RATIONALISM AND MODAL KNOWLEDGE

STEPHEN K. MCLEOD
Department of Philosophy
University of Liverpool
skmcleod@liv.ac.uk

SUMMARY: The article argues against attempts to combine ontological realism about modality with the rejection of modal rationalism and it suggests that modal realism requires (at least a weak form of) modal rationalism.

KEY WORDS: modal realism, epistemology, a priori, empiricism, intuition

RESUMEN: El artículo da argumentos en contra de que se intente combinar el realismo ontológico sobre la modalidad con el rechazo del racionalismo modal y sugiere que el realismo modal exige (por lo menos una forma débil de) racionalismo modal.

PALABRAS CLAVE: realismo modal, epistemología, a priori, empirismo, intuición

1. *Modal Realisms and Modal Epistemology*

According to the semantic realist about modality, there are modal truths: as opposed, say, to all modal discourse being systematically false, as the error theorist has it, or non-factual, as the projectivist has it. We require an epistemology for modality only if semantic realism holds, so semantic realism is presupposed for the purposes of this article. Semantic realism about modality is a necessary but non-sufficient condition for ontological realism about it. For the ontological realist the distinctively modal element to the modal truth is grounded in mind-independent reality (rather than, for example, being grounded merely in convention).[1]

Much current work in the epistemology of modality focuses on metaphysical modality, taking after Kripke's approach to a posteriori necessity. For Kripke, we know the necessary a posteriori by *modus ponens* inference from an a priori major premise and an empirical minor premise. For example, following the exposition of Hale (1996, p. 492):

---

[1] I adopt this account of ontological realism, which allows but does not require realism about possible worlds, mainly for explanatory convenience. This way, Lewis (1986) counts as an ontological realist, despite his realism being about possible worlds rather than *modes*. Since Lewis is a modal reductionist according to whom the possible worlds are *non-modal* objects, he can be characterised, more strictly, as an *ontological anti-realist*. This complication makes life more difficult than it need be here. So does the existence of non-Lewisian but "possible worlds first" approaches to modal ontology.

> If a chemical stuff has a given chemical formula then it has that chemical formula of necessity.

> Water is the chemical stuff with chemical formula H_2O.

> Water is necessarily H_2O.

It is the *truth*, rather than the *necessity*, involved in the necessary a posteriori that is known a posteriori. The *a posteriority* of the conclusion is the result of "spill-over" from the empirical minor premise. The modal major premises, which Elder (2004, p. 5) dubs "template truths", are held to be known a priori (e.g., Kripke 1971, p. 88). Rationalist accounts of modal epistemology entail that at least some modal knowledge is essentially a priori.[2] However, we may be tempted, with Ellis (2001), Miščević (2003) and perhaps Elder (2004), to be realists about natural necessity but opponents of a priori modal knowledge construed rationalistically.[3] The main aim of this article is to suggest that such temptation should probably be resisted. A positive modal epistemology for ontological realism about the modal is likely to be a rationalist one. In this section, some varieties of realism and anti-realism about the modal are explained. Some rationalist theses in the epistemology of modality are outlined and some putative combinations of ontological realism about the modal with anti-rationalism are summarized. Sections 2 and 3 argue against two such combinations. It is concluded, minimally, that those who contend that ontological realism about modality can be combined with the wholesale rejection of modal rationalism have not established their view. Moreover, it is difficult to see how they might do so.

In the context of the epistemology of modality, an *epistemic* conception of the distinction between rationalism and empiricism is of primary concern. Rather than being about the origins of our ideas, this conception of the distinction concerns *epistemic priority*. An item of propositional knowledge, p, is epistemically prior to an item of propositional knowledge, q, if and only if knowledge that q depends on knowledge that p and knowledge that p does not depend on knowledge that q.

---

[2] I take it for granted, throughout this article, that a priori knowledge is a kind of *conceptual* knowledge and that the rationalist agrees.

