Experimental and Analytical Philosophy in the Reflection of Comparative Philosophy[1]

1.   Introduction

There are at least two important questions in American and Anglo-European epistemology. The *definitional question* asks: what does it mean to know something? The *skeptical question* asks: can we know anything? *The Universality Thesis About Knowledge*, UT, holds that the properties of the English word 'know' and the English sentence 'S knows that p', which have been studied by Western epistemologists for centuries, are shared by translations of these expressions in most or all languages. If UT were true, there would appear to be no value in studying non-Western epistemology? So: Is UT true? How can we find out? The *Empirical Argument* for UT is that when we test non-English speaking natives we find that their intuitions about knowledge attributions in hypothetical scenarios match those of native English speakers. That is, the empirical evidence suggests that we find a common core that supports a universalism about knowledge, and that common core lines up with investigations into the nature of knowledge done by Western epistemologists who investigate knowledge as justified true belief plus some additional anti-luck factor. The empirical evidence for UT has changed between 2001 and 2015. In 2001 Weinberg, Nichols, and Stich used the following probe to argue that there is no common core.

> 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

The original conclusions against UT were:

> [A] large majority of Westerners, Ws, give the standard answer in the philosophical literature, viz., "Only Believes." But among East Asians, EAs, this pattern is actually reversed! A majority of EAs say that Bob really knows. (WNS 2001: 443)

> [W]hat counts as knowledge on the banks of the Ganges does not count as knowledge on the banks of the Mississippi! (WNS 2001: 444)

In the most recent study on UT, by Machery, E., Stich, S., Rose, D. *et.al.* (2015), the authors employ four distinct probes to support the existence of a common core. One of the Gettier probes is the following.

> Paul Jones was worried because it was 10 pm and his wife Mary was not home from work yet. Usually she is home by 6 pm. He tried her cell phone but just kept getting her voicemail. Starting to worry that something might have happened to her, he decided to call some local hospitals to ask whether any patient by the name of "Mary Jones" had been admitted that evening. At the University Hospital, the person who answered his call confirmed that someone by that name had been admitted with major but not life-threatening injuries following a car crash. Paul grabbed his coat and rushed out to drive to University hospital. As it turned out, the patient at University Hospital was not Paul's wife, but another woman with the same name. In fact, Paul's wife had a heart attack as she was leaving work, and was at that moment receiving treatment in Metropolitan Hospital, a few miles away.

On the basis of their study they conclude:

> [T]he Gettier intuition is universal, removing one of the crucial bits of evidence for the cross-cultural challenge to the role of intuitions in philosophy. That said, at this point we should refrain from dismissing this challenge too quickly. Further evidence could show that the Gettier intuition does vary across cultures. Other epistemic intuitions may vary across cultures. (MSR 2015: 11)

> [P]eople across cultures share a core folk epistemology […] it is plausible that across languages the word that is used to translate "to know" refers to a property speakers distinguish from the possession of a mere justified true belief. (MSR 2015: 11)

What are the key differences between the two studies? Frist, in addition to the fact that the new study contains four probes rather than a single probe, the new study also includes a binary comprehension question; a question that asks whether or not the protagonist knows the relevant proposition. The response options are "Yes, [s]he knows" or "No, [s]he doesn't know". Second, it also includes a question about justification, "How justified is [name of the protagonist] in thinking that [relevant proposition]," followed by a 7-point scale ranging from "completely unjustified" to "completely justified". Third, it asks the question: "In your view, which of the following sentences better describes [the protagonist's] situation?" followed by two choices, (i) "[Protagonist] knows that [relevant proposition]," and (ii) "[Protagonist] feels like [s]he knows that [relevant proposition] but [s]he doesn't actually know [this]."

In what follows we are interested in exploring two questions about UT and the empirical argument for it.

The Cultural Question: Given *that* the formal education of subjects from outside of the US typically occurs in modern Western universities, what role does the exportation of Western culture and education play in the evidential value of these subjects' intuitions when testing for cross-cultural variation?

The Combination Question: Is a combined study of UT through comparative philosophy in addition to analytical and experimental methods better than any of these alone?

Our aim is to advance engagement with comparative epistemology in relation to experimental and analytic investigation into UT. What we *do not* aim to do is deny the importance of experimental or analytical research in epistemology or the importance of investigating UT. Our hope is to draw more interest in comparative epistemology in relation to improving experimental and analytical methods in epistemology. We will argue that given the development of modern universities in light of colonialism, it is very hard to get good intuitions from subjects who were trained in a Western style university. Following Vaidya (2015) we will argue that a combined effort that unifies analytical, experimental, and comparative philosophy in the investigation of UT is far superior to one that only focuses on either analytical approaches or experimental approaches. We will be focusing on the case of intuitions about knowledge from Bengal in the (2015) study. Although we will be making and emphasizing different points, our work will follow the direction of Jonardon Ganeri's (2017) *Epistemology from a Sanskrit Point of View*.

2.   Subjects, Translations, and Scope

In order for a study of intuitions about knowledge from both Indians and Americans to be successful there must be several conditions that are satisfied. Those conditions fall into two groups, those pertaining to the test subjects, and those pertaining to the design of the probe. As was already noted, the new evidence for UT, in comparison to the old evidence, is superior, in part, because the probe was designed better through the use of more advanced questions. However, the empirical argument for UT could still be improved.

