

THE HINGE-JUSTIFICATION PROBLEM: THE SUBSTRATUM RESPONSE

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ABSTRACT: In hinge epistemology, our belief system has two levels: a non-fundamental level of ordinary beliefs and a fundamental level of hinges. This creates a problem concerning hinges. If beliefs require justification, then hinges, as the ground of the system, are unjustified and fail to qualify as genuine beliefs. If hinges are justified, they become ordinary beliefs rather than hinges. This is what I shall call the Hinge-Justification Problem (HJP). One common response is the “No-Justification Response”: hinges are unjustified. Some interpret them as “instinctive actions” rather than beliefs; others treat them as beliefs still, but only in a “minimal” sense. I raise challenges to these and sketch a novel response to HJP under what I call the “Justification Response”: hinges are justified. My proposal appeals to a lesser-known metaphor for hinges: “substrata.” Taking this idea seriously, I systematically connect hinge epistemology to D.M. Armstrong’s substratum theory of objects, and propose that ordinary beliefs are constituted by hinges and epistemic properties such as *being justified*, so that while ordinary beliefs are justified internally, hinges are justified externally.

KEYWORDS: hinge epistemology, justification, belief, certainty, Wittgenstein

1. Introduction

It is common to think that hinge epistemology originates in Wittgenstein’s *On Certainty* (1969). There, Wittgenstein describes our belief system as consisting of ungrounded beliefs, or *hinges*,¹ and grounded beliefs, or *ordinary beliefs*.² A belief counts as ungrounded or foundational if doubting it leaves a rupture into the entire belief system. For example, we treat the belief “The world is very old” as foundational—and thus as a hinge—because, as Wolgast observes, “We cannot raise a question whether the world is very old, for if we did, that would bring into

¹ Or “comfortable certainties” (Wolgast 1987), “objective certainty” (Moyal-Sharrock 2004), “hinge commitments” (Pritchard 2016; Johnson 2022), “cornerstone propositions” (Wright 2004). As to how hinges are to be studied and analyzed, refer to Fairhurst (2025a; 2025b), and Aguisoul (2025; forthcoming) for discussion.

² Thus Wittgenstein: “The child learns to believe a host of things... it learns to act according to these beliefs. Bit by bit there *forms a system* of what is believed, and in that system some things stand unshakeably fast and some are more or less liable to shift” (OC §144, my italics).

question the whole structure of geology” (1987, 151).³ By contrast, a belief is grounded or non-foundational if doubting it leaves the belief system intact. Thus, we treat the belief “The Ottoman Empire collapsed in 1922” as non-foundational, since it can be doubted without calling into question the whole structure of history.

Hinge epistemology gives rise to a problem. If beliefs require justification, what justifies hinges, the ungrounded beliefs? If nothing justifies them, then hinges are not genuine beliefs. If something justifies them, then “hinges,” which are supposed to be the ground, are not really hinges. I call this the Hinge-Justification Problem (HJP).

One common response to HJP is the “No-Justification Response”: nothing justifies hinges. One version of this response is the *action view*, which holds that nothing justifies hinges as they are not genuine beliefs but *instinctive actions* (e.g., Malcolm 1982; Stroll 1994; Moyal-Sharrock 2004). Another version is the *minimal-belief view*, which holds that nothing justifies hinges but these remain beliefs in a minimal sense, that is, they can be meaningfully negated and embedded in conditionals (e.g., Coliva 2015; 2016).⁴ I raise challenges to these views and sketch a novel response to HJP under what I call the “Justification Response”: hinges are justified. The version I propose draws on Wittgenstein’s other metaphor for ungrounded beliefs, namely the “substratum” metaphor. He describes hinges as “the substratum of all ... enquiring and asserting” (*OC* §162). I take the idea of substratum

³ Another example from Wittgenstein: “But what could make me doubt whether this person here is N.N., whom I have known for years? Here a doubt would seem to drag everything with it and plunge it into chaos... That is to say: If I were contradicted on all sides and told that this person's name was not what I had always known it was... then in that case the foundation of all judging would be taken away from me” (*OC* §613–614). Side note: there is an important question about how hinges are formed. The standard view is that hinges form in at least two ways: instinctively or acquisitively. Take thirst: we do not teach children that humans get thirsty; they discover it through repeated experience. That is instinctive. By contrast, we teach them that $1 + 1 = 2$; that is acquired. For more, see Moyal-Sharrock (2004, 104–116).

