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Elements of Knowledge-First Epistemology in Gaṅgeśa and Nyāya

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1. Preface

Gaṅgeśa Upādhyāya was a fourteenth-century philosopher in the Nyāya tradition of Hindu Philosophy. *Nyāya* is both a proper name for a tradition, and a term that means *rule or method*. It is commonly associated with logical and epistemological analysis. The tradition begins with the work of its founder, the second-century philosopher, Gautama Akṣapāda, who wrote the *Nyāya-Sūtras*. The long commentarial tradition on the *Nyāya-Sūtras* begins with the key exponent of the *Sūtras*, Vātsyāyana (5th), who is followed by Uddyotakara (6th), Vācaspati (10th), and Udayana (11th–12th). Arguably, Gaṅgeśa is the founder of the New School of Nyāya (*Navya-Nyāya*). His key work, *Jewel of Reflection on the Truth about Epistemology (Tattva-Cintā-Mani)*, focuses on the nature and sources of knowledge: *perception, inference, analogy, and testimony*.¹ Gaṅgeśa made Nyāya more precise, systematic, and consistent, as he defended it against opponents.

In the latter half of the twentieth century several important works on Nyāya epistemology were written.² It was common to find Nyāya epistemology presented and interpreted through the lens of belief-first epistemology, which takes belief to be central, or process reliabilism, which takes reliable processes to be central. In the twenty-first century, this trend continued.^{3,4} For example, both Stephen Phillips (2012) and Jay Shaw (2016a, b, c) explored how Nyāya epistemology could provide solutions to the problems of epistemic luck articulated by Gettier

¹ Some argue that Udayana is the actual founder of the New School of Nyāya.

² See Mukhopadhyay (1984, 1991) and Chakrabarti (2020).

³ Part of the reason for this is that the Gettier problem has cast a long shadow over twentieth-century epistemology after the 1960s, see Shope (1983) for contributions to the post-Gettier analysis of knowledge research program.

⁴ See Sukharanjan (2003) for discussion of Nyāya and Gaṅgeśa. Because I have not studied his work, I am not attributing to him the lens of approaching Nyāya through the belief-first paradigm or reliabilist paradigm.

(1966) and Goldman (1986).⁵ More recently, Turri (2017)⁶ has argued that Nyāya epistemology fits abilism, which holds that knowledge is an accurate representation produced by cognitive ability. A view that is close to the one I will defend here.

I will use “Nyāya” to stand for *extracted-Nyāya epistemology* according to a specific interpretation. For example, “Phillips’ Nyāya” refers to Phillips’ translation and interpretation of Nyāya thinkers found in his (2012, 2020), and “Shaw’s Nyāya” refers to Shaw’s translation and interpretation found in his (2016a, b, c). “Nyāya” without qualification refers to my own claims. Although there are many translations of portions of Gaṅgeśa’s *Jewel*⁷, it is Stephen Phillips’ (and N.S. Ramanuja Tatacharya) (2020) three-volume, 1850-page translation of *Jewel* that I turn to.

In what follows, I will explore the extent to which Gaṅgeśa can be situated within Timothy Williamson’s (2000) knowledge-first program. While Gaṅgeśa is not reacting to a tradition in the manner that Williamson is, there are aspects of knowledge-first epistemology that fit Gaṅgeśa better than belief-first, agent-first, or reliabilist epistemology. Two questions drive my exploration. The *composition* question: *is knowledge composed of parts*, such as justification, truth, belief, and some condition *x*, which is strong enough to block internal and external luck? And: The *entailment* question: *does seeing that A entail knowing that A?* I proceed as follows:

- I. I begin with a presentation of Williamson’s knowledge-first program, which provides a framework for exploring Gaṅgeśa’s epistemology. Williamson holds that knowledge is non-compositional and that entailment holds. The question going forward is where does Gaṅgeśa stand with respect to non-composition and entailment.
- II. I argue that there is a reading of *Gaṅgeśa’s definition of knowledge* on which he holds a non-compositional account of it. On this account, neither belief nor justification are components of knowledge. While Gaṅgeśa does hold that the self, awareness, and truth are components of knowledge, I will argue that he can still be credited with holding a non-compositional account of knowledge on a *narrow*, as opposed to a *wide*, reading of what composition is.
- III. I move on to show that there is a reading of *Gaṅgeśa’s definition of perception* on which he holds a version of the *entailment* thesis: *seeing that A is a way of knowing that A*. That is, Gaṅgeśa doesn’t hold that we base knowledge of the world on perception. Rather, we come to know the

⁵ See Phillips (2012), especially Ch. 7. The generality problem within Nyāya is also discussed by Phillips.

⁶ Amita Chatterjee has informed me that my reading of Gaṅgeśa is consistent with Turri (2017).

⁷ See Mohanty (1966) for *jñapti-vāda* and Matilal (1968, 1992) for *abhāva-vāda* and of Gaṅgeśa’s *Jewel*.

world directly through perception. To clarify one version of the view, I present *Multi-Factor Causal-Disjunctivism*, (MFCD), an account of Nyāya perceptual theory articulated in Vaidya (2021), and apply it to three cases.

- IV. I then present Phillip's account of Gaṅgeśa's theory of knowledge, where Gaṅgeśa draws a distinction between perceptual knowledge and certified knowledge. I show that on this theory, perceptual knowledge, which is direct, is a basis for certified knowledge, where each is a distinct kind of epistemic success. I close with a discussion of the question: did Gaṅgeśa hold the KK-principle, *that when one knows, they know that they know*, with respect to a specific kind of case? I argue that Gaṅgeśa need not be read as having held the KK-principle.

Phillips provides alternative translations of some key Sanskrit epistemological terms from what one finds in prior translations.⁸ Unless stated otherwise, I will use Phillips' (2020) translation of Gaṅgeśa for the following terms: (i) *pratyakṣa* means *perception*, (ii) *pramāṇa* means *knowledge source* or *knowledge generator*, (iii) *pramā* means *knowledge episode*,^{9,10} (iv) *pramātvā* means *being knowledgeable*; (v) *jñāna* means *cognition*; (vi) *anubhava* means *prima facie awareness of fresh news* (or: *appearance of new information*).¹¹

2. Williamson on Non-Composition and Directness

In his (2000), *Knowledge and its Limits*, Timothy Williamson argues for (1) and (2).

- (1) Knowing is a state of mind.
- (2) Seeing that A is a way of knowing that A.

Williamson is arguing against theories of knowledge that hold (3), if not at least some of (4)–(6).

- (3) Knowledge is a composite state made out of parts.
- (4) Belief is a mental component of knowledge.

⁸ See Phillips (2020: 11) for discussion of the mistakes made by other translators of Gaṅgeśa, for example G. Bhattacharya (1976). Shaw disagrees with some of Phillips' translations, such as *pramā* as *knowledge episode*. See Ganeri (2007) for a critical discussion of Phillips and Tatacharya's (2004) translation of the *perception* chapter of *Jewel*. And Dasti and Phillips (2010) for a response to Ganeri.

⁹ Bhattacharya (1996) disagrees that *pramā* means *knowledge episode* within the Nyāya tradition.
¹⁰ Ganeri (2018) agrees that *jñāna* is not a good translation of *knowledge*, he argues that *pramā* more closely captures English uses of *knowledge*, but is not an exact match.

¹¹ Shaw holds that another translation of *anubhava* is *apprehension excluding memory*. Phillips' main point about the term is that it applies properly to *new information*.

- (5) Justification is a mental component of knowledge.
- (6) Truth is a non-mental component of knowledge.

Within Anglo-analytic epistemology, Gettier is taken to have shown that (4)–(6) are not jointly sufficient for knowledge because they allow for epistemic luck.¹² However, in the wake of Gettier’s examples, Anglo-analytic epistemologists did not immediately abandon (3).¹³ Rather, Armstrong (1973) held (3) and added a condition to (4)–(6), the no-false lemmas condition, to try and rule out certain kinds of epistemic luck.¹⁴ Sartwell (1992) also held (3), and sought an analysis of knowledge that holds (4) and (6), but drops (5). Forty years after Gettier, Williamson’s knowledge-first program challenges (3), and thus the whole program of trying to analyze knowledge into parts.

