequately describe the moral faculty as functioning on operative principles in much the same way as the language faculty does, allowing for seemingly automatic moral judgments to take place on the basis of deep, tacit principles that most people are unaware of. While this is a fascinating research field, it is consciously devoted to the descriptive project of moral psychology (which is in keeping with Mikhail's [2011, 29-30, 197] claim that Rawls saw descriptive adequacy of a moral theory as prior to and having precedence over normative adequacy, which could then answer the problem of normative adequacy [1971, 46-53]), and would likely take me too far afield of my focus on intuition in general.

⁷⁵ Bealer (1998) gives a nice list: "[P]hilosophers seek answers to such questions as the nature of substance, mind, intelligence, consciousness, sensation, perception, knowledge, wisdom, truth, identity, infinity, divinity, time, explanation, causation, freedom, purpose, goodness, duty, the virtues, love, life, happiness, and so forth." (203)

⁷⁶ Hintikka (1999) is also skeptical of such a move, that even if we "can locate a characteristic feature of what are called intuitive insights, that special character does not presuppose a separate faculty or capacity." (143)

between competency in intuitions with a naturally developed faculty of intuition, as is apparent in the linguistic domain, competency in philosophical intuitions should only be indicative of a very general capacity for competency. This general competency can be viewed as either (1) the understanding of a series of propositions or a given scenario, real or imaginary (such as a Gettier case about knowledge or a thought experiment about a moral dilemma), or (2) competency in the deployment of the concepts involved in (or responsible for) those intuitive judgments made when regarding propositions or a scenario. These two views are representative of minimal and maximal construals of philosophical intuitions: (1) may appear frustratingly vague and underdescribed without a proper analysis of what counts as sufficient understanding;⁷⁷ (2) can be seen as an eliminativist view, as suggested by Kirk Ludwig (2007), in that there are no such things as ‘intuitions’ but only “occurrent judgment[s] formed solely on the basis of competence in the concepts involved in response to a question about a scenario, ... [or simply] on the basis of competence in the concepts involved in [the scenario].” (Ludwig 2007, 135) I do not want to take a stand here on whether the vague notion of understanding in (1) or the eliminativist view that intuitions are really just occurrent judgments in (2) is correct. However, the two views do comport to one basic view: an understanding and competency with regard to the concepts involved in a series of propositions or a described scenario are necessary for one to have an intuitive judgment.⁷⁸ Such a view works well for philosophical intuitions and their usage, and the faculty analogy from linguistics can be set aside.

Turning to the second point from 2.2 about the immediacy and spontaneity of intuitions, the disanalogy between linguistic intuitions and philosophical intuitions regarding a dedicated faculty might also suggest that because there is no dedicated intuition device for philosophically significant concepts and questions, there is no reason to suppose that intuitions always arrive immediately and spontaneously. The understanding of a series of propositions or a scenario, and competency regarding the concepts involved, might lead to intuitive judgments only after some reflection has taken place. Robert Audi (1996)

⁷⁷ Audi (1996) has a bit more to say about adequate understanding; it “is more than simply getting the general sense of a sentence expressing it, as where one can parse the sentence grammatically, partially explain what it means, and perhaps translate it into another language one knows well. Adequacy here implies not only seeing what the proposition says, but also being able to apply it to some appropriate cases, being able to see some of its logical implications, and comprehending its elements and some of their relations.” (115) Also Hooker (2002) says that “[u]nderstanding requires the capacity to draw inferences [from a proposition]; it does not require that they already have been drawn or are now being drawn.” (164)

⁷⁸ For Ludwig (2007), the understanding and competency involved might be both necessary and sufficient for the occurrent judgment, while for Audi (1996) the adequate understanding of intuitions’ propositional objects (see previous note) is but one of four (broadly) necessary and sufficient conditions for intuitions: the other three are that (1) they are noninferential, (2) they are moderately firm cognitions, and (3) they are pretheoretical (109-111).

distinguishes between “immediately self-evident” and “mediately self-evident” intuitions,⁷⁹ the former being obvious and leading to truth “as soon as one considers them with understanding, which is usually as soon as one is presented with them in a natural formulation in a language in which one is competent;” while the latter requires some reflection, which “may involve drawing inferences, ... [though reflection’s] role is limited largely to clarifying what the proposition in question says. ... One may require time to get it in clear focus, but need not climb up to it on the shoulders of one or more premises.” (Audi 1996, 115) The first time one encountered a Gettier case, it may have taken a while before one had the intuition that this was a case of a subject having a justified true belief but not knowledge of a proposition. A certain amount of reflection may have been necessary to examine the scenario and its propositions before one has the intuition. For philosophers as well it may have taken a while to have the intuition as there may have been reasons outside the scenario described for being (unconsciously) reluctant to have such an intuition, i.e., the consequence of the justified true belief definition of knowledge being contested or outright false might (and likely did) upturn the worlds of many epistemologists. It is not a necessary feature of intuitions that they have the phenomenal characteristic of arising instantly or spontaneously, though it is certainly possible with immediately self-evident propositions or scenarios.⁸⁰

4.4 – The Influence of Experimental Psychology

It would then be a mistake to take a phenomenologically immediate or spontaneous judgment to be evidence for classifying such a judgment as an intuition. Perhaps the legacy of experimental psychologists’ research⁸¹ on the failings of human inferential methods based on the overuse of ‘intuitional thinking’ is cause for the confusion. Psychologists

⁷⁹ Audi builds his idea of self-evidence from Ross (1930), a self-evident proposition is “evident without any need of proof, or of evidence beyond itself.” (29)

⁸⁰ There may be an urge for someone who has arrived at the intuition of “justified true belief, but no knowledge” when considering one Gettier case to say that they have found it “more (or less) intuitive” than a variant of the Gettier case that tests for the same “justified true belief, but no knowledge” intuition. (See Section 5.2.1 for variations) This might only be an indicator that some described case can elicit an intuition more immediately, not that one intuition is somehow “*more* of an intuition” or “more evidential” than another. Vaidya (2010) contrasts between the uses of ‘intuition’ and ‘intuitive’ in this regard. A III-form syllogism, “Some A are B. Some B are C. So, some A are C” is intuitively false. Perhaps one has this intuition relatively immediately when considering a possible Venn diagram which *shows* (by way of counter-example) that the syllogism is invalid. Or one arrives at the intuition even more quickly (or perhaps more slowly) when considering an arithmetical counter-model to show the invalidness of the syllogism: “Some even numbers are whole numbers. Some whole numbers are odd numbers. So, some even numbers are odd numbers.” (407; though “*some* even numbers are whole numbers” is rather disingenuous) When ‘more’ or ‘less’ are used to modify ‘intuitive’, and when “S has the intuition that P” and “P is intuitive to S” are taken to be synonymous, the modifiers do not function as giving an intuition more or less evidential weight, but are rather just describing the phenomenal (and less central) feature of an intuition: its immediacy or easiness-to-understand.

⁸¹ The research of Kahneman and Tversky as reviewed by Nisbett and Ross (1980) is a good place to start.

often define intuition or intuitive judgments at the start of their research as any judgment made immediately, unreflectively, not “on the basis of some kind of explicit reasoning process that a person can consciously observe.” (Gopnik and Schwitzgebel 1998, 77) They then offer some intuitively acceptable and quite likely true propositions, such as: “Given two options . . . if a person *prefers* option A over option B, then that person should also *reject* option B in favor of option A” (Wisniewski 1998, 47); or that “compound events cannot be more likely than the least probable of the simpler events that constitute the compound. A randomly selected person cannot be more likely to be both a gentleman *and* a scholar than just a gentleman or just a scholar.” (Nisbett and Ross 1980, 146; cf. Kahneman and Tversky 1977) Of course, this is not the end of experimental psychologists’ work: though we may find these propositions intuitive and assent to their truth without reference to any theory and just by means of understanding the concepts involved, experimental psychologists wish to show rather that human subjects, when presented with decision scenarios that can be reduced to the two choice rules just quoted above, will tend to overuse the fast and frugal heuristic devices that psychologists associate with “intuitive thinking.”⁸² They will show that, for example, subjects will choose to both prefer *and* reject the same option in a two-option choice. In a study by Eldar Shafir (1993)⁸³ subjects were asked to pretend they were on jury duty for a custody case between a divorced couple. Half the subjects were asked which parent they would *prefer* for custody, the other half were asked which parent they would *reject* for custody. Parent A was described as having average income, average health, average working hours, reasonable rapport with the child, and a relatively stable social life, while Parent B was described as having above-average income, a very close relationship with the child, an extremely active social life, lots of work-related travel, and minor health problems. Parent B was chosen more often as the awarded candidate *as well as* the rejected candidate for custody.⁸⁴ Shafir explains this counterintuitive result: when a choice is framed in terms of preferring an option, positive features are weighed very highly; conversely, when a choice is framed in terms of rejecting an option, negative features are weighed very highly.⁸⁵ Or, experimental psychologists will

⁸² Kahneman and Tversky focused much of their research on two judgmental strategies of ‘intuitive thinking’: the representativeness heuristic and the availability heuristic (Nisbett and Ross 1980, 6-8).

⁸³ As described in Wisniewski 1998, 50.

⁸⁴ N=170, 64% awarded Parent B, 34% Parent A; 55% rejected Parent B, 45% Parent A.

⁸⁵ Though the explanation might work well as an example of a heuristic device being overused (perhaps it is the availability heuristic, as rejecters are asked to look for the best rejecting reasons available to them, and awarders are asked to look for the best awarding reasons available to them), the study itself overlooks one important point. Given a choice between A and B, rejecting one should imply preferring the other, and vice versa, *for an individual making the choice*. The results of the experiment do not suggest that anyone *actually* rejected *and* preferred the same parent: no one was asked to select whom they would reject *and* whom they would prefer, as it is an obvious implication by disjunctive logic that they would reject/prefer whomever they

show that subjects will choose a compound ascription of a described individual as more likely than any one of the ascriptions that make up the compound. In a study by Daniel Kahneman and Amos Tversky (1977), when subjects read some personality descriptions and were then asked to give a probability estimate of either the described person's occupation, their political party affiliation, or *both* their occupation and political party affiliation, subjects tended to give a higher probability to the compound ascription, say, that the person was a Republican lawyer, than to the probability of the person being just a lawyer or just a Republican (even when the *same description* elicited the probability ascription that the person was rather *unlikely* to be a lawyer!) Richard Nisbett and Lee Ross explain:

Reliance on representativeness or similarity criteria would produce such a result because a set of features which closely resembles a stereotypical Republican but poorly resembles a stereotypical lawyer might well be expected to moderately resemble a stereotypical Republican lawyer. (Nisbett and Ross 1980, 146)

That the conclusions arrived at by what experimental psychologists call intuitive inferential thought processes (i.e., judgmental heuristics) are different from what the experimental psychologists find themselves to be intuitively acceptable as the underlying principle(s) of their experiments (i.e., their interpretation of what the correct answer to the choice scenario in their experiment is), leads to the supposition that their use of the term 'intuition' and 'intuitive' is misleading. Experimental psychologists seek to show how what they have classified as 'intuitional thinking' (i.e., unreflective, quick, heuristic-based modes of thinking) leads to choices that go against intuitively sound principles – principles understood in the philosophically intuitive way described above in 4.3 in terms of understanding and competency. But it is a categorical mistake to label the mode of thinking⁸⁶ employed to arrive at the intuitively sound conclusion as 'intuitive' or 'intuitional', especially when it is the case that many people *do not* arrive at the intuitively sound conclusion. If we understood 'intuitional thinking' in the philosophical sense, as manifesting in a competency and understanding of the scenario described, its propositions,

did not prefer/reject. The *social* fact that more people find parent B reject-worthy *and* prefer-worthy (given that they are instructed to either prefer or reject one of the parents) is the counterintuitive conclusion, but this does not breach the intuition that *each individual* holds, *viz.*, that preferring A implies rejecting B, and vice versa, *when I make a choice*. Safir (1993) also suggests that we are more used to the preferring formulation when making a choice than the rejecting formula, which could imply they are not equally effective or that one formula is more prone to biases than the other. (555)

⁸⁶ It is understandable that psychologists' and neuroscientists' interest lies in distinguishing between different modes of thinking: much empirical research has suggested a dual-process theory of cognition that uses the neutral "System 1" and "System 2" labels to classify and differentiate between "processes that are unconscious, rapid, automatic, and high capacity, and those that are conscious, slow, and deliberate." (Evans 2008, 256) But some researchers have preferred different labels for the System1/System2 pair that do not always cohere: Automatic/Controlled, Associative/Rule-based, Impulsive/Reflective, Holistic/Analytic, Heuristic/Analytic, and our cause for confusion, Intuitive/Analytic. (257)

and the concepts involved, then subjects should be able to *see* the underlying principle in the scenario or propositions as intuitively sound, just as the experimenters and many laypersons *see* the intuitive soundness of the principle when it stands on its own.⁸⁷ Too much emphasis on the phenomenal character of intuitions as products of quick, heuristic-based thinking confuses the picture of what philosophers have taken intuitions to be. The problems of human inferential judgments and decision-making come down to the unreflective use of judgmental heuristics, which gets in the way of ‘intuitional thinking’ in the philosophical sense.⁸⁸ But I want to stay away from trying to classify a way of thinking as intuitional, even in the philosophical sense: ‘intuitional thinking’ is nothing other than thinking carefully, reflecting on the features and concepts involved in a scenario, which suggests a minimal level of understanding and competency in detecting those features and concepts. It is essentially ‘good thinking’, and should in no way suggest a mode or special faculty for arriving at intuitions.