⁴ There is another version of the No-Justification Response that I do not pursue in this paper, namely, the *entitlement view*. Wright (2004) proposes that one may be entitled to believe *P* even in the absence of evidence for *P*. On this view, entitlement allows one to commit to hinges without possessing justification, thereby dissolving the Hinge-Justification Problem. Hazlett offers a helpful summary of Wright’s position: “Entitlement, for Wright, involves non-evidential permission to believe: I’m permitted to believe that *p* despite lacking evidence that *p*. And the reason that I’m permitted to do so is that doing otherwise would throw into confusion my conception of what counts as evidence for what. Why think this? The reason has to be something like this: that I’m sometimes permitted to believe something, without evidence, because doing otherwise would be **cognitively disastrous**, i.e. it would be very bad, from the point of view of inquiry and the aim of acquiring knowledge” (2014, 6, his bold).

seriously. It is an idea well discussed in the metaphysics of ordinary objects like atoms, cells, and apples. I systematically connect D. M. Armstrong's (1989) substratum theory of objects with hinge epistemology. My proposal, which will become clearer as the discussion unfolds, is that ordinary beliefs are constituted by both hinges and epistemic properties, including *being justified*; accordingly, ordinary beliefs are justified internally by having *being justified* as a constituent, whereas hinges are justified externally, by being tied to the co-constituent *being justified*. In this way, hinges are justified without having any internal epistemic nature, remaining as epistemic grounds.

Disclaimer: In speaking of “internal” and “external” justification, I do not intend to invoke the familiar internalism–externalism debate in epistemology.⁵ The terms are used here in a different and novel sense, one developed later in the paper through their connection with Armstrong's metaphysics.

Here is the plan. In Section 2, I challenge the action response. In Section 3, I challenge the minimal-belief response. In Section 4, I sketch the substratum response. In Section 5, I conclude the paper.

2. The Action Response

Many hinge epistemologists, Wittgenstein included, maintain that hinges are not justified because they are not really beliefs but *instinctive actions*. Wittgenstein writes: “Justifying the evidence comes to an end... but the end is not certain propositions’ striking us immediately as true”; rather, “it is our *acting*, which lies at the bottom” (OC §204, my italics). Similarly, Malcolm (1982, 19–20) argues that hinges should not be classified as beliefs but understood instead as *unhesitating actions*. Stroll makes a comparable point: “there are several candidates for F [hinges], and all of them are non-intellectual. Among these are *acting*, *being trained in communal practices*, *instinct*, and so on” (1994, 146, brackets mine). To illustrate the view, the hinge “There is a past” is not a belief but an instinctive action. It manifests in our having regrets, forming memories, learning from others, reading history, and undergoing personal development. It is ingrained in both our speech acts and our bodily behavior. Indeed, even if one attempts to act as if there were no past, the hinge “There is a past” continues to manifest in that very action.

Crucially, if the action view is correct, if hinges are instinctive actions, then the Hinge-Justification Problem simply dissolves. HJP says that if hinges are justified, they cease to be hinges, and if they are not justified, they cease to be genuine beliefs. But on the action view, hinges are not beliefs in the first place. They

⁵ For an introduction to the internal/external epistemic justification debate, see Littlejohn (2025).

are actions, and actions are not justified in the way beliefs are. Hinges are behaviorally instinctive, primitive, and pre-linguistic. As Moyal-Sharrock puts it, HJP “is resolved when one thinks of Wittgenstein’s allusions to hinge ‘propositions’ as grammatical rules... whose only *occurrence* is a way of acting” (2004, 89, her italics).

Some philosophers think that the action view still treats hinges as linguistic, and thus potentially in need of justification. For example, Wolgast writes:

Speaking of these certainties [hinges] as belonging to our form of life was a strategy designed to remove them from the language-game of struggle and doubt [and thereby avoid HJP]. They are buried beneath our language, deep in our lives; their home is in inarticulate behaviour and a pre-linguistic approach to things. That way their certainty seems to be insulated from questions, as one would like it to be. We can talk of their certainty now without bringing them into the working discourse. *But no, this is precisely what we cannot do* (1987, 159, brackets and italics mine).

Wolgast seems to think that hinges are not entirely pre-linguistic and can enter into working discourse. Perhaps what she means is this: although hinges may begin as “pre-linguistic,” they can become “post-linguistic”. That is, once we gain experiential awareness of them, we may articulate them in reflective discourse. For example, “There is a past” may initially operate beneath our language, guiding us instinctively, yet over time we can bring it to the surface and speak of it, thus “bringing” it “back into the game [of questioning, doubt, justification ...]” (1987, 159, brackets mine). If Wolgast is correct, the Hinge-Justification Problem resurfaces for the action view, since hinges are post-linguistic and can be subject to doubt, justification, and so on.

