

EPISTEMIC CONTEXT: A JUSTIFIABILITY THEORY OF RELEVANCE

Wai Lok CHEUNG

ABSTRACT: Lewis' contextualism entails that when there are too many epistemic possibilities in an epistemic context, epistemic infallibility is incompatible with knowledge given a residue of such alternatives not ruled out by evidence. I restrict certainty with epistemic context through epistemic relevance. Epistemically irrelevant alternatives do not belong to the epistemic context, while certainty of the fact is achieved when all epistemically relevant alternatives ruled out by evidence. Circularly, epistemic relevance is constituted by difference making to epistemic justifiability, such that something is epistemically relevant to an epistemic decision to believe if and only if it made an epistemic justificatory difference to the belief's constitution of knowledge. I use the zoo case to illustrate the relevant alternative theory, with Williamson's conception of evidence in explaining cases of knowledge when threatened by radical scepticism. Alternativity is understood with informativeness from Stalnaker, which is illustrated with whether the listener came to know.

KEYWORDS: epistemic context, relevant alternatives, informativeness, scepticism, epistemic infallibility

Epistemic infallibility is incompatible with knowledge without certainty; for any p , one knows that p only if one is certain of p . If anything may be doubted, with such doubt destroying one's prior certainty, then epistemic infallibilism entails radical scepticism. Since we cannot be certain of almost anything, we know almost nothing. Recent epistemologists restrict our doubt with relevance, through their relevant alternative theory.¹ When looking at a zebra in a zoo during a normal visit, one knows it to be a zebra. Since its being a cleverly painted mule is not a relevant alternative, one's evidence is sufficient for such perceptual knowledge. Their perceptual evidence, in their epistemic situation, fully justifies their perceptual knowledge that it was a zebra. However, arguably, they are not yet epistemically justified to rule out that it is a cleverly painted mule. I motivate thus a certainty that is achieved when all alternatives within the epistemic context are ruled out, leaving the question of relevance to be settled with whether it made any justificatory difference. In the first section, I will present some information relativity, from Robert Stalnaker's theory of pragmatics, presupposing a given view about communication. In the second section, I will illustrate the difference in

¹ See, notably, Dretske (1970) and Stine (1976).

informativeness among epistemic agents with indiscriminate evidence using Timothy Williamson's theory of evidence, in application to situations that are not as radical as the sceptical scenarios. In the third section, I will present, given the indistinguishability among the good case and the bad case, David Lewis' contextualism, in relation to the relevant alternative theory, to pave the way for my justifiability theory of relevance. I will end with a discussion on epistemic context, epistemic justification, and epistemic relevance using doubt.

1. Information

Stalnaker's theory of pragmatics focuses on assertion. For any p , in asserting that p with a given utterance in a given language, some information is imparted onto some members of the conversation. If any theory of pragmatics describes communication, his theory focuses on one particular act of communication, assertion, which represents to the recipients the world, often the actual world, to be some way. Some other act of communication does not directly involve representing the world to be any way, such as those that expresses one's emotions. I assume here that the change in mentality through such emotion expression does not always constitute any information exchange; one could have been affected by other minds without reflecting on and thus knowing about them for further information processing. Having thus confined communication to acts of information exchange, I bring in Stalnaker's theory of pragmatic context to motivate a theory of epistemic context. I shall now turn to his theory.

A pragmatic context is 'the set of possible worlds recognized by the speaker to be "live options" relevant to the conversation'.² When a child, during the zoo visit, points at an animal in the exhibit and uttered 'That's a zebra!', it is not a live option that it is a cleverly painted mule because the parents who brought him here know of the integrity of the zoo through trusting its management. Given their presupposition about the zoo, it is incompatible with what they know that it contains fake exhibits, especially with the intent to deceive. The parents were strolling around with their child, and when he noticed the animal with such special pattern on its body that he read about in children's books, he pointed at it and asserted of it that it was a zebra, ruling out possible worlds in which, for example, it is a monkey, as one would have seen in a zoo. His parents directed their gaze towards where their child is pointing at, and came to know that it is a zebra through his testimony. The child, given prior knowledge, knew it to be a zebra with his perceptual evidence.

² Stalnaker (1978: 84-5).

