

Chapter 19

INTUITION AND MODALITY

a disjunctive-social account of intuition-based justification for the epistemology of modality

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19.1 The epistemology of modality

The philosophy of modality is the study of the metaphysics, semantics, epistemology, and logic of modal claims, such as ‘it is necessary that $2 + 2 = 4$ ’, ‘it is possible for France to win the 2016 UEFA CUP’, ‘it is possible for there to be more electrons than there actually are’, ‘it is essentially the case that whales are mammals’, and ‘it is essentially the case that 2 is the successor of 1’. The central question of the epistemology of modality is the following:

How can we come to possess sufficient justification such that we can come to know (i) what is necessary, possible, contingent, essential, and accidental for the variety of kinds of entities there are, tables, numbers, soccer teams, etc., as well as (ii) what the modal properties are for particulars, such as Fido the dog or the table on the far side of the room?

One way to explore the central question involves reflection on the epistemology of possibility for concrete particulars. Consider claims (A) and (P), and the question (J):

(A) The cup, c , is actually located at L at time t .

(P) The cup, c , could have been located at L^* at t .

(J) Given (A), how can a subject S be justified in believing (P)?

There are at least seven different answers to (J).

Conceivability: Even though c is not at L^* at t , S can conceive of a scenario G in which c is at L^* at t , where G is both consistent and coherent. S can derive justification for believing (P) by conceiving of G , and basing their belief in (P) on G .

Conceivability-based theories are the most developed and criticized theories in the epistemology of modality. They have a long historical lineage tracing back to medieval philosophers, such as St. Anselm, through modern philosophers, such as Descartes, and up through contemporary philosophers, such as Stephen Yablo (1993) and David Chalmers (2002).

Imaginability: Even though c is not at L^* at t , when S imagines c being moved from its original position O , to L^* instead of L , S does not arrive at a contradiction under a robust search for one. If S bases their belief in (P) on their imaginative exercise, then S is justified in believing (P).

Imagination-based theories are the second most developed and criticized theories in the epistemology of modality. Typically, imagination-based theories are contrasted with conceivability-based theories along the dimension of sensory experience. Even though both Hume and Berkeley use the term ‘conceivability’, their accounts are better understood as imagination-based theories because of their empiricist accounts of the mind. Conceivability-based theories tend to be rationalist in nature. Counterfactual-based theories are classified within the realm of imagination-based theories because of their reliance on the counterfactual imagination when providing an account of the epistemology of modality. Williamson (2007) offers a counterfactual-based theory.

Deduction: Even though c is not at L^* at t , S can deduce from justified beliefs about some of the essential properties of c , and the relevant details about the location L^* , that c could have been at L^* at t . S can make this deduction, since the *essential* properties of c that S is justified in believing in are compatible with c being at L^* at t . If S makes this deduction, they will be justified in believing (P).

Deduction-based theories aim to identify specific modal principles from which one can derive modal knowledge through deductive inference. Hale (2013), working off of Kripke’s (1971) account, has offered an engaging version of the deductive approach.

Theory: Even though c is not at L^* at t , if S is justified in believing theory T , T implies that c could be at L^* at t , and S believes that c could be at L^* at t on this basis, then S can be justified in believing (P).

Theory-based theories focus on the role that theory selection plays in modal knowledge. The core idea is that one has a justified belief for a given modal claim only when they believe a general theory that justifies the specific modal claim. Fischer (2016) has defended an impressive and detailed theory-based theory.

Similarity: Even though c is not at L^* at t , from S ’s prior observation of objects similar in relevant respects to c , and their actual locations and movement, S can come to be justified in believing (P).

Similarity-based theories hold that much of the knowledge of possibility we have in ordinary cases derives from making an inference, relying on the uniformity of nature, from an observed entity that has a property to a relevantly similar entity possibly having the same property. Roca-Royes (2016) has developed a similarity-based theory that covers a wide range of ordinary possibility claims.