On the subject side we would think the following considerations are relevant. First, the Indians in the Indian population must not be mere Indian citizens, but at least have some Indian background in terms of how they were raised and taught to think. For example, being born in India and having lived in India would not be sufficient. For one could have spent their whole time in India attending Western private schools with little to no exposure with Indian culture. Second, test subjects should be native speakers of a language such as Hindi or Bengali. For if they have learned Hindi or Bengali as a second language, that would complicate the sense in which they are the actual subjects whose intuitions are desired. In contemporary Indian education many Indians learn English while learning Hindi or Bengali at the same time from as young as 6 years of age. It would be preferable if the subjects had learned Hindi or Bengali while not also learning English. For when they learn both simultaneously it is hard to say that their intuitions are in fact the intuitions of an Indian as opposed to a bilingual that lives in India. The general point to be made is that many Indians that would be test subjects in Indian universities would also be (a) largely Westernized in their education by the time they arrived at university, and (b) would be considered bilingual, even trilingual, since most Indians speak two languages in addition

to English, such as Hindi and Bengali. If a person is bilingual the question is: to which language do their intuitions about knowledge belong. For even if the question is asked in Bengali we might wonder if there is an under-determination problem, since we do not know how to demarcate intuitions coming from a bilingual. We should not infer from the fact that one responds to a question asked in Bengali through the use of Bengali that the speaker's intuitions are Bengali-Indian intuitions, especially when that person may speak English as fluently as they speak Bengali.

But even if we can get the right subjects we have to be concerned about providing them with the right materials, for we need to ask them questions in Hindi or Bengali not in English, and so we need to translate 'knows' into Hindi or Bengali. A number of Indian philosophers have pointed out that there are two terms in the epistemic vicinity of 'knows' that could be used for testing Indian subjects: *jñāna* and *pramā*.

On the assumption that knowledge is factive we must make sure that the term we use to translate 'knows' into Hindi or Bengali is also factive. Both Ganeri (2017) and Bilimoria (1985) point out that the claim that *jñāna* is factive is quite complicated. Although it can be used to mean knowledge in a factive sense, it is often used in a much weaker sense where it signifies something like cognition or awareness. One can have a belief, which is a type of cognition, that is not true; and one can also have awareness, such as through perception, which is also not true. Thus, *jñāna* when thought of in its weaker sense is not a good translation of knowledge. Because *jñāna* can be used in these two senses it is best *not* to use it when testing Indians on their intuitions about knowledge. The 2015 study that shows that there is a common core between Americans and Indians uses *jñāna* on a population of speakers that speak both Bengali and English, as a consequence, we might wonder whether the test subjects are partially confused.

The term *pramā* is better for translating 'knows', since it is factive. As Ganeri (2017) points out, it is often translated as meaning an experience that represents things as they are (*yathārtha-anubhuti*). Experience is wide enough to include the mental states of a subject, and the notion 'as things are' is to be understood in a correspondence sense, so that an experience that represents things as they are is both a mental state and veridical in the appropriate sense.

However, even if *pramā* is a better translation than *jñāna* for the purposes of designing an intuition probe it is important to take notice of the roots of the term for the purposes of questioning the scope of application of *pramā* in relation to knowledge. The noun *pramā*, as Ganeri and Bilimoria point out, is derived from *pra+mā*, which means to *measure*. Now, if the root of the word that best translates 'knowledge' into Hindi or Bengali is actually a word that derives from a word that means *to measure* we might wonder whether what 'knowledge' in English picks out really maps to what '*pramā*' picks out. The critical question is about the scope of application. Even if '*pramā*' is a correct translation of 'knowledge' in some contexts, it might not be in all contexts. This would be problematic for UT since the evidence would then only suggest a partial common core. That is, a common core concerning only a certain class of cases. Consider the following argument.

1.   The English word 'knowledge' can be used alongside the Western distinction between *a priori* and *a posteriori* knowledge, as well as the distinction between known by measurement and known by proof.

2. The Sanskrit word '*pramā*' cannot be used alongside the Western distinction between *a priori* and *a posteriori* knowledge, or with the distinction between known by measurement and known by proof.
3. If term X in language A only overlaps with term Y in language B in contexts of kind D as opposed to kind E, then the fact that native language speakers of A and B, two distinct cultures, share intuitions in context D *does not* show that they share a common concept **C** expressed by X and Y.
4. So, Indians and Americans don't share a common concept C expressed by '*knowledge*' in English and '*pramā*' in Sanskrit.

Let's explore the argument. The English word 'knowledge' can be applied to things for which we do not gain knowledge of through measurement. For example, both inside the philosophy of mathematics and in everyday practice many would suppose that certain mathematical truths are known by proof, but not by measurement. Furthermore, they might even hold to the view that given what 'measurement' means in English, it could not be the case that what is known by proof could be known by measurement. Thus, from a comparative frame we might ask: does *pramā* properly apply to these kinds of truths. Of course Indians understand that they can know something by proof. And of course they hold that we can know mathematical truths. Vedic mathematics is a whole school of how we can know certain truths of arithmetic. The worry is more subtle: if the whole realm of *a priori* knowledge is about knowledge of things that are not measureable in any obvious sense, and *pramā* derives from a word that means *measure*, what are we to think of the application of *pramā* to cases of *a priori* knowledge? The vast extant of Sanskrit philosophy does not even engage the issue of *a priori* knowledge in the classical Western sense? There is substantive discussion of counterfactual knowledge and suppositional reasoning, but these discussions do not translate in a straightforward sense that attaches to the notion of *a priori reasoning* – reasoning whose justification is independent of sense experience.

One might respond to this point by holding that Indian philosophy must engage the view that one can know by *a priori* reasoning, since most schools of Indian philosophy hold that inference (*anumana*) is a way of knowing (*pramāṇa*). The idea would be that since some cases of inference are cases of *a priori* reasoning, and inference is a way of knowing, there must be acceptance of *a priori* knowledge by way of inference. However, this retort would run contrary to classical theories of *anumana*.