Informativeness measures the amount of information. In this scenario, there is the information the perceptual evidence of the child encodes, and also the information his testimony encodes. However, what is informative for some epistemic agent might not have been so, or at least might have been less so, for some other. Consider the same scenario in which it was a zookeeper whom the child talked to. She knows the setup of the zoo very well. While strolling with the child, through being aware of the area she is in, she turned to him when he spoke, but the child's utterance does not impart any new information to her. She knew, prior to the child's testimony, that, through being near the zebra exhibit, that was a zebra the child would have been looking at in that direction. Therefore, even though, in the case with his parents, information is transmitted from the child through his perception to his parents, there is no corresponding knowledge transfer with the zookeeper. Holding some evidence constant, informativeness of a same assertion could have been different.

Not only could informativeness be different, there is also a difference in knowledge between what one acquired only through testimony, and what one acquired also through perception. Suppose one of the parents, the father, to be doubtful of the child's judgment. He always checks his son's testimony before believing in what he said. In hearing his utterance 'That's a zebra!', he turned to the corresponding direction, looked closely, before forming the judgment that that was a zebra. The mother came to know that that was a zebra only through the child's testimony, but the father did not yet know it before he looked and acquired the corresponding perceptual evidence himself. With the father's corroborating perceptual evidence, he uttered to his son, 'Yes! That's a zebra'. Given a child's humility to learn from his parents, some further information is imparted to him. The affirmation, shall the child doubt his own judgment, would have strengthened his confidence, and thus, however seemingly redundant, it is informative nonetheless. Should the child doubt his own judgment upon his father's suspicion, his knowledge would have thus been restored. Although it is a same piece of knowledge, the strength of the child's evidence increased through an increase in the corresponding informativeness about the kind of animal that it was.

I have, therefore, illustrated the perspectivity of knowledge with the relativity of informativeness through doubt. The child, in all his innocence, is happy to see the real animal he read about in children's books, and, without a doubt, knows, through perception, that that was a zebra. The mother, who seldom doubts her son, although lost in a conversation with her husband without paying much attention to her surroundings, knows, through testimony, that that was a zebra. The father, whose fatherly role motivated him to often doubt his son, knows that that was a zebra only

after his attention was directed by his son through his own inquiry into whether he saw it right. For the zookeeper, however, the child's utterance does not impart any information, for she knew very well before he said anything that that was a zebra.

Now let me approach the issue of informativeness from another angle. For the father, zoo exhibits are categorized into aviary and otherwise. For that animal to have been a zebra, given that they are not visiting the aviary, it is among animals such as monkeys, chimpanzees, tigers, lions, and so on. However, for the mother, zoo exhibits are not categorized with any known regularity. Next to a monkey exhibit, it might as well be a peacock exhibit, even if peacocks are a kind of bird but monkeys are not. Therefore, ignoring the father's doubt of the son, the same utterance could have still been more informative for the mother because more alternatives are ruled out: the conversation between the mother and the son had more live options than the one between the father and the son.

Perceptual evidence encodes information, whereas testimony transmits it. Having distinguished the epistemological from the pragmatic, I shall, in the next section, discuss evidence with regard to informativeness, to illustrate the epistemological aspect of communication. I will come back to the epistemic role of doubt in the third section.

2. Evidence

Williamson's epistemology entails the possibility of distinctness of evidence even with indiscriminability.³ The epistemological good case, in which the epistemic agent knows various ordinary things, and also knows that one is not a brain in a vat and that there is an external world, when contrasted with the epistemological bad case, brings out the crucial issue of sameness in evidence among the two cases. I shall, in this section, bring in the sceptical counterparts with the case of the cleverly painted mule, in comparison with the case of a misperceiving child.

In the aforementioned zoo visit, the child uttered to the parents, 'That's a zebra!', without them doubting the integrity of the zoo. Through trusting the zoo management, they did not doubt, given its compatibility with their sensory experience constitutive of their perceptual evidence, that it is a cleverly painted mule. Suppose, in this counterfactual scenario, zebra is too expensive for the zoo to keep. The zoo management decided to keep only some mules, and having them painted to appear exactly, from the distance that zoo visitors will have kept, like zebras to them. The child, who uttered the same thing, would have said something false to his parents, however much sincere he had been.

³ Williamson (2000: 164-83).