4.5 – The Pseudo-Problem of Generality

Back to the general comparison between linguistic and philosophical intuitions. In passing, the fourth point from 2.2 was mentioned as a lead-in to the discussion about experimental philosophers and their studies in Chapter 5, in terms of what qualifies as expert intuitions and what ‘regular’ intuitions of the folk can bring to the discussion. When fear of bias enters a grammar theorist’s method, pretheoretical intuitions as held by most competent speakers will be sought to provide neutral data points for entry into the theorizing and systematizing of a grammar, as well as a means to select between competing grammars. This same method may also be beneficial in philosophy.

⁸⁷ The reason for such widespread failure on the subjects’ part in these experiments can be seen as resulting from overuse of judgmental heuristics (the experimental psychologists’ main point), but also in the difficulty to abstract the principle from the scenario or decision situation that they would otherwise intuit as being acceptable and correct. It is quite likely that if a subject was presented with the principle, say, that a compound ascription cannot be more probable than any of its parts, presented clearly and with a mathematical aid about probability (e.g., x and y are each probabilities, represented as numbers greater than or equal to 0 and less than or equal to 1; ‘ $xy > y$ ’ and ‘ $xy > x$ ’ are both impossible), then subjects will more likely intuit the relevant principle in the choice scenario and *not* choose the compound ascription (Republican lawyer) as more probable than any of the component ascriptions. Even short of spelling out the principle for subjects before their choice task, Tversky and Kahneman (1983) have shown that extensional cues that suggest or make more apparent the underlying principle in the choice scenario can improve subjects’ performances significantly (309).

⁸⁸ Though experimental psychologists have a different idea of ‘intuition’ from philosophers, they clearly agree that careful thought can overcome the problems caused by their ‘intuitional thinking’. “Our journals have dedicated many pages to showing that our intuitions systematically ignore important sources of information, ... [but also] that our judgments are improved when situations press us to reason more carefully.” (Lieberman 2000, 109)

There is then the third point from 2.2. Recall that that point was about the particular/general divide, that intuitions are instances, much like sense-perceptions, and do not have the level of generality that concepts do. In 3.5, we saw that particular intuitions, when compared with observations in theory development of science, do not pose a significant problem when both intuitive judgments and observations are understood to be in wide reflective equilibrium with principles/theories and a background body of (auxiliary) theories. Hintikka (1999), however, sees the particular/general divide as a problem for philosophers who use an intuition-based methodology⁸⁹ – a methodology that is ultimately a ‘jumping on the bandwagon’ consequence of its success in linguistics (Hintikka 1999, 127). The problem for Hintikka revolves around an assumption that philosophers have, called the *atomistic postulate*: “[T]he basic input into our epistemic process consists of particular data, excluding general truths.” (137) If intuitions are to be conceived of as something analogous to sense perceptions (which Hintikka tentatively holds), or even as what I have suggested above, as an instance of arriving at a competent judgment based on the understanding and competency of the proposition(s), scenario, and the concepts involved, then the question arises: what can be generalized from one intuition? “In order to be useful, intuitions must have some kind of at least implicit generality,” (138) but what level of generality, Hintikka continues, can be attained from even the simplest and most widely held intuitions as, say, “torturing children for pleasure is wrong”?

Which parameters of the given proposition are the ones with respect to which we should generalize? And asking this obviously amounts to asking: *What are the factors affecting our judgment about the situation envisaged in it?* Is it sometimes all right to torture a child for reasons other than pleasure? If so, what reasons? Is it ever permitted to torture an adult? If so, what is the critical age? Is it ever acceptable to torture an adult for reasons other than pleasure? If so, what reasons? (137-138, emphasis mine)

Though Hintikka is correct in highlighting the difficulties of locating features that should be generalized from the particular intuition, he is even more correct in the above passage with regards to the questions that should arise from a particular intuition, regardless of whether or not one attempts to generalize from it. Having the intuition that “torturing children for pleasure is wrong” just *is* understanding the proposition itself (or a described scenario that features an act of torturing a child for pleasure) and the concepts on which the proposition (or scenario) is based. The “factors” (from the italicized sentence of the quoted passage) he mentions as being involved in our judgment are the concepts involved in the proposition or scenario, their relations with regards to the manner in which they are

⁸⁹ Hintikka’s main foil in the paper is Saul Kripke, who sets out *Naming and Necessity* (1980) as an exercise in intuitive philosophy: “In these lectures, I will argue, intuitively, that proper names are rigid designators...” (49)

interacting with each other and the implicatures of such relations, and our understanding and competency of those concepts and relations which leads to the intuition that torturing children is wrong. Varying the features of the proposition, such as the age of the victim, or the purpose or concurrent emotion of the torturer, can “factor” in new concepts and relations and thus elicit different intuitions. This is similar to the way that the grammaticographer can vary syntactic or morphological features of a sentence and elicit different intuitions of acceptability from native speakers (4.1). In the context of linguistics, Hintikka sees no problem with this methodology, and actually recommends grammarians follow this method rather than that they just rely on “our intuitions about isolated examples.” Grammarians should

vary systematically suitable ingredients in some sample sentence and [observe] how our “intuitions” change as a consequence. Now we can see why such systematic variation is a way of persuading our intuitions to yield *general truths* (dependence relations) rather than particular cases. (Hintikka 1999, 135, emphasis mine)

It is not clear why Hintikka, two pages later, condemns this practice in the case of the moral intuition about torture. Perhaps he means something else by the “factors” at work in the judgment. Hintikka might be implying that the “factors” involved are, in fact, the very generalized principles or theories at work in eliciting or accounting for the intuition; the generalizations that we are trying to get at from the particular intuition, by “inductive inference, abduction, or a lucky guess.” (137) The philosopher considering the particular case has, in deciding which parameters to generalize, already “factored” in a theory from which the particular intuition would be seen as a valid inference. The “implicit generality” of an intuition, then, is not “in” the intuition but rather has been imported and imposed upon by the philosopher by way of current theoretical commitments.⁹⁰ In this sense all intuitions of particular cases lose their pretheoretical quality as soon as an attempt to generalize them is made by way of certain parameters the philosopher attends to.⁹¹ Depending on the philosopher’s interest (i.e., parameters or “factors” attended to), she may then “develop” a theory of the proper care for children, or a theory of children’s rights, or a theory of torture in general, or even a theory of wrong acts in general. The success of “arriving at” these general theories from the particular intuition (by whatever means) would then depend on the degree to which one’s *already-committed-to* theory is able to guide the generalizing process from the particular intuition to *that already-committed-to* theory. Then the role of the intuition would only contribute to a kind of conservatism that

⁹⁰ This is perhaps analogous to theory-laden observations in science, as described in Kuhn (1962), particularly 127ff.

⁹¹ Another way to say this would be that once an intuition is incorporated into a theory, it is an inferential judgment deducible from that theory. Similar points were made in Kornblith (1998); see 3.6.1

favors or reinforces theories that philosophers are heavily invested in, with or against their knowledge.

This interpretation is likely extreme and unfaithful to Hintikka's general critique of intuitions. It would be beneficial if explicit guidelines were set forth for what he means by 'generalizing' and if it can extend to concepts, rules, principles, or theories.⁹² Hintikka seems to take for granted that the intuition that torturing children for pleasure is wrong is only about a particular case. It seems though that one could have an intuition that this is a (somewhat) general rule that can be followed or issued in any case where a child is being tortured by someone for pleasure. General rules and principles can themselves be intuitive:⁹³ reflecting on the rule "Torturing a child for pleasure is always wrong; there are no exceptions" can be judged intuitively sound, especially when we are prompted to reflect a bit further to try to find possible exceptions to the rule and (hopefully) come up short. We do not need to have a body of particular intuitive judgments about various cases or scenarios of instances of a child being tortured for pleasure, and then infer inductively (i.e., generalize) from those to the rule. Rather, in the feature-adjusting method of the grammaticographer, we can test hypothetical scenarios with a variety of adjusted features (about the age of the child, the emotional state of the torturer, the possible utility gained from such an act that would justify the means, etc.) and through understanding, conceptual competency, and reflective capacities, arrive at intuitions about the implicit generality (or universality) of such a principle. As it stands, though, there is still an unexplainable endorsement by Hintikka for the feature-adjusting method for grammarians (which he admits can lead to "general truths") and the prohibition for an analogous "factor"-adjusting method for moral philosophers in particular, though likely extended, for Hintikka, to all intuition-influenced philosophers in general. I believe the feature-adjusting method is a prevalent tool among all philosophers who have ever entertained a thought experiment and who have endorsed or, at the least, seriously considered the philosophical argumentation and conclusions that it can lead to.

⁹² Hintikka seems to imply that a generalization must have some broad-ranged usefulness, i.e., being applicable to many cases in a variety of contexts. It could be, in following Hare (1981, 41-42), that Hintikka is confusing 'generalizing' with 'universalizing' and their respective scopes: an intuition of a particular moral case can be universalized (*pace* Hare) as a moral rule, applying to quite specific cases and without having to have a relatively wide, general applicability. Perhaps we should just say that "torturing a child for pleasure is wrong" is universal, though not very general.

⁹³ See Sidgwick (1907/1874), I/8.3, III/1.5 "Here then we have a second Intuitional Method: of which the fundamental assumption is that we can discern certain general rules with really clear and finally valid intuition." (101)

One final point from Hintikka (1999) will be considered. While I am puzzled by his skepticism about the incapability of the feature-adjusting method to reach some kind of generalization from particular intuitions, I do agree with him that an inferential move from just *one* particular intuition to a generalization cannot be easily done.⁹⁴ However, I do not see the relationship between a particular intuition and a generalization as simply the latter being inferred (however) from the former. Oddly enough, neither does Hintikka. He only makes note of this after reducing the status of intuitions to that of Aristotle's *endoxa* in an attempt to further criticize intuition use. His plan backfires a little: in what follows he speaks of intuitions in the *endoxic* sense, though I believe that it provides some support for the use of philosophical intuitions in the sense of reflective understanding and competency of the proposition(s) or scenario, and the concepts and relations involved.