First, '*anumana*' literally means *measuring along some other thing*. In English 'proof' does not mean the same thing as 'measurement'. And the two words do not share any roots in common. By contrast, in Sanskrit, it appears that there is something in common. The word *pra+mā* means to measure, while the word *anumana* means to *measure along some other thing*. That is, in Sanskrit there appears to be a strong connection between '*pramā*' and '*anumana*', while in English there is little to no connection by way of meaning between 'proof' and 'measurement'.

Second, for the most part Sanskrit philosophers hold a view on which a good inference uses an appropriate example. For when one offers a good argument *for another*, as opposed to *for oneself*, one provides an example. Explicating the Nyāya point of view, as opposed to the Buddhist point of view, J. L Shaw (2016a: 134-136) offers an account of *anumana* for another.

(*pratijñā*):	The hill has fire. (The *thesis* is an answer to a question that arises on the basis of doubt. The question is: what is to be established?)
(*hetu)*:	Because of smoke. (The *reason* is an answer to the question: what signifies what is to be established? In this case smoke signifies what is to be established.)
(*udāharaṇa*):	Wherever there is smoke there is fire, like in a kitchen when one is cooking and observes fire followed by smoke. (The *rule / example* is an answer to the question: why should one consider *a* to be a signifier of *b*? In this case: why is smoke a signifier of fire? The answer is given by stating a rule along with examples.)
(*upanaya*):	The case of smoke on the hill is like the case of smoke in the kitchen. (The application step answers the question: Is the hill characterized by the particular relevant kind of smoke?)
(*nigamana*):	The hill has fire. (The conclusion is an answer to the question: Is the fire, which is the significate of this kind of smoke, present on the hill? This is how the conclusion removes the doubt expressed in the thesis.)

In the presentation above it is clear that the third step uses both a rule and an example in some way. The so-called "Hindu Syllogism" has puzzled Western logicians for centuries. Consider the comments *A. H. Ritter* (1838):

> One point alone appears certain, and that is, that they [the Nyāya] can lay but slight claims to accuracy of exposition. This is proved clearly enough by the form of their syllogism, which is made to consist of five instead of three parts. Two of these are manifestly superfluous, while by the introduction of an example in the third the universality of the conclusion is vitiated. (*as quoted in* Ganeri 2001: 9)

Vaidya (2016) shows that Ritter's criticisms of the Hindu Syllogism are drastically confused, so we will not go into those details here. For now, our only point is the following. Given there is a distinct theory of inference in Anglo-European epistemology than in *Sanskrit* philosophy, even though both hold that inference is a way of acquiring knowledge, why would we further hold that they think of this superficial similarity as being deeply significant? In addition, by and large, classical Indian theories of inference discuss empirical cases of inference, such as the example above, and almost never, what would be classified by Anglo-European epistemology, as pure *a priori* cases. Thus, it would seem that even if *pramā* is factive, it might be the case that it has a completely different historical profile. A profile that makes 'pramā' only an adequate translation of 'knowledge' as opposed to an exact translation. So, one might ask: is it even possible to test for UT when

there is no suitable translation of the appropriate word? With this question in mind, we can develop a variant of an old dilemma posed in Sosa (2007) and discussed in his (2010).

Either there is an *exact* translation of 'knowledge' into Hindi or Bengali because the word in Hindi or Bengali, *w*, is such that it maps on to every aspect of the use of 'knowledge' in English or there is an *adequate* translation of 'knowledge' into Hindi or Bengali because the word in Hindi or Bengali, *w,* is such that it captures a common set of properties $p_1...p_n$. If the *exact* translation were to be found, then were the intuitions of Indians' different than those of Americans', at least one of those groups would not be competent with the relevant word. For why would there be such differences? If an *adequate* translation were to be found, then one might ask in virtue of what are $p_1...p_n$ found to be the set of properties that needs to be isolated for saying that an adequate translation is in place. For example, many would say that factivity is part of the core of knowledge, and thus we ought to use *pramā* as opposed to *jñāna*. But how was factivity selected to be part of the core? For what reason do we insist that the core of knowledge involves factivity as opposed to some other property. It seems as if there is a general worry. Our experimental results will be determined in part by the conception of knowledge we go in for with our testing, and the results will more or less be determined in advance, given the mapping of the two populations in relation to the conception of knowledge being tested for. Simply put, following Vaidya (2012), experimental studies aimed at collecting intuitions about supposedly different populations will ultimately depend for their validity on non-experimental intuitions derived from conceptual analysis and research about populations with respect to selecting a conception of a concept for testing.

Concerning a genuine test of UT in India, we have argued here that one needs subjects that are native speakers with the right examples and the right translations. For what it is worth, we believe the best subjects for such testing are Indians that have never learned English, and where the actual question concerns *pramā* and not *jñāna*. In addition, what is needed is an examination of the idea that within the Indian traditions one does not find much extensive discussion of cases of *a priori* knowledge because the word that actually covers 'knowledge', *pramā*, derives from a word that means *measure*.[2]

3.   Structural Differences between Sanskrit Epistemology and Anglo-European Epistemology

Experimental studies are better situated alongside historical and comparative studies. In our final section we will make the argument for that. For now we would like to simply present some differences between American and Anglo-European *epistemology* and Sanskrit *pramāṇa theory*. These are not the same. There are at least six differences that are worth noting.