Williamson argues against (3), and for (1), via *the primeness argument*.

[W]e can show that C is prime simply by exhibiting three cases α , β , and γ , where γ is internally like α and externally like β , and C obtains in α and β but not in γ . So, consider a subject S and input into their left eye and right eye in α and β , which are then swapped to create γ with respect to both an internal and external condition. (Williamson 2000: 68–9)

Williamson argues that from two cases, α and β , where water is seen, we arrive at a case γ through recombination where water is not seen. In other words, since we cannot recombine elements in an act of seeing and preserve the seeing, seeing is *prime* and not composite.

To understand (2), we ought to draw a distinction between two uses of ‘seeing that.’ One use of ‘seeing that’ is for vision-related knowledge. Another use is for vision in a metaphorical sense, such as when one says, “I see your point.” For the purposes of the discussion to follow, the focus is only on the vision-related use of ‘seeing that.’¹⁵ In the

¹² See Stoltz (2007) for a presentation of *Dharmottara*, the Buddhist philosopher, and Gettier. See Parikh and Renner (2017) for a presentation of *Prasatapāda*, the Vaiśeṣika philosopher, and Gettier. Gaṅgeśa also offers an example, see Phillips (2020). A rough version of the example is the following. Suppose Maya appears to see smoke on the hill (but does not see smoke, since it is actually dust, and she cannot distinguish between the two). Now suppose she reasons that because there is fire where there is smoke, like in a kitchen, there must be fire on the hill as well. Now suppose that there is actually fire on the hill below the smoke. Does Maya know there is fire on the hill? Gaṅgeśa would argue that she does not, at least in part because the awareness was not of smoke, but instead of dust, which is not the appropriate mark for fire. Gaṅgeśa doesn’t take knowledge to be consistent with epistemic luck. Whether or not his example counts as a “Gettier” examples depends in part on whether Gettier examples require that epistemic luck be produced by a fallible conception of justification.

¹³ See Shope (1983) for presentation of the analysis of knowledge program after Gettier. See Ichikawa and Steup (2018) for discussion of the analysis of knowledge beyond Shope.

¹⁴ See (Armstrong 1973: 152).

¹⁵ I would like to thank both Williamson and Littlejohn for pointing out this distinction. Littlejohn also points out that there is an important distinction drawn by Dretske between *simple seeing* and *epistemic seeing* where the former is extensional and the latter is non-extensional, which is relevant to

primeness argument above object-seeing, as opposed to seeing-that, is explicitly in play. This is important because of two cases. First, it is possible to see water without seeing that it is water, such as when one believes that they are looking at Gin, and there is cognitive penetration from belief into perception. Second, it is possible to see that there is water without seeing the water, such as when one sees an opaque waterbed that is inflated. Although the argument is offered in the frame of object-seeing, it works for seeing-that as well, when one takes the appropriate trio of cases.¹⁶ Williamson's (1) and (2) make available the following argument: *if seeing is a way of knowing, and seeing is prime, then knowing is also prime.*

Williamson's (1) is connected to the composition question. He is arguing that knowledge is not composite. Williamson's (2) is connected to the directness question. He is arguing that perception, in the case of vision-related seeing, is a direct way of knowing the world.

3. The Question of Compositionality in Nyāya and Gaṅgeśa

With respect to (1), Williamson holds (a), while Naiyāyikas hold (b).¹⁷

- (a) Knowing is a state of mind.
- (b) Knowing, in the occurrent sense, is a mental event.¹⁸

Given the technical difference between (a) and (b), could Naiyāyikas hold (a)? Phillips says, “[o]ntologically, a cognition is a short lived, episodic quality of an individual self. Strictly speaking, it is a mental event and a *short-lived state* rather than an act (Phillips 2020: 6, *emphasis added*).” Thus, on Phillips’ account of mental ontology in Nyāya, (a) and (b) are *not that* far apart. What about (3)–(6)? There are two readings.

On the *compositional* reading, one accepts (3), and argues that Gaṅgeśa either accepts (4)–(6), denies some of (4)–(6), or articulates completely different

how (2) can be understood. See Littlejohn (2017) and (2019) for discussion of Williamson’s account of perceptual knowledge, and the difference between McDowell (1996) and Williamson (2000) on perceptual knowledge.

¹⁶ I would like to thank Williamson for pointing out the importance of these distinctions to the proper understanding of his argument and position, as well as how the argument can be restructured for seeing that.

¹⁷ In conversation, Prabal Kumar Sen has told me that it is not precise to say that Nyāya holds that knowledge is a mental event, since it holds that knowledge is a property of the self as a knower, and the notion of ‘mental event’ in English does not properly locate what exactly knowledge is a property of. However, Phillips uses this locution.

¹⁸ Many scholars of Indian epistemology have pointed out that one major difference between Western approaches to knowledge and Indian approaches centers around whether or not the discussion is focused on occurrent knowledge or standing knowledge. Bilimoria (1985) discusses the fact that classical Indian epistemology is concerned with episodes of knowing as mental events. Stoltz (2007) also makes this claim in his investigation of Dharmottara in relation to Gettier. Here I discuss Phillips because of his translation of Gaṅgeśa.

components for knowledge. For example, one could hold (6), that truth is a component of knowledge, but that neither (4), belief, nor (5), justification, are components. Rather, some mental event, such as awareness or apprehension, serves as a component of an episode of knowledge, while the self and facts out in the world are the other components.

On the *non-compositional* reading, one denies (3), and argues that Gaṅgeśa holds that there are *no* components to knowledge. For example, neither justification nor belief are components of knowledge. And any other factors, such as the self, awareness, and facts out in the world are not metaphysical components. Rather, they are simply the relata of an episode of knowledge as a relational mental event. The non-compositional reading makes contact with Williamson's (1).¹⁹

I will defend the non-compositional reading of Gaṅgeśa based on three theses. First, (KVA): Knowledge is veridical awareness.²⁰

Knowledge is (D²⁵) "awareness of something there where it is." Or, D²⁶ awareness with *F* as predication content about an object that it is *F*." Non-knowledge (conversely) is (D^{25e}) "cognition with *F* as predication content about an object that is not *F*." (Phillips 2020: 227)

Second, (GTB): True beliefs come from occurrent knowledge.²¹

[T]rue beliefs are formed by episodes of occurrent knowledge defined as veridical awareness—embedding a true proposition, *savikalpaka-jñāna*—that is produced by a veritable knowledge source, *pramāṇa*. (Phillips 2020: 12–13)

Third, (NSB): Knowledge is not a species of belief.²²

[K]nowledge... is a species of mental event, *not of belief*, although a certain range of mental states—thoughts, testimonial comprehensions, inferences, perceptions—have belief—i.e., propositional—content.^{23,24} (Phillips 2012: 6, *emphasis added*) (KVA) and (GTB), support (NSB).²⁵

¹⁹ Neither Phillips nor Shaw explore the relation between Williamson's knowledge-first program and either Nyāya or Gaṅgeśa.

²⁰ Based on Phillips' (2020) translation.

²¹ Based on Phillips' (2020) interpretation of Gaṅgeśa.

²² Based on Phillip's Nyāya (2012).

²³ It is important to note that although Phillips uses the term 'propositional' here, there is a debate about whether the Nyāya tradition accepts propositions. For an excellent investigation into the question of whether Nyāya accepts propositions see Krishna et al. (1991). By 'propositional' Phillips only claims that cognition minimally has a qualifier/qualificand structure that purports to capture reality, not that there are Fregean propositions in Nyāya.

²⁴ Shaw notes that Phillips' use of 'propositional content' is problematic, since there are only relations to objects and qualities, which is related to the issue of whether we *see facts* or *objects* and *qualities*.