Not only does it have to do with the sincerity of the child, it also has to do with the efforts he made. However much he tried, the sensory experience he would have had had it been a cleverly painted mule is indiscriminable from what he had given it is indeed a real zebra. Although, in the counterfactual scenario, were he permitted to approach the animal, he would have felt the tactility of the paint and come to have discriminate sensory experience, the distance zoo visitors have to keep restricted such access. Therefore, from such counterfactuality, although the good case is a relevant alternative to the actual, bad, case, the epistemic inaccessibility from the latter to the former cannot be achieved – except, for example, the child grew up to be the zookeeper in that zoo. Although it is indeed only a cleverly painted mule, that that was a zebra is still a live option; what is bad about that is that zoo visitors will not know they have been fooled.

The question now is whether the child's testimony is as informative in the counterfactual, bad, scenario, as in the actual, good, scenario. Internalism about semantic content entails that semantic content supervenes on the internal, such that, given there being no internal difference between the good case and the bad case, the actual utterance of the child has the same semantic content as the counterfactual utterance of the child does. On an epistemic conception of internality, since there is no way to distinguish the good case from the bad case, internalists identify the semantic content of the utterance by the good case with that by the bad case.⁴ If what the good case said could not have been more than the bad case, then it does not seem possible that there be a difference in informativeness. However, it is worth wondering: does the sameness in semantic content entail the sameness in informativeness?⁵

Semantic issue aside, Williamson's epistemology permits attributing different evidence acquired through testimony with the child's utterance in the two cases, even given the indiscriminability. Since, in the good case, one came to know that that was a zebra, whereas, in the bad case one did not, the utterance in the actual scenario is more informative than the one in the counterfactual scenario. The testimony in the actual scenario, therefore, encodes more information about the actual scenario than the one in the counterfactual scenario does about the counterfactual scenario. The contention is that the utterance by the bad case, if accepted by the listeners, shall have ruled out some alternatives in the pragmatic

⁴ The problem is with the demonstrative 'That'. The semantic reference, in each case, is different, because, in the good case, it is one kind of animal, and in the bad case, it is another, and thus it already threatens the internalism under discussion. Relative to David Kaplan, the two utterances can have the same character but different content. See Kaplan (1989).

⁵ Sameness in semantic content does not entail sameness in epistemic content.

context, and, therefore, is also informative. However, it is informative in so far as the testimony having constituted evidence of the child's false belief, instead of conveying information about the animal. I will return to derived context, something of another pragmatic order, later here.

Notice, furthermore, the explanation of the greater informativeness of the testimony with the better perceptual evidence of the child in the actual scenario. In such a good case, his perceptual evidence, however constituted by sensory experience indiscriminable from the one in the corresponding bad case, nevertheless encodes more information about his environment. The misperceiving child in the counterfactual scenario failed to acquire the perceptual evidence about what kind of animal he was looking at; given the factivity of evidence, what his sensory experience constituted failed to be evidence because it failed to justify knowledge. In this case, it would have required of him a perceptual acuity that discriminates himself from the good case to know that that was a cleverly painted mule that his sensory experience constituted the perceptual evidence that encodes information about the kind of animal that that was.

Consider a derived context with which the father deals with the misperceiving child. He is sceptical of his son, and doubts what he said. When he uttered 'That's a zebra!', he looks closely with the purpose of checking his assertion against actuality. The doubt he has initiated a context within the pragmatic context between him and the son within which he evaluates his belief. Although, relative to the son, he had the perceptual evidence of a zebra, the father could have considered it a live option that his son was misperceiving, such that his sensation related him not to a zebra, but a cleverly painted mule. In the terminology of epistemic logic, although, relative to the son, a cleverly painted mule is not epistemically accessible to the animal relative to himself, relative to the father, the worlds in which the son is misperceiving are epistemically accessible to the actual world. He entertains thus the epistemic possibility of him perceiving, and also the epistemic possibility of him misperceiving, and through bringing in the live option of his misperception, with regard to his perceptual belief that that was a zebra, the father brought in the epistemic possibility of the son's perceptual belief being false. In the actual scenario, it is thus an epistemic counterpart identical to his son that he is misperceiving, even if the actual son is in fact perceiving. Once the father checked, the epistemic possibility of his son misperceiving is ruled out by such further evidence thus acquired.⁶

⁶ See Cheung (forthcoming) for the counterparthood theory of epistemic possibility.