Aristotle realized what Kripke and most others like him have never realized, namely, that *endoxa* or *prima facie* intuitions do not come fully equipped with instructions for their use. They are not premises for philosophical arguments; they are raw material to be critically weighed, corrected, and integrated into a coherent view. Their presuppositions have to be uncovered and their tacit limitations recognized before such integration is possible. This is what most of Aristotle's own philosophical argumentation amounts to. (138-139)

This is an endorsement of the dialectic method as we have seen in 2.2, as well as analogous to Ross's moral theorist who compares intuitions and rejects contradictory ones (3.4). It is an important reminder for the use of intuitions, that not only do they lack instructions, they may very well be wrong or mistaken.⁹⁵ Intuitions can be corrected in light of further reflection: either by carefully considering the case/scenario or proposition from which an intuition is elicited and the concepts and their relations involved in the case/scenario or proposition, or by extending the case/scenario or proposition by means of adjusting its features and thus arriving at (by the same means of understanding and comprehending the concepts involved and their relations) other intuitions that can be in turn compared with the prior elicited intuitions and entered into dialectical argumentation. This latter method in particular speaks to the use of thought experiments in not only generating intuitions, but in experimenting with them by changing variables in the structure of the experiment and testing for the relevant and significant changes (or lack thereof) in the intuitions.

⁹⁴ Hintikka never actually claims that it is outright impossible, though he is obviously critical.

⁹⁵ This is admitted by moral intuitionists of the early twentieth century. See Moore 1903, *x*; Ross 1930, 39-40; and Sidgwick 1907/1847: "[B]y calling any affirmation as to the rightness or wrongness of actions 'intuitive,' I do not mean to prejudice the question as to its ultimate validity ... I only mean that its truth is apparently known immediately ... any such 'intuition' may turn out to have an element of error, which subsequent reflection and comparison may enable us to correct." (211)

4.6 – Which Intuitions, Then?

As for which construal of intuitions is more appropriate for philosophers, the aforementioned *endoxic* account, the more basic account analogous with observations or sense perceptions in the sciences in the previous chapter, or the account analogous with linguistic intuitions, all have their merits and should not be construed as mutually exclusive. While *endoxic* intuitions can appear to be fuller expressions of beliefs and ideas that have the backing of wise people or experts, the sense-perception-like intuitions, as well as linguistic intuitions, can appear to constitute *endoxic* intuitions as fundamental pieces that shape the understanding and borders of a concept. Conversely, *endoxic* intuitions enter projects of conceptual analysis as preliminary starting points into the dialectical method of testing via thought experimentation on the relevant features and variables that lead to a concept's applicability in varying contexts, which also relies on comparisons of the newly "observed" sense-perception-like intuitions elicited from the tested hypothesis with the preliminary *endoxic* intuitions that led to and guided the positing of the hypothesis in the first place (the Peircean scientific method, as discussed in 3.1), as well as an appropriate competence in the acceptable use of terms and concepts involved in the preliminary *endoxic* intuitions and the premises of the subsequent argumentative structure it leads to. *Endoxic* intuitions on one end and both sense-perception-like and linguistic-like intuitions on the other end could be viewed alternatively as two endpoints along a gradient, with the former representing more expert- and/or theory-dependent intuitive judgments, while the latter represents more common and pretheoretical intuitive judgments. I believe this conception of intuitions is helpful, suggesting that these two construals of intuitions are two sides of the same coin – which is not to say that any distinction between them is superfluous, but rather that they are both used with equal frequency in standard philosophical methodology. What is important for the philosopher is to be able to distinguish heads from tails, to be aware of the causes and etiology of an intuitive judgment not just in psychological terms but also in the context of wide reflective equilibrium – which background theories might be contributing to an intuition's robustness or prevalence and how might its dependence on theory be mitigated when such dependence can be detected as impinging upon a theory's universality or generality.⁹⁶

The analogy of philosophical intuitions with linguistic intuitions has revealed some relevant points related to the four underlying features of intuitions from 2.2: (1) that the

⁹⁶ This is of course difficult, and a particular challenge of the moral theorist *qua* a distinct moral agent in a distinct moral culture. Cf. Williams 2006/1985, 110, 116-117.

phenomenology of quick and high-cognition-free intuitive judgments of a sentence's acceptability need not carry over to philosophical intuitions, as they can allow for and often benefit from reflection to bring out conceptual understanding involved in the intuitive judgment; (2) that a philosophical analogue to that of a language faculty in linguistics only suggests a capacity for 'good thinking' with competency in the concepts involved in the intuitive judgments; (3) that particular intuitive judgments of a sentence's acceptability, as with particular philosophical intuitive judgments of philosophically significant concepts, do not easily or immediately suggest generalizations to broader rules, principles or theories, but can rather lead to feature-adjustments in the variables of a proposition or scenario that elicited the initial particular intuitive judgment in order to elicit further intuitive judgments that can then be compared with one another in the aim of attaining theoretical (and hence generalizable) unity. Preliminary answers to the corollaries of the expertise point also present themselves. (4a) *Who are the relevant experts, and how are they selected or known as such?* While expertise was discussed more in 3.6, experts in the analogous understanding of philosophical intuitions by way of linguistic intuitions could show that linguists are regarded as experts (i) in the systematization of explicit theories, (ii) in making the distinction between competence and performance, and (iii) in generally elucidating upon the operative principles, rather than the express principles,⁹⁷ that lead to intuitive judgments of acceptability for native speakers and intuitive judgments of grammaticality for linguists.⁹⁸ For philosophy, experts in intuitive judgments are those aware of the causes and etiologies of intuitive judgments who can likewise make important distinctions between a wrong intuition resulting from faulty performance and one from faulty competency. (4b) *What makes expert intuitions better than widely held intuitions?* As intuitions for the development of comprehensive theories, the intuitions of expert philosophers would be better than those of the folk (if there is a difference between the intuitions of both groups) for the reasons just stated in response to (4a). Where the widely held intuitions of the folk become more important is in extending theoretical knowledge that is of more relevance to everybody (moral knowledge, more so than quantum physical or mathematical knowledge) Also, commonly held intuitions may be more pretheoretical than the philosopher's which can be advantageous in curbing highly theory-dependent intuitive judgments from leading to conservatism or biased theory. (4c) *If there are large discrepancies between the intuitions of the experts and of the folk, then what can be learned from such discrepancies?* It was suggested in 4.2 by Spencer's (1973) experiment

⁹⁷ See footnote 68

⁹⁸ See footnote 63

that diverging intuitions between linguists and native speakers that still result after possible performative errors have been accounted for and the suitable list of acceptably and grammatically intuitively obvious sentences is deemed to be so by the widest agreement among professional linguists, that the folk and the linguists are speaking two different languages. This conclusion is unlikely. The likeliest cause for such diverging intuitions are performative errors to some degree, but to a greater degree is the likelihood that suitable agreement has not been found for the list of supposedly intuitively obvious grammatically un/acceptable sentences. Linguists should engage more in interpersonal communication regarding their linguistic intuitions, using the divergences in the folk linguistic intuitions as an indicator that something is amiss. Chapter 5 will look more to the issue of intuitional divergence in the context of experimental philosophy, as well as to the benefits of interpersonal communication as a model itself for “thinking out loud” about thought experiments. This will be approached in the reverse order, giving an account of the use of thought experiments and some helpful models for their use, followed by a general account of experimental philosophy.

5 – Thought Experiments and Experimental Philosophy

One of the main ways that intuitions are elicited in philosophy is by means of thought experiments. Thought experiments can vary in design and complexity, but they ultimately have the same underlying goal: to bring about a judgment from the case or scenarios described that has intuitive plausibility. As we have seen, Gettier’s example brings out the intuitive plausibility that there is something more to knowledge than justified true belief, especially when such a justified true belief arises by way of luck or uncommon situations. Briefly in passing, the trolley problems of Foot (1967) and Thomson (1985) were mentioned as thought experiments that highlight the utilitarian intuitive answer that killing one is better than letting five die (when the pulling of a switch is involved), as well as the more deontological answer that it is wrong to kill one even if it means avoiding the deaths of five (when pushing a large man on the tracks is involved). Other thought experiments have been widely discussed in philosophy as well: Hilary Putnam’s (1975) Twin Earth thought experiment for intuitions on semantic externalism; Saul Kripke’s (1980) Gödel/Schmidt thought experiment for intuitions against the descriptivist view and for the causal-historical view of reference; Frank Jackson’s (1982) Mary thought experiment for the intuition against (or for) physicalism; John Searle’s (1980; 1984) Chinese room thought experiment for intuitions on the im/plausibility of artificial intelligence; Derek Parfit’s

(1984) teletransportation thought experiment for intuitions on personal identity; Donald Davidson's (1987) Swampman thought experiment for the intuition against physicalism and breaching the mind-brain identity thesis; and so on. While they may all aim to elicit intuitions of a certain sort, particularly those the philosopher intends for them to elicit, the ways in which they elicit intuitions can vary by the degree to which such thought experiments are described. Before turning to the question of a thought experiment's level of determinedness, it will be useful to broaden the concept of a thought experiment by some classificatory categories.

5.1 – Thought Experiments

In 3.3 it was briefly mentioned that Bealer had a narrow conception of thought experiments as the kind that make use of nomological and physical laws. These thought experiments, such as Newton's spinning bucket or Galileo's refutation of Aristotelian physics,⁹⁹ can actually be physically tested as scientific experiments which would then vindicate the thought experiments' intuitions. This could render the use of thought experiments in the physical sciences as useless or solely dependent on the success of actual experiments. However, such thought experiments should be seen as shortcuts to arriving at intuitive conclusions that are not dependent on their mirrored actual experiments, but on the nomological and physical laws that the scientist has integrated and understood to a sufficient degree of competency.¹⁰⁰ The thought experiments of philosophical interest, though, do not always have the backing of well-integrated laws or theories available to the cognizer as in the case of nomologically-based thought experiments in science; nor do all thought experiments have an actual experiment analogue that could be tested in the real world (no one in their right mind would replicate the trolley problem in reality). This view of philosophical thought experiment's "empirical-free" character has supported the thesis for the generally a priori methodology and autonomy of philosophy, as Bealer (1992; 1996a; 1996b; 1998) has maintained. However, that thought experiments do not need to be tested in the real world should not be confused with the idea that some nomological and contingent facts about us, as the cognizers of thought experiments in the actual world, have

⁹⁹ I am thinking of one refutation in particular of Aristotle's view that heavier objects fall faster than lighter ones: the thought experiment is of what would happen when a heavier and lighter object are attached to one another, leading to the absurd inconsistency that the lighter object would decelerate the heavier object's fall, while the heavier object would accelerate the lighter object's fall (Brendel 2004, 93-95).

¹⁰⁰ Some physical intuitions do not require high levels of scientific understanding, but arrive from very normal experiences in observing the world around us. If someone is asked to imagine what would happen if they dropped a playing card with the edge facing down and then with the surface parallel to the ground, they would likely be able to imagine and have the intuition that the former would fall faster than the latter, even if (in the perhaps unlikely event) they had never dropped a playing card before (Sorensen 1992, 90).

no bearing on the intuitions we draw from thought experiments. This is in keeping with a broadly natural outlook that background theories in wide reflective equilibrium influence, consciously or tacitly, the intuitions we have from thought experiments.

5.1.1 Four Models of Thought Experiments

Roy Sorensen (1992) categorizes thought experiments into four useful models: (a) the recollection model, (b) the transformation model, (c) the homuncular model, and (d) the rearrangement model.¹⁰¹ Thought experiments may share features of one, some or all of these models. The recollection model is broadly Platonic, in which a thought experiment leads to the retrieval of information already held by the cognizer.¹⁰² It is importantly not Platonic in James Robert Brown's (1991a; 1991b) sense of a thought experiment that leads to a priori knowledge, "which destroys an old or existing theory ... [and is] not based on new empirical evidence nor is it merely logically derived from old data." (1991a, 77) Brown seems to hold that there is an intuitive 'grasping' of natural laws in the Platonic realm (which is also not an infallible grasping [1991b, 127]) that allows for "a case of *a priori* science." (1991b, 125) The premises involved in Galileo's falling bodies thought experiment¹⁰³ (which Brown takes to be a case of *a priori* science) would then be seen as leading immediately to the correct conclusion, without any further assumptions about the scenario, such as the bodies' shape or materials (Brendel 2004, 94). These are, however, important background assumptions that are imported into Galileo's thought experiment, and rely on our experienced understanding of other physical properties, particularly air resistance (whose understanding is naturally derived from observing falling leaves).