Perception: even though c is not at L^* at t , S sees that c could have been at L^* at t , and on that basis is justified in believing (P).

Perception-based theories are controversial, since they push against the main rationale for investigating the epistemology of modality – the claim that perception is *categorically inappropriate*,

since perception is only a guide to the actual world, whereas modality is about necessity (what is true in all worlds) and non-actual possibility (what is true in some non-actual possible world). Perceptual theories aim to give us an account of how perception puts us in contact not only with present objects, but also possibilities for them. Perception-based theories typically do not attempt to account for all kinds of modal knowledge. Rather, they focus on specific kinds of ordinary possibility claims, such as ‘I can see that the cup could have been at L^* at t , even though it is at L at t' . Margot Strohminger (2015) has developed an engaging version of a perception-based theory.

Intuition: even though c is not at L^* at t , S has a non-sensory-based intuition that c could be at L^* at t when S entertains the question: could c have been at L^* at t ? If S bases their belief in (P) on the non-sensory-based intuition, S will be justified in believing (P).

In the rest of this chapter I will focus on unpacking and developing an intuition-based theory that is distinct from Bealer’s (2002) *modal reliabilism* (MR). Bealer’s account aims to draw a connection between the epistemology of intuition, concept possession, thought experiments, and modality.

(MR) holds that there is a strong metaphysical connection between understanding a concept C and having truth-tracking intuitions about whether C applies in a given scenario. Bealer’s aim is to establish that if a subject S determinately understands a concept C and cognitive conditions are ideal, then S must have truth-tracking intuitions about whether C applies in a given case D . The central question concerns how to explain a subject’s failure to have truth-tracking intuitions. On (MR) there are three options: (i) the concepts are not of the right kind, (ii) cognitive conditions are not ideal, or (iii) the subject does not determinately understand the concepts. As a consequence, if the concepts are of the right kind, cognitive conditions are ideal, and the subject determinately understands her concepts, it appears difficult to explain how she could fail to have truth-tracking intuitions about C ’s application in a given case D . Consider the following illustrative example from Bealer (2002: 103).

Suppose that in her journal a sincere, wholly normal, attentive woman introduces through use (not stipulation) a new term ‘multigon’. She applies the term to various closed plane figures having several sides (pentagons, octagons, chiliagons, etc.). Suppose her term expresses some definite concept—the concept of being a multigon—and that she determinately understands this concept. By chance, she has neither applied her term ‘multigon’ to triangles and rectangles nor withheld it from them; the question has just not come up. Eventually, however, she considers it. Her cognitive conditions (intelligence, etc.) are good, and she determinately understands these concepts. Suppose that the property of being a multigon is either the property of being a closed, straight-sided plane figure, or being a closed, straight-sided plane figure with five or more sides. Then, intuitively, when the woman entertains the question, she would have an intuition that it is possible for a triangle or a rectangle to be a multigon if and only if being a multigon = being a closed, straight-sided plane figure. Alternatively, she would have an intuition that it is not possible for a triangle or a rectangle to be a multigon if and only if being a multigon = being a closed, straight-sided plane figure with five or more sides. That is, the woman would have truth-tracking intuitions. If she did not, the right thing to say would be that either the woman does not really understand one or more of the concepts involved, or her cognitive conditions are not really ideal.

Using the multigon example as a backdrop, (MR) would address our question about the cup as follows. When S is asked, 'Could c have been at L^* at t ?' S will have a modal intuition about the modal property *possibly located at L^* at t* with respect to c on the condition that S is attentive, correctly possesses the appropriate concepts of a *cup, location, position, c itself*, and is engaged in determining the answer to the question. I now turn to some general issues in the epistemology of intuition leading up to a skeptical argument against intuition-based justification for beliefs about modality, I then sketch an alternative account of intuition-based justification for beliefs about modality.

19.2 The epistemology of intuition

In order to understand how intuition can be a source of justification for beliefs about modality, we need to look at some core questions about the epistemology of intuition, in general, and then apply those to the case of modality.