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[2] We would like to guard our claim here by noting that there are examples within Sanskrit philosophy that could be argued to be cases of *a priori* knowledge. However, many of these examples are controversial at least in the following sense. They are examples that can be argued to be instances of *a priori* knowledge without their being any extensive theory of the *a priori* being expounded by the Sanskrit philosopher. More importantly, following a line of thinking developed by Timothy Williamson (2007), we maintain that many of the examples that could be argued to be cases of *a priori* knowledge might be better understood as cases of counterfactual knowledge where the knowledge is neither strictly *a priori* or *a posteriori* because of the difficulty of separating out evidential vs. enabling conditions for the acquisition and application of the concepts in a specific case of knowing by counterfactual reasoning.

First, the vast majority of American and Anglo-European epistemology is focused on propositional knowledge. We find lots of discussion in 20th century epistemology on how, why, and whether S knows that p. In Sanskrit philosophy the primary focus is not on propositions, for arguably Sanskrit philosophy does not have a clear conception of a proposition.[3] Rather, *pramāṇa theory* is focused on agential knowledge of objects and their qualities.[4]

Second, American and Anglo-European epistemology, more or less, agrees on the sources of knowledge, and debates whether or not knowledge is possible. For example, most American and Anglo-European epistemologists would agree that testimony and perception, as well as memory, and inference are sources of knowledge. What they debate is how exactly testimony, perception, memory, and inference work. More importantly, though, the bulk of central investigation is over whether *knowledge is possible at all*. By contrast, in the *pramāṇa debates* of Sanskrit philosophy the backdrop of investigation is not focused on defeating skepticism, although there are skeptical philosophers in the tradition. Rather, *pramāṇa theorists* are concerned with debating the sources of knowledge. Most schools of Buddhism only accept perception and inference as sources of knowledge. Both schools of Mīmāṃsā argue against intuition (*yogaja pratyakṣa*) as a source of knowledge, while arguing in favor of postulation (*arthāpatti*) as a distinct source of knowledge. Most sects of the Nyāya School accept testimony, memory, perception, and intuition, while also defending comparison (*upamana*) as a distinct source of knowledge. Thus, within Sanskrit philosophy one finds discussion of novel sources of knowledge as well. The contrast could be summed up as follows. American and Anglo-European epistemology is concerned about the *genus* knowledge, and not so much about it *species* in terms of sources. *Pramāṇa theory* is not concerned with the *genus* knowledge, but rather about its *species*. What is the difference? The Anglo-European tradition is worried about *whether or not we know anything*. The Sanskrit tradition assumes we know things, and that knowledge is possible, and is concerned with, which *ways of knowing are independent of one another*, *really work*, and *how they work*. In addition, they are concerned with the theory of confirmation and justification where the sources of knowledge, such as perception, provide justifiers at a distinct second level of engagement.

Of course, one can be skeptical about each source and then be skeptical about knowledge. Perhaps the Cārvāka School of classical Indian philosophy comes closest to this because it only endorses perception. Contrastingly, one could show that one source works well, and thus be non-skeptical about knowledge in virtue of the source. Nevertheless, the contrast in agenda is worth noting, and this wide-angle of analysis stands out. Orientation of investigation matters, and it is clear that the orientation of Sanskrit philosophy is not the same as the orientation of American and Anglo-European epistemology.

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[3] See *Samvāda: A dialogue between two traditions* (1992) for substantiation of the claim that Sanskrit philosophy arguably does not have a conception of "proposition".

[4] Note our claim here is neither that (a) knowledge for Sanskrit philosophy cannot be expressed propositionally, nor (b) that there are no constructions for knowledge that are propositional in structure. Rather, we are commenting on the fact that the primary focus or agenda of knowledge sources does not present itself as engaging propositional knowledge as such. For a substantive discussion of issues about the *relata* of knowledge, see Bilimoria (1985).

Third, it is quite common in contemporary American and Anglo-European epistemology to carve off logical theory from epistemology. That is, although we can find discussion of the epistemology of logic in a study of epistemology, it is more common to find discussion of knowledge alongside memory, testimony, perception, or intuition in contrast to logic. One usually goes to special logic texts to see discussions of epistemology and logic done together. Mainstream Anglo-European epistemology divorces investigation of inferential and logical knowledge from the core of epistemological investigation. By contrast, in *pramāṇa* theory one finds joint discussion of the sources of *pramāṇa* with the investigation of the theory of inference (*anumana*). So, while the Cārvāka argue against inference as a source of knowledge, both the Nyāya and the Buddhists accept and develop theories of inference under which it is a source of knowledge. By and large American and Anglo-European epistemology is not concerned with establishing how inference is a source of knowledge. But by and large debating how inference is a source of knowledge is a major concern of almost every school of classical Indian philosophy.

Fourth, the vast majority of contemporary Anglo-European epistemology is focused on a componential conception of knowledge on which knowledge factors into components, such as belief, justification, truth, and some anti-luck condition. By contrast, the vast majority of classical Indian philosophers view knowledge as non-componential. *Pramā* does not factor into belief + justification + truth + some anti-luck condition. Surprisingly, classical Indian philosophers look at *pramā* in a manner that is similar to Timothy Williamson's (2002) account of knowledge as a non-factorizable factive mental state. But Williamson's view is in the minority. Most Anglo-European epistemologists either go in for a theory of knowledge that is componential, or they simply drop taking belief as the site of epistemic action and move to taking the agent as the site of epistemic action through endorsement of some kind of virtue epistemology.[5]

Fifth, the vast majority of Anglo-European philosophy in the 20th century operates on and offers analyses of a static time-slice conception of knowledge. Of course there are movements like contextualism that account for context in thinking about knowledge attributions. And there are movements in the logic of belief that discuss partial beliefs and theories of how to update one's beliefs. But, by and large, the main discussions focus on conditions under which S knows that p. In Sanskrit philosophy the examples and discussion push away from a static conception of information gathering to a dynamic one that is discussed in time and over time. Take the classic example of the *post* that is perceived as a *person* from a distance, or the *rope* that is perceived as a *snake* from a distance. In both of