3. Justification

With regard to a given object, relative to an epistemic agent, there are variously diverse epistemic possibilities of what properties the object instantiated. Call the set of epistemic possibilities of the object the epistemic context about the object. Specifically, the epistemic context about the actual world is the set of epistemic possibilities of the actual world. The informativeness of an utterance measures how much knowledge one achieved through listening to it in some pragmatic context. In some occasion, a same utterance could have had a greater informativeness if the listener had more epistemic possibilities in their epistemic context as long as they come to know. Consider the mother who did not know about the typical zoo arrangement. On the other hand, if the listener had less epistemic possibilities in their epistemic context, a same utterance could also have had a less informativeness even if they came to know. Consider the zookeeper who knew all along that that was a zebra. The same evidence, acquired through testimony, could have justified differently relative to epistemic agents with different epistemic context. The question, therefore, is the criterion of membership of epistemic context.

David Lewis proposes a contextualism that shall later come to be known as a subject-sensitive invariantism.⁷ He hedges, or so it seems, between an epistemic infallibilism and an epistemic fallibilism that permits knowledge with uncertainty, which is measured by the numerosity of the amount of alternatives not ruled out. However, in this paper, I shall perforce an epistemic infallibilism reading of Lewis' contextualism, especially with regard to his notion of ignoring alternatives properly. In virtue of having properly ignored some alternatives, for any p , one knows that p if and only if one's evidence fully justified, epistemically, the belief that p . In an epistemic situation in which some further alternatives are brought in, which the epistemic agent's evidence failed to rule out, they shall have had their knowledge destroyed and become ignorant of the corresponding fact – until further evidence be acquired, or prior evidence be better utilized in understanding the world.

Lewis lays out a few rules to determine what it is to properly ignore some alternatives, leaving some other possibilities to stay in the epistemic context. The most intriguing one is the rule of attention. In an epistemology lecture, when it is radical scepticism under discussion, thinking about the sceptical scenarios, through attending to the corresponding possibilities alternative to actuality, brings in such alternatives, and they are thus not to be ignored because not ignored. When the epistemic context included the alternatives in which one is, for example, a brain-in-a-vat, given that shall one be in a bad case, one shall have never known that one is

⁷ Lewis (1996).

in it because evidence shall have always left the good case epistemically accessible, there shall be no knowledge about whether one is a brain-in-a-vat or not a brain-in-a-vat however much efforts one made. The only way for knowledge of oneself being a good case is for the discussion to subside and the sceptical scenarios no longer salient.

Saliency plays a role in epistemology in the following way. Consider, when the child uttered 'That's a zebra!', the father recalls having read about some malpractice of zoo management that they sometimes, to lower cost, use cleverly painted mule in substitution of real zebra in zoo exhibits. Lewis' contextualism entails that, in such a case, that was a cleverly painted mule is an alternative not properly ignored, and thus, to know that that was a zebra, one's perceptual evidence would have to have such alternatives ruled out as well. Without having learned of the commonplace malpractice, their perceptual evidence could have fully justified, epistemically, their perceptual knowledge that that was a zebra; having learned of it, and thus having brought the corresponding alternatives into salience, their perceptual evidence no longer fully justified their corresponding perceptual belief epistemically, which thus failed to have constituted knowledge.

Notice that this had been an improvement given Williamson's conception of evidence. If what constituted a relevant alternative is simply the alternative to the proposition being entertained, in virtue of deriving a logical consequence of the belief that that was a zebra that it is not a cleverly painted mule, one shall have to have further evidence to justify the belief, albeit not perceptual, that that was *not* a cleverly painted mule. Is one ever justified to derive some logical consequence, especially epistemically competently, and thus come to know it? It is one thing that the integrity of the zoo and the trustworthiness of the zoo management be called into question, which one decided that one is not to doubt, and it is another that with each logical consequence one derived, shall it be empirically justifiable, further perceptual evidence is required. If, in the good case, one knew that that was a zebra, one, through competent deduction given some auxiliary pieces of knowledge, shall have also come to know that it is not a cleverly painted mule.⁸

The issue here is when it is that competent deduction destroyed knowledge. The traditional epistemology seminar in which, through competently deducing, for example, that one is not dreaming, from how we are epistemically justified to know about our environment through our perception, invites us to consider Lewis' rule of

⁸ The prior trust one had is understood with presupposition. The more presuppositions one made, the smaller the epistemic context. A knowledge rule of presupposition shall leave everyday conversation intact because there can be epistemic context about the actual world, and also epistemic context about some counterfactual worlds.

attention as a guide to ignoring properly with regard to doubt. If we started without any knowledge, then it is unclear what it is that are left undoubted. If we start with some knowledge, especially ordinary knowledge, the question we may start with is what we are to doubt. Lewis' contextualism empowers an epistemic infallibilism that entails knowledge with certainty, such that, for any p , one knows that p only if one does not (epistemically rationally) doubt that p . If, for example, one ought to have doubted that that was a cleverly painted mule, and thus it is a relevant alternative that it is, what, then, is the permission, and the obligation, to doubt?