[3] The combination of realism about natural necessity and (a general) hostility to the a priori is, it seems, present in Millikan 1984 (pp. 10–11, 94, 254, 257, 263, 273–274, 326–327), though according to her colleague Elder (2004, p. xii) she is a semantic anti-realist about the modal.

Weak rationalism about the modal results from the combination of the following theses. First, there are items of modal knowledge and (at least) some of them depend on some items of a priori modal knowledge. Second, for some of those items of a priori modal knowledge, no item of a posteriori knowledge is epistemically prior. The weak rationalist's first thesis can be embraced by non-Quinean empiricists. It is the second thesis which provides the distinctively rationalist element to weak rationalism.[4] The second thesis does not require that the relevant a priori modal knowledge is epistemically prior to the relevant a posteriori modal knowledge, but it precludes the a posteriori modal knowledge from being epistemically prior to the a priori modal knowledge. The Quinean empiricist will reject the second thesis, partly on the basis that there is no a priori knowledge. Empiricist foundationalists like Ayer (1950) will reject it on the grounds that empirical knowledge is epistemically prior to a priori modal knowledge. For the rationalist foundationalist, like Descartes, some a priori knowledge has epistemic priority over all other items of propositional knowledge. Weak rationalism is compatible with, but does not entail, rationalist foundationalism.

Strong rationalism about the modal claims that there are items of modal knowledge and that for every item of modal knowledge, p, there is some item of modal knowledge, q, such that knowing p requires a priori knowledge of q. When knowing that p requires a priori knowledge that q, then either the epistemic priority is in a q-to-p direction or else q and p are one-and-the-same item of knowledge. Strong rationalism debars there from being any item of modal knowledge which lacks a basis in the a priori. For the strong rationalist, there can be no *exclusively* empirical process resulting in modal knowledge. Some extra-empirical knowledge is required *whenever* a modal truth is known.

Kripke (1971; 1980) set out to refute the claim, central to the orthodox logical positivist approach to modality, that the necessary and the a priori are co-extensive.[5] Kripke takes the modal major premises in arguments to modal knowledge a posteriori to be a priori. If Kripke accepts that for some of those items of a priori modal knowledge, there is no item or set of items of a posteriori knowledge epistemically prior to the a priori modal knowledge, then he

---

[4] Compare my use of "rationalism" with that of Markie 1998 (§ 1). By this usage, the rationalist need not hold that there are synthetic a priori truths.

[5] For subtleties concerning the articulation and interpretation of this thesis, as understood, in particular, by Ayer (1946), see McLeod 2008.

is (at least) a weak rationalist.[6] Strong anti-rationalism rejects weak rationalism. I distinguish between two ontologically realist, strongly anti-rationalist strategies concerning the modal. One is based on *confirmationism* about the modal; the other, on the *appeal to the explanatory purchase* of the modal.[7]

Confirmationism tries to ward off epistemological worries by providing an *empirical* account of how we can tell the difference between what must be and what merely is. The claim is that knowledge of metaphysical modality does not require the a priori. Elder (1992; 2004) is what I am calling a "confirmationist". The strategy of the appeal to the explanatory purchase of the modal, on the other hand, claims that modalising has explanatory content with respect to the empirical world. If either strategy works, then a key motive for rationalism, namely the thesis that the modal is empirically empty, is undercut.[8]