One of the best modern places to think about intuition is Chudnoff (2013). Here I offer my own pathway to an investigation over intuition. On my view, an investigation into intuition often starts with *the identification question*: what kind of mental state is *intuition*? Reductive views aim to reduce intuition talk to talk about some other kind of mental state. For example, doxastic views hold that intuition talk reduces to talk about beliefs or dispositions to believe, but there is nothing that is uniquely picked out as a mental state by *intuition*. Non-reductive views hold that intuition talk is not reducible to another kind of mental state, such as belief. Rather, intuition is a unique, *sui generis*, natural kind that has its own distinct phenomenology and cognitive role. Bealer offers a non-reductive view. Alongside the identification question is the *natural kind question*: does talk of intuition form a natural kind with a fixed set of criteria? In important recent work, Jennifer Nado (2014a) has argued that intuition talk does not form a natural kind.

After engaging these metaphysical questions, the epistemology of intuition often continues on to *the reliability question*: do intuitions derive from a reliable faculty of the mind? This question can be taken either in the sense of positing the existence of a faculty of intuition that is distinct from other faculties or in the sense of positing a set of faculties that generate intuitions, where no single faculty alone is *the faculty of intuition*.

Critically, Stacy Swain, Joshua Alexander, and Jonathan Weinberg (2008, hereafter SAW) have argued that there is evidence (deriving from studies) that shows that non-expert intuitions about concept application triggered by thought experiments are susceptible to order-embedding effects. An order-embedding effect occurs when an intuition about a thought experiment depends on the order in which the thought experiment is presented relative to other thought experiments. The basic critique is that *if intuitions are subject to order-embedding effects, then the faculty or faculties from which they arise is (are) unreliable*. Chudnoff voices a version of the worry that can be derived from SAW (2008):

If philosophers' intuitions about thought experiments are influenced by factors that do not track the truth about their subject matter, then it is unreasonable to accord intuitive judgments expressing them an epistemically privileged role in philosophical methodology.

(Chudnoff 2018: 196)

The skeptical argument that puts pressure on (MR) has three main parts. In part 1, the argument aims to establish that non-expert intuitions concerning concept application in thought experiments are not a source of justification. For example, SAW (2008) shows that non-expert

intuitions about whether a described case is a case of *knowledge* are subject to order-embedding effects, and thus intuitions about the application of the concept of knowledge are not reliable. In part 2, the argument aims to establish that non-expert intuitions concerning modality are not a source of justification because they are sufficiently similar to intuitions about the application of the concept of knowledge. The core idea is that every modal intuition, such as the intuition that it is possible for c to be located at L^* at t , can be generated through a question based on a description of a scenario in a way that is similar to how an intuition about the concept of knowledge can be generated from a thought experiment and a question about whether the concept of knowledge applies. In part 3, the argument aims to establish that neither expert nor non-expert intuitions about modality are a source of justification for beliefs about modality because the evidence pertaining to non-experts being susceptible to order-embedding effects also applies to experts, such as philosophers. While there is still debate over the status of the expertise defense (for example Nado 2014b, 2015; Horvath & Wiegmann 2016), it is clear that more theorizing and investigation are needed.

I now offer what I call the *Master Skeptical Argument Against Justification for Modal Beliefs Based on Intuition*. This argument is similar in kind to the one offered by Chudnoff (2018: 181–183). However, Chudnoff’s skeptical argument is focused on the conclusion that philosophical methodology is unreasonable, while the present argument aims at the conclusion that intuitions about modality fail to provide sufficient justification.

- (1) Non-expert intuitions about concept-application in thought experiments are susceptible to order-embedding effects, since, following SAW (2008), they have been shown to be susceptible to order-embedding effects in the case of intuitions about the application of the concept of *knowledge* across case descriptions, such as Lehrer’s Truetemp case.
- (2) If faculty F, which produces mental state M as an output, is susceptible to order-embedding effects, then faculty F is unreliable.
- (3) If faculty F is unreliable, then M, which derives from F, cannot be taken to provide sufficient justification.