²⁵ Phillips (2020: 6) appears to hedge on (NSB). He says, "Although cognitions are moments of consciousness, not species of belief, we may say that cognitions form beliefs in forming dispositions and that properly produced cognitions –instances of occurrent knowledge—form true beliefs, *ipso facto*

Neither of these theses, alone, or in combination, are sufficient for a non-compositional account of knowledge. First, with respect to (GTB), even if true beliefs are generated from knowledge episodes, it doesn't follow that belief isn't a component of a knowledge episode. For example, one might hold that true beliefs are generated from knowledge episodes only because knowledge episodes contain them in some implicit form. Second, with respect to (NSB), even if knowledge is *not* a species of belief, it doesn't follow that belief is not a component of knowledge. For example, one might hold that belief is a component of knowledge, even if knowledge is not a species of it, because *belief* isn't the main category that is used to classify knowledge. Knowledge can be a species of mental event, and still have belief as a component. Third, (KVA) uses awareness and truth. So, it appears to have parts. It is instructive to try and use (NSB) to create an argument for the view that knowledge is not composite by adding in additional premises. The result is a two-stage argument.²⁶

To move from (NSB) to the position that belief is not a component of knowledge, one also needs the *non-species-non-component* thesis, (NSC): *if x is not a species of W, W is not a component of x*. One can defend (NSC) through examples. Given that humans are a species of mammal, they have mammality as a component, and are differentiated from other mammals in virtue of a difference maker (for Aristotle that difference maker was rationality). Given that spiders are not a species of mammal, they don't have mammality as a component. Thus, by analogy, if knowledge is *not* a species of belief, but of *cognition*, knowledge does not have belief as a component.

Stage 1: absence of belief

1. If x is not a species of W , then W is not a component of x . (NSC)
2. Knowledge is not a species of belief. (NSB)
3. So, belief is not a component of knowledge.

Given (3), one can also argue that justification is not a component of knowledge, as long as one accepts the additional *non-component non-property* thesis, (NPT): *If E is only a property of G , and G is not a component of H , then E is not a component of H .*

Stage 2: absence of justification

4. Justification is only a property of belief.
5. If E is only a property of G , and G is not a component of H , then E is not a component of H . (NPT)
6. So, justification is not a component of knowledge.

warranted true beliefs. Unlike Western epistemology from Aristotle through Russell, Gettier, and even Goldman, Nyāya focuses not on beliefs but on cognitions that are identified by their objects or 'objecthood' (*viśayatā*), their 'intentionality,'"

²⁶ The argument I offer here is inspired by an argument given by Pranab Kumar Sen (2000).

The argument is problematic.

First, is (NSB) true of Nyāya? On Shaw's Nyāya it is false. The textual historical argument over whether (NSB) is in Nyāya depends on how we understand *belief* in English. Suppose one takes *belief* in a colloquial sense, where one can believe something while still having some doubt about its truth, such as when Karina says, "I believe the café is around the corner," and Karina is slightly doubtful about it. On such an understanding of *belief*, Shaw holds we could not take Naiyāyikas, as Phillips points out, to hold that occurrent knowledge is a species of occurrent episodic belief. However, if we were to take the special class of *beliefs*, where to believe *p* is to simultaneously have a *doubt free cognition* of *p*, Shaw argues, it would be fair to say that Naiyāyikas hold that occurrent knowledge is a species of occurrent episodic belief. That is, episodic knowledge (*pramā*) is only a species of episodic true belief when the belief arises *free of doubt*. In Shaw's (2016a) Nyāya, knowledge is compositional. And belief is a component of it when it is understood in the sense of being an apprehension that is doubt free and a quality of the self who is the knower. Justification is also a component of knowledge when it is understood as a qualifier of a true-belief that guarantees the truth of the belief. On Shaw's Nyāya, to know is to have a true-belief which is infallibly justified.

Second, one can argue that justification is not *only* a property of belief. For example, one could argue that justification is also a property of propositions, independently of occurrent belief.^{27,28} If Naiyāyikas accepted propositions, it could be argued that justification is a component of knowledge, but not in virtue of attaching to belief primarily.^{29,30}

Third, even if the argument is successful in showing that a certain kind of belief and justification are not components of knowledge, it won't follow that Gaṅgeśa's account is not compositional. For he explicitly uses *awareness* and *truth* in his definition of knowledge. As a consequence, one could think he endorses the view that awareness and truth are components of knowledge. And if he does hold that truth is a component of knowledge, that would stand against Williamson's view that truth is not a non-mental component of knowledge. So, where does Gaṅgeśa stand with respect to the claim that truth is a non-mental component of knowledge?

²⁷ Notice in (NSB) Phillips' claim acknowledges the possibility of propositional content independently of the presence of belief.

²⁸ See Turri (2010) for discussion of the distinction between propositional and doxastic justification.

²⁹ Shaw (2016a, b, c) holds that justification in Nyāya is a property of true-belief. But not belief alone.

³⁰ See fn. 13. Krishna et al. (1991) has an investigation into whether or not propositions, as understood by Frege and Russell, is part of the Indian philosophical tradition. My understanding is that they are not, and so, the distinction between doxastic and propositional justification might not be sufficient to allow for justification to be a component of knowledge. Nevertheless, there might be another way to argue for how justification can be a component of knowledge, which doesn't depend on it being a property of belief, such as in Shaw (2016a, b, c).

To answer this, I will distinguish between a *wide* and *narrow* reading of composition. On the *narrow* reading of composition, a mental state is composite when it is a relation between a subject and something else, such as a fact, and the structure is: aRb , where R has no parts itself, and is a mental state. On the *wide* reading of composition, a mental state is composite when it is a relational state that is non-basic. And its parts are other basic mental states and non-mental states. Williamson is arguing against the *wide* reading of composition, not the *narrow* reading, since he is not arguing that knowledge is not a relational mental state. Gaṅgeśa's definition of knowledge is only compositional on the *narrow* reading, since it relates the self, as a knower, via awareness (as a vehicle), to facts out in the world.

On my view, Gaṅgeśa holds that the knower, the vehicle of awareness, and the fact out in the world, are *non-separable metaphysical constituents* of the token aRb , and *epistemically separable components* of the type aRb . That is, we can separate them conceptually via the questions: Who is *the knower*? And: What *fact out in the world* is the knower related to? For example, *seeing that there is water in the pond* has a different knower in the case of Karina than it does in the case of Lazarre. And the knowing relation has a different fact out in the world when Lazarre sees salt water in the distance *vs.* when she sees fresh water in the distance.

To further illustrate my view of Gaṅgeśa's theory of knowledge, let me distinguish between two models of knowledge acquisition. On the *assembly model*, to know that p is to assemble the composite kind *knowledge* out of parts, such as belief, truth, and an ability to justify one's belief against defeaters. On the *positional model*, one kind of knowing requires either that one *be* or *put oneself* in a position, relative to objects and qualities, where certain relations obtain. Gaṅgeśa holds the *positional model*, and not the *assembly model*, with respect to perceptual knowledge.³¹

In this section I have explored two readings of Gaṅgeśa, on the metaphysics of knowledge. The goal was to present arguments as to where Gaṅgeśa stands with respect to (1) and (3)–(6). These readings offer two options with respect to Williamson's program.

On the one hand, there is *constructive engagement*. Suppose Gaṅgeśa's *narrow* compositional account of knowledge, where the self, awareness, and truth are the components, is still problematic from the perspective of the primeness of knowledge that Williamson defends. Do the arguments that Williamson offers against compositional accounts, which use belief, justification, and truth carry over to Gaṅgeśa, where awareness and truth are central? Moreover, is Gaṅgeśa's view a competitor to the primeness of knowledge in a way that is distinct from belief-first and agent-first approaches to knowledge? On the other hand, there is *cross-traditional similarity*. If Gaṅgeśa's *narrow* compositional account is not

³¹ On my understanding, Williamson and Gaṅgeśa share a resistance to the *assembly model*.

problematic from the perspective of the primeness of knowledge that Williamson defends, then perhaps Gaṅgeśa can be credited with having a non-compositional view, different from Williamson's, but nevertheless sufficiently similar to it, so that it can be seen as a contribution to the paradigm, and studied alongside it to assess its merits. Note that Williamson's defense of the non-compositionality of knowledge is focused on establishing the view that knowledge is its own unique mind to world relation, on a par with other states of mind or mental events, which are not composed out of other more basic mental states. In holding that one kind of knowledge is an awareness that relates the self to facts in the world, Gaṅgeśa has a similar view.