When we in the modern era – and Brown in particular – look at [Galileo's] thought experiment from an historically distant perspective ... the inference from the contradiction to the "right" conclusion just *seems* to be immediate and untutored by any empirical or logical reasoning, since we implicitly assume that the experiment must be executed in a medium where we can ignore air resistance. So the [Galilean] intuition ... is dependent on and controlled by our empirical and scientific knowledge. (Brendel 2004, 94-95)

Looking to more philosophically-oriented thought experiments, there would also appear to be a degree of importing conceptual understanding and knowledge that does not pertain specifically or uniquely to the thought experiment's desired intuition but rather to many of the features of the scenario or case described. This would not lead, contra Brown, to new *a priori* knowledge but rather to the recollection of experientially derived knowledge that

¹⁰¹ I follow Shieber (2010) in focusing only on the first four models and dropping the fifth "cleansing model", which focuses solely on irrationalities and inconsistencies in thought experiments and is thus a relatively narrow model (552, n.1).

¹⁰² See footnote 100 for the example Sorensen uses for the recollection model.

¹⁰³ See footnote 99

provides the background assumptions that make for (in good cognitive conditions) a sound intuitive judgment.¹⁰⁴

The second model from Sorensen is the transformational model. This model takes the dependence on linguistic competency as key in conceptual analysis, in which “the process of imagination [transforms] one’s knowledge *how* to speak, say, English, into knowledge-*that*, propositional knowledge concerning the concepts under investigation.” (Shieber 2010, 553) Sorensen uses the example from Harry Frankfurt (1969) of the mind-controlling scientist to counter the notion that “a person is responsible only if he could have done otherwise.” (829 ff.) Here, “knowledge of how to use ‘responsible’ transforms into knowledge that responsibility is compatible with the inability to do otherwise.” (Sorensen 1992, 93) This has obvious connections to the discussion on the linguistic analogy of intuitions and intuition use. It is also an important feature of conceptual analysis in Goldman and Pust’s (1998) outline for the first tier of standard philosophical methodology. In these regards, I believe that most of philosophical thought experiments are instances of the transformation model. An important point to keep in mind is that linguistic competence is more than ‘just’ the grammatical competence that many linguistic theorists seek to explicate. There are two (at least) sides to linguistic competence: syntactic competence and semantic competence. Having the grammaticality (or at least acceptability) intuition that “Colorless green ideas sleep furiously” is correct while “Furiously sleep ideas green colorless” is not, only speaks to syntactic competence. Semantic competence would involve giving meaning to the former sentence as a whole; the understanding of each of the five words in the syntactically correct order does not necessarily constitute any meaning in the sentence: the subject is nonsensical, the predicate is nonsensical, the whole sentence is nonsensical.¹⁰⁵ The range of intuitions from thought experiments can then vary from strong to weak depending on our familiarity and understanding of the concepts involved being ‘tied together’ in such a way, and this depends on whether the contents of thought

¹⁰⁴ Perhaps Bonjour’s (1998) account of the a priori would allow for some experience-based knowledge being imported into what he claims are still a priori judgments. Bonjour counts a “proposition P as being justified a priori (for a particular person, at a particular time) if and only if that person has a reason for thinking P to be true that does not depend on any positive appeal to experience or other causally-mediated, quasi-perceptual contact with contingent features of the world, . . . *even if the person’s ability to understand P in question derives, in whole or in part, from experience.*” (11, emphasis mine)

¹⁰⁵ Attempts have been made to give the phrase meaning in a more figurative and poetic context through polysemy. One example from a competition in 1985 at Stanford University by C. M. Street reads: “It can only be the thought of verdure to come, which prompts us in the autumn to buy these dormant white lumps of vegetable matter covered by a brown papery skin, and lovingly to plant them and care for them. It is a marvel to me that under this cover they are labouring unseen at such a rate within to give us the sudden awesome beauty of spring flowering bulbs. While winter reigns the earth reposes but these colourless green ideas sleep furiously.” (Linguist List 2.457, 1991)

experiments are derived from “within our experience” or are too “remote” (Kipper 2010, 523). We may have the syntactic grammatical intuition for the remote case of “Colorless green ideas sleep furiously,” but the meaning of the sentence cannot be given from within our experiences. The poverty of the stimulus argument and the projection problem in linguistics¹⁰⁶ are what give more weight to syntactic structures for our language production than to our semantic structures – the latter depends on the stimulus, however impoverished, projecting successful and meaningful language constructions based on our competency and understanding of concepts and the words used to represent them, arranged in meaningful ways we have come to know through experience. The question of ‘how remote is too remote’ for meaningful and reliable intuitions is central to the selecting of thought experiments, and will be addressed toward the end of this section.

The third model from Sorensen is the homuncular model. This is best understood as an example of Daniel Dennett’s (1984) idea of cognitive autostimulation:

Pushing some information through one’s ears and auditory system may stimulate just the sort of connections one is seeking, may trip just the right associative mechanisms, tease just the right mental morsel to the tip of one’s tongue. One can then say it, hear oneself say it, and thus get the answer one was hoping for. (40)

This is also highly dependent on language and can lead to the recollection or rearrangement of knowledge by not just thinking about a thought experiment, but in speaking it out loud, or in hearing it as interpreted by someone else. The idea is that *intrapersonal* communication, or introspection, can be modeled on *interpersonal* communication that may trigger and make “the deliverances of subpersonal cognitive modules available to consciousness.” (Shieber 2010, 553, 555) Modules other than the linguistic one(s) may elicit affective responses to moral thought experiments which are then cognized and given justification after the fact.¹⁰⁷ Such a modular view of the source of our intuitions also supports a naturalistic framework. Joseph Shieber (2011) has shown that some of the modular divisions of the mind comport well with different areas of philosophy.¹⁰⁸ Because the products of these modules count as basic sources of evidence

¹⁰⁶ See footnote 74

¹⁰⁷ This is the affective-intuitionist model of Haidt (2001), who sees the intuitive judgments of victimless or harmless thought experiments (e.g. a man masturbating with a chicken carcass and then cooking and eating it) as arising from the module for disgust or contamination first, and then rationalized in a post-hoc manner afterwards. Haidt et al. (1993) also find that such victimless or harmless scenarios are deemed intuitively wrong (i.e. eliciting disgust first) by people of lower economic status rather than people of higher economic status – the latter of whom still find the acts described as disgusting, though they reason through their disgust with the judgment that the acts are not wrong.

¹⁰⁸ Pinker’s (1994) modular taxonomy (420, as quoted from Shieber 2011, 10-11): “1. Intuitive mechanics: knowledge of the motions, forces, and deformations that objects undergo; 2. Intuitive biology: understanding of how plants and animals work; 3. Number; 4. Danger, including the emotions of fear and caution, phobias for stimuli such as heights, confinement, risky social encounters, and venomous and predatory animals, and a

that are inferentially encapsulated from one another (i.e. they are domain specific), they support Bealer's (1998) condition for intuitions as basic sources of evidence, as well as Audi's (1996) condition for intuitions as being noninferential or direct (109). These products would also appear to be pretheoretical. The homuncular model of thought experiments, then, allows for a variety of modular sources that are brought to one's conscious awareness by imitating (or actually engaging in) interpersonal communication.

The fourth model of thought experiments is the rearrangement model.¹⁰⁹ Information can become more or less salient in a scenario depending on how it is described, or from which angle it is viewed. Perspectival shifts can result from new discoveries that change the 'direction' of a thought experiment:

According to Aristotle and common sense, it is natural for things to slow down and come to rest; continued movement is what needs explaining. But after Galileo's thought experiment, continued movement seemed natural and slowing required explanation. (Sorensen 1992, 9)

This model can be seen as closely related to the homuncular model, as intrapersonal communication of a thought experiment may lead to perspectival shifts. What should be clear from all the models is that they do overlap to some degree, and they are involved in eliciting not new information, but "a treasure-store ... [of] uncomprehended and unanalyzed ... precepts and ideas." (Ernst Mach, as quoted in Sorensen 1992, 51) As a library cataloguing system does not add any new information to a previously disorganized collection of books, it does provide a useful structure to get at those pieces of information more readily (Shieber 2010, 556). Likewise, thought experiments, in the varying models discussed, can recollect, transform, rearrange and bring to one's consciousness useful information and knowledge that has intuitive force and plausibility.

5.1.2 Determinedness and Remoteness

I return now to the questions of the determinedness and remoteness of thought experiments. Some thought experiments can be viewed as, what Dennett (1984) has termed, 'intuition pumps', which

motive to learn the circumstances in which each is harmless; 5. Contamination, including the emotion of disgust, reactions to certain things that seem inherently disgusting, and intuitions about contagion and disease; 6. Intuitive psychology: predicting other people's behavior from their beliefs and desires; 7. A mental Rolodex: a database of individuals, with blanks for kinship, status or rank, history of exchange favors, and inherent skills and strengths, plus criteria that value each trait; 8. Justice: sense of rights, obligations, and deserts, including the emotions of anger and revenge." Shieber (2011) claims that metaphysics comports well with modules 1-3, epistemology and philosophy of mind with module 6, and ethics with module 5 and 8 (15); module 5 is particularly well-suited for Haidt's (2001) affective-intuitionist model (see previous footnote).

¹⁰⁹ The rearrangement model also bears similarities to Audi's (1996) notion of mediately self-evident intuitions as requiring some further reflection or drawing of inferences (see 4.3).

are *not* supposed to clothe strict arguments that prove conclusions from premises. Rather, their point is to entrain a family of imaginative reflections in the reader that ultimately yields not a formal conclusion but a dictate of “intuition”. (Dennett 1984, 12)

Intuition pumps can be rightly regarded as underdetermined. They may incite very vivid imaginings that result more from an individual’s personality or character than the actual scenario described. Putnam’s (1975) Twin Earth example may be such an underdetermined intuition pump. Recall that we are to imagine a Twin Earth exactly like our own, populated by people exactly like ourselves, where every feature in the twin world is exactly the same as ours *except* for the fact that water is not comprised of H₂O molecules but rather XYZ molecules. The problem with the thought experiment is that there are some stipulations that are not addressed: if our twins are like us in having (roughly) 60% of our mass composed of water, would it not make a difference that we are 60% H₂O while our twins are 60% XYZ? Are our twins, then, really *exactly* like ourselves? In making more determined thought experiments, it is important to note the changes in variables and dependencies that might affect other relevant features of the thought experiment (i.e., stipulating ‘water = XYZ’ may be a variable whose dependencies alter a large body of relevant and connected features) (Brendel 2004, 91). The more awareness of the interplay of variables and features, which can benefit from the rearrangement model approach, the better the thought experiment will be in eliciting the proposed intuition more regularly.¹¹⁰ This is why the thought experiments of Newton, Galileo and other scientists, that rest on a body of nomological and physical laws, tend to elicit more robust intuitions due to the greater awareness and knowledge of the variables’ and dependencies’ interactions (i.e., interactions based on those laws). When thought experiments veer to the less real scenarios of Twin Earths, Swampmen or teletransported persons, there is less control over the parameters of the thought experiments – the case in question is too remote from our understandings derived from experience, and we cannot make intuitive judgments of the probability or improbability of, say, a Swampman having the same thoughts as its human template. (102) It is also unhelpful to have thought experiments that focus too much on “denaturing the human subject” (Wiggins 1980, 178) in positing scenarios that go beyond our natural experiences, environments and selves. Philosophers should be aware of the “proper domain” for successful thought experiments, in which we gain confidence in the intuitions elicited when we have some knowledge of the circumstances and reliability of the execution of our psychological capacities in that thought experiment (Machery 2011,

¹¹⁰ Sorensen (1992) has also likened thought experiments to a compass, which gives direction, and though it is susceptible to influences such as vibrations, other metals, or general unreliability when near one of the magnetic poles, we should not throw out its usefulness even when we do not have a full understanding of these outside influences (288).