However, the problem that seems to concern Wolgast is not especially alarming. Even if we grant the distinction between pre-linguistic and post-linguistic hinges, the two remain distinct. While we can articulate hinges, such articulation hardly captures the raw action itself. Consider, for example, the experience of awe when observing the moon: the feeling is immediate, raw, and wordless. Although we may later attempt to describe it, language hardly conveys the original sensation fully. The same holds for hinges. The hinge-claim “There is a past” does not fully convey the hinge-action “There is a past” which governs our practical lives. The governed action is one thing; the spoken words are another. With this distinction in mind, the action theorist can develop several responses to Wolgast’s apparent concern, including these two immediate ones:

(The Fiction Reply) There are no post-linguistic hinges. At most, they are useful fictions; convenient labels. Saying “There is a past,” for example, does not amount to anything real; it merely points ostensively to a raw action embedded in our way of life.

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(The Belief Reply) There are post-linguistic hinges, but these are ordinary beliefs, that is, grounded and open to debate. They belong to the part of the belief system that is subject to revision. The foundational work, however, is performed by the pre-linguistic hinges, the primitive actions. If one doubts the post-linguistic “There is a past,” the system remains intact; if one doubts the pre-linguistic “There is a past,” the system begins to collapse.

Still, the action view leaves other difficulties unaddressed. One such difficulty concerns the hybrid character of the system it presupposes, a system meant to incorporate both beliefs and actions. It is far from obvious that we are entitled to such a unified framework; beliefs are ontologically distinct from actions. Indeed, why not adopt a clearer model, which distinguishes between two systems (a belief system and an action system), each governed by its own grounding relations, though no doubt connected in important ways? A second difficulty arises as a potential counterexample: some hinges may not be instinctive actions. Let me articulate these two worries.

1. *The Hybrid System.* The action view treats our belief system as consisting of grounded beliefs that ultimately trace back, not to other beliefs, but to raw actions. This immediately raises a question: can actions properly belong to a belief system? Actions, after all, are not beliefs; they belong to a distinct ontological category. It is therefore far from obvious that items of these two kinds can be accommodated within a single system.

Still, for the sake of argument, let us suppose that beliefs and actions can be part of one system. If actions are said to lie at the foundation of this belief-action system, it would seem to follow that actions ground beliefs. But what, exactly, is meant by this claim? Clearly, “grounding” here cannot refer to “metaphysical grounding” or “truthmaking”. Introducing such an action–belief system places a general burden on action theorists: they must provide an account of what grounding amounts to in an epistemic context. Contemporary metaphysicians have developed an extensive literature on grounding, with which action theorists might profitably engage. In that literature, grounding relations between items of distinct ontological categories are called *cross-categorical grounding*. If action theorists maintain that actions ground beliefs, and actions and beliefs are distinct categories, they appear to be invoking something like *cross-categorical epistemic grounding*. While cross-categorical grounding in metaphysics is currently a hot issue,⁶ cross-categorical

⁶ Some maintain that grounding holds only between entities of the same ontological category, e.g., facts ground facts; objects ground objects; etc. (Sjölin Wirling 2020, 134). Others maintain that grounding can hold between entities across categories, e.g., facts can ground objects (Stamatiadis-Bréhier 2021, 369).

grounding in epistemology is seldom discussed. It may be that considerations relevant to cross-categorical grounding in metaphysics carry over, *mutatis mutandis*, to the epistemic case.⁷ Still, proponents of the action view must explain how grounding is supposed to operate within their unified system.

Another question to consider is if actions ground beliefs, is this grounding necessary or merely contingent? One would expect defenders of the action view to favor necessary grounding. Consider, for example, the purportedly raw action “There are material objects”. If the grounding relation were merely contingent, it would have to be possible for someone to act on the raw action in question (e.g., holding, selling, or buying material objects) while simultaneously suspending all beliefs about their existence. And it sounds off. Yet some metaphysicians, so-called *mereological nihilists*, do indeed suspend beliefs about their existence.⁸ So for these nihilists grounding here is contingent. Thus, it is unclear whether grounding between action hinges and beliefs is necessary or contingent, and this is a question proponents of the action view must address.

A final issue concerns why we should combine actions and beliefs into a single system at all. Why not adopt a cleaner model that keeps them distinct? For example, we might posit one system devoted to belief—call it *Theory*—and another devoted to action—call it *Praxis*. On this model, Theory, the belief system, would contain both grounded and ungrounded beliefs, with the latter forming the basis of our epistemic practices. Correspondingly, Praxis, the action system, would contain grounded and ungrounded actions, with the latter forming the basis of our actions. I do not mean to suggest that these systems would be entirely independent; they would interact in various ways. Still, the interaction cannot be too tight, for it is possible to believe something yet act contrary to it. Crucially, however, if we adopt this bifurcated model, the belief system still contains ungrounded and unjustified beliefs. In that case, the Hinge-Justification Problem resurfaces: once hinges are treated as beliefs, we face the problem that if they are justified, they are no longer genuine hinges, and if unjustified, they are no longer genuine beliefs.