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[5] Stephen Phillips objects to our characterization of the Sanskrit default position as being one on which knowledge is non-componential, as opposed to the standard Western account. We would like to clarify our view by noting that in any given case of knowledge, we are not endorsing the claim that the non-componential characterization of knowledge entails that there cannot be multiple causal factors. Rather, our view comes close to the view discussed in Timothy Williamson (2002) on which knowledge is a non-factorizable mental state. In particular it is important to note that Nyāya theorists offer a multiple-factor causal theory of perception, and hold that perception is an instrument of knowledge. In any given case where a person knows on the basis of perception there will be multiple causal factors, such as the presence of a causal connection between the agent and the target as well as the absence of being too-far away or their being an overshadowing by a similar target object. Nevertheless, the multiple causal factors required for the perception to be in view does not entail that in that state of knowing the subject's knowledge factors into a number of distinct components, such as truth and justification and the obtaining of an anti-luck condition that additively account for the state of knowing. One need not hold that knowledge is componential because multiple factors / components are in play in a given state of knowing.

these cases where an object is presented otherwise, the discussion of the example often involves what happens upon the discovery of the fact that what was perceived as a person or a snake turns out to be a post or a rope. What we see is a concern with the agent in acquiring information about their environment over time.

Sixth, the vast majority of Anglo-European philosophy in the 20th century is aware of the perspectival nature of knowledge as well as the fact that knowledge can be discussed in a perspectival way. Nevertheless, putting aside contextualism, the focus is on S knowing p in a non-perspectival way. By contrast, Sanskrit philosophy embraces, quite early in its development, an interest in the perspectival nature of knowledge. In fact many traditions discuss the same example over and over again.

The Case of the Five Blind Men and the Elephant

> Several blind men are brought before a king and asked to describe an elephant. An elephant is brought to them and they proceed to feel it with their hands. One, who grasps the elephant's trunk, claims that an elephant is like a snake. Another, grasping a leg, claims it is like a tree. Yet another grasps the tail and says it is like a rope; and another, feeling the elephant's side, claims it is like a wall. The blind men then argue amongst themselves about the true nature of the elephant. Who is correct? Only one that can see the whole elephant can say who is correct?

The example is *not* designed to lead toward skepticism, relativism, or anti-realism. There is an answer to the question what is before the men: *an elephant*. The example is presented to us to reveal to us that knowledge is perspectival and what we think something is depends in part on our limited view of what we can, for example, perceive. Perception, be it visual or tactile, is perspectival. Almost anyone familiar with phenomenology, especially the work of Husserl, would agree with this. The blindness of the men is in fact irrelevant to the example. Were they not blind and the object they were questioned about of a certain size, where it is impossible for them to grasp it *all at once*, the same problem would manifest itself. They would all be grasping at parts and making judgments based on the parts they could grasp. The blindness of the men is a metaphor for the limitations of individual human cognition. The example can also be used to suggest that knowledge of a thing, for ordinary humans, is a collective achievement. For it is only when the men in the story talk to each other and share their experiences that they can jointly discover that their judgments are inconsistent and that they must aggregate their information in order to make a better judgment. What is it that feels like a wall in one place, a rope in another, and a tree elsewhere? In jointly inquiring into that question they may conclude that *an elephant* best explains those disparate experiences.

So, the vast majority of Anglo-European philosophy is concerned with whether we have propositional knowledge on a componential account of knowledge that is static and non-perspectival. By contrast, some Sanskrit *pramāṇa theorists*, such as the Nyāya an the Mīmāṃsā, are concerned with a non-propositional, non-componential, instrument based question about the sources of knowledge, while others, such as the Buddhist and the Jains, are concerned with a perspectival and dynamic conception of knowledge. With these differences in place were we to ask a classical Indian philosopher, such as Gaṅgeśa, a

question concerning knowledge that is focused on a componential account of propositional knowledge, which pertains to whether the person knows, they might react with bewilderment. For *pramāṇa theory* is not concerned with what *epistemology* is concerned with. While they might have an answer to the question, they might also express a disinterest in the issue. However, we should not infer from this that there is no common kind that both investigations fall under. Both investigations are concerned with experience in relation to the world and the more general question: what experiences, if any, connect us to the world in an important way? It is just that each investigation is concerned with a different aspect of the question through a different orientation.

Finally, it is worth noting that most Indian university students have no access, motivation, or encouragement that drives them to learn the history of their own traditions within their secondary school and college preparatory work. As a consequence, the Western education, imparted to them through British Colonialism, does not make them candidates for "Indian" intuitions about knowledge in an interesting sense. It also makes it the case that within the Indian diaspora in America it is even more unlikely that we would find the kinds of "Indian" intuitions we need to find in order to really test UT. Although, in the last section, we stated that the best way to test UT would be through native Indians that speak, for example Bengali, and do not also speak English, it would be much better to engage pundits that speak Sanskrit and have no knowledge of English. An exemplary model of how to do this can be found in the famous *Samvāda Discussions* carried out by Arindam Chakrabarti in 1991. Another option is to hold conferences on epistemology with both Sanskrit scholars and American and Anglo-European epistemologists on the model of Jaysankar Shaw's 1995 *Concepts of Knowledge East and West*.