However, one clarification needs to be made. Williamson not only argues for the primeness of knowledge, but also that knowledge is first in the order of epistemic explanation.³² (GTB) can be used to support the claim that Gaṅgeśa's account is consistent with knowledge-first epistemology, since knowledge episodes are the formation base for true beliefs. However, because of the difference between the generation of a state and the explanation of it, there is a gap between knowledge being first in the order of epistemic explanation and knowledge being the source of belief.³³

Historically, Śrīharṣa, a twelfth-century CE Indian philosopher and poet, also challenged the idea that knowledge can be analyzed or defined. However, neither Śrīharṣa nor Gaṅgeśa, who is responding to Śrīharṣa's work, explicitly hold that knowledge is first. Rather, Gaṅgeśa and Śrīharṣa differ as to whether defining knowledge is a worthy project. Arguably, Śrīharṣa thinks it is a mistake to try and define knowledge because he is skeptical about the project of epistemology. He gives several examples that challenge the idea that knowledge can be defined. By contrast, Gaṅgeśa examines many definitions before settling on his own.³⁴ Thus, with respect to the debate over whether knowledge can be defined, Gaṅgeśa and Śrīharṣa have contributions that fit within Williamson's knowledge-first program. Even if they don't adhere to every part of it.

4. Multi-Factor Causal Disjunctivism about Perception and the Entailment Thesis

In this section, I argue that Gaṅgeśa holds Williamson's (2)—*seeing that A is a way of knowing that A*.³⁵ The argument begins with an examination of Gautama's

³² For a critical discussion of the knowledge-first part of Williamson's project see Gerken (2017).

³³ Phillips et al. (2020) argue that there is evidence for holding that knowledge is more basic than belief. This evidence could be used to help close the gap.

³⁴ See Mills (2018), Ganeri (2018), and Das (2018) for discussion of Śrīharṣa.

³⁵ One important background assumption concerning (2) is that we *see facts*. Fish (2009) argues that we do. Vernazzani (2020) provides a critical treatment of Fish's arguments. The opposition between whether we see facts or objects and relations is a dispute that should be carried over into debates on the plausibility and proper interpretation of Gaṅgeśa on perception.

definition of perception and Gaṅgeśa's definition, then to the details of multi-factor causal-disjunctivism, (MFCD). I close with an analysis of three cases of perceptual knowledge.

The original definition of perception in Nyāya comes from Gautama's *Nyāya-Sūtras* at 1.1.4. On one translation, it holds that *perception is a cognition which arises from the contact of the sense organ and object and is not impregnated with words, is unerring, and well-ascertained (definite or non-dubious)*.³⁶ I would like to note that *avyabhicārī*, which is translated here as *unerring*, has also been translated as *inerrant* and *non-erroneous*. These different renderings can shade how one understands the definition of perception. Is it that perception is a reliable process, which is captured by *non-erroneous* or is perception infallible, which is captured by *inerrant*.³⁷ These translation issues pertain to Gautama's definition. Perception is discussed in Nyāya long after Gautama. Discussions of it are found in Vātsyāyana, Uddyotakara, Vācaspati, and Udayana all the way to Gaṅgeśa and beyond.

Perhaps the key innovator of the definition is Vācaspati. He innovates on the definition by reading *non-verbal* and *definite* as indicating two distinct types of perception. Thus, he draws the important distinction between determinate (*savikalpaka*) and indeterminate (*nirvikalpaka*) perception. The former has conceptual content, is central to epistemology, and the kind of perception where we can talk about truth and falsity. The latter lacks conceptual content, but is a necessary condition for the construction of the former.³⁸ It plays a crucial role in explaining how we can be subject to illusions through the *misplacement theory of illusion*,³⁹ a theory which holds that a foul up in perceptual processing between the non-conceptual and the conceptual stage is one source for illusions (see the rope-snake case below, for further discussion).

Gautama's definition doesn't show why any Naiyāyika would or could accept (2)—*seeing that A is a way of knowing that A*, since no matter how it is read, it does not claim that perception is a way of knowing simply in virtue of what perception is. The fact that perceptual states might be interpreted as being the output of a reliable process, or that individual perceptions hit facts, and thus are never false, does not show that perception is a direct source of knowledge. In order for that to hold, a link must be made between perception and knowledge, on a par

³⁶ See Dasti and Phillips (2017) and Chadha (2021) for an account of 1.1.4. Stephen Phillips adds that *definite* works better than *well-ascertained*. Shaw argues that *non-dubious* is better than *well-ascertained*. In general, well-ascertained appears to be wider than either *non-dubious* or *definite*. In addition, what Phillips' means by *definite* is that the perception is non-vacillating between distinct things, and what Shaw means by *non-dubious* is that the perception is non-vacillating between distinct things. I use Chadha's definition because it is wider, although I prefer *non-dubious*.

³⁷ See Turri (2017) for a discussion of these points in his defense of abilism in Nyāya.

³⁸ See Chaturvedi (2020) for a discussion of whether or not indeterminate perception is necessary for Nyāya epistemology.

³⁹ See Matilal (1968) for discussion of the misplacement theory of illusion. Another account of it is in Vaidya (2013, 2015).

with Williamson's (2), which can be read as an entailment between *seeing that A* and *knowing that A*.

Gaṅgeśa rejects Gautama's definition because it is too broad. Too many things that are not cases of perception satisfy the definition, such as introspection.⁴⁰ Whether Gaṅgeśa is correct about Gautama's definition being too broad is not of importance here. Rather, in rejecting the definition, he advocates two points. First, *perception* has the essential mark of *cognitive immediacy*. Second, following Udayana, that *a perception is an instance of a sense-organ-produced knowledge whose chief instrumental cause⁴¹ is not a cognition.*⁴² Gaṅgeśa's definition hits Williamson's (2)—*seeing that A is a way of knowing that A*. Gaṅgeśa makes the link to knowledge in the definition of perception directly.⁴³ In effect he is claiming that *perception is a kind of knowledge*. To bring texture to this view it will be useful to see more details and a version of a broader account of perceptual theory in Nyāya that can illuminate it.

Phillips (2012, 2020) and Dasti (2012) argue that Vātsyāyana and Gaṅgeśa embrace some form of disjunctivism about perception. Dasti maintains that it is a form of McDowell's epistemic disjunctivism.⁴⁴ Vaidya (2021), building off of Shaw (2016a, b, c) argues that it is a kind of metaphysical disjunctivism, called *multi-factor causal-disjunctivism*, (MFCD).⁴⁵ It is not clear that Gaṅgeśa subscribes to every detail of (MFCD). However, his account of perception does follow the general lines of (MFCD). I will point out some central features of Gaṅgeśa's view that are consistent with (MFCD) prior to illustrating the view in detail.

(MFCD) is a causal account of perception. However, the account is distinct from Grice's (1961) account on which: *x* being a cause of *S*'s perception of *x* is a necessary condition on *S* perceiving *x*. In contrast to Grice, Shaw (2016a, b, c) articulates Nyāya perceptual theory as a complex causal theory on which the satisfaction of both *positive* and *negative* causal conditions is required. The

⁴⁰ See Phillips (2020: 306) for discussion.

⁴¹ The notion of *chief instrumental cause* is to be understood within the context of how Gaṅgeśa, and prior Naiyāyikas, theoretically present and articulate causal processes. It is not on strict analogy with, for example, Aristotle on the four causes.

⁴² See Phillips (2020: 311–13) for discussion of Gaṅgeśa in relation to Udayana.

⁴³ Gaṅgeśa's definition of perception can fruitfully be brought into contact with Papineau's (2019) critique of knowledge. Perhaps Papineau is correct when we think in terms of the debate over knowledge that has occurred in Western philosophy. But what if we consider the Nyāya tradition, and in particular Gaṅgeśa's two-tier theory of knowledge: does Papineau's claim that knowledge is crude apply to Gaṅgeśa's account?

⁴⁴ Vaidya (2013) argues that the evidence Dasti bases his claims on do not show that the view isn't a version of Burge's *perceptual anti-individualism*, as opposed to McDowell's (1996) *epistemic-metaphysical disjunctivism*. In addition, Dasti is not claiming that it is a version of Pritchard's (2012) *epistemological disjunctivism*.