Before proceeding further, let us review some philosophical theories concerning matters ontological and epistemological. We will focus, in particular, on the relationships between these theories.
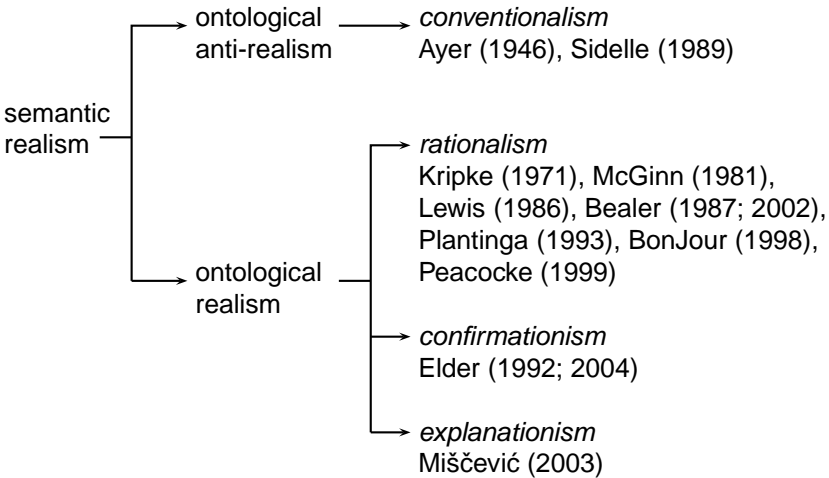

Figure 1: An overview of modal epistemology

---

[6] I believe that the antecedent is true, but arguing for it would involve exploring some (exegetical and other) subtleties marginal to my present aims.

[7] See also McLeod 2005.

[8] Compare Miščević 2003. For discussion of the thesis that the modal is empirically empty see, for example, McGinn 1981 (pp. 180–183).

We are concerned with the three ontologically realist approaches. The ontological realist may hold that a model of knowing which has it that all our knowledge is derived via our causal interaction with the world is more epistemologically suspect than modality. That is to say, it may be claimed that we can justifiably be more certain that we know that a given modal claim is true than that we know to be true an epistemological theory which brings our claim to modal knowledge into doubt or which, if our claim to knowledge were true, could not explain its truth.[9] By the lights of *global* rationalism, knowledge of at least some aspects of at least some of our concepts is, as a matter itself of real necessity, fundamentally a priori. *Modal* rationalists take it that such knowledge includes knowledge of some of the modal truths. On one form of account, for example, the deeming of certain modal propositions as true is taken to be characteristic of having the cognitive capacities constitutive of understanding the conceptual contents of those propositions.

The ontologically realist strategies in modal epistemology are co-tenable so long as no one of them is taken to extend to *all* modal knowledge. Only in its *strong* form does rationalism fail to be co-tenable with any of the other ontologically realist strategies. For the philosopher who wishes to provide an epistemology for ontological realism about modality there appears to be no pathway which does not involve dependence upon the a priori. In the next two sections I consider, and reject, two such putative pathways. Moreover, considerations are offered which suggest that the exponents of these pathways do not succeed in executing their ambition to provide philosophies of modality which do not require modal rationalism.

2. Confirmationism

The confirmationist takes it that the distance between the empirical and the modal that the modern philosopher typically assumes is an exaggeration. Contrary to the view that we can observe only what *is* the case and never what *must* be, the advocate of confirmationism has it that knowledge of *de re* modality can be wholly empirical. On this view, observation can provide us with defeasible evidence of necessity. Confirmationism is inconsistent with McGinn's claim (1981, p. 81) that the modal transcends what can empirically be verified. The falsehood of McGinn's claim, however, is insufficient for the falsehood of weak modal rationalism.

---

[9] This is the response of McGinn 1981; compare McGinn 1976 (pp. 198–199).

Elder (2004, p. 22) claims that "there is an empirical test for essentialness".[10] Moreover, Elder (2004, p. 38) holds that "conclusions about the properties essential to nature's kinds and stuffs and phenomena" can properly be gleaned "strictly from what we learn by experience". Although he is an ontological realist about the modal, Elder (2004, pp. 38–39) rejects rationalism about "template truths" (i.e., the modal major premises in *modus ponens* arguments to necessary a posteriori conclusions), seeing his modal epistemology as an alternative to such rationalism. Modal scepticism and modal anti-realism are often motivated by appeal to the apparent lack of harmony between realist suppositions about modality and a causal account of knowledge. So, modal scepticism and epistemologically motivated modal anti-realisms can be offset if we can provide an epistemology for modality that does not go beyond the epistemological parameters internal to those views. This perspective is an element in the approach of Elder (1992; 2004).