∴

- (4) *Conclusion 1*: Non-expert intuitions produced through faculty F about concept application in thought experiments cannot be taken to provide sufficient justification.
- (5) If non-expert intuitions produced through faculty F about concept application in thought experiments are sufficiently similar to non-expert intuitions produced through faculty G about modality, then non-expert intuitions produced through faculty G about modality are also susceptible to order-embedding effects.
- (6) Non-expert intuitions produced through faculty F about concept application in thought experiments are sufficiently similar to non-expert intuitions produced through faculty G about modality.

∴

- (7) *Conclusion 2*: Non-expert intuitions produced through faculty G about modality are susceptible to order-embedding effects, and, consequently, cannot be taken to provide sufficient justification.
- (8) If non-expert intuitions (both about concept application in thought experiments and modality) are sufficiently similar to expert intuitions, in that there is no difference in skill or no real expertise, then expert intuitions are also susceptible to order-embedding effects.

- (9) There is no preponderance of evidence that expert intuitions via some skill (both about concept application in thought experiments and modality) are superior to those of non-experts who lack that skill by definition.

∴

- (10) *Conclusion 3*: Intuitions produced through faculty G about modality (both from non-experts and experts) cannot be taken to provide sufficient justification for beliefs about modality.

At (5), it is assumed that the faculty that produces intuitions about concept application is distinct from that of the faculty that produces intuitions about modality. And at (9), it is assumed that there is no significant difference between experts and non-experts in both the case of concept application and modality. The virtue of this setup is that it allows for a strategy of *dual insulation*.

On the one hand, one can insulate evidence about order-embedding effects in the case of concept application from those concerning modality. On the other hand, one can insulate the lack of skilled difference between non-experts and experts in the case of concept application from that of modality. This master argument allows one to evaluate the plausibility of the skeptical argument against the view that intuitions can provide sufficient justification for beliefs about modality.

19.3 Disjunctivism about intuition

One way to challenge the argument is to block the relevance of the evidence from order-embedding effects in the case of concept application. To do that I explore an analogy between, perception and intuition with respect to disjunctivism, and then move to a discussion of the relevance of social engagement with respect to being justified in believing a modal claim on the basis of intuition.

John McDowell (2008) articulates and defends what he calls a *disjunctive conception* of perceptual experience. He argues that the disjunctive conception of experience can provide resources for a transcendental argument against skepticism about the external world based on perceptual experience.

Disjunctivism about perceptual experience is best presented by contrasting it with the account it opposes: the highest common factor (HCF) account of experience. HCF maintains that veridical and non-veridical experiences share *a common kind of mental state*. HCF is motivated partly by the argument from illusion. McDowell's (2009) understanding of the reasoning involved in HCF can be captured as follows.

- (1) If two states are *first-person-phenomenologically-indistinguishable*, FPPI, then they should be categorized as falling under a *common epistemic kind*.
- (2) If two states fall under the same epistemic kind, then they provide the same warrant.
- (3) Veridical and non-veridical perceptions are FPPI.

∴

- (4) Veridical and non-veridical perceptions provide the same warrant.

Against HCF, McDowell presents the *disjunctive conception* of perceptual experience. His disjunctive conception involves three important theses.

- (i) Perception is a capacity for knowledge
- (ii) Non-veridical perceptions are metaphysically distinct from veridical perceptions.
- (iii) Non-veridical perceptions do not have the same warrant as veridical perceptions.

With respect to intuition, we should note that a similar argument to that of HCF in the case of perceptual experience could be made with respect to intuitional experience. The phenomenology of intuition does not allow us to distinguish, from the inside, the difference between a veridical case and a non-veridical case. There is no difference between intuition and perception with respect to the property of being FPPI. Thus, were we to follow the other premises, we would be led to the conclusion that our intuitional experience has the same warrant in both veridical and non-veridical cases.