201).¹¹¹ While reliability of our psychological capacities is of course paramount, a lot depends on the level to which a scenario is described (Hofmann 2010, 535).¹¹² The more fully a thought experiment is described with an understanding of the variables in play, the stronger the intuitions.¹¹³ In addition, the more situated a thought experiment is in the proper domain of the actual world with natural human subjects and a broad background of knowledge from the natural sciences, the stronger the intuition.¹¹⁴ It is with this understanding of thought experiments that Kwame Anthony Appiah (2008) suggests philosophers

draw on the perspective of the *Sinnenwelt* and use anthropological, sociological, historical, and psychological knowledge, which can explain what we are responding to, how easy it would be to stop responding as we do, and what we might be like if we responded differently. (161)

5.1.3 Thought Experiments as Arguments

Before turning to experimental philosophy, however, there is one final view of thought experiments that is worth mentioning. This is John Norton's (1996) view that thought experiments are essentially disguised arguments. The premises of the argument are given legitimacy by their grounding in experience, and the intuitions drawn from such arguments follow from deductive or inductive reasoning based on the premises. Such a quasi-eliminativist view of thought experiments is also representative of Timothy Williamson's (2007) eliminativist view of intuitions: the so-called intuitions of thought experiments are just counterfactuals given in the same way as one would a judgment. Without appealing to intuitions, Williamson reconstructs the Gettier cases in terms of possibility, as follows:

¹¹¹ Machery (2011) compares psychological capacities with physical skills, using the example of shooting a target: "One's reliability might be high for eight inch bull's-eye targets at twenty-five yards, but much worse for six-inch targets at fifty yards. That the reliability of a skill or capacity depends on the circumstances in which this skill or capacity is applied is equally true of our physical skills and of our psychological capacities." (201)

¹¹² Hofmann (2011) also sees a 'problem of insufficient reliability' in relying on the common psychological capacities that constitute logical-inferential and conceptual competence. "In a nutshell, constitutive conceptual competence neither guarantees logical competence sufficient for avoiding logical incoherence in what one conceives, nor does it guarantee that what one is conceiving is compatible with all the essences of the objects and kinds." (536-537) Hofmann's prescription is 'imagination', which goes over and beyond conceptual and logical competence, and is the appropriate theoretical background for intuitive judgments.

¹¹³ Though, see Williams 2006/1985, who warns that though examples may need more detail to become more realistic, "if one puts in the detail the example may begin to dissolve." (180)

¹¹⁴ Sorensen (1992) holds that the means of representing a feature of a thought experiment should not be confused with the objects of representation. He calls this the 'Kabuki Antifallacy': just as we should ignore the 'invisible' stage hands that hold props in Kabuki theater (they are means to showing those props, and are not actual objects of the theater, i.e., characters), we should ignore the 'impossible' means of a feature of a thought experiment as possibly denigrating the thought experiment to the level of sheer fantasy; e.g., in a thought experiment positing a time traveler going to Ancient Rome to figure out how to fire a catapult, we should not throw out the whole thought experiment because time travel is impossible (286). However, there may be many uncontrollable variables that leave the thought experiment underdetermined: how can the time traveler successfully pass himself off as a soldier and infiltrate the ranks to even get close to a catapult let alone learn how to fire one, without being caught and fed to the lions as a stranger from another land?

- (1) It's possible for someone to stand in relation to some proposition p just as the protagonists of Gettier's cases stand to the relevant propositions (i.e., "The man who will get the job has ten coins in his pocket" and "Either Jones owns a Ford or Brown is in Barcelona").
- (2) If someone were to stand in relation to some proposition p just as the protagonists of Gettier's cases stand to the relevant propositions, then anyone who stood in relation to p just as the protagonists of Gettier's cases stand to the relevant propositions would have a justified true belief that p that isn't knowledge.
- (3) Therefore, it is possible for someone to have a justified true belief that isn't knowledge. (Williamson 2007, 185-188; as quoted in Alexander 2010)

Williamson concludes that without intuitions as playing an evidential role (which was problematic for Williamson), the evidence for the claim that justified true belief is not necessarily knowledge is in the *facts* of the world. Williamson does not mean the actual world, but the closest possible world which we have no problem making judgments about and hence need not resort to some faculty of intuition when entertaining a possibility.¹¹⁵ This may work for the reader who finds talk of possible and actual worlds persuasive. In a similar vein, Joshua Alexander (2010) knocks down premise (2)¹¹⁶ of Williamson's argument because it is not necessarily persuasive.

[O]ur basis for accepting (2) is simply the *fact* that if the case had occurred, then the subject would have a justified true belief that p without knowing that p . But can this be right? ... If a person is not already convinced that a proposition is true, it hardly helps matters to simply assert that, in fact, it is. (Alexander 2010, 383, emphasis in original)

Alexander is appealing to the intuitive pull that a premise may (or may not) have that guides the argumentation in which it is featured. If there were no intuitive pull for someone to *see* the truth in (2), then there is no reason to accept (2). The person entertaining Williamson's intuition-less argument must still be persuaded by its propositions, and perhaps also persuaded by dialectical argumentation that employs talk of possible worlds in general. There's the sense of an impasse between Williamson and Alexander, one denying the need for intuitions, the other implicitly arguing that they are always in play, tacitly perhaps, and are key in persuading the unpersuaded (384-385).¹¹⁷ Even in the purportedly intuition-less realm or strict philosophical argumentation, the pull to assent to a premise, particularly a first premise, is an intuitive pull: it is often non-inferential, it is

¹¹⁵ Hofmann (2010) has the opposite idea, that the faculty of entertaining possibilities, or imaginationism as he calls it, is nothing but the faculty of intuition. See footnote 112

¹¹⁶ Alexander switches to a simplified version of the previous (2) that now looks like this: "(2) If the case had occurred, then the subject would have a justified true belief that p without knowing that p ." (382)

¹¹⁷ Though Alexander (2010) disagrees with Williamson's (2007) eliminativist take on intuitions, Alexander does not believe that a clearer understanding of intuitions is necessary, and favors a thin conception that experimental philosophers employ as they do their research whose study *is* the nature of intuitions. What intuitions are is "to be settled, at least in part, by *doing* experimental philosophy, rather than issues that must be settled before experimental philosophy gets underway." (381) Employing thin concepts leaves "open the precise character of intuitions and, subsequently, leave[s] room for intuitions to be, as Williamson contends, simply counterfactual judgments about contingent matters of fact." (381-382)

mediately self-evident, and it only requires for its acceptance a level of conceptual competence and reflection.¹¹⁸

What is notably lacking in Norton (1996) or Williamson's (2007) argumentative reduction of thought experiments is their vividness. Granted, arguments do not preclude the reflective and imaginative capacities from viewing its premises (which are understood to be grounded in experience) from any angle one chooses (i.e., following the rearrangement model), nor do they preclude discussing the premises aloud with oneself or a partner (i.e., the homuncular model). However, it is the openness and inviting nature of thought experiments that make them suitable and appealing for philosophers and the folk alike. Though thought experiments may be sufficiently detailed and determined, they do not follow the rigid and logical format of listing premises and following the argument, which is often seen as off-putting by the folk (and perhaps even some philosophers). It is for this reason that experimental philosophers do not survey the folk with formal arguments, but rather with engaging exercises in the imagination of possible scenarios. This is also the draw that many students have to philosophy courses, the discussion and posing of thought experiments that get philosophy going. I will now turn to experimental philosophy and its aim of surveying folk intuitions with thought experiments.

5.2 – Experimental Philosophy – The Beginning

As the discussion on the different models of thought experiments, and the considerations of determinedness and remoteness, have shown, there is an important relation between a thought experiment's intuitive conclusions and the naturally encountered experiences of anyone entertaining the thought experiment. This is a shift from the thought experiments that have relied heavily on talk of modally possible worlds. Anand Vaidya (2010) sees this as a reaction that refocuses

attention from that which is possible or merely possible on to what is actual. The experimental methods of experimental philosophy lock philosophy back into the actual world, and away from merely possible hypotheses. Experimental methods help philosophers countercheck their intuitions about scenarios with what the folk think. (Vaidya 2010, 414)

'Counterchecks' are possible solutions to problems philosophers face, as we have seen in the previous chapters, such as the theory-ladenness of philosophers' intuitions¹¹⁹ or the

¹¹⁸ Dewey (1925) wrote of intuitions as guiding our thoughts: "These "feelings" have an efficiency of operation which it is impossible for thought to match. *Even our most highly intellectualized operations depend upon them as a "fringe" by which to guide our inferential movements.* They give us our sense of rightness and wrongness, of what to select and emphasize and follow up, and what to drop, slur over and ignore among the multitude of inchoate meanings that are presenting themselves ... These qualities are the stuff of "intuitions." (244, emphasis mine)

assumption that their intuitions of knowledge, justice, morally permissible, etc., are exactly the same or at least continuous with those intuitions of the folk.¹²⁰ Experimental philosophy aims to resituate philosophy as the discipline that seeks understanding in and illumination of the concepts that we all care deeply about, not just the concepts that philosophers spend lifetimes arguing and splitting hairs over.

Thomas Nadelhoffer and Eddy Nahmias (2007) highlight the different goals and directions that experimental philosophers find themselves taking. They offer a description that sets experimental philosophers apart from

empirically informed philosophers but also from experimental psychologists [...] Though the boundary here is blurry, the primary difference is that experimental philosophers actually run their own studies to get at the data they need and then show why these data are philosophically interesting. ... But whereas the ‘experimental’ part of the name refers to the fact that they run studies and collect data concerning folk intuitions, the ‘philosophy’ part refers to the fact that they discuss the various implications these data have for philosophical debates. (Nadelhoffer and Nahmias 2007, 124-125)

In addition to this, they define three distinct (though sometimes overlapping) projects of the experimental philosophers. There is Experimental Analysis (EA), which aims to explore *what* the ordinary intuitions are of the folk, and how they relate to philosophical debates; there is Experimental Descriptivism (ED), which is interested in *how* the intuitions are generated, exploring how and why some philosophical theories do not match or cannot be explained by findings in psychology, cognitive science and neuroscience; and there is Experimental Restrictivism (ER), which wishes to do away with any intuitions that vary cross-culturally, cross-socioeconomically, cross-what-have-you, and deem them “insufficient for philosophical theory building.” (126-128) Jonathan Weinberg (2007; Weinberg et al. 2001, 2010), Joshua Alexander (2010; Alexander and Weinberg 2007) and Stephen Stich (1990; 1998; Weinberg et al. 2001) fall into the ER camp, and have probably received most of the criticism launched by the “armchairists” who favor the traditional use of intuitions. The ED camp consists of philosophers with a close relation to neuropsychology, such as Joshua Greene (2006; Greene and Haidt 2002) and Jonathan Haidt (2001; Haidt et al. 1993). The more modest EA camp includes, among others, Joshua Knobe (2003; 2004; 2006) and Shaun Nichols (Machery et al. 2004; Nichols and Bruno

¹¹⁹ Something that Ludwig (2007) notes as not only evident of theoretical bias, but also of “theoretical insularity”, i.e., “failing to interact enough with and respond to different or opposing views of problematic data.” (154)

¹²⁰ Jackson (1998, 30-37) puts this quite well; “What then are the interesting philosophical questions that we are seeking to address when we debate the existence of free action and its compatibility with determinism, or about eliminativism concerning intentional psychology? What we are seeking to address is whether free action *according to our ordinary conception*, or something suitably close to our ordinary conception, exists and is compatible with determinism, and whether intentional states *according to our ordinary conception*, or something suitably close to it, will survive what cognitive science reveals about the operations of our brains.” (30, emphasis in original)

2010; Nichols and Ulatowski 2007). In this group there has been interest in not just the epistemic intuitions of the folk that Weinberg et al. (2001) was initially interested in, but also moral intuitions and intuitions of concepts closely related to morality, such as intentional action,¹²¹ personal identity,¹²² free will and moral responsibility.¹²³ The discussion that follows is mostly of experimental philosophical projects (and their criticisms) that have focused primarily on intuitions of what counts as a case of *knowing*, as the first clear examples of experimental philosophy are situated within epistemology. There are projects, as the previous two footnotes show, that are concerned with morally relevant concepts and their folk intuitions, but they are less representative of the beginning stages and movement of experimental philosophy. I believe that this is slowly changing and that moral philosophers will increasingly conduct surveys and experiments of their own on concepts of moral significance.