4. Relevance

In the previous section, I borrowed from David Lewis to assert that

- (1) For any p , p is in an epistemic context if and only if p is epistemically relevant.

In this section, I will further defend the following.

- (2) For any p , p is relevant if and only if p made any justificatory difference.

The special case for epistemology is the following.

- (3) For any p , p is epistemically relevant if and only if p made any epistemic justificatory difference.

(1) and (3) logically entails the following.

- (4) For any p , p is in an epistemic context if and only if p made any epistemic justificatory difference.

As will be demonstrated, difference-making, in different context, is of a degree, and thus the relevance of some former thing to some latter thing is measured with the justifiability of the former to the latter, or the justifiability of the latter by the former. It is therefore crucial to demonstrate what justificatory difference is, and when it is that something made a justificatory difference. Before doing so, let me reiterate the following.

- (5) For any p , one ought to have doubted that p only if p is an epistemically relevant alternative.

Since the goal of any inquiry is to know, I shall start with an epistemically relevant alternative that is the fact – alternative to the salient proposition one is entertaining because one is considering a falsehood.⁹ Suppose, in the counterfactual scenario, the child indeed formed the perceptual belief that that was a zebra. However, contrary to what his sensory experience seems to him to indicate, what it

⁹ This aligns with Lewis' rule of actuality.

was in fact a cleverly painted mule disguised as a zebra. Although he seemed to himself to have acquired the perceptual evidence of its being a zebra, he, by (5), ought to have doubted that it was a cleverly painted mule. In the epistemic context about the animal, it is an epistemic possibility of it that it is a cleverly painted mule because, in such counterfactuality, it in fact is so, and given the reflexivity of epistemic accessibility,¹⁰ such counterfactuality ought to have been epistemically accessible to itself. Although, as discussed in the previous section, relative to the child, it is not – relative to himself – epistemically accessible from the animal he was looking at, such epistemic perspectivity is understood with his reflective knowledge. The present epistemology entails that it is an epistemic possibility relative to the child, but he would have believed of himself otherwise.

Given the fact as it is stipulated, although the child believed of the animal that that was a zebra, that it was a cleverly painted mule belonged to the epistemic context because of such reflexivity of epistemic accessibility. This is what the present epistemology entails, with the corresponding epistemic normativity to be further articulated. However, as a matter of fact, modelling the child's cognition might have been better had it not belonged to the epistemic context. This, I think, confuses the factual with the normative, and commits a psychologism fault. In any case, given its belonging to the epistemic context, by (1), it is epistemically relevant, and thus by (2), it made some justificatory difference. It made some justificatory difference to the perceptual belief that it was a zebra because it fully justifies, epistemically, the belief in its negation: that it was not a zebra – because, instead, it was a cleverly painted mule. The epistemic relevance of actuality is thus understood with the difference it made to the epistemic justification of the belief in its corresponding facts, albeit even negative facts.

Positively, instead of a negative justification through justifying a decision otherwise, through justifying believing in its negation, something could have made a justificatory difference to a decision through increasing its justifiability. Consider the father's doubt of the son. When believing outright, as his mother does, in what the child said, although the mother comes to know, her knowledge through the son's testimony has not yet withstood the trial of questioning his son's trustworthiness. Since, in the actual scenario, it is a fact that the son knows that it was a zebra, the mother, without having doubted his son, has not brought into her epistemic context the epistemic possibilities of his son's perceptual belief being false. Instead, the father checks the son's testimony against actuality, and comes to know not only, through what the son knows, the facts, but also know that his son knows those facts. His

¹⁰ See Cheung (forthcoming) for an epistemic accessibility that is reflexive, nontransitive, and nonsymmetric.

doubt is not only permitted, but obligated, because it did make some epistemic justificatory difference – it makes an epistemic justificatory difference to the father’s knowledge of the son’s knowledge that it was a zebra. The epistemic obligation here is understood with how the father performed epistemically better through doubting his son.