Given the outline of the disjunctive conception of perceptual experience offered by McDowell, the disjunctive conception of intuitional experience that I defend holds that there is a distinction between non-veridical intuitions and veridical intuitions. In order to further develop this view, I will offer responses to two critical questions.

Question 1: Disjunctivism about perception holds that in veridical cases perception puts us in contact with the external world through a relation, but that relation is not factorizable into a mental component and an external world component. How can this be true for intuitions about modality? What would the relevant objects be that we are in contact with?

Response 1: In the case of intuitions about modality, it is important to note that there are two kinds of objects that intuition can relate us to. On the one hand, if one is a strong realist about modality, and holds, like Lewis, that possible worlds are real concrete particulars just like the actual world, it follows that the objects of modal intuition will be possible worlds. On the other hand, if one is a moderate realist and holds that possible worlds are real, not like the actual world but like numbers construed as abstract objects, then the objects of modal intuition will be possible worlds construed as sets of propositions or sentences, perhaps world books. Either way, if one is a realist about modality and accepts the possible worlds framework, the objects of modal intuition are simply possible worlds.

Question 2: Disjunctivism about perception holds that in veridical cases, perception puts us in contact with the external world. At least one way in which perception does this is through a causal relation between the mind and the world. The causal relation is a necessary condition, but not a sufficient condition for perception putting us in contact with the world. How can this be true for intuitions about modality? Possible worlds are causally isolated from us when they are taken to be either concrete particulars on the model of Lewis's modal realism or abstract objects on the model of Platonism in mathematics. Thus, disjunctivism cannot make sense for intuitions about possible worlds.

Response 2: An answer to this objection requires that we point out why we are inclined to say that when A perceives x , it is in part because A bears a causal relation to x . Inquiry reveals that part of the motivation for articulating causation as a necessary condition on perception is to account for *intentionality*. When A perceives x , A's mind is directed at x . Causation is part of perception because perception is an intentional relation between the mind and particulars in the world. As a consequence, we can get a key to what is important in the case of intuition by looking at the idea that intuition is an intentional relation to abstract objects; but in the case of intuition, it is not causation that explains the intentional relation. Rather, it is some other relation that does so. At this point I admit that I face an incredulous stare similar to the one Lewis faced when he proposed his modal realism where possible worlds are concrete particulars just like our whole universe, but are causally isolated from us. I grant the force of the rhetorical question: *What else could explain intentionality other than causation?* However, the idea that intentionality can only be explained by

causation is to reduce our ontology to only those things we can bear a perception-like causal relation to. It is worth pointing out that there is a tradition, stretching back at least to Plato and Plotinus, through Descartes and Spinoza, and as recently as Edmund Husserl and Kurt Gödel, of philosophers who have not been worried about the idea that intuition can be directed at entities that we have no perception-like causal relation to.

In general, the claim that intuition cannot be directed intentionally at a possible world because there is no causal connection between a person's mind and a possible world rests on a prejudice that holds that *the only way to explain intentionality is through causal relations* between the mind and the truthmakers for the content the mind is intentionally directed at. Once we move beyond the idea that causation is the only way to explain intentionality, at least one pathway is open for a disjunctive account of intuition. Our minds can be directed at all kinds of things. Causation is only one way in which intentionality is realized. Importantly, causation is important for intentionality directed at concrete particulars, but not for non-concrete entities.

The disjunctive account of intuition, (DI), holds that *when one has an intuition experience, either they have a veridical intuitional state or they have a non-veridical appearance that is phenomenologically similar to an intuition, but because something has gone wrong it is not a genuine intuition*. This account provides for a response to the *Master Skeptical Argument Against Justification for Modal Beliefs Based on Intuition*.