5.2.1 Weinberg et al.

The seminal paper in experimental philosophy is Jonathan Weinberg, Shaun Nichols and Stephen Stich's 'Normativity and Epistemic Intuitions' (2001). There they sketch an important aspect of epistemology, the Normative Project,¹²⁴ whose central question is "How ought we to go about the business of belief formation and revision?" (Weinberg et al. 2001, 431) One strategy to answer this question is what they call *Intuition-Driven Romanticism* (IDR), choosing the term 'romanticism' because "[o]ne central idea of nineteenth-century Romanticism was that our real selves, the essences of our identity, is implanted within us, and that to discover who we really are we need but let the real identity emerge." (432) The idea then is that the investigations should be made of intuitions as "data or input" that "must produce, as output, explicitly or implicitly normative claims or principles about matters epistemic." (432) One example of an IDR strategy they give is reflective equilibrium, amending Goodman's (1965) version slightly: "a [normative] rule is

¹²¹ See Knobe (2003; 2004; 2006)

¹²² See Nichols and Bruno (2010), which counters the intuition Williams (1970) believed was apparent, that personal identity is defined by psychological rather than physical continuity, by the use of some ingenious thought-experiments. They also explore the effects that concrete and abstract versions of thought experiments have on intuitions, attempting, in a sense, to guide reflective equilibrium *during* the survey. See also Sinnott-Armstrong 2008b.

¹²³ See Nahmias et al. (2007), which uses multi-questioned surveys and some powerful statistics and reveals the intuition that respondents generally ascribe free will and moral responsibility more to inhabitants of a deterministic world (an alien one, or our own future) when the mechanism of that determined world is described in psychological terms (mind states and beliefs that unfailingly determine further mind states and beliefs) than when described in neurological terms (activity in molecules, chemicals, and neurons that unfailingly determine further activity in molecules, chemicals, and neurons).

¹²⁴ From Richard Samuels's (*then* in preparation) 'Naturalness and Normativity'. Perhaps this paper never came to be, but another paper makes mention of the Normative, Descriptive and Evaluative Projects: Samuels et al. 2004

amended if it yields an inference we are [intuitively] unwilling to accept [and] an inference is rejected if it violates a [normative] rule we are [intuitively] unwilling to amend.” (Weinberg et al. 2001, 433, square brackets in original) Other examples of IDR strategies are Gettier cases and the vast literature in response to their elicited intuitions. Regardless of which strategy of IDR is considered, the Normativity Problem still looms large: “What reason is there to think that the output of one or another of these Intuition-Driven Romantic strategies has real (as opposed to putative) normative force? ... Why should we try to do what these outputs claim we ought to do in matters epistemic?” (434) Perhaps one reason for accepting the normative force of the outputs would be if there was undeniable universality and uniformity in the intuition inputs leading always to the same outputs. Falling short of this, however, has led to serious doubt IDR. Stich (1990) proposed the hypothetical question of how we should proceed in epistemology *if* there were no uniformity, *if* there were different groups whose “reasoning patterns and epistemic intuitions differ systematically from our own.” (Weinberg et al. 2001, 435) Weinberg et al., and much of experimental philosophy that has followed, are rather interested in attaining empirical evidence that the lack of uniformity and divergences among different groups are actual facts.

Weinberg et al. were inspired by two studies in experimental psychology showing cognitive differences between different groups. Richard Nisbett et al. (2001) looks to the differences between Western and East Asian modes of thinking. Generally, Westerners are more analytic thinkers, and East Asians are more holistic thinkers. Analytic thought involves “detachment of the object from its context, a tendency to focus on attributes of the object in order to assign it to categories, and a preference for using rules about the categories to explain and predict the object’s behavior,” while holistic thought involves “an orientation to the context or field as a whole, including attention to relationships between a focal object and the field, and a preference for explaining and predicting events on the basis of such relationships.” (Nisbett et al. 2001, 293) One result of these ways of thinking is for East Asian thinkers to have a “tendency to focus on chronological rather than causal patterns in describing and recalling events,” while “Westerners ... focus on causal patterns in these tasks.” (Weinberg et al. 2001, 436, personal communication with Nisbett) The other study is from Jonathan Haidt et al. (1993), where four groups were contrasted (Americans with high/low socioeconomic status, Brazilians with high/low socioeconomic

status) in their moral responses towards a story of a chicken fornicator.¹²⁵ This is a case where emotions of moral disgust may arise when considering a story where no one is harmed. Here, the socioeconomic status was the deciding factor and low socioeconomic status groups from both the U.S. and Brazil found the story morally wrong. Rather than investigating moral intuitions in the surveys that follow, Weinberg et al. were more interested in investigating epistemic intuitions, only taking from Haidt et al. the suggestion that there may be cognitive divergences between different socioeconomic groups. Thus they gleaned two hypotheses from these studies, as well as positing two more:

Hypothesis 1: Epistemic intuitions vary from culture to culture.

Hypothesis 2: Epistemic intuitions vary from one socioeconomic group to another.

Hypothesis 3: Epistemic intuitions vary as a function of how many philosophy courses a person has had.

Hypothesis 4: Epistemic intuitions depend, in part, on the order in which cases are presented. (Weinberg et al. 2001, 437-438)

Their first survey gathered from undergraduates at Rutgers University, both East Asian and Western,¹²⁶ responses to the Truetemp case inspired by Keith Lehrer (1990) which aimed to gather intuitions of the internalist/externalist dimension.¹²⁷ While this was certainly interesting, it did not result in any significant divergence of intuitions between the two groups. When testing a Gettier case, however, things are quite different. Here is the Gettier case presented to the undergrads in the survey:

Bob has a friend, Jill, who has driven a Buick for many years. Bob therefore thinks that Jill drives an American car. He is not aware, however, that her Buick has recently been stolen, and he is also not aware that Jill has replaced it with a Pontiac, which is a different kind of American car. Does Bob really know that Jill drives an American car, or does he only believe it?

REALLY KNOWS

ONLY BELIEVES (Weinberg et al., 2001,443)

Here, Westerners were more likely to be skeptical of Bob's knowledge than East Asians were. (17 of 66 [25.8%] Westerners said Bob really knows, while 13 of 23 [56.5%] East Asians said Bob really knows.) (458) As there is also a large Indian, Pakistani and Bangladeshi population at Rutgers, Weinberg et al. tested their intuitions against Westerners in the same case and found a larger contrast (25.8% Westerners and 60.9% South Asians.) (458) In addition to the above Gettier case, they tested a Gettieresque Cancer Conspiracy case and Dretske's (1970) Zebra in a Zoo case, this time between high

¹²⁵ "A man goes to the supermarket once a week and buys a dead chicken. But before cooking the chicken, he has sexual intercourse with it. Then he cooks it and eats it."

¹²⁶ "In classifying subjects as East Asian or Western, we relied on the same ethnic identification questionnaire that Nisbett and his colleagues had used." (Weinberg et al. 2001, 457 n.26)

¹²⁷ "One day Charles was knocked out by a falling rock; as a result his brain was "rewired" so that he is always right whenever he estimates the temperature where he is. Charles is unaware that his brain has been altered in this way. A few weeks later, this brain rewiring leads him to believe that it is 71 degrees in his room. Apart from his estimation, he has no other reasons to think that it is 71 degrees. In fact, it is 71 degrees." As cited in Cullen 2010, 8.

and low socioeconomic status groups as well.¹²⁸ Here, low-socioeconomic status groups were more likely (8 of 24 [33.3%]) than high-socioeconomic status groups (4 of 34 [11.8%]) to say Pat really knows that it's a Zebra in the cage and not a cleverly disguised mule.

Hypotheses 3 and 4 were not addressed in this paper.¹²⁹ Hypothesis 4 will also prove problematic for the very methodology implemented by Weinberg et al., but will ultimately be significant in reformulating and fine-tuning the methodology – we will consider this in the next section. But first, what do Weinberg et al. conclude from their work? They are unpretentious in the infallibility of their results, offering a few objections and replies towards the end of their paper. The first objection is, “But there are several senses of ‘knowledge’...”, centers on the idea that ‘knowledge’ may be used differently in different contexts, or may not have robust and invariable application as philosophers would like. To curb the respondents from using a more subjective usage of ‘knowledge’,¹³⁰ Weinberg et al. included the case of Dave’s “special feeling” along with the Zebra in a Zoo and Gettier cases for both low/high-socioeconomic groups and Western, East Asian and South Asian groups:

Dave likes to play a game with flipping a coin. He sometimes gets a “special feeling” that the next flip will come out heads. When he gets this “special feeling,” he is right about half the time, and wrong about half the time. Just before the next flip, Dave gets that “special feeling,” and the feeling leads him to believe that the coin will land heads. He flips the coin, and it does land heads. Did Dave really know that the coin was going to land heads, or did he only believe it?

REALLY KNOWS

ONLY BELIEVES (Weinberg et al. 2001, 450)

Almost nobody, in all groups, found this to be a case of knowledge. More importantly, it did not change the results of the subsequent Zebra in a Zoo or Gettier cases as compared to the earlier results from surveys without the inclusion of the “special feeling” case. This would seem to suggest that while the “special feeling” case elicits a robust intuition of the term ‘knowledge’ as being inapplicable, and thus priming the survey respondents with a less subjective sense of the concept knowledge, the intuitions elicited in the other Gettier

¹²⁸ “Following Haidt ... subjects were classified as low SES [socioeconomic status] if they reported that they had never attended college. Subjects who reported that they had one or more years of college were coded as high SES.” (Weinberg et al. 2001, 446)

¹²⁹ Nichols, Stich, and Weinberg (2003) is the continuation of Weinberg et al. (2001) in which hypothesis 3 is addressed, showing that subjects with a low number of philosophy courses under their belt are more likely to say that one knows that one is not a brain-in-a-vat. The authors become more convinced here that the term ‘knowledge’ applies to a cluster of concepts, hence the diversity between (and even within) cultural, socioeconomic, and philosophically educated groups. “Moreover, these concepts don’t simply differ in *intension*, they differ in *extension* – they apply to different classes of actual and hypothetical cases.” (Nichols et al. 2003, 245)

¹³⁰ An example of the subjective use of ‘knowledge’/‘know’: “‘I just know that Ivory Armchair [a racehorse] is going to win.’ And even after Lab Bench [another racehorse] comes in first, this colloquial sense of ‘know’ still permits them to say, ‘Drat! I just knew that Ivory Armchair was going to win.’” (Weinberg et al. 2001, 449)

cases without the “special feeling” case present are no less representative of such a subjective sense of knowledge.