Some may find the two-system model implausible. For instance, *dispositionalists about belief*, those who hold that to believe P is simply to have a

⁷ Indeed, symmetries between epistemology and metaphysics are well recognized. For example, we find epistemic and metaphysical counterparts in foundationalism, coherentism, and infinitism (see, e.g., Thompson 2016). It would therefore be unsurprising if a philosopher sought to keep her epistemology and metaphysics in alignment.

⁸ Recent defenders of mereological nihilism include Brenner (2015), while recent critics include Tallant (2014).

behavioral disposition toward P, will reject it,⁹ since on their view beliefs reduce entirely to dispositions to act. But such theories, like belief dispositionalism, are eliminative: they aim to dispense with or analyze away the belief system entirely, retaining only the action system. By contrast, if we wish to preserve the belief system, as we wish to do in hinge epistemology, while maintaining its connection to the action system, the two-system model offers a tidy solution. Needless to say that this two-system model avoids both the cross-categorical grounding problem and the modal grounding problem.

2. *The Counterexample.* Here is a potential counterexample to the action view, which holds that hinges are instinctive actions. Consider the hinge of death. That we will all die is maximally certain; it is not typically subject to epistemic doubt. Yet does it genuinely govern how we live? Not always. What we often observe instead is denial, avoidance, or a form of cognitive dissonance: living as though we were immortal. In this respect, death may serve as a counterexample.

Action theorists might respond by distinguishing among types of death. Consider the kind of death one risks through smoking or reckless driving. Let us call this *escapable death*. In such cases, there is room for debate: smoking may not prove fatal, and technological advances, such as autonomous vehicles, may reduce the risk of death. Accordingly, this form of death does not constitute a raw action; it does not necessarily regulate behavior. For example, this may explain why some individuals smoke without apparent concern. By contrast, consider *inescapable death*, the kind resulting for instance from jumping off a skyscraper. This sort of death is not open to doubt or deliberation. Nearly everyone instinctively avoids such scenarios. Here, the raw action appears operative: we do not necessarily form the belief that death will occur; we simply refrain from such actions. On this basis, the action theorist may conclude that death in general is not a counterexample. Some instances of it fail to function as raw actions; others succeed.

However, my point is that death in the broadest sense is inescapable. Whether one lives recklessly or exercises great caution, the outcome is the same: *one will eventually die*. A person might avoid obvious risks like refraining from jumping off skyscrapers, yet still pass away peacefully in their sleep. In this sense, death functions as a hinge: it is foundational and beyond doubt. Still, it does not always manifest in the way we live. Some carry a constant awareness of it; others scarcely give it thought. Yet all continue planning, working, and loving, as if life might stretch on indefinitely. Here, then, is a hinge, death, that does not necessarily govern conduct, suggesting that not all hinges are instinctive actions and providing a counterexample to the action view.

⁹ See e.g., Marcus (1990).

Taking stock, the Hinge-Justification Problem says that if hinges are justifiable, they cease to be hinges, and if not justifiable, they cease to be genuine beliefs. The action view—a version of the No-Justification Response, which holds that hinges are not justifiable—avoids HJP by treating hinges as instinctive actions rather than beliefs. But the view remains unclear about the nature of the presumed hybrid belief–action system, and the death counterexample further complicates matters. In the next section, I turn to another version of the No-Justification Response to HJP.

3. The Minimal Belief Response

For Coliva (2015, 2016), the Hinge-Justification Problem is no problem, since hinges are not justifiable. They are unjustifiable not because they are instinctive actions, but because they are beliefs in a minimal sense. What, then, are minimal beliefs? Coliva writes: “Wittgenstein’s so-called ‘hinge’ propositions would be propositions susceptible to truth and falsity in at least a minimal sense” (2015, 181). Elsewhere, she adds that hinges

may be considered semantically assessable only on a very minimal understanding of truth, where to say that P is true commits one to nothing more than to holding... that P can be meaningfully negated and embedded in conditional statements (2016, 87).