⁴⁵ See Haddock and Macpherson (2008) for presentation of the distinction between epistemological and metaphysical disjunctivism. See Vaidya (2015) for a discussion of it in relation to Nyāya.

approaches of Grice and Shaw yield the distinction between single-factor and multi-factor causal analysis.⁴⁶

In *single-factor* causal analysis we pay attention to one factor concerning the role of causation in perception: the causal chain moving from the object of perception to the subject of perception. In *multi-factor* causal analysis we pay attention to additional causal factors that play a role in a person having a perception as a way of knowing. It is only when all factors, both positive and negative are satisfied, that one has an episode of perception, which is an instance of knowledge.

(MFCDD) is not only a theory of perception, but one of illusion as well. As long as one of the positive or negative conditions fails, we are in a situation where there is a failure to perceive. Typically, although not always, an illusion (in the broad sense) has occurred. Illusions can either be anchor-dependent or anchor-independent. Anchor-dependent illusions involve a ground x that is F , which is perceived otherwise as G due to some malfunction in the perceptual system. A common example is the rope that appears as a snake. Typically a perceiver at some distance from the rope, who fears snakes, has a snake appearance because of the objective similarity between snakes and ropes triggering a misplacement of a snake concept for a rope concept at the determinate level of perception. In contrast, anchor-independent illusions lack a ground x that is perceived otherwise as G , when in fact it is F . Illusions of this kind are often called *hallucinations*.⁴⁷

For Gaṅgeśa, and for Gautama, a sensory connection between the knower and the objects and qualities in the world is a central component of perception. Gaṅgeśa devotes a whole section of *Jewel* to the discussion of various types of sensory connection. Gaṅgeśa says the following.

For different types of perception, different sensory connections are indeed required as uniform causal conditions. (1) Substances are grasped through a contact (between a sense organ and the object perceived). (2) Through inherence-in-what-is-in-contact, colors (and other qualities) and motions are grasped. (3) Through inherence-in-what-is-inhering-in-what-is-in-contact, colorhood (the universal of color) and the like are grasped. (4) Through inherence,

⁴⁶ I do not intend to draw the conclusion that Grice would have denied that there are other causally relevant factors or that contemporary perceptual science would not take these factors into account as well. Rather, I mean to draw attention to the fact that the Nyāya do offer a multi-factor causal analysis, which may or may not line up with various accounts of causation in the perceptual science literature.

⁴⁷ Prabal Kumar Sen, in conversation, has expressed skepticism as to whether Nyāya has an account of hallucinations—illusions with no object as support, since he holds that hallucinations are generally reduced to illusions in Nyāya. Nilanjan Das, however, has presented work at the 2018 Pacific APA, that suggests that Jayanta Bhaṭṭa, a ninth-century thinker in the Nyāya tradition, has an account of hallucination, which does not reduce to illusion. Phillips points out that Matilal (1992) also has a discussion of the status of hallucinations. Shaw points out that Pandit Dinesh Chandra Shastri also holds that there are accounts of hallucination in Nyāya.

sound is grasped. (5) Through inherence-in-what-is-inhering, soundhood (the universal of sound) and the like are grasped. (6a) Through being-a-qualifier, absence of sound is grasped. (6b) Through being-a-qualifier-of-what-is-in-relation-to-a-sense-organ, inherence and such absences as of a pot are grasped. The grasping in each case results from the *appropriate* sensory connection, not from sensory connection in general. (Phillips 2020: 319)

For many contemporary researchers of perception, especially vision scientists, this will be a difficult, if not impossible, part of the story to accept for two reasons. First, representationalism is the dominant paradigm in the scientific study of perception.⁴⁸ Second, the idea that sense organs make *literal* contact with objects and qualities is, at present, scientifically implausible. Thus: how might we make sense of Gaṅgeśa's view for the purposes of contemporary epistemology?

With respect to the issue of *contact*, one can try to explain away the seeming implausibility. One can let go of the literal interpretation of *contact*, and interpret Gautama and Gaṅgeśa as merely holding that *contact* means *there is a causal chain between the object and the sense organ* through the *medium* the sense organ operates in, for example, light, in the case of vision.⁴⁹ Or *contact* could be interpreted in a way that is consistent with the phenomenon of *quantum entanglement* and *spooky action at a distance*, where there is coordination between particles, but no literal contact.⁵⁰ My preferred stance on the issue is to simply leave in place the core of Nyāya perceptual theory and what Gaṅgeśa says. Instead of interpreting away the claims of various Naiyāyikas, one can simply emphasize what was important to them. *We engage the world external to us when we perceive it. That is, we don't merely construct everything we see.* As I see it, the metaphysical contrast with *contact* is *construction*. To hold that we make *contact* in an epistemologically relevant sense is to emphasize that we don't construct everything. We are in fact tracking some features of the world.

Central to Nyāya perceptual theory is the view that perceptual error is asymmetrically dependent on truth. It is because we have seen snakes and ropes out in the world and not as pure constructions, that we can have illusions of snakes based on interacting with ropes. While it is true that we can have illusions based on concepts that don't track anything in reality, such as when we see a cloud as a witch. It doesn't follow that every element of the non-tracking concept, witch, is foreign to our engagement with the world. After all, witches are like things that are real and that we have seen. As Burge (2005: 1) points out: vision science depends on *perceptual anti-individualism*, which is the view that a constitutively

⁴⁸ See Burge (2005) for arguments against a variety of forms of naïve realism.

⁴⁹ See Chadha (2021) for discussion of this interpretation.

⁵⁰ See Berkovitz (2007) for discussion of quantum entanglement and spooky action at a distance.

necessary condition on perceptual representation by an individual is that any such representation should be associated with a background of some veridical perceptual representations. Perception depends on veridical experience. The commitment in Nyāya is to a form of contact that grounds asymmetric dependence.

Two questions for vision science are: how exactly, and in what sense, does contact happen? And: how much construction is at work when we see the “world”? However, vision science, doesn’t settle all questions in the epistemology of perception. We need prior conceptual analysis in epistemology and metaphysics to guide the epistemology of perception. Gaṅgeśa is obviously not giving a scientific account of how information at the indeterminate stage of perception gets translated to produce conscious perception. Gaṅgeśa does offer an account of the metaphysics of indeterminate perception and determinate perception. However, his goal is to give an account of perception for the purposes of epistemology, and in particular to vindicate the claim that *knowledge is for action*, a position his predecessor Vātsyāyana, holds as well.

Nyāya perceptual theory does not fall into the representationalist paradigm *at all*. Thus, while the account I have offered of Nyāya perceptual theory through MFCD is similar to Turri’s (2017) abilism view, one should note that there is a difference. Abilism uses *representation* in its definition of knowledge, and on my view no Naiyāyika offers a representationalist view of perception. Matilal (1992), for example, presents Nyāya as a naïve realist school of philosophy, where he half-jokingly claims that the “naïve” part of the view is actually not so naïve. If Nyāya perceptual theory, from Gautama to Gaṅgeśa, falls into a specific classification of theories within Anglo-analytic epistemology, it would be the relationalist paradigm. However, one might wonder whether the taxonomy of classical Indian theories of perception offers an alternative map for thinking about how perception can work than what is found in analytic philosophy.⁵¹

Sensory connection is only one kind of causal property that is important to Naiyāyikas. In (MFCD) one will see a complex set of causal conditions whose satisfaction constitute a factive episode of perception that is an instance of knowledge. There are two kinds of causal conditions: positive and negative. While some of these conditions might not be scientifically serviceable, some of the elements and the structure of the theory as a whole are.

On (MFCD) a factive episode of perception is a consequence of the joint satisfaction of both positive and negative causal conditions in concert. These conditions work together, and must be satisfied for an episode of perception to occur.

⁵¹ Nanay (2014) also challenges the representationalist-relationalist distinction. His resultant view is important to consider when trying to understand Nyāya perceptual theory. In future work I plan to do this.

Positive Conditions:

- (i) The presence of a self or locus of awareness.
- (ii) The presence of a properly directed faculty of attention.
- (iii) The presence of properly functioning sense organ.
- (iv) Connection between the sense organ and the object.
- (v) Connection between the sense organ and the faculty of attention.
- (vi) Connection between the faculty of attention and the self.