5.2.2 *Different Ascriptions, Different Concepts, Wrong Intuitions*

If the term ‘knowledge’ is being used differently, then there are two possibilities. The first possibility is that if either different scenarios or different people’s tendencies lead to different ascriptions of ‘knowledge’ to an agent (i.e., intuitions that the agent knows [does not know] something), this does not mean that there are different concepts for knowledge being employed (Fodor 1998; Ludwig 2010, 438).¹³¹ There could be other features or implicatures in the scenarios considered that participants are responding to that leads to different ascriptions of ‘knowledge’. In the Bob and Jill case of driving an American car, East Asians may be responding to the fact that Jill drives an American car as a likely indicator that she will continue to *choose* and thus drive American cars (Sosa 2009, 108). “The topic of the question, ‘Jill drives an American car’, is a habitual. It is about Jill’s driving practices. It can be true of Jill that she drives an American car even if the car is in the shop and she has a Toyota as a loaner.” (Ludwig 2010, 441) That the term ‘knowledge’ is being used ambiguously among the folk does not suggest the concept of knowledge is itself ambiguous, nor that philosophers apply the concept incorrectly (Sosa 2010, 425). Ernest Sosa vacillates between this strong view that there is a correct and singular concept of knowledge that many people seem to be getting wrong, with the view that different people value different “commodities” that we put under the same label as ‘knowledge’, and that we can come to learn “that second commodity once we are brought to understand it, even if we previously had no opinion on the matter.” (Sosa 2009, 108) That the ‘commodity’ of knowledge can be valued differently is in keeping with naturalistic accounts of epistemology that are less concerned with our cognitive practices being correct or our concept of knowledge being true, and more concerned with our practical goals and epistemic interests being effectively realized (Stich 1990; Kitcher 1992, 103). It is unclear whether Sosa means these different ‘commodities’ to be different concepts. However, that whatever falls under the term ‘knowledge’ is valued differently by different communities may turn out to be a curious conclusion of cultural diversity and the less-than-ideal universality of particularly Western concepts in philosophy.¹³² But the differences in

¹³¹ Stich (2009): “[T]he fact that an East Asian pays more attention to communitarian factors while a Westerner emphasizes individualistic factors in applying the term ‘knowledge’ would be no reason at all to think that the concepts linked to their use of the term ‘knowledge’ have different contents.” (233)

¹³² Though Stich (2009): “If ‘knowledge’ picks out different things for different speakers, they can’t all be the highest of human things.” (234)

valued commodities that fall under the term ‘morally permissible’ leads to a more unsettling picture:

If a Yanomamö intuitively judges that it is *morally permissible* to kill men who are not members of his tribe, take their possessions, rape their wives, and enslave their children, while I intuitively judge that it is *not morally permissible* to do these things, and if the disagreement can’t be attributed to confusion, then the Yanomamö and I are invoking different concepts of moral permissibility. And if, as I maintain, this case is entirely parallel to the knowledge case, presumably Sosa would deny that there is any conflict here. He might even wonder why we shouldn’t learn to value the “commodities” that the Yanomamö label ‘morally permissible’ even though they are rather different from the commodities to which we apply the label ‘morally permissible’.” (Stich 2009, 235)

We would certainly be hard-pressed to value the Yanomamö’s commodity labeled ‘morally permissible’, let alone comprehend how they can come to value such a commodity.

The other possibility for why the term ‘knowledge’ is applied differently is because it denotes different concepts. “For theorists like Frank Jackson [1998, 32] ... if two people have different intuitions about some Gettier cases, and if neither of them is confused about the details of the example, that’s enough to show that they have different concepts.” (Stich 2009, 233) This is the unparsimonious view brushing up against Occam’s razor. The concept of knowledge may be a mutable kind whose conceptual borders do not contain one unified concept of knowledge, but many subdivided concepts of knowledge, and shknowledge, and tnowledge, etc., that may share family resemblances with one another (and hence be conceived of as falling under a unique type or category), but which are not the concepts that everyone uses when applying the term ‘knowledge’ (and all of its cognates and translated relatives). If Sosa’s ‘commodities’ in the previous paragraph are construed as the contents of different concepts that have the same label ‘knowledge’, then the same critique laid out by Stich (2009) of the Yanomamö’s different concept under the term ‘morally permissible’ can also be made. It would appear that the multi-ascription and multi-concept conclusions based on the divergence of intuitions in experimental philosophy are two sides to the same problematic coin: heads and tails appear identical, and it is the task of the experimental philosopher to differentiate between these two conclusions when folk intuitions about a philosophical concept are either indicative of different grounds and practices for the applicability of a term, or of different concepts that fall under the same term.

Another objection in Weinberg et al. (2001) is titled “We are looking at the wrong sort of intuitions ...” If the objection is that these intuitions lack a sense of necessity, and are thus not strong intuitions, then this suits Weinberg et al. just fine, as no group exhibited a

universal tendency to have a particular intuition. Even though Western subjects are less likely than East or South Asians to attribute knowledge to Bob about Jill's car, about 30% still *do* attribute knowledge, going against Western epistemologists' conviction that the intuition from a Gettier case is a strong one. If the objection is that the intuitions surveyed are decidedly *unreflective*, then this, they claim, is quite fair; though they also find that those who claim that there is a "difference between first-off and minimally reflective intuitions had better go get some *data* showing that such differences would point in the direction they would want." (Weinberg et al. 2001, 453) The objections regarding the quality of intuitions garnered in a survey format will be looked at in the next section as well. The main point that Weinberg et al. wish to raise after this preliminary empirical work is that epistemologists have been too sure that the intuitions they reach are as widespread and universal as they think they have to be. Western epistemologists can only be described as engaging in some kind of "*ethno-epistemology*", and "the best response to the high-SES [socio-economic status] Western philosophy professor who tries to draw normative conclusions from the facts about "our" intuitions is to ask: What do you mean "we"?" (454-455)

5.3 – The Critique of Methodology

The troubling features of experimental philosopher's methodology have been best expressed through Simon Cullen's aptly titled 'Survey-Driven Romanticism' (2010). The observant reader may have questioned a few aspects of Weinberg et al.'s surveys. One point is the dichotomous choice offered, between "REALLY KNOWS" and "ONLY BELIEVES". What if the respondent is not really sure either way where their intuition is leading them? Offering the option "I AM NOT SURE" might help to weed out the respondents who are not confident in their answer, thus focusing on the stronger, more confidently held intuitions. Another point is the use of modifiers "REALLY" and "ONLY". This either heightens or lowers the standards of the two options, and "communicates Weinberg et al.'s own belief that the distinction between *real* knowledge and *mere* belief is highly pertinent." (Cullen 2010, 6) Cullen performs his own philosophical experiment with surveys featuring the Truetemp scenario to test the differences of having the answer options as in Weinberg et al.'s ("REALLY" and "ONLY") with a more straightforward option: with the question "Does Charles know that it is 71 degrees in the room?" he offers the simple answer options "Knows" and "Does not know." He found that his results corroborated strongly with Weinberg et al.'s original when using the strong modifiers (a

28% / 72% split for Really knows / Only believes, n=70)¹³³, but when using the straightforward question and answer options, the results were quite different (a 57% / 43% split for Knows / Does not know, n=214) (Cullen 2010, 14-15). Cullen also found differences between these forced-choice response options and 7-point Likert scale response options, in which many respondents favored the median 4-point indicating uncertainty (15-18).

More interestingly, Cullen raises the concern regarding the pragmatics involved in answering a survey, and the implicit conversation that respondents and experimental philosophers are engaged in through surveys. Swain, Alexander and Weinberg (2008) found differences in responses to the Charles Truetemp case when primed with cases of clear knowledge¹³⁴ or clear no-knowledge,¹³⁵ where being primed with the former leads to a slightly lesser ascription of knowledge to Truetemp than had one not been so primed, and being primed with the latter leads to a slightly greater ascription of knowledge to Truetemp than had one not been so primed. They conclude that the “intuitions track more than just the philosophically-relevant content of the thought-experiments,” (140) but Cullen sees it as only the survey responses, and not the intuitions, that are doing the tracking. The subjects

effectively respond to different questions. On this account, Swain et al.’s subjects tried to provide meaningful, informative responses to the survey questions. They assumed –quite reasonably – that the researchers know that the subjects know this (*mutatis mutandis* for Karen). Given that the researchers aim to make all of their contributions to the conversation relevant as Grice’s cooperative principle requires, that they have asked such a *prima facie* obvious question needs explaining. Happily for subjects, an explanation becomes apparent as soon as they encounter Charles’ more problematic case: *the researchers want me to compare Charles’ case to Dave’s*. (Intelligent subjects could hardly fail to notice that the cases are purposefully chosen to contrast with one another!) On this reading, Swain et al.’s subjects answer that Charles’ case is more obviously a case of knowledge than Karen’s. And of course they’re right. (Cullen 2010, 9)

Cullen then backs this account with some further experimental philosophy, creating a survey similar to Swain et al.’s but with an introduction that effectively asks respondents to treat both (Charles Truetemp and Dave coin-flip) cases independently, as only responses to one of the cases will be selected by the researchers for the final survey. The results showed

¹³³ Cullen’s (2010) survey participants were mostly high-school (72%), North Americans (93%) (12).

¹³⁴ “Karen is a distinguished professor of chemistry. This morning, she read an article in a leading scientific journal that mixing two common floor disinfectants, Cleano Plus and Washaway, will create a poisonous gas that is deadly to humans. In fact, the article is correct: mixing the two products does create a poisonous gas. At noon, Karen sees a janitor mixing Cleano Plus and Washaway and yells to him, “Get away! Mixing those two products creates a poisonous gas!” ... Please indicate to what extent you agree or disagree with the following claim: “Karen knows that mixing these two products creates a poisonous gas.” ___ Strongly agree ___ Agree ___ Neutral ___ Disagree ___ Strongly Disagree” (Swain et al. 2008, 155)

¹³⁵ Dave “special feeling” coin-flip case.

that regardless of which case is presented first, respondents were generally skeptical of whether Charles had knowledge (Cullen 2010, 9-12).¹³⁶

Cullen has exposed some of the deep methodological assumptions of survey methods that early experimental philosophers have been careless towards or incognizant of. The issue of pragmatics and Gricean implicatures in the (albeit limited) two-way conversation between respondent and experimenter also raises questions of whether the semantical content of the intuition can actually be reached. Antti Kauppinen (2007) has expressed skepticism that semantical content can be reached. Though he shares the optimistic outlook that we need folk concepts to get reflective equilibrium going (Kauppinen 2007, 96), he sees them as only being revealed via (1) the competence of the speaker, (2) absence of performative errors, and (3) having a basis in semantic rather than pragmatic considerations (97). And there are doubts whether we can grant (1) and (2) to everybody being surveyed, let alone whether a survey can satisfy (3). The intuitions that suffice all three conditions Kauppinen calls *robust* intuitions; what surveys only glean are *surface* intuitions. Rather than try to save the survey method, he proposes a continuation, not of the status quo, but of two integral pillars to the practice of philosophy: reflection and dialogue. Reflection has “Authority”, just by the fact that philosophy has had a long history of “years’ worth of experience about what counts as proper application of concepts to different cases.” This is a decidedly conservative understanding of reflection, and it should be amended with Audi’s (1996) notion of reflection as discussed in 4.3. On the Dialogue Model, however, the three conditions to get robust intuitions are satisfied, if those robust intuitions are what

infinitely patient and focused respondents would give at the end of a dialogue with a Super-Socrates, who never misleads but engages in maximally skilful midwifery that consists in bringing about [the three] conditions. In practice, responses are more or less robust, depending on how closely the ideal dialogical situation is approximated. Since we use language to communicate with each other and sharing concepts is necessary for agreement and disagreement, there is strong *a priori* reason to believe that people’s robust intuitions will line up with each other, at least in central cases. (Kauppinen 2007, 110)

While it remains to be seen how we could even conceive of a “Super-Socrates”, much less approximate him, the dialogue model is a strong candidate for success in reaching robust folk intuitions. It is something experimental philosophers should keep in their sights when surveying the folk landscape. The dialogue model also comports well with the homuncular model of thought experiments in getting intuitions out from introspection and into broader communicative and dialectic contexts. Nadelhoffer and Nahmias (2007) have proposed an

¹³⁶ On a 5-point Likert scale, 1 (strongly disagree) to 5 (strongly agree), mean scores were 2.58 to Charles after Dave, and 2.5 to Charles before Dave; compare Swain et al.’s 3.3 to Charles after Dave, and 2.62 to Charles before Dave.

Experimental Dialogue and Reflection Model that furthers Kauppinen's (2007) two models. This model would provide a "controlled environment" for conversations "to find out what people's reflective intuitions, judgments, and beliefs about a given topic really are" and then "code, compare, and analyze participants' answers in a rigorous and systematic manner that is less subject to the problems associated" with the survey method or the traditional Dialogue and Reflection Model (Nadelhoffer and Nahmias 2007, 131). It is a little difficult to conceive of such a process and the methodological logistics it faces, but I believe it is a step in the right direction to mitigate the tension that exists between experimentalist and traditional analytic philosophers.