Elder sets up the following dilemma. If the realist's ultimate explanation of the difference between necessarily and contingently true universal generalisations is that a necessarily true universal generalisation holds in all possible worlds, then "there is not the least reason to suppose we are reliable at detecting" such necessities (1992, p. 317). If the difference itself is held to be primitive, the realist is seemingly left with no way of distinguishing between what counts as evidence for the modalised generalisation and what counts as evidence for the non-modal generalisation, except "an undiscussable difference —one apprehended by some form of pure intuition" (1992, pp. 317–318; compare 2004, p. 6). Elder's way out is to seek to provide an empirical test for distinguishing between essential and accidental generalisations, where the former are understood to involve "those sorts of necessity which, as everyone agrees, we are entitled to believe in only if we do more than just entertain them in our minds —only if we also do empirical research" (1992, p. 318).

Against rationalism about "template truths", Elder offers a cursory attack on the appeal to intuition and an alternative, confirmationist, epistemology. The only rationalist model of knowledge of template truths Elder discusses is that of intuition, construed as direct intellectual insight, which he dismisses as "fanciful" (2004, p. 6). From this, along with Elder's remark (2004, p. 3) that conventionalism provides the only "developed" modal epistemology to rival his own, it may be surmised that he thinks little of modal rationalism, in which the

---

[10] Compare Elder 1992 (p. 318).

appeal to intuition plays a major role.[11] In dismissing the appeal to intuition, Elder's anti-rationalist point is not, it seems, that appealing to rational intuition as evidence for template truths is appealing to rational intuition at the wrong stage in the process of acquiring modal knowledge a posteriori. Rather, it is that the supposition that intuition has any role to play in knowledge of essence and natural necessity is at best gratuitous.

Elder employs the notion of contrariety in proposing his empirical test for essentialness:

> First, we must establish that Ks are in fact uniformly characterized by properties in a certain cluster —say, by properties f, g, and h. Subsequently, we must discover that items generically akin to Ks, and differing from Ks by bearing some property (say, f') contrary to a property that Ks uniformly have, likewise uniformly bear properties contrary to others of the properties Ks uniformly have (the generically similar kind will have, say, g' and h'). I call this test "the test of flanking uniformities". It is the test which [. . .] we [. . .] rely on for judging that Ks have f essentially [. . .], it is the test we should rely on. (2004, p. 23)

The proper contraries of a property, such as the atomic number of an element, are those, such as the atomic numbers of other elements, with which that property is commensurable but distinct (2004, p. 28). The identity of a property "consists at least partly in its contrasting, to the various (but commensurable) degrees it does, with its own proper contraries" (2004, p. 29). Elder appears, at least on the surface, to rely upon a priori intuition in his account of contrariety: "It seems utterly unbelievable that weighing 3.2 kg might have been compatible with weighting 28 kg, or that it might have been only slightly different from weighing 28 kg. Could *red* conceivably have been quite similar to *green*?" (Elder 2004, p. 31).

This talk of seeming might appear to be precisely the kind of *intellectual* seeming that Bealer (1987; 2002) classifies as a priori intuition. However, on the presumption that Elder (2004) retains the epistemological views of Elder (1992), things are not as the passage above makes them seem. Elder (1992) holds that knowledge of

---

[11] The direct intellectual insight model of intuition, dubbed " 'direct perception' Platonism" by Bealer (1987, p. 343), is not the only one available. On Bealer's own view, the modal rationalist can adopt a more dialectical view of the functioning of intuition, according to which intuition is reliable only subject to an appropriate sort of reflective equilibrium.