Negative Conditions:

- (vii) The perceptual object must not be beyond the proper range of the sense faculties.
- (viii) The perceptual object must not be too close to be apprehended by the sense faculties.
- (ix) The perceptual object must not be overshadowed or covered by a more perceptually salient object.
- (x) The perceptual object must not be mixed up with similar objects.

(MFCD) is also a theory of perceptual error. Whenever there is an error due to a weakness on a positive condition, we have *an inappropriate causal condition* (*kāraṇavaiguṇya*). Whenever there is an error due to a negative condition, we have a defect (*doṣa*). For example, a perceptual error can be due either to distance or weakness of the eye. When it is due to distance, it is a failure on the negative branch. When it is due to weakness of the eye, it is a failure on the positive branch. As noted before, the epistemologically relevant seeing that involves truth occurs at the determinate stage of perception (*savikalpaka*) where there is conceptual content, and not the indeterminate stage of perception (*nirvikalpaka*) where there is no conceptual content. Central to the determinate stage of perception are two claims. First, that there are *limiters* or *modes of presentation* in perception (how something is presented in conscious perception).⁵² These *limiters* or *modes of presentation* facilitate our ability to discriminate objects and qualities. For example, when *x* is presented as *F*, we are able to distinguish it from *G*. However, when *x* is presented as *H*, we might lack the ability to discriminate it from *F*. Second, *limiters* or *modes of presentation* come from prior experience. The first time, or several times thereafter, that we experience *F*s and *G*s, provides us with the capacity to have *F* and *G* as modes of presentation at the determinate level of perception, which also plays a role in how we can mistake *G*s for *F*s. Often, it is

⁵² One of the important questions about modes of presentation in perception, from a cross-traditional perspective, concerns the role of the object in perception. Roughly, are the modes of perception *Fregean* or *Russellian*? My hypothesis is that they are *Russellian*, but this is a complex issue that requires more investigation.

because a foul up has occurred between the indeterminate stage of perception and the determinate stage of perception, that we end up experiencing an illusion of some kind.

To illustrate (MFCD), it will be useful to examine three cases, and show how *multi-factor* differs from *single-factor* causal analysis. I will examine these cases by also looking at what happens when (MFCD) is joined to (2)—*seeing that A is a way of knowing that A*.

Distance: rope-snake

You are walking toward an object in the distance. As you move toward it, it appears strikingly as a snake, you move closer, and it appears strikingly as a rope. In fact, it is a rope. Did you know it was a snake, and later know it is a rope because you had two distinct perceptual episodes, and perception is a way of knowing?

According to both single-factor and a multi-factor causal analysis, one has a causal connection to the object in the distance, which is a rope, and if we assume that there are no deviant causal chains, the causal connection is good. If we add disjunctivism about perception to both the single-factor and the multi-factor analysis, one can be said to *see* the rope, but not the snake (it is only an appearance). Nevertheless, it is only because one has seen snakes and ropes, that one can make the mistake of seeing a rope as a snake. On both single-factor and multi-factor causal analysis there would be no answer to the question of whether one knows there is a rope in the distance until (2)—*seeing that A is a way of knowing that A*—is added. Once (2) is added, one knows there is a rope, but not that there is a snake. In the rope-snake case, single-factor and multi-factor allow for the same analysis when disjunctivism and (2) are added.

Distance: rock-person

You are walking toward an object in the distance. As you move toward it, it non-vividly appears to you as a person sitting, but not as anything else either non-vividly or vividly. You move closer, and it vividly appears to you as a large rock, and it is a rock. Did you know it was a person sitting, and later come to know that it was a large rock, because you had two distinct perceptual episodes, and perception is a way of knowing?

According to the single-factor analysis one has a causal connection to the object in the distance, and if we assume there are no deviant causal chains, the causal connection is good. Adding in disjunctivism about perception allows for us to say that one sees the large rock, but not the person sitting. Rather, one has an illusion of a person sitting, since the large rock is presented otherwise. On the multi-factor

causal analysis with disjunctivism we get the same result. However, one is also entitled to argue for a distinct view based on the structure of multi-factor analysis. Namely, that one doesn't even see the person sitting, since the visual state where one seems to see the person is a case of *non-vivid perceptual seeming*. Because of the distance, a visual appearance due to causal contact with the object is not sufficient. Rather, using condition (vii) and (viii), it must objectively be the case that the object has *come into view* by being *within the proper range of the sense faculties* for the purpose of seeing.⁵³ Objects *can* be in a subject's visual and attentional field, without being well-ascertained, definite, or non-dubious, because not in view; and thus, consciously sub-optimal with respect to viewing. As a consequence, although Naiyāyikas would typically classify the appearance of the person sitting in the distance as a case of an illusion, it can be argued that it is neither an illusion nor a perception, but rather a non-perception. Although there is visual consciousness of an object, and engagement of the perceptual mechanism increasing in clarity as one approaches the large rock, there is no *seeing* the object until (vii) and (viii) are satisfied with respect to the particular in the field of vision. In addition, we don't know illusory contents, since they are false, so we don't know that there is a person sitting in the distance. But one can also say in this case that we don't know there is a person sitting in the distance because we don't even see a person sitting in the distance, since nothing is objectively in *optimal view*.

Similarity: red ball-red lighting

You walk into a room which, unbeknownst to you, has red lighting, and you are looking at a ball which is in fact red, but also illuminated by the red lighting in the room. Do you know that the ball is red, since seeing is a way of knowing and you see a ball that is red even though it is overlaid with red lighting?

On the single-factor view with disjunctivism one has causal contact with the object of perception and thus sees the ball. However, single-factor analysis does not give us any additional resources for thinking about whether one sees the target property: *redness*. On (MFCD) there are two positions we can take.

On the one hand, we see the ball, but the mode of presentation under which the redness of the ball is presented isn't good. Why? Because we cannot discriminate the color from the lighting. The mode of presentation doesn't allow us to

⁵³ The distinction found in conditions (vii) and (viii) in the Nyāya theory of perception can be brought into contact with Merleau-Ponty's (1962) discussion of optimal grip in perception, see *Phenomenology of Perception* (pg. 302).

For each object, as for each picture in an art gallery, there is an optimum distance from which it requires to be seen, a direction viewed from which it vouchsafes most of itself: at a shorter or greater distance we have merely a perception blurred through excess or deficiency. We therefore tend towards the maximum of visibility, and seek a better focus as with a microscope.

discriminate it from the light. So, we have a mode of presentation that fails to provide us with a way of discriminating the property in question.

On the other hand, we see the ball, but cannot see the color because two of the negative conditions fail to be satisfied. Arguably, one cannot see the redness of the ball, because the lighting is *too similar* to the color of the ball, violating condition (xi)–(x). While you have an appearance of seeing a red ball, you don't see the redness of the ball. Rather, you see a ball, and cannot discriminate the color of the ball from the lighting. Trying to see an object colored red in red lighting puts determination of the color of the object outside of *the proper range of the visual system*. As a consequence, while you see and know that there is a ball, you don't see or know that the ball is red. Given that the objective conditions on perception set by (MFCD) have not been satisfied, you in fact don't see the redness of the ball. This is consistent with the view that you *seem to see a red ball*. But because (MFCD) is a disjunctivist view, the seeming to see doesn't count as seeing.

To summarize, I have argued that Gañgeśa's account of perception captures a version of Williamson's (2)—*seeing that A is a way of knowing that A*. Using (MFCD) as an account of an elaborated version of Gañgeśa's definition of perception, I have presented a view of how perception can be a direct source of knowledge. To explain this account I have also analyzed three cases to show how (MFCD) is different from single-factor causal analysis. The position advocated here is *not* that other theories cannot do what (MFCD) can do, *only* that (MFCD) can effectively analyze some cases. Furthermore, while components of (MFCD) can be scientifically criticized, it does not follow that the structure of the theory cannot make a valuable contribution to the philosophy of perception in relation to metaphysics, epistemology, and philosophy of mind.