4.   Bi-Directional Testing and the Validity of the Empirical Argument for UT

At present the current setup of the empirical argument for UT involves taking examples concerning epistemic luck from 20th century epistemology, such as Gettier cases and Goldman cases, and testing populations from around the world, such as India and Brazil. We will refer to the current method of testing as the *unidirectional method*, since the direction of testing moves from examples in the Western tradition to intuitions from subjects outside of the West.

We find that this methodology either invalidates the empirical argument for UT or substantially reduces its interest to the wider community of philosophers around the world. The superior way to go is to test through the *bidirectional method*. On this method one investigates UT with examples taken from a variety of traditions North, South, East, and West. There are two kinds of cases that we can imagine: similar cases and dissimilar cases. *Similar cases* are cases that are like what one finds in the 20th century literature in epistemology in the important dimension to be tested. *Dissimilar cases* are cases that are present in a non-Western tradition that are different in some important dimension from what we find in the Western tradition. We would suggest that bidirectional testing be used in further investigations of UT. The core set of cases should use *dissimilar cases* that are substantially discussed in non-Western traditions, in much the same way that Gettier cases are substantially discussed in the Western tradition.

Along these lines it is important to take note of two out of four of the Śrīharṣa cases discussed in Ganeri (2017). We don't think that these cases should be added to the set of test cases for testing UT. Consider two of the four cases:

The Case of the Self Confident Gambler

(1)   A gambler upon seeing the closed fist of his opponent is immediately convinced that there are five shells in his opponent's hand. There are in fact five shells in his hand.

The Case of the Deceived Deducer

(2)   A deduction is made to the effect that a fire is burning on the far-off mountain, based on the premise that a plume of smoke can be seen rising up above it. What is in fact seen is a plume of mist in the crisp early morning air. Yet it is true that there is a fire burning on the far-off mountain.

In both cases we could ask a test population whether the subject in question, the gambler or deducer, know the claim in question, that there are five shells or that there is a fire burning on the far-off mountain. However, both of these cases involve the general property of epistemic luck that is already tested for in a Gettier case or a simple guessing case. No substantial dimension is added to the set of test cases through the addition of these two cases. That does not mean that these cases are not important. For as Ganeri points out, unlike Gettier, Śrīharṣa uses these cases, along with others to destroy the whole project of searching for an analysis of knowledge, not to refute a definition of knowledge. Thus, again, suggesting that the orientations of the investigations are different.

Rather, the relevant test cases to add to UT, in the case of Indian philosophy, would concern instruments as opposed to analyses of knowledge. What do we have in mind? At least two cases seem to be relevant. On the one hand, classical Indian epistemology engages the question of whether comparison or analogy (*upamana*) and postulation (*arthāpatti*) are two distinct instruments of knowing not reducible to perception and inference either alone or in combination. On the other hand, classical Indian epistemology seriously engages the question of how we can know absences, such as that my computer is absent from the table? While there is some contemporary discussion of the epistemology of absence in recent analytic epistemology and 20th century phenomenology, there is a longstanding engagement with the issue in classical Indian epistemology. So, one way to add to the test cases for UT would be to add cases about instruments and absence. For example, consider the following sets of vignettes.

Cases of Postulation

(3)   Going to your friend's home one day, you discover they are not there. Armed with background knowledge that they are alive, you conclude they must be out.

(4)   You are walking out of a shop behind someone whose arms are full with purchases. Upon reaching the closed door, she looks back at you and says, "Door, door." You conclude that she wants you to open the door.

Cases of Absence

(5)   You are instructed to pick up the laundry without the red tags from a batch of laundry some of which have red tags and some of which do not have any tags. You pick up the laundry without the red tags. Do you perceive the absence of red tags or merely infer their absence from the presence of something else?

(6)   You are watching a potter complete the construction of a pot through the assembly of the parts into the final pot. Just before he completes the construction of the pot you see the final version of it. Do you perceive the absent complete pot prior to its completion or do you merely infer it in a projective manner from your expectation of what is to come?

5.   Epistemic Luck: An Indo-Analytic Engagement

Because of the large concern with epistemic luck in both the analytical literature and the experimental literature concerning knowledge, it will be useful to take a moment to see how a school of classical Indian philosophy might have responded to the well-known Gettier cases from his original 1963 article. In Gettier's original piece he uses the following conditions on justification to get his cases off the ground. (*Closure*) if x is justified in believing that p, and x is justified in believing that if p, then q, then x is justified in believing that q.
(*Fallibility*) it is possible for x to be justified in believing that p, even though p is false. Gettier then provides two counterexamples to the claim one-direction of the tripartite analysis of knowledge: *if x has a justified true belief in p, then x has knowledge of p.*

The First Case: The Man with Ten Coins in his Pocket

1.   Jones is the man who will get the job, and Jones has ten coins in his pocket.
2.   The man who will get the job has ten coins in his pocket.
(a)   Smith has strong evidence for (1), and he believes (1).
(b)   Smith infers (2) from (1) and has justification for (2) from (1) and *Closure*.
(c)   The fact that Smith has ten coins in his pocket and that Smith will get the job is what makes (2) true.

So, *Smith has a justified true belief* in (2). But, intuitively, *Smith does not know* (2).

The Second Case: The Ford or Barcelona Disjunction Inference

1.   Jones owns a Ford.
2.   Either Jones owns a Ford or Brown is in Barcelona.
(a)   Smith has strong evidence for (1), and he believes (1).

(b)   Smith infers (2) from (1) and has justification for (2) from (1) and *Closure*.

(c)   The fact that Brown is in Barcelona is what makes (2) true.

So, *Smith has a justified true belief* in (2). But, intuitively, *Smith does not know* (2).