5.4 – The Expertise Reply

The final defense for standard philosophical and intuition-based methodology rests on the picture that the intuitions of experts are to be regarded as correct. While *endoxic* intuitions were seen as the best intuitions of the wisest people in general, or of the best experts in a specific domain, such intuitions are only used as initial premises and starting points to get scientific inquiry and the general dialectic going. The defense of intuition-based philosophy sees the intuitions of experts in a reversed light: they are the end points in the first tier of the standard philosophical methodology, and hence the correct starting points for the second tier of philosophical theorizing.

What philosophers seek in their defense of intuition-based philosophy is the satisfaction of the conditions that make expert philosophers better than those of the folk, i.e., "less susceptible to the kinds of unreliability that seems to afflict the folk intuitions studied by experimental philosophers." (Weinberg et al. 2010, 333) Weinberg et al. (2010) hold that the view that experts in specific domains eliciting expert intuitions (e.g., that professional mathematicians have expert mathematical intuitions, better than the folk) carries over to the philosophical domain as an obvious piece of thinking in the *folk theory of expertise* (333). This folk theory is constituted by two rough maxims, that "sufficient background, training, or experience" leads to expertise in an activity, and that "expertise at one aspect of an activity is closely correlated with expertise in other aspects of that activity (333). However, there is more to expertise than these two principles,¹³⁷ and Weinberg et al. settle on three hypotheses for philosophers' expertise: that they "have superior *conceptual*

¹³⁷ For example, Shanteau (1992) has shown that even with more or less equal levels of background training and experience, "[s]ome areas, such as meteorology and chess, have proved conducive to acquiring expertise; [while] others, such as psychiatry, stock brokerage [*sic*], and polygraph testing, have tended not to produce real expertise." (Weinberg et al. 2010, 334)

schemata to the folk; that they deploy more sophisticated *theories* than the folk; and that they possess a more finely-tuned set of *cognitive skills* than the folk.” (Weinberg et al. 2010, 336)

‘Conceptual schemata’ refers to any and all informational structures that are involved in the application of terms (it is to be preferred to what Weinberg et al. see as the “fraught term” of ‘concept’) (336). Psychological literature has shown that the conceptual schemata of highly trained experts reflect a high degree of specialization. It also shows that these experts “organize their diagnostic experience through a process of “knowledge encapsulation.”” (338, citing Boshuizen and Schmidt 1992) Increased experience among physicians decreased proportionally the number of times “lower level” biomedical propositions were used in verbalizing their activities. Expertise and knowledge encapsulation also led to fewer “intermediary biomedical steps”, going from “drug use” to “endocarditis” while skipping any mention of “contaminated needles” and “bacteria-induced sepsis” (Boshuizen and Schmidt 1992, 169). In philosophy, such “higher-order concepts” might include “Gettiered justifications” encapsulating lower-level features of cases. “[O]n the basis of competence with such higher-level concepts ... epistemologists are able to efficiently pick out just the epistemologically-relevant features of hypothetical cases.” (Weinberg et al. 2010, 338)¹³⁸ However, these higher order concepts may also be susceptible to the “lock in” effect, in which coherence between intuitive judgments of different cases is maintained from an initial assessment of one case in one context that locks in to certain philosophically irrelevant features (e.g., that one’s intuitions are internally coherent) in all subsequent similar cases, but is insensitive to certain philosophically relevant features that would be attended to if more reflection had occurred (339). This “coherent arbitrariness” (Ariely, Loewenstein and Prelec 2003) would amount to following the rule: “believe the first thing you are told, and then do not change your mind no matter what;” depending on your teacher, this might lead to stable and coherent beliefs, but it is overly sensitive to just what your teacher tells you (Weinberg et al. 2010, 339). What philosophers need to overcome the possibility of lock in and coherent arbitrariness is reliable feedback, which at a minimum could follow the homuncular model

¹³⁸ Vaidya (2010) has a similar view of the expertise defense, in that philosophers are better at reflecting cognitively because they have better *relevance-deviance tracking* capacities. Gettier cases can be filled out differently, and philosopher’s expertise is in seeing thought experiments as consistent extensions of other better known ones (411-412).

of thought experiments in externalizing introspection to interpersonal communication, but would also likely benefit greatly from actual feedback from like-minded philosophers.¹³⁹

The second hypothesis is that experts have better theories than the folk. Even students who have had one or two classes in physics stand a better chance than those who have had no classes in physics in correctly predicting the trajectory of a ball exiting a curved metal tube lying on its side (McCloskey, Caramazza and Green 1980). Expert philosophers on this hypothesis would need to have “a stock of sufficiently entrenched theories” whose “deployment ... would shield [philosophers’] intuitions against the irrelevant factors” such as ordering effects from Swain et al. (2008) (discussed above with Culley (2010) in section 5.3) That such entrenched theories are able to shield intuitions from irrelevant factors requires some empirical testing, and one preliminary study has shown that philosophers fare no better than non-philosophers in this regard (Schwitzgebel and Cushman In Press). Weinberg et al. also claim that theories in philosophy are not as decisively explicated as theories in other domains: “there is just nothing out there that can serve for “solving a philosophy problem” anything like the role that is played by the contents of a good physics textbook for solving a physics problem.” (Weinberg et al. 2010, 345) That philosophers’ best intuitions line up well with their best theories does not mean that they are immune from irrelevant factors. Knowing that our best intuitions are so immune is answering a decidedly empirical question to be taken up scientifically (346).

The third hypothesis is that cognitive skills of experts include not only factual competence in the domain, but also procedural competence, i.e., not just propositional know-that knowledge, but also tacit know-how knowledge. Chess masters have been shown to have expert procedural knowledge, being able to replicate on average the placement of 16 out of 25 pieces after only five seconds of looking at the board, provided that such arrangement can arise in an actual match (Chase and Simon 1973). The claim that philosophers *qua* experts have procedural knowledge particular to their domains faces the initial hurdle of determining what such procedural expertise could consist in (Weinberg et al. 2010, 347). One possibility is that philosophers have a standardized method of knowing what does or does not get filled in (or consciously imported into) thought experiments, in such a way as to reduce the divergences apparently caused by cultural difference (348; this could include

¹³⁹ Zamzow and Nichols (2009) argue that diversity in intuitions, and being surrounded by those who hold opposing intuitions to your own, provides a better feedback model to advance more critical defenses of your intuitions. Schulz-Hardt et al. (2002) show that genuine as opposed to contrived dissent (i.e., someone playing the devil’s advocate role) results in a better balancing of information and opinions in a group.

the considerations of Sosa (2009) and Ludwig (2010) in 5.2.2 about how East Asians may be viewing the Bob and Jill American car case differently). This expertise would then extend from an experimental philosopher's increasing familiarity and experience with the positing of thought experiments and the competence in understanding the interplay of variables and features within the thought experiments. Though Weinberg et al. (2010) have presented the three hypotheses that may support the defense of expertise in philosophical intuitions, they remain pessimistic on the hope of such hypotheses and are overall against the expertise defense. They find the level of "robust sources of feedback" seriously lacking in philosophy, and that without a proper way to attain a level of expertise in philosophy, the failures of "the particular judgment tasks in philosophy will have a much greater negative impact than it might in other professions." (349)

Williamson (2007), on the other hand, is a strong defender of expertise in philosophy.

[P]hilosophy students have to learn how to apply general concepts to specific examples with careful attention to the relevant subtleties, just as law students have to learn how to analyze hypothetical cases. Levels of disagreement over thought experiments seem to be significantly lower among fully trained philosophers than among novices. [. . .] We should not regard philosophical training as an illegitimate contamination of the data, any more than training natural scientists how to perform experiments properly is a contamination of their data. Although the philosophically innocent may be free of various forms of theoretical bias, just as the scientifically innocent are, that is not enough to confer special authority on innocent judgment, given its characteristic sloppiness. (191)

He also faults Weinberg et al. (2010) for failing to see how the general cognitive skills of philosophers, contra Weinberg et al.'s third hypothesis and their folk theory of expertise, can contribute to attaining a level of expertise in thought experimentation. Where Weinberg et al. see no relation between the "demonstrable skills" of "close analysis of texts, or the critical assessment of arguments," and the "improved level of performance at conducting thought experiments" (335), Williamson (2011) sees these skills and the performance of thought experimentation as largely overlapping. These skills are "exactly what one needs adequately to take in and digest the description of the scenario in a thought experiment." (222) This is also in keeping with his view, as seen in section 5.1.3, that thought experiments are reducible to arguments, and that if Weinberg et al. can contend that philosophers have "technical skills" in "argument construction and evaluation," (334-335), then they have the appropriate skills needed to perform well and achieve some expertise in thought experimentation.

The point of defending expertise in philosophical intuitions is not to offer a trump card for philosophers to play to boost the position of their intuitions whenever they see intuitions conflicting and diverging among the folk 'down below'. It is rather to show that a level of

expertise is attainable in offering a better method and guide to arriving at robust intuitive judgments. It should also be noted that expertise in thought experimentation not only aims to check the correctness of the appropriate intuitions that ought to be elicited by a thought experiment, but also seeks to understand and explain the divergences in intuitions as this task itself has philosophical significance:

[Experimental philosophy] provides a check on one's assumptions about the conformity of one's own responses to those of others and especially those who have not been trained in philosophy. This yields occasional surprises which are valuable even if one decides that they can be explained away, for they have the potential for revealing unrecognized conceptual connections which play a role in even [*sic*] incorrect responses and for providing greater insight into methodological difficulties in conducting thought experiments, which can be brought back to inform one's understanding of one's own responses to thought experiments. (Ludwig 2007, 154)

That experimental philosophers are only engaging in 'ethno-epistemology' is a slight that only belittles the broader implications that may result from properly, and expertly, accounting for the divergences of intuitions. Granted, there are methodological considerations surrounding the use of surveys in experimental philosophy that must first be addressed to properly arrive at robust intuitions. If improved survey methods can be combined with Nadelhoffer and Nahmias's (2007) Experimental Dialogue and Reflection Model, then there is hope for intuition-based philosophy that steps beyond the armchair from time to time, engaging with the diversity of intuitions across societal and cultural groups, and achieving more representative explications of our most cherished ideas and concepts.

6 – Concluding Remarks

The divergence of intuitions is an ongoing interpretative project that has only begun in earnest recently with the increase in experimental philosophical projects. I hope to have shown that with a historical understanding of some of the basic features of intuitions that different philosophies have spelled out in the past, current conceptions of intuitions have advanced these features in response to the growing awareness of what intuitions are and how they are being used. The Experimental Restrictivist conclusions that the use of philosophical intuitions is untenable is perhaps itself an untenable view. Before better survey methods and design models that make use of reflection – one of the keys to getting at more robust intuitions – are given an adequate chance, the Restrictivists should not be so keen to close the curtains on intuition-based philosophy yet. Even if the Restrictivist view turns out to be true in the end, there is still philosophical interest in the work of the Experimental Descriptivists and Analysts; they are not just engaged in "ethno-epistemology" or some variant of anthropology, but are also engaged in conceptual

analysis of notoriously complex concepts that the folk, and even some philosophers, do not have a full grasp of. Learning from our errors and mistakes in deriving intuitions from thought experiments is still progress,¹⁴⁰ though perhaps not as exciting as the broad strokes with which the Restrictivists attack intuition-based philosophy. Experimental philosophers and the empirically- and naturally-minded philosophers who make use of intuitions may never rest from defending their methodologies, but it is this interchange and ongoing dialogue between Restrictivists and ‘armchair-ists’, intuition deniers and intuition supporters, that gives philosophy a sense of its own importance, which is one notable upshot.

¹⁴⁰ Cf. Goldman 1978, 510-511; and Flanagan (1991): “these negative discoveries help support in their way the positive hypothesis that the human project truly is one of self-creation, of making ourselves into many of the different kinds of beings we can possibly be. The role for philosophy is to bring self-criticism to bear on these projects of self-creation.” (31)

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