I disagree with Lewis that every time something be brought into salience, it belonged to the epistemic context. Sometimes something that makes no justificatory difference is brought into salience, and thus one must not have considered those alternatives. When must one have doubted something is weakened with the following question: when is a doubt reasonable? If an epistemic doubt is rational only if the doubted is false, then a doubt, even if of something true, albeit suppositional, is reasonable if it shall have made an epistemic justificatory difference – as in the case in which the father doubted the son. Rationality is determined by success, whereas reasonableness is less so. The father could have had a reasonable doubt before knowing he doubted correctly. He doubted appropriately if and only if it was epistemically relevant.

I confess that the present theory of epistemic relevance failed to adjudicate between controversial cases in which one is to decide whether the epistemic agent knows or not. I take it as an intellectual datum that, in ordinary cases, without any commonplace malpractice, zoo visitors know that something is a zebra when one sees one, and are also thus epistemically justified to know that it is not a cleverly painted mule – although it yearns for further evidence about the integrity of the zoo and the trustworthiness of its management, that there is no commonplace malpractice constitutes sufficient evidence of their trustworthiness. With regard to knowing, through perception, that it is a zebra, the alternative that it is a cleverly painted mule is not immediately epistemically relevant because it does not make any immediate epistemic justificatory difference. With regard to knowing further that one can trust the zoo management, such that one may trust one’s perception to be functioning properly during the zoo visit, calling the zebra one saw into question and bringing into salience its alternative of being a cleverly painted mule shall, given methods of settling the dispute, be conducive to knowing something more, and thus make some epistemic justificatory difference. One shall have been thus better justified epistemically to trust the zoo management.

5. Conclusion

Relevance, from the relevant alternative theorists, often confuses the metaphysical modality with the epistemic modality. Gail Stine states that ‘an alternative is relevant only if there is some reason to think that it is true’, in contrast to what he attributes

to Fred Dretske, which states that ‘an alternative is relevant only if there is some reason to think it *could* be true’.¹¹ He indeed considers metaphysical possibility,¹² but I applaud him through perforcing the understanding of his theory as describing how metaphysical impossibility entails epistemic impossibility: ‘A relevant alternative is an alternative that might have been realized in the existing circumstances if the actual state of affairs had not materialized’.¹³ The interaction between epistemology and epistemic logic demonstrated in this paper is that as long as I provided a theory of epistemic context that describes epistemic accessibility of fact, I would have differentiated the normative – what is to be settled philosophically – from otherwise¹⁴. The lingering thought between the difference of what must have belonged to an epistemic context and what belonged to an epistemic context shall clear as I apply the theory to other epistemological problem. A belief constituted knowledge if it is epistemically immune from error within the epistemic context; so how is it that an alternative does not handicap the belief? With this, I shall turn to discuss epistemic risk in a next paper.

References

- Cheung, Wai Lok. forthcoming. Epistemic possibility: Kripke versus Soames. *Australasian Journal of Philosophy*. In press.
- Dretske, Fred. 1970. Epistemic Operators. *Journal of Philosophy*. 67:1007-23.
- Kaplan, David. 1989. *Demonstratives: An Essay on the Semantics, Logic, Metaphysics and Epistemology of Demonstratives and other Indexicals*. In J. Almog, J. Perry & H. Wettstein (eds.). *Themes From Kaplan*. Oxford: Oxford University Press.
- Lewis, David. 1996. Elusive Knowledge. *Australasian Journal of Philosophy*. 74:549-67.
- Stalnaker, Robert. 1978. *Assertion*. In Stalnaker R. 1999. *Context and Content: Essays on Intentionality in Speech and Thought*. Oxford: Oxford University Press.
- Stine, Gail. 1976. Skepticism, Relevant Alternatives, and Deductive Closure. *Philosophical Studies*. 29:249-61.
- Williamson, Timothy. 2000. *Knowledge and its Limits*. Oxford: Oxford University Press.

¹¹ Stine (1976:152).

¹² Dretske (1970:1020-1fn5).

¹³ Dretske (1970:1021).

¹⁴ See Cheung (2026) for a theory of belief using a theory of knowledge through the normativity of the latter via a given epistemic accessibility.