How might classical Indian philosophers have reacted to these counterexamples to the equivalence of knowledge with justified true belief? Recall that earlier I noted two important facts about classical Indian traditions of philosophy: (i) they did not embrace a componential view of knowledge that includes justification and belief; and (ii) they had a different theory of inference from that of the standard model used in Western epistemology. As a consequence their engagement with these kinds of examples has to come from resources within a specific school and through development via contemporary proponents of the school. In his (2015) J. L. Shaw offers a response to both counterexamples on behalf of the Nyāya School using resources concerning reference and logic. Concerning the first Gettier case, Shaw says the following.

> [T]he Nyāya philosophers such as Udayana would claim that *the conclusion of this inference is false. Therefore, it cannot be a case of knowledge.* The belief or the cognition of Smith expressed by the sentence 'The person who will get the job has ten coins in his pocket' can be expressed in the following way: 'The person who will get the job presented under the mode of being identical with Jones has ten coins in his pocket'. This is due to the fact that the conclusion is derived from the belief that Jones is the person who will get the job, and Jones has ten coins in his pocket. Since Smith got the job and has ten coins in his pockets, the belief of Smith is false. Since this sentence can be used to express different beliefs, *we are not simply concerned with the truth of the sentence, but with the belief expressed by this sentence*. In this case the belief it expresses is false. (Shaw 2015: 93, *emphasis added*)[6]

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[6] It is important to point out that Jay Shaw is offering *one* interpretation of how a Nyāya philosopher, such as Udayana, would respond to the first Gettier case. It should be noted that Nirmalya Guha has also pointed out another way of showing how the Nyāya might reject the first Gettier example. On our interpretation of Guha, the view argued for is that some theorists of the Nyāya tradition would hold that there is a special coupling relation, functioning somewhat like conjunction, between the thesis and the conclusion moving through the inference. The special relation blocks the conclusion of a case of Gettier luck from being true within the context of the Hindu Syllogism. For example, consider a Gettier –like case from classical Indian philosophy, upon seeing dust *as smoke* above a mountain, one might say, 'there is a fire on the mountain' because 'there is smoke on the mountain'. This relation can be characterized as a minimal conjunction relation, to say that A because B one must also be saying A and B. Now we might imagine that there is a fire on the mountain, but no smoke because there is enough dust. If the conclusion, 'there is a fire on the mountain', contains the perception that caused it, 'there is [dust] smoke on the mountain', one cannot hold that the conclusion 'there is a fire on the mountain' is true, since the conclusion also has attached to it 'there is smoke on the mountain', when in fact it is dust above the mountain, which is causing one to wonder whether there is a fire on the mountain. This account of how to reject the truth of a Gettier-like conclusion in the context of the Hindu Syllogism is good. However, Bilimoria has argued that on this version of the theory the Gettier example would only be blocked if either all five steps of the inference are required or in the thesis one *must* include, through a special relation, the cause of the thesis coupled to the thesis, in a way that make it function like a conjunction (*p & q*). In other words, in order to address the concerns of American and Anglo-European epistemologists it Shaw's view is more attractive.

The Argument:

1. JTB is about belief.
2. The phrase 'the man with ten coins in his pocket' can be used to capture two distinct beliefs. One that has Jones as the referent and the other that has Smith as the referent.
3. Smith's belief is about Jones, not himself.
4. So, although the sentence expresses a true belief, it is not Smith's true belief, since Smith's belief is about Jones.

Concerning the second counterexample, Shaw says the following:

> [*I*]t *is a case of belief, truth and justification, but not a case of justified true belief, where justification is a qualifier of true belief.* The belief (or cognition) expressed by the sentence 'Jones owns a Ford or Brown is in Barcelona' is true by virtue of the fact that Brown happens to be in Barcelona. Since it is deduced from the premise 'Jones owns a Ford' it is in accordance with the rules of logic. If 'justification' means 'being derived from premise(s) by applying the rules of logic', then it has justification… [T]his counterexample of Gettier's lacks justified true belief, although it is true and has justification. This is analogous to the truth of the sentence 'The man with a red iron mask is in this room'. This sentence cannot be claimed to be true by virtue of having a man in this room, an iron mask in this room and a red object in this room. Hence from the Nyāya point of view justification *is a qualifier* of true belief. Here justification means some sort of guarantee for its truth. (Shaw 2015: 93, *emphasis added*)

The Argument:

1. There is a difference between (i) justified true belief, and (ii) true belief *qualified* by justification.
2. When Smith believes that either Jones owns a Ford or Brown is in Barcelona, he has (i) a justified true belief, and not (ii) a true belief *qualified* by justification.
3. Just as the sentence 'the man with the iron mask is in the room' is not made true by a room with a man, an iron mask and a red object, a proposition is not a piece of knowledge because it is a justified true belief, rather it has to be a true belief *qualified* by justification.
4. So, the Ford or Barcelona Case is not a counterexample.

With these responses in place we might wonder: how important are the Gettier cases? As Ganeri (2017) already has shown, there are cases, deriving from Śrīharṣa that are similar to the Gettier cases, in that they involve epistemic luck. More importantly, Gaṅgeśa, a founding figure of the Navya-Nyāya school of philosophy, critically discusses these cases. He ends up concluding that knowledge is simply epistemic success, which can either be fragile or robust. Gettier-Śrīharṣa cases are simply of the fragile variety.

6.   Embracing ACE Philosophy

Given what has been discussed so far, let us now define and explain a kind of philosophy, following Vaidya (2015), that we will call **ACE** philosophy. Let 'A' stand for analytic conceptual analysis, 'C' for historically informed comparative analysis, and 'E' for experimental-or-empirically-engaged analysis. Consider, the triangle below, as one that describes the relation between these three areas of investigation.