Consider the hinge “There is a past.” According to Coliva, it still counts as a belief in a minimal sense, that is, it can be meaningfully negated and embedded in conditionals. But can hinges be meaningfully negated or embedded in conditionals? It seems that they can. The following examples are meaningful:

- (1) It is not the case that there is a past.
- (2) If there is past, then there is a future.
- (3) If it is not the case that there is a past, then it is not the case that there is a future.

Let us call the hinge “There is a past” PAST. Next, consider its occurrences in examples (1), (2), and (3), and label them PAST-1, PAST-2, and PAST-3. Now, PAST, PAST-1, PAST-2, and PAST-3 are *grammatically identical*: they share the same linguistic form, namely there is a past. Nevertheless, they are *logically distinct*.¹⁰ I think that Coliva’s account of minimal belief may apply to PAST-1, PAST-2, and PAST-3, but not to PAST itself, the original hinge. The reason is that PAST is

¹⁰ The idea that sentences can be grammatically identical yet logically distinct is not controversial. As Geach once put it: “different occurrences of what is the same sentence by grammatical criteria may be different propositions by logical criteria” (1965, 450).

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asserted, whereas PAST-1, PAST-2, and PAST-3 are *unasserted*. A claim is unasserted when its assertoric force is cancelled by embedding it in logical structures; it is asserted when it is not so embedded. As Geach once remarked in connection with conditionals (and similarly for other logical constructions):

“if,”... generally cancels all assertoric force in the “if” clause... somebody who fails to hear the first word of my “if” clause may actually mistake what I say for an assertion, so that like Alice I have to explain, “I only said ‘if’” (1965, 456).

Similarly, while PAST, “There is a past,” is asserted, PAST-1, PAST-2, and PAST-3, embedded in logical structures, are unasserted. This makes PAST logically distinct from the others. Thus, more generally, Coliva’s account of minimal beliefs seems to be about hinges without assertoric meaning, rather than about hinges with assertoric meaning. Now, maybe unasserted hinges are minimal beliefs, but about asserted hinges? Can they be minimal beliefs? They cannot be, otherwise we would have to say they do not lose their assertoric force in logical structures. But, surely, “There is a past” loses its assertoric force when one says “if there is a past, then ...” just like “God exists” loses its assertoric force when one says “if God exists, then ...”; the former stated by a believer, the latter by anyone, believer or atheist.

A second problem with Coliva’s account is that it makes hinges questionable, contradicting the hinge epistemological claim that hinges are beyond doubt. To see this, it is worth noting that an asserted claim often has a meaning different, sometimes opposite, from when it is unasserted. For example, as Geach notes:

To say “He hit her” is... to ascribe the act to him as a matter of legal or moral responsibility... in saying, “If he hit her, then...,” I am not ascribing the act to him, and still less giving some moral or legal verdict about him (1965, 462).

Likewise, in saying “there is a past” one may mean several things, depending on context, e.g., that history will record what is happening now. But in saying “if there is a past, then...” one merely entertains the issue of whether there is a past. This creates a difficulty for Coliva’s account. Once hinges are placed in logical structures, they are no longer beyond doubt; they become objects of inquiry. In that case, hinges cannot be meaningfully negated or embedded in conditionals, for doing so strips them of their meaning. Part of what constitutes hinge meaning is that they stand beyond doubt. Thus, unasserted claims like “if there is no past, then ...” should make little sense in hinge epistemology.

To take stock, the Hinge-Justification Problem says that if hinges are justifiable, they cease to be genuine hinges; if they are not justifiable, they cease to be genuine beliefs. Coliva’s view—a version of the No-Justification Response, according to which hinges are not justifiable—aims to avoid the HJP by holding that hinges lack justification while remaining beliefs in a minimal sense. As we have seen,

however, this minimal sense of belief may not apply to the relevant hinges, namely asserted hinges, and if we treat hinges as unasserted, Coliva's view would undermine their status as beyond doubt, thereby conflicting with hinge epistemology. In the next section, I propose an alternative response to HJP that avoids the difficulties facing both the minimal belief view and the action view.

4. The Substratum Response

In articulating the structure of our belief system, Wittgenstein relies extensively on metaphor. These can be grouped into three kinds: (1) architectural: *scaffolding* (OC §211), *foundational walls* (§248), *hinges* (§341); (2) geological: *hard rock* (§99), *bedrock* (§498), *rock bottom* (§248); and (3) metaphysical: “the *substratum* of all my enquiring and asserting” (§162, my italics).¹¹ Of course, some may take the substratum metaphor to be architectural or geological, but I call it metaphysical, since the notion of substratum is pervasive in ancient and contemporary metaphysics of ordinary objects. Moreover, my substratum response to the Hinge-Justification Problem draws on that metaphysical literature. To show how this response avoids HJP, I proceed in stages. I begin by sketching: (4.1) the substratum theory of ordinary objects; (4.2) its parallels with hinge epistemology; (4.3) the systematic connection between the two; and, finally, (4.4) how this connection opens a new route around HJP.