property contrariety is itself a variety of purely empirical knowledge of metaphysical modality. If knowledge of property contrariety is purely empirical, then Elder's appeal to it is not in tension with his contention that knowledge of essentialist necessity is purely empirical. If, on the other hand, knowledge of property contrariety requires a priori intuition, then an epistemology for essentialist necessity that appeals to knowledge of property contrariety cannot be a purely empirical epistemology. Property contrariety is far from being a modally innocent notion. F and G are contrary properties only if it is impossible for there to be any entity which simultaneously instantiates F and G. Now if knowledge of contrariety is a type of modal knowledge that is a necessary condition for knowledge of essentialist necessity more generally (such as the necessity involved in characterising the natures of individuals, stuffs and laws) and if it requires (an at least weak) rationalism, then Elder's position that knowledge of essentialist necessity is strictly empirical becomes unstable. Let us consider, then, the plausibility of Elder's view that knowledge of property contrariety is purely empirical. Elder anticipates the objection that such knowledge is not purely empirical:

> In defence of realism about all forms of necessity, I have sketched an empirical test for essentialness, and a parallel test for lawfulness [. . .]. But in running either test we must rely on our ideas as to what properties are competitive with the one we suspect of being essential, or with the one we suspect of being lawfully linked to the instantiation of some further property [. . .]. Some readers will suppose that these ideas are themselves far removed from empirical confirmation or disconfirmation. (Elder 1992, p. 330)

The discussion (1992, pp. 331–332) that follows this remark, however, shows that the readers Elder has in mind are of conventionalist, rather than rationalist, inclination. The sorts of properties Elder (1992; 2004) often uses as examples when discussing property contrariety are properties that are quantitatively specified. We have already seen one such example, from Elder (2004, p. 31), involving weight. Here is another:

> There is excellent evidence that competitive with the having of the atomic number 79 is the having of atomic number 80, the having of 81, and the havings of all the others [. . .]. For over the entire range of the physical elements, no two of these properties are present at any one element, and at least one is. (Elder 1992, p. 333)

What, though, is the real bearing of *evidence* here? It does not seem that Elder has made it at all clear. Moreover, the initial intuition that we are dealing with a priori incompatibility here (though not necessarily incompatibility of *properties*) would appear to be defensible, on the following grounds. If I have exactly two coins in my pocket then that is incompatible with my having exactly three coins in that very pocket. That incompatibility can be expressed, independently of the use of number concepts, as a truth of first-order logic, by translating the following sentence into first-order logic: it is not the case that I have both exactly two coins in my pocket and exactly three coins in the same pocket. Similarly, if an element has exactly 79 protons in its nucleus then that is incompatible with its having exactly 80. Again, that incompatibility can be expressed as a truth of first-order logic (though doing the translation would be a long and tedious task). That no element has both exactly 79 protons in its nucleus and exactly 80 is a first-order logical truth, so long as we allow our variables to range over elements. (The necessitations of these two logical truths, in turn, are theorems of the normal quantified modal logics.) If some of the property incompatibilities Elder considers relevant to essentialist necessity are logical truths, then (since his account of essentialist necessity in general rests on the idea of property contrariety) in order to support a strictly empirical account of essentialist necessity he requires an empirical construal of logical truth. Elder has not shown, and it is not clear as to how it could be shown, that knowledge of the sorts of (alleged) property contrariety to which his arguments appeal is strictly empirical, since his arguments crucially include the appeal to such quantitatively specified property contrarieties as the one just discussed.