C _____ E
  A
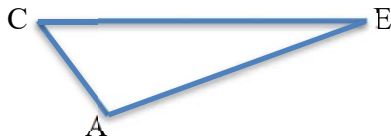
Conceptual analysis is often criticized on the basis of the product it aims for, the final true analysis of a concept, such as knowledge, beauty, or justice. But it need not be used for that purpose. Within conceptual engineering, conceptual analysis is used for a quite distinct purpose. In conceptual engineering one can aim to simply determine links between concepts for the purpose of testing intuitions about cases via concept possession. Of course not all conceptual links are coherent. For example the link *if x is an instance of knowledge, then x is a table* does not make sense in any language. Because some links are incoherent or implausible universally, there is an important sense in which conceptual engineering is tied to something more than just what someone wants to put together. Taking note of this distinction, and the widespread use of conceptual engineering as a skill necessary for analytical and experimental philosophy, one can define a path to unifying analytical, experimental, and comparative philosophy.

For example, in order to test whether there is variation between Europeans and Asians over the role of justification in knowledge, we need to first control for another component of knowledge outside of justification. That is, we need to choose a conception of knowledge that includes justification, but also other features. And importantly, different conceptions of knowledge can include justification yet vary over another component. To illustrate the point, take note of the fact that there are both (i) factive and (ii) non-factive conceptions of knowledge.

(i) $\Box[Kp \rightarrow p]$, necessarily, if *x* knows that *p*, then *p* is true.
(ii) $\Diamond[Kp \,\&\, \neg p]$, it is possible for *x* to know that *p*, and yet *p* is false.

If we want to test to see whether there is variation of intuitions on (iii), we have to pick a conception of knowledge.

(iii) $[Kp \rightarrow JBp]$, If *x* knows that *p*, then *x* is justified in believing that *p*.

Supposedly, a study might want to show that Europeans and Asians share a factive conception of knowledge captured by (i), and disagree over justification captured in (iii). If the results showed that Asians hold (ii), but Europeans hold (i), and they disagree over (iii) we would be in a situation in which the two groups have different intuitions. But more importantly, we would be in a situation in which we ought to say: the two groups don't

share a common conception of knowledge. Thus the question arises: how do we pick what conceptual connections we should hold to for the purpose of cross-cultural empirical investigation? There is no way to do this other than by engaging in analytical inquiry and conceptual analysis. But there is *no way to do this responsibly without doing it in a historically informed cross-cultural way*. That is, had we looked at the history of classical Indian philosophy for information and inspiration we might never have attempted to test for cross-cultural variation through a translation of *jñāna* as opposed to *pramā*. And given the differences between Sanskrit and American and Anglo-European philosophy we might have designed our investigation of UT in a way that is sensitive to bidirectional testing, as well as the kinds of cases in American and Anglo-European philosophy that 'knowledge' can be applied to, as opposed to the standard cases in Sanskrit philosophy where '*pramā*' is used.

Moreover, by putting together Analytical philosophy, Comparative philosophy, and Experimental-or-Empirically-Engaged philosophy we are in a better position to do philosophy in a way that employs a wider set of tools from what we find in any of these kinds of philosophical methods taken alone. What we have is, **ACE** philosophy, where 'analytical' means nothing more than analysis by reflection on cases, 'comparative' means historically informed cross-cultural and cross-traditional investigation, and 'experimental-or-empirically-engaged' refers either to: (i) running some kind of study on a population that uses an effective instrument, not necessarily surveys; or (ii) engaging empirical work, such as what we find in cognitive science, anthropology, psychology, or linguistics. We think that ACE philosophy is one kind of philosophy that is highly engaging. That is, as a testable hypothesis, we think philosophers, and more importantly the public in general, would find the first piece of philosophy less interesting than the second piece.

A study of potential variation in judgment across western folk and Indian folk on knowledge attribution in a Gettier case

A study of potential variation in judgment across western folk and Indian folk on knowledge attribution in a Gettier case with a backstory of comparative epistemology and analytical inquiry

In closing we would like to say, in agreement with Stephen Phillips, that there is nothing wrong with cultured intuitions. We all have them in virtue of being cultured social creatures raised through individuals and social institutions. Given that our intuitions are cultured, the question that we should be focused on is how identify distortional features and counter-bias those features in an adequate manner for the purposes of reasoning, decision making, and ultimately knowledge building. We believe that counter-biasing can partially be achieved by attending to cultures and traditions outside of Western philosophy. ACE philosophy identifies a methodology and philosophy for bringing ideas and arguments into play from a diversity of cultures and disciplines. The methodology it encodes should aid the project of counter-biasing because we are appealing to different cultures and traditions that might disrupt those positions that seem automatically acceptable.

Finally, if our goal as philosophers is to produce an account of justice, knowledge, or beauty it might be important for us to engage in two kinds of counter-biasing activities. On the one hand, we might need to make sure that our thoughts about justice, knowledge, and beauty does not float free *from how those* that are not trained in philosophy think and

engage with justice, knowledge, and beauty. On the other hand, "we" might need to be more inclusive, so that our engagement with justice, knowledge, and beauty takes into account potentially different points of view and orientation. For example, if we look to contemporary theories of justice we might find that exploration of nativist notions of justice from outside the Western canon have a lot to offer. Mahatma Gandhi, Amartya Sen, as well as the recent work of postcolonial theorists, such as Gayatri Spivak, draw heavily from nativist intuitions of injustice, civil wrongs, and how to rectify these. Pulling from sources outside those from which we have been trained won't always bring about a better result for our inquiry, but it often will put us in a state of mind where we are legitimately challenged on our most basic presuppositions that drive our space of inquiry.

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