With (DI) in place, one can argue that the studies in SAW (2008) *do not show* that we fail to have *genuine intuitions*, which do provide sufficient justification. Rather, those studies show that we might not be able to discriminate between pseudo-intuition and genuine intuition without the help of others. However, the fact that we cannot alone determine that an intuition experience is a genuine intuition experience from the inside, doesn't show that we cannot be confident, through further epistemically responsible behavior with others that our intuitional experience is genuine. Moreover, we could be justified in believing that we have a genuine intuition when our intuition experience is shared by a *robust* and *sufficiently diverse* set of people that allows us to inductively infer that our intuition experience is genuine.

Thus, in the case of the cup, one might argue as follows: because S, and many others that are sufficiently different from S, which S has discussed the matter with, have the intuition that the cup, *c*, located at *L* at *t*, could have been located at *L**, S is justified in believing that their intuition that *c* could have been at *L** at *t* is genuine, and thus they are sufficiently justified in believing that *c* could have been at *L* at *t**. That intuitions suffer generally from order-embedding effects does not preclude one from (a) having a genuine intuition, and (b) being inductively justified in believing, because of the robustness of the intuition across a diverse set of agents, that their intuition is genuine.

That is, we can have meta-evidence about our first-order evidential states, which, when conjoined with our first-order evidential state, provides us with justification for beliefs about modality. Even if the faculty of intuition for modality is unreliable, it does not follow that a given intuition about modality is not factive. Reliability is about a source; factivity is about a given instance from the source. Given that a modal intuition, such as that *c* could have been at *L** at *t*, could be genuine, one can be justified in believing the content of the intuition, if it is robustly shared across various parameters, even if they fail to have a reliable source.

19.4 Reliability, learnability, and ordinary vs. extraordinary modal intuition

In addition, when we look at the results of the experimental studies that suggest that intuitions are unreliable because they are subject to order-embedding effects, we need to look at an

important contrast in the way this worry is voiced concerning the notion of *unreliability*. Here I offer two distinct voicings one should consider.

On the *careless consideration voicing*, we look at unreliability through the lens of a careless person who is epistemically irresponsible when collecting evidence about matters. They appeal to intuition because they are epistemically lazy. On the *conscientious learner voicing*, we look at unreliability through the lens of a person conscientiously learning how to be a competent judge concerning matters in some domain, while not yet meeting the standard that is recognized to be relevant. On the latter conception, we are likely to say that a person can get it right for the right reasons, but that she is not yet there; hence the unreliability. We do this all the time as educators in a variety of domains. Moreover, we are inclined to hope that the person can learn how to get things right, be a reliable judge, and engage in epistemically responsible behavior. The results from SAW (2008) say nothing about these two alternative voicings. While it is important to take note of whether participants *can* be manipulated in the survey environment, it is also important to take note of what they would do after they have an intuition experience to determine whether or not it is genuine. We need to check further into what the subject does with their intuition experience in order to check whether we ought to take their intuition experience seriously. Do they seek corroboration? Of course, this might not be required for every single belief formed on the basis of intuition. But we ought to check into a subject's epistemic behavior, when they have an evidential state.

The upshot of drawing attention to the contrast is that we should critically examine the view that holds that (i) an individual S can have a modal intuition that is genuine in the disjunctive sense, and (ii) neither S nor anyone else, S*, should take the intuition as providing more than *prima facie* justification, because there are skeptical reasons against taking the intuition more seriously, such as order-embedding effects or peer disagreement. That is, from the individual perspective, it could be true that a person has a modal intuition of the form, it is possible that *p*, because, as is the case in perception, they have the right kind of connection to an entity that registers the modal intuition as correct, even if it is not causal. However, the individual perspective can be contrasted with the social perspective where we take into further consideration the idea that the intuition is unreliable, not in the careless sense, but in the learning sense. Let me close with a further elaboration of this point. Consider the following pair of modal claims:

- (Z) Zombies (physical duplicates of humans, which lack phenomenal consciousness) could exist.
- (P) The cup, *c*, could have been located at L^* at *t*.