Suppose, with Elder, that the template truths are known empirically. This supposition need pose, of itself, no threat to Peacocke's contention that "any a posteriori premises in the ultimate justification for a piece of modal knowledge will not themselves be modal" (1999, p. 168). The rationalist may be giving a priori intuition a role that comes too late if the rationalist maintains that the template truths are know by a priori intuition. The supposition that the template truths are necessities a posteriori entails that any rationalist analysis would have to be applied at a level removed from the template truths themselves. That is, the rationalist's analysis would apply to some modal major premise in an argument in which an a posteriori template truth is the conclusion. Peacocke makes the following observation about Heathcote (2001):

> If I understand Heathcote's position correctly, he holds that there can
> be fundamentally a posteriori knowledge of necessities. If there can be,
> there ought to exist (or at least it ought to be possible for there to
> exist) an a posteriori necessity whose grounds cannot be split up into
> propositions that are either modal and a priori, or a posteriori and non-
> modal. I do not know of any such examples. (Peacocke 2001, p. 112)[12]

The template truths are not, I have suggested, genuine examples.
At least, I have argued, Elder has not shown them to be genuine
examples. If it is contended that essentialist necessities are known
purely empirically, then some such examples must be produced.

3. *Explanationism*

The explanationist about modality denies a contention that frequently
features in the reckonings of modal anti-realists, namely that, suppos-
ing that there are modal facts, they are not causally explanatory with
respect to our knowledge of them. Miščević (2003) combines a realist
view of modality with "causal explanationism" (2003, p. 5) about
modal intuition. Miščević views modal knowledge as "*prima facie*"
a priori (2004, p. 44) and "ultimately a posteriori" (2003, p. 28,
fn. 4). Though Miščević does not explicitly engage with McGinn, his
position is a challenge to McGinn's claim that "we cannot represent
modal facts as causally explaining our knowledge of them" (1981,
p. 185). When we adopt knowledge acquired by sensory perception
as the only sort of knowledge a causal account of knowledge can
accommodate, McGinn's claim seems obvious. No one holds that we
so perceive the modal facts. Miščević, though, seeks to show that
a causal account can also accommodate intuition, including modal
intuition. Miščević combines epistemic naturalism with a modal con-
ception of actuality. His hypothesis is that our modal intuitions track
the deep modal structure of the world. We have the modal intuitions
we have because of how nature has shaped our minds.[13] Perhaps
Miščević is right that our modal intuitions track modal reality due
to our mental capacities having been shaped by a reality that is
inherently modal. In order for intuitions to have evidential weight,
however, more is required than the *epistemic* possibility that they

---

[12] On the basis of fallibilism and holism, Heathcote (2001, p. 99) claims that "our
knowledge even of modal truth is a posteriori in character". Peacocke's challenge to
Heathcote also faces Devitt (1997), who both accepts the necessary a posteriori and
claims that all knowledge is empirical.

[13] Contrast Ellis 2001 (p. 54).

track mind-independent reality. Rather, that they do so must *actually* be the case (and so it has to be *metaphysically* possible that they do so). But how are we to find out whether it is more than just an epistemic possibility that they do so?

Naturalism about intuition is discussed by Bealer (1987, pp. 323–327). Bealer objects to naturalism by observing that "there is no *independent* reason to hold that intuitions that are just 'hard-wired' or that are just byproducts of efficient brain organization are tied to the truth" (1987, p. 326). Miščević's position, however, is different to the naturalism about intuition Bealer is attacking. On Miščević's view, modal reality *causes* our modal intuitions, through its having "shaped our mind design" (2003, p. 20). His position on the relationship between modal intuition and modal truth is in fact analogous to Bealer's: modal intuition is a reliable indicator of modal truth. The main difference between Bealer and Miščević is that Bealer offers an avowedly rationalist account of why modal intuitions count as evidence whereas Miščević takes himself to be offering a naturalistic account. Miščević's view, however, is based on an unsuccessful argument. In a move reminiscent of the indispensability argument in the philosophy of mathematics,[14] Miščević (2004, p. 57; 2003, p. 21) writes that "The appeal to modal facts is indispensable for systematization and explanation of non-modal ones. Therefore, we should assume that [. . .]. Modal facts exist [. . .]. Causal processes indirectly carry information about deep modal structure." Suppose that modalising is indispensable to our best science. From that, no realism about modality follows, whether semantic or ontological. While modalising may well be indispensable, it is a big step from that to the claim that there are modal *facts* and a further step still to the claim that we require an ontologically realist account of modal facts. I believe that nothing in the naturalist programme can secure these further claims. Indeed, I think, with Quine, that naturalism is opposed to them. In mathematics we quantify over numbers and the naturalist may claim, with Quine and Putnam, that since this quantification is indispensable to our best science we are committed to the existence of numbers. In science we modalise, but for a good analogy to hold with the case of modality our best science would have to include indispensable quantification over modal facts. If the nouns "possibility" and "necessity" are, as traditional and modern modal logic take it, dispensable in favour of modal modifiers, or if