5. Perceptual Knowledge versus Certified Knowledge

Gañgeśa's theory of perceptual knowledge is coupled to a two-tier theory of the structure of knowledge. On this structure, *perceptual knowledge* is an animal way through which minds are related to the world, and *certified knowledge* is a reflective way in which minds relate to each other in collective reasoning and debate.⁵⁴ These are two distinct kinds of *epistemic success*, which have

⁵⁴ See Sosa (2007, 2009) for comparison. Phillips uses the language of animal vs. reflective levels, which bears a striking resemblance to the work of Sosa.

similarities in common. Gaṅgeśa holds the following with respect to certification. *S possesses certified knowledge*⁵⁵ that *p* if and only if

- a. *p* is true.
- b. *S* believes *p*.
- c. *S*'s belief that *p* has been produced by a genuine knowledge source.

Gaṅgeśa holds (a) because both perceptual knowledge and certified knowledge are factive. One cannot know something that is false. He holds (b), because while perceptual knowledge is *not* a species of belief, *certified knowledge* either has belief as a component or as a consequence of knowing. He holds (c) partly because of (GTB).⁵⁶ Recall, that on Phillips' Nyāya knowledge sources generate true beliefs. The general idea is that perceptual knowledge (episodes of occurrent knowledge) generate true beliefs. Those true beliefs can be certified or uncertified.

One of Phillips' goals with respect to comparative epistemology is to show where Gaṅgeśa's two-tier theory might sit with respect to the Anglo-analytic distinction between internalism and externalism about justification.⁵⁷

[D]espite the externalism, conscious justification is not just important but thematic for Gaṅgeśa and Nyāya. When a doubt, dispute, or desire to know arises, then turning to knowledge sources as best we can is our method of resolving it. Thus, the knowledge sources are for Gaṅgeśa not only generators of so-to-say unreflective knowledge (some of which we share with animals) but in the context of debate and dispute [...] certifiers and methods of inquiry. Certification with respect to a recognized knowledge source elevates, moreover, a subject's level of confidence, and presents a higher barrier to doubt and dispute than there would be otherwise. Bits of inferential knowledge—just as perceptual awareness and knowledge from testimony—become more secure through checking to make sure they are true. But though knowledge can be coupled with degrees of certainty, a bottom level of, so-to-say, sense certainty (without being actually certified) naturally accompanies our cognitions purporting to present the world (called by Gaṅgeśa "awareness," *anubhava*). Otherwise, there would not be what Western philosophers call belief, or, as Gaṅgeśa would say, trust in cognition as shown in action. (Phillips 2020: 10)

⁵⁵ See Phillips (2020: 13). It is important to note that here Phillips should be talking about certified knowledge, thus I have added the parenthetical to make it clear. Were he to be talking about perceptual knowledge he would contradict (NSB)—that knowledge is not a species of belief.

⁵⁶ Since Gaṅgeśa holds that there are other sources of knowledge, such as inference, analogy, and testimony, he likely would not hold (iii) only because of (GTB) which has been discussed here only with respect to perceptual knowledge. Nevertheless, one would suspect that (GTB) is consistent with knowledge arising from other sources of knowledge.

⁵⁷ See Pappas (2017) for a presentation of the internalist vs. externalist distinction in Anglo-analytic philosophy.

Phillips' view appears to be that Gaṅgeśa is neither an internalist, externalist, nor a combination of them.^{58,59} The internalism *vs.* externalism debate is not part of classical Indian epistemology. Rather, the debate over intrinsic validity (*svataḥ-prāmāṇya*) *vs.* extrinsic validity (*paratha-prāmāṇya*) is. Those debates are not the same. Nevertheless, Gaṅgeśa has commitments that fall in line with various parts of internalism and externalism. Consider Gaṅgeśa on occurrent knowledge.

Occurrent knowledge is not only known but produced, too, from something extrinsic, not “of itself,” i.e., not from a collection of causes sufficient to produce just any cognition. (Phillips 2020: vol 1: 145)

For Gaṅgeśa the source of an episode of knowledge, both the *seeing that A*, and *that something is known*, are produced from something extrinsic to the subject that has the episode of knowing. The episode as an instance of perceptual knowledge relationally ties the subject to the world. Thus, justification, on an internalist model, where it is taken to be an ability tied to the subject, could not be a component of perceptual knowledge. This is *an* externalist commitment of Gaṅgeśa.

However, as Phillips points out, Gaṅgeśa also holds that perceptual knowledge can either be certified or uncertified, and that conscious justification is important. For Gaṅgeśa some instances of perceptual knowledge do not require certification. Instances of perceptual knowledge that are not certified, or don't need to be certified, are still instances of epistemic success. As long as a given perception satisfies constraints set by (MFCDD) the subject can be credited with perceptual knowledge, certification is not required. As noted before, central to both Gaṅgeśa, and Vātsyāyana before him, is the view that knowledge is for action's sake, and it is through action in the world that our knowledge is revealed.⁶⁰ As a consequence, when we are in the right position with respect to objects and qualities in our environment we are subject to episodes of knowing that are relational states of mind. And it is in virtue of those episodes arising in us through the satisfaction of a complex causal network that we are able to effectively act and cope in the world.

⁵⁸ I read Phillips this way because of his (2012). The reason why is that the traditional way of understanding the debate between internalism and externalism in epistemology is with respect to a single tier theory of knowledge, where justification is a component of it either on an internalist or an externalist theory of justification. But Gaṅgeśa is offering a two-tier theory. As a consequence, it would seem that one cannot strictly apply the distinction to Gaṅgeśa because the architecture is different. Thus, it seems more appropriate to read Phillips as trying to sort out where Gaṅgeśa's commitments are with respect to the distinction found in Anglo-analytic epistemology.

⁵⁹ Phillips (2012: 14–15, *emphasis added*) says: Nyāya agrees [with internalism] but with the important *addendum* that by attending to the nature of perception, inference, and testimony, which at the first level operate with us unselfconsciously, we at the second level self-consciously certify what we know and believe. *The internalism flows out of the externalism*. It is useful to consider Phillips' remarks in light of the work of Das and Salow (2018).

⁶⁰ See Dasti (2017) for discussion of Vātsyāyana on knowledge for action.

Often enough we act in ways that are beneficial to us, and these actions are made possible by episodes of knowing.

Moreover, it doesn't follow from the fact that perceptual knowledge does not *always* require certification that it never needs to be certified. For Gaṅgeśa, philosophical debate is one place where certification is crucially required. His philosophical methodology requires that we use knowledge sources, such as inference and perception, as well as counterfactual reasoning (*tarka*) to resolve philosophical disputes.

A feature of Gaṅgeśa's model of certification is that it is disjunctive in nature.⁶¹ Not only did Gaṅgeśa hold a disjunctivist account of perception, he also thought of certification as being disjunctive. Just as one can distinguish between perception and pseudo-perception via the causal profile of each, one can also distinguish between certification and pseudo-certification. Certification is objective and requires that certain objective constraints are satisfied. Pseudo-certification is subjective. Pseudo-certification looks right from the first-person point of view, but is objectively misleading. Pseudo-certification is subject to correction.

If *S* is pseudo-certified in holding *p*, then there is some information that *S* could learn such that they would no longer be certified in holding that *p*. By contrast, *genuine certification* is such that if *S* is certified, then there is nothing that *S* could **non-mistakenly** learn that would undermine or override the holding of *p*.⁶² The relation between certification and perceptual knowledge is such that two conditions hold.

- (i) *S* can know that *p* and not be certified with respect to *p* at a time *t*.
- (ii) If *S* knows that *p*, then for *S*, *p* is *certifiable* in principle, but perhaps not at *t*.

Gaṅgeśa's view of certification, for Anglo-analytic epistemologists, invites the question: is there a conception of justification in Gaṅgeśa that matches the view that *S* can be justified via reasons that turn out to be false? If certification is the place where conscious justification is to be found in Gaṅgeśa, one might look there for a fallibilist conception of justification? Phillips holds that *appearance of certification* is a good translation of *prāmāṇya-ābhāsa* and a suitable rendering of a fallibilist conception of justification. Given that certification is disjunctive, taking *appearance of certification* for a fallibilist conception of justification is appropriate.⁶³

⁶¹ See Phillips (2012) for discussion of certification.

⁶² See Phillips (2012: 21).