4.1 Armstrong's Substratum Theory of Ordinary Objects

The substratum theory of ordinary objects holds that an object is constituted by properties (or ways of being, qualities, features, attributes, or characteristics) together with a substratum.¹² For example, an apple—call it “APPL”—is constituted by properties such as *redness*, *roundness*, and *juiciness*, as well as by a substratum, “sub-APPL.” The properties and substrata explain different sets of issues. Properties are supposed to explain phenomena like character and qualitative similarity. For example, the properties constituting APPL account for its character and its qualitative similarity to other red, round, and juicy objects. Moreover, substrata are supposed to explain phenomena like qualitative unity, individuality, and identity through time. For example, APPL's substratum, sub-APPL, explains why APPL's properties are unified (Benovsky 2008, 177), why APPL is the particular individual

¹¹ Philosophers classify *On Certainty's* metaphors in various ways. See e.g., Moyal-Sharrock (2004, 75).

¹² Substratum theorists include Armstrong (1989) and Sider (2006). The substratum theory is diametrically opposed to the bundle theory of objects, where objects are constituted only by properties (see e.g., Hawthorne 1995).

it is (e.g., Moreland 2000), and how APPL can undergo qualitative change while remaining that very apple (e.g., Grandjean 2022, 2537–2547).

There are several versions of substratum theory. I focus on D. M. Armstrong's (1989) version, *thin particularism*, because it connects well with Wittgensteinian hinge epistemology.¹³ For Armstrong, ordinary particulars are *thick particulars* (1989, 60). A thick particular is 'thick' in that it is constituted by properties and by a substratum, which Armstrong calls a *thin particular*. A thin particular is 'thin' in that it is not itself constituted by properties but it is tied to, or related to the properties of its host thick particular. Thus, thick-APPL (the ordinary apple) is constituted by both properties and thin-APPL. Thick-APPL internally exemplifies properties such as *redness*, while thin-APPL, has *none*, but externally exemplifies the properties of thick-APPL, including *redness*. In other words, thick-APPL is red, round, and juicy internally (accounting for the qualitative nature of thick-APPL), whereas thin-APPL is red, round, and juicy externally (keeping thin-APPL nevertheless without a qualitative nature of its own). Consider also the following remark by Alston:

“Let us refer to the exemplification relation which holds between a substratum and a universal [or property] as “underlying” ... in any such relationship there will be generated a complex whole consisting of the substratum and one or more universals which it underlies. This complex is what we ordinarily think of as a concrete qualified individual thing—like a rock, a man, or a chair ... This concrete individual will also sustain a certain relation to each of its properties which will be a sort of part-whole relation, and which could also be correctly termed “exemplification” ... We could now proceed to draw various distinctions between the two relations. For example the first relation is external, the second internal” (1954, 257).^{14,15}

¹³ The project of bringing Armstrongian metaphysics into contact with Wittgensteinian epistemology is of interest in its own right. In that respect, quite apart from whether the present response to HJP ultimately succeeds, the proposal retains independent philosophical significance. Indeed, there is no consensus in the literature on this connection, and the lack of explicit discussion of this makes drawing it philosophically illuminating.

¹⁴ See also Moreland (2000, 51–52) and Pickavance (2014, 97).

¹⁵ Another version of the substratum theory of objects is *naked particularism*. This view holds that ordinary objects are constituted by properties and by substrata that are *entirely* devoid of properties, not even in a thin sense. As Perović puts it, “Genuinely Bare Particulars [are] bare particulars that do not have any properties whatsoever, in any sense of ‘having’; they do not have properties as constituents and they do not have them relationally either” (2017, 284, brackets mine). Armstrong, however, considers naked particularism incoherent. Any particular must have at least one property; naked particulars, being particulars, have properties and, paradoxically, being naked, have none. This leads to an incoherence (see, e.g., Sellars 1952, 184; Bailey 2012, 33). As an

4.2. The Similarities Between Armstrongian Metaphysics and Hinge Epistemology

The relationship between hinges and ordinary beliefs closely parallels that between thin and thick particulars. Three similarities are worth noting:

(a) *Constitution*. Thin particulars and properties *metaphysically constitute* thick particulars. By analogy, hinges and epistemic properties *epistemically constitute* ordinary beliefs. No hinge epistemologist denies that hinges constitute ordinary beliefs (e.g., believing that the Ottoman Empire collapsed in 1922 just requires believing that there is a past), and few would deny that ordinary beliefs exemplify epistemic properties such as *being a belief*, *being justified*, and *being true or false*. Thus just as thick-APPL is metaphysically constituted by thin-APPL and properties like *redness*, the ordinary belief “The Ottoman Empire collapsed in 1922” is epistemically constituted by the hinge “There is a past” and epistemic properties such as *being a belief*, *being justified*, and *being true or false*. Moreover, just as thin particulars are not metaphysically constituted by properties, hinges are not epistemically constituted by properties. For example, just as thin-APPL is bare of properties but is nevertheless red, round, and juicy in the external sense, the hinge “There is a past” is bare of epistemic properties but is nevertheless a belief, justified, and true or false in the external sense.

(b) *Change*. Thin particulars preserve the identity of their host thick particulars through qualitative change. For example, thick-APPL may change from red to black and yet remain the same apple, since thin-APPL continues to constitute it. Similarly, we can say that hinges preserve the subject matter or the topic around which ordinary beliefs undergo epistemic change. For example, my ordinary beliefs about Canadian politics may shift, but the topic itself, Canadian politics, remains stable during those shifts because the relevant hinges, such as “elections decide who governs” and “Canada is democratic,” remain in place.

(c) *Individuation*. Thin particulars individuate thick particulars. For example, thick-APPL is the only apple that is constituted by thin-APPL, and it is in virtue of this that it is the particular it is. Similarly, there is a sense in which the topics we engage with through ordinary beliefs are individuated by their hinges. For instance, the topic of world politics is distinct from that of yacht electrical engineering insofar as the former, but not the latter, involves hinges such as “elections decide who govern” and “Canada is democratic.” Of course, electrical engineers designing or repairing

alternative, Armstrong proposes *thin particularism*: “we can at least begin to meet this difficulty by drawing the important distinction... between the thin and the thick particular. The thin particular is a, taken apart from its properties (substratum). It is linked to its properties by instantiation, but it is not identical with them. It is not bare because to be bare it would have to be not instantiating any properties. But though clothed, it is thin” (1989, 95).

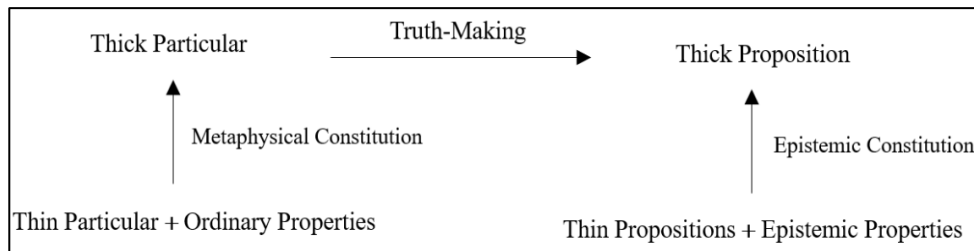
yacht electrical systems may discuss politics, relying on hinges like “elections decide who govern.” But such hinges are irrelevant when the topic is yacht engineering.¹⁶

4.3 The Connection Between Armstrongian Metaphysics and Hinge Epistemology

Armstrong (1989, 88) holds that thick particulars are *states of affairs* and that states of affairs serve as *truth-makers*: they make propositions true or false. A proposition is true if the corresponding state of affairs obtains, and false if it does not. As Armstrong puts it, “For every contingent truth at least ... there must be something in the world [a state of affairs] that makes it true” (1989, 88, my brackets). Consider the true proposition “APPL is red.” On Armstrong’s view, what makes it true is a state of affairs, or a thick particular, namely thick-APPL, that is, thin-APPL externally having the property of *redness*.

Now suppose I hold the ordinary belief that APPL is red. If the state of affairs consisting in thin-APPL’s externally having *redness* obtains, then my ordinary belief is true and enjoys a form of metaphysical justification. Of course, that state of affairs does not epistemically justify my belief; what does is a network of ordinary beliefs, perception among them, and, more fundamentally, hinges such as “There are material objects.” But because an ordinary belief is metaphysically justified by the corresponding obtaining state of affairs, it is natural to want to connect hinge epistemology with the substratum theory. We can describe hinges as *thin propositions* and ordinary beliefs as *thick propositions*. The connection may then be represented as follows:

¹⁶ As an objection to both (b) and (c), one might say: “Consider the belief “Mark Carney is the current prime minister of Canada” versus “Justin Trudeau is the current prime minister of Canada”. These are clearly different beliefs. But if, ultimately, both are constituted by the same substratum—say, a hinge like “elections decide who governs”—and if hinges explain identity as your analogy suggests, then the two beliefs collapse into one, which is absurd.” My reply is: “yes, that would be absurd, but the analogy I offered is about “topic identity,” not “belief identity.” The two beliefs belong to the same topic precisely because they share the same hinges.”