---

[14] Miščević (2004, pp. 50–51) explicitly mentions Putnam's indispensability argument about mathematics.

our best science involves no quantification over alethic possibilities
and necessities, then we have no good analogy with the indispensabil-
ity argument in mathematics. In any case, Miščević's view does not
come close to establishing that modal knowledge is ultimately a pos-
teriori. The claim that our modal intuitions have natural causes does
not entail a strong empiricism about the epistemic status of modal
claims. If modal reality shapes our minds in such a manner that our
modal intuitions are reliably tied to the modal truth, then, assuming
externalism about justification, our modal intuitions can give rise to
justified beliefs even if we do not *know* that modal reality so shapes
our minds. The hypothesis that modal reality shapes modal intuition
is not itself a modal hypothesis. The claim that the hypothesis is
metaphysically *possible* is a modal hypothesis. But we don't need
to know whether the hypothesis is metaphysically possible in order
to have some modal knowledge. The truth of the hypothesis would,
even if we were ignorant of it, be enough. Now the hypothesis is
supposed to be supported, on Miščević's account, by an argument
to the best explanation (2003, p. 213) from "total empirical evidence
at a reflective level". This is why Miščević takes the hypothesis to
be a matter for naturalistic inquiry. But even if that view of the
status of the hypothesis is correct (which I believe it is not) this
does not establish that modal knowledge is ultimately a posteriori. In
order for it to do so, knowledge of the hypothesis would have to be
epistemically prior to or epistemically on a par with, modal knowl-
edge. That it is neither has just been shown.[15] Weak rationalism is
consistent with the provision of a causal explanation of modal in-
tuition: all weak rationalism asserts is that there is a priori modal
knowledge not epistemically dependent on any a posteriori knowl-
edge. That weak rationalist thesis is safe from causal explanationism
both insofar as causal explanationism is a genetic thesis and insofar
as it is an epistemic thesis. Even if the reliability of modal intuition
is a matter of naturalistically explicable "mind design", this does not
entail that modal intuitions are not ultimately a priori. Since causal

---

[15] Miščević (2004, p. 67) writes that "intuitions are ultimately (reflectively) justi-
fied [. . . partly] by their empirical credentials, including their predictive success. In
other words, their ultimate reflective justification encompasses a central a posteriori
component, and is thereby itself a posteriori". Supposing, for the sake of argument,
that modal intuitions have empirical content, their "empirical credentials" or "pre-
dictive success" might justify belief in Miščević's naturalistic explanatory hypothesis
but, by naturalistic reliabilism about modal intuition, modal intuition itself would
stand in need of no such justification. In any case, at least *some* intuited modal
beliefs, such as the belief that actuality entails possibility, have no evident empirical
content.

explanationism about modal intuition does not establish that modal knowledge is ultimately a posteriori, it does not succeed in refuting weak modal rationalism.