⁶³ In addition, if what it takes for something to be a "Gettier Counterexample" to the JTB analysis of knowledge is that epistemic luck is a consequence of a fallibilist conception of knowledge, then while there might be a suitable term in Sanskrit for a fallibilist conception of justification that is amenable to Gaṅgeśa's epistemology, it might, nevertheless, not be central to his epistemology. While he has an example that can be used to undermine the JTB analysis in the way that Gettier does. It is, arguably, not an example that is put forward under a fallibilist conception of justification. See Das (2021) on Gaṅgeśa and Epistemic Luck.

One should consider Gaṅgeśa's view of (iii) and how it relates to the KK-principle, that when one knows they know that they know. Consider (iii) and the following case.

- (iii) If S knows that p via perception at t_1 , but S cannot certify that p in a context C , at t_2 , then S no longer knows that p .

Suppose early in the day Maya sees water in a pond in the center of a desert in *proper* viewing conditions. Assume that Maya knows that there is water in the pond because the causal requirements for seeing as a way of knowing on (MFCD) are satisfied. Suppose later that Simone asks Maya, "is there any water nearby?" Simone notes to Maya that heat in the air is causing mirages in their area. Because Maya knows she cannot discriminate between a mirage and water from a distance, doubt arises in her mind as to what she saw. Maya's says to Simone, "I don't know, but I might have seen water over there (pointing to the pond)."⁶⁴

According to Phillips, Gaṅgeśa holds that one's knowledge can be *shaken off* through the introduction of defeaters.⁶⁵ As a consequence, one might conclude that Maya doesn't know that there is water in the desert pond, since she says she doesn't know on the basis of the fact that she cannot respond to Simone's introduction of a defeater. However, how exactly her knowledge is *shaken off* can be interpreted in different ways. Importantly, Maya no longer has an *occurrent* episode of knowledge, for that was *shaken off* as soon as she looked away from the pond. So, what is it for Maya's knowledge, in the context of the conversation with Simone, to be *shaken off*? Is Maya's knowledge simply gone in virtue of Simone's defeater?

First, we need to take note of the *priority thesis*, (PT), of Phillips' Nyāya: *all standing knowledge requires a first moment of episodic knowledge*. Given (PT) and the fact that Maya's seeing event has passed, we should ask: what is the status of the standing knowledge that was generated from the episodic knowledge event. Is it still a piece of knowledge for Maya?

Second, we need to distinguish between the context of assertion in which a knowledge claim could be made and the metaphysical realizer of an instance of standing knowledge. The core distinction between them is that one can possess the metaphysical complex that realizes a piece of knowledge, yet fail to be able to assert the knowledge in a context because they have lost warrant for doing so. That is, Maya has standing knowledge that there is water in the pond because she has it as

⁶⁴ This example has been constructed out of a conversation between Phillips and I. It captures one question about Gaṅgeśa's two-tier epistemology that needs to be addressed: what exactly is the epistemic status of the knowledge that remains after both the knowledge episode has transpired and defeaters, which can shake off the knowledge, have been introduced?

⁶⁵ See Phillips (2020: 10–11) for discussion of the two-tier view and the KK-principle. I am offering an analysis of it that deviates from his own view of it.

a trace of the knowledge episode by which she saw it. Once she learns from Simone the prevailing conditions, and recognizes that it could be a mirage that she saw, she simply loses the warrant to assert her knowledge, since assertion is governed by knowledge, and she is aware of a defeater to her knowledge. Were it a mirage she would not be warranted in asserting that there is water in the pond.

Arguably, *shaken off* only means that a person has lost their warrant to assert what they know. It need not mean that they no longer possess the knowledge. It is important to bring this insight about Gaṅgeśa's theory of certification into connection with the KK-principle to show that they are distinct. In examining Phillips' example, we should at least conclude that Gaṅgeśa holds, *Failure to Rebut, then Impermissible to Assert: If S cannot appropriately respond to defeaters concerning p in context C, then S loses their warrant to assert p in C.*

The KK-principle, however, holds, *If S knows that p, then S knows that S knows that p.* There are stronger and weaker versions of it. On one weakening, when S knows that p, it is in principle possible for S to know that they know that p. On one strengthening, when S knows that p, merely in virtue of knowing that p, S knows that they know that p. Because these versions of the KK-principle are different from what Gaṅgeśa is concerned with in picking out certification as a kind of epistemic success, we need not attribute the KK-principle to Gaṅgeśa in virtue of the phenomenon that Phillips' example draws our attention to. The distinction between *the context of assertion* and *the metaphysical realizer* of knowledge is sufficient to explain Maya's standing. The upshot is that Maya can still have knowledge, but fail to be able to assert it because of the norms governing certification. One need not argue that because Maya cannot prove that she knows that she knows, that Maya loses her knowledge. The possession of knowledge is independent from the ability to assert it.

In this section I have presented Gaṅgeśa's two-tier theory of knowledge with the aim of showing how some of its features make contact with an example that leads to the KK-principle. It is unclear whether Gaṅgeśa's distinction between perceptual knowledge and certified knowledge is amenable to Williamson's knowledge-first program, since it is not clear whether Williamson holds a single-tier or a multi-tier theory of knowledge.

Williamson also argues for the claim that $E = K$, which means that S's evidence consists of all and only the propositions S knows.⁶⁶

Suppose that knowledge, and only knowledge, justifies belief. That is, in any possible situation in which one believes a proposition p , that belief is justified, if at all, by propositions q_1, \dots, q_n (usually other than p) which one knows. On that supposition, if justified belief is central to epistemological-skeptical inquiry and

⁶⁶ See Williamson (1997) and (2000).

the philosophy of science, then so too is knowledge. Now assume further that what justifies belief is *evidence* . . . Then the supposition just made is equivalent to the principle that knowledge, and only knowledge, constitutes evidence. . . . [This principle] equates *S*'s evidence with *S*'s knowledge, for every individual or community *S* in any possible situation. Call this equation $E = K$.⁶⁷

(Williamson 2000: 185)

Williamson's $E = K$ thesis has at least two parts: (L) If *e* is evidence for *S*, then *S* knows *e*, and (R) if *S* knows *e*, then *e* is evidence for *S*. Where might Gaṅgeśa stand with respect to (L) and (R)?

Gaṅgeśa holds that knowledge sources feed certification, since he holds that certified knowledge involves (c): *S*'s *belief* that *p* has been produced by a genuine *knowledge source*. Knowledge sources are what we base certified knowledge on. Thus, it can be argued that Gaṅgeśa would agree with (L), even if the items by which *S* knows *e* do not properly qualify as propositions for him. Gaṅgeśa can also be credited with holding (R), since in a context of certification, where one is required to defend a claim, what they are supposed to appeal to are knowledge sources: perception, testimony, analogy, and inference.^{68,69}

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⁶⁷ Following Williamson (2000) and Gerken (2017) the equation $E = K$ should be understood to be about the extension of the concepts of *evidence* and *knowledge* and not about the concepts being equivalent.

⁶⁸ Since counterfactual reasoning (*tarka*) is not a *pramāṇa*, but part of debate, I use the qualification here. In addition, just because Gaṅgeśa holds (L) and (R), it won't follow that knowledge is first for him.

⁶⁹ This chapter grew out of a conversation between Tim Williamson and I in 2014. I would like to thank Julianne Chung for inviting me to contribute to *Oxford Studies in Epistemology*, which has allowed me to explore Gaṅgeśa and Nyāya in the context of Williamson's knowledge-first paradigm. This chapter has benefited from many discussions. Thanks, first and foremost, to Stephen Phillips, Jay Shaw, and Tim Williamson. I would also like to thank Manjula Rajan, Swami Medhananda, Jennifer Nagel, Ajay Rao, Parimal Patil, Jonardon Ganeri, Amit Chaturvedi, Jack Beaulieu, Nilanjan Das, Mark Siderits, Arindam Chakrabarti, Prabal Kumar Sen, Chakravarthi Ram-Prasad, Purushottama Bilimoria, Agnieszka Rostalska, Krupa Patel, and participants at the November 2019 *Gaṅgeśa* conference at Toronto, Ontario, Canada; and the January 2020—*Logic, Language, and Epistemology in Nyāya*—conference at the Ramakrishna Mission Institute of Culture, Gol-Park, Kolkata, India.

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