Arguably, (P) falls within the scope of what van Inwagen (1998), and others, have called ordinary modal claims, while (Z) falls within the scope of extraordinary modal claims. Upon considering both (Z) and (P), an individual, expert or not, can have a modal intuition. However, we should have different attitudes about the epistemic standing of the intuitions generated from considering these claims. While we could have genuine intuitions with respect to both (Z) and (P), (Z) is not shared across cultures and disciplines as much as (P) is. That is, (Z) fails the robustness test, while (P) passes it. In addition, whether one is an expert or not, we should treat intuitions about modality by taking into consideration their learnability.

While individuals from many different cultures and disciplinary backgrounds can have an intuition about (Z) and (P), only the subject matter of (P) is learnable in a recognizable way that enables us to understand how one can improve with respect to having an intuition about (P).

In the case of (P), one can observe relevantly similar particulars and how they are moveable in space, and they could even come to have a folk-theory of ordinary objects that underlies their intuitive reactions to modal questions about objects falling under the folk-theory.

By contrast, in the case of (Z) it is difficult to explain how one could learn to make a reliable judgment in the domain to which (Z) falls. For while we do have experience that puts us into contact with individuals who are culturally different from us. And we do have experience that puts us in contact with subjects who lack partial phenomenal consciousness, such as blindsight subjects, we appear to have no contact with individuals that lack complete phenomenal character across all sensory modalities in a way where they could assert their lack. In order to assert the lack of phenomenal character, one would have to already possess the concept of phenomenal character in a way that applies to their own experience, which by definition zombies fail to have. Of course, one can counter this asymmetry argument by holding that through the practice of philosophy, one can learn to have better and better intuitions about (Z). On the social model I advocate, this would open up the question of whether or not the intuition is widely shared across a diverse set of individuals, such that one can take their, say, positive intuition about (Z) as being genuine. In addition, it appears that (Z) faces wide peer disagreement and is even unavailable to members of certain cultures and disciplines.

Finally, the learnability of the subject matter to which an intuition experience belongs is relevant to the attitude we should take toward the intuition having epistemic standing. In both cases, one could fail to have a genuine intuition, but in the case of (P), unlike (Z), it appears that the intuition is shared, and that we can appeal to methods outside of intuition in order to corroborate or help explain the correctness of the intuition, such as actually moving c to L^* at a distinct time, and showing that some things are contingent. In contrast to (C), nothing outside of intuition is available for corroborating (Z).

While I have not offered a complete account of intuition-based justification for beliefs about modality, I have sketched two main components of that account. The first is the acceptance of a disjunctive account of intuition experiences as being either genuine intuitions or intuition-like experiences that have gone wrong in some way. The second is to join the disjunctive account of intuition to a social dimension characterized by epistemic responsibility. For example, when a subject S has an experience, which can either be an intuition or merely intuition-like, that p is possible, does S seek to discover whether the intuition is shared? The conjunction of the two parts yields an alternative to Bealer's *modal reliabilism*, as well as a response to skepticism about intuition-based justification in the epistemology of modality.

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Further Reading

Chapters 1 and 4 of C. Peacocke, *Being Known* (Oxford: Oxford University Press, 1998), are where one finds a classic articulation of the integration challenge for the metaphysics and epistemology of modality as well as an account of *the implicit knowledge of principles of possibility* as a model for modal knowledge. T. Gendler and J. Hawthorne, *Conceivability and Possibility* (Oxford: Oxford University Press, 2002) is a classical source for issues in the epistemology of modality, especially concerning the work of David Chalmers and George Bealer. T. Williamson, *Philosophy of Philosophy* (Oxford: Blackwell Publishing, 2007), Chapter 5, is the most sustained articulation of the counterfactual account to the epistemology of modality. B. Hale, *Necessary Beings: An Essay on Ontology, Modality, and the Relations between Them* (Oxford: Oxford University Press, 2013), Chapter 11, is the most sustained account of the deduction model for modal knowledge.