4. Conclusion

We have considered two attempts to combine ontological realism about modality with a positive modal epistemology hostile to weak modal rationalism. In the case of Elder, the appeal to quantitatively specified property contrarieties has not been shown by him not to rest on the a priori. An account of such contrarieties has been provided which suggests that, if known at all, they are known a priori. The explanationist approach advocated by Miščević, involving the claim that we can view the modal facts as causally explanatory with respect to our modal intuitions, is, as it stands, explanatorily less satisfactory than a rationalist alternative and it does not establish a workable anti-rationalist case. I conclude that recent attempts to combine modal realism with opposition to modal rationalism fail. I conjecture that a viable positive epistemology for ontological realism about modality is likely to be in harmony with weak modal rationalism.[16]

REFERENCES

Ayer, A.J., 1950, "Basic Propositions", in M. Black (ed.), *Philosophical Analysis*, Prentice-Hall, Englewood Cliffs, pp. 60–74.

———, 1946, *Language, Truth and Logic*, 2nd ed., Gollancz, London.

Bealer, G., 2002, "Modal Epistemology and the Rationalist Renaissance", in T. Szabó Gendler and J. Hawthorne (eds.), *Conceivability and Possibility*, Oxford University Press, Oxford, pp. 71–125.

———, 1987, "The Limits of Scientific Essentialism", *Philosophical Perspectives*, vol. 1, pp. 289–365.

BonJour, L., 1998, *In Defense of Pure Reason*, Cambridge University Press, Cambridge.

Devitt, M., 1997, "Naturalism and the A Priori", *Philosophical Studies*, vol. 92, no. 1–2, pp. 45–65.

Elder, C., 2004, *Real Natures and Familiar Objects*, MIT Press, Cambridge, Mass.

Elder, C., 1992, "An Epistemological Defence of Realism about Necessity", *Philosophical Quarterly*, vol. 42, no. 168, pp. 317–336.

Ellis, B., 2001, *Scientific Essentialism*, Cambridge University Press, Cambridge.

Hale, B., 1996, "Modality", in B. Hale and C. Wright (eds.), *A Companion to the Philosophy of Language*, Blackwell, Oxford, pp. 487–514.

Heathcote, A., 2001, "Yes, But What Is the Mother of Necessity?", *Philosophical Books*, vol. 42, no. 2, pp. 92–100.

Kripke, S.A., 1980, *Naming and Necessity*, Blackwell, Oxford.

———, 1971, "Identity and Necessity", in M.K. Munitz (ed.), *Identity and Individuation*, New York University Press, New York, pp. 135–164.

Lewis, D.K., 1986, *On the Plurality of Worlds*, Blackwell, Oxford.

McGinn, C., 1981, "Modal Reality", in R. Healey (ed.), *Reduction, Time and Reality*, Cambridge University Press, Cambridge.

———, 1976, "*A Priori* and *A Posteriori* Knowledge", *Proceedings of the Aristotelian Society*, vol. 76, pp. 195–208.

McLeod, S.K., 2008, "Knowledge of Necessity: Logical Positivism and Kripkean Essentialism", *Philosophy*, vol. 83, no. 2, pp. 179–191.

———, 2005, "Recent Work on Modal Epistemology", *Philosophical Books*, vol. 46, no. 3, pp. 235–245.

Markie, P.J., 1998, "Rationalism", in E. Craig (ed.), *Routledge Encyclopedia of Philosophy*, Routledge, London. Retrieved from:
<http://www.rep.routledge.com/article/P041> [06/10/2005].

Millikan, R.G., 1984, *Language, Thought and Other Biological Categories*, MIT Press, Cambridge, Mass.

Miščević, N., 2004, "The Explainability of Intuitions", *Dialectica*, vol. 58, no. 11, pp. 43–70.

———, 2003, "Explaining Modal Intuition", *Acta Analytica*, vol. 18, no. 30–31, pp. 5–41.

Peacocke, C., 2001, "The Past, Necessity, Externalism and Entitlement", *Philosophical Books*, vol. 42, no. 2, pp. 106–117.

———, 1999, *Being Known*, Oxford University Press, Oxford.

Plantinga, A., 1993, *Warrant and Proper Function*, Oxford University Press, New York.

Sidelle, A., 1989, *Necessity, Essence and Individuation: A Defense of Conventionalism*, Cornell University Press, Ithaca.