4.4 Hinges as Thin Propositions Externally Justified

Return to the Hinge-Justification Problem: if hinges are justifiable, they cease to be hinges; if not, they cease to be genuine beliefs. The action view treats hinges as unjustifiable and regards them as instinctive actions rather than beliefs. The minimal-belief view treats hinges as unjustifiable but maintains they are beliefs in a minimal sense. The substratum view I propose takes a different line: hinges are justifiable and remain hinges, the grounds of the belief system.

But how can hinges be justified and remain the ground? This is possible if their justification is understood externally. Hinges are justified, not by possessing further epistemic properties or beliefs, but by being externally related to the epistemic property of *being justified*, which, with the hinge, constitutes the ordinary belief in question.

This account is inspired by D. M. Armstrong’s substratum theory of objects. There, ordinary objects have properties internally, while their substrata have them externally, that is, without those properties constituting them. By analogy, ordinary beliefs such as “The Ottoman Empire collapsed in 1920” are justified internally, whereas hinges such as “There is a past” are justified externally. Ordinary beliefs are constituted by epistemic properties and ultimately by hinges. Hinges, by contrast, are not constituted by anything; they stand in external relation to the epistemic properties that constitute ordinary beliefs. Among these properties is *being justified*. Since ordinary beliefs are constituted by both hinges and epistemic properties, hinges and *being justified* are externally related within that structure. In this sense, hinges are externally justified without undermining their distinctive features: their ungroundedness and rock-bottom status.

Objection. “Consider my ordinary belief, “The Ottoman Empire collapsed in 1922.” This belief is constituted by hinges such as “There is a past,” together with epistemic properties like *being justified*. Yet the ordinary belief and the hinge have very different contents: the former concerns the Ottoman Empire, the latter the past. If the connection between Armstrongian metaphysics and hinge epistemology is legitimate, ordinary beliefs and hinges should not differ so radically in content. After

all, substrata and ordinary objects concern the same thing: e.g., thin-APPL and APPL are both apples. Indeed, precisely because thin-APPL is an apple that when is combined with properties it constitutes APPL, an ordinary apple. By analogy, the hinge “There is a past,” together with epistemic properties, should yield ordinary beliefs about the past itself, not about the Ottoman Empire or some other subject matter.”

Reply. “I agree that the hinge, together with epistemic properties, should give rise to ordinary beliefs about the relevant hinge. But it goes too far to demand that the ordinary belief be directly about the hinge itself rather than the topic it corresponds to. After all, in our example, the idea of the Ottoman Empire is not radically distinct from the idea of the past: the latter encompasses it, and the Ottoman Empire is ultimately a historical idea.”

Objection. “Perhaps I did not state my objection clearly. Strictly speaking, given the metaphysical connection you draw, if a hinge is paired with an epistemic property, the result should be an ordinary belief about that very hinge characterized in that way. This mirrors Armstrongian states of affairs: when a thin particular is paired with a property F, the result is a thin particular characterized as F. So if “There is a past” and *being justified* are externally related, the outcome should not be the ordinary belief “The Ottoman Empire collapsed in 1922,” but rather “That there is a past is justified.”

Reply: “But so what? Even if pairing a hinge with the epistemic property of *being justified* should yield an ordinary belief about that very hinge, my point remains: hinges are externally justified. Moreover, this does not truly mirror Armstrongian metaphysics. Saying that “There is a past” together with “being justified” yields “there is a past being justified” is like saying that “substratum Socrates” with “being happy” yields “substratum Socrates being happy.” But substratum theorists would intend a flesh-and-bone Socrates being happy, not a substratum Socrates being happy. Similarly, in my proposal, a hinge H together with *being justified* need not produce a belief about *H being justified*, but a belief about *something* the topic of which revolves around H—e.g., Ottoman Empire supposing H is “There is a past”—*being justified*.”

5. Conclusion

The Hinge-Justification Problem holds that if hinges are justified, they are not really hinges, and that if they are not justified, they are not really beliefs. In this paper, we examined two influential responses: the action response and the minimal-belief response. Both hold that hinges are not justified, with the action view treating them as instinctive actions, and the minimal-belief view treating them as beliefs in a

minimal sense. I challenged both. The action view complicates the belief system by introducing entities ontologically distinct from beliefs and seems vulnerable to counterexamples. The minimal-belief view focuses on hinges embedded in logical structures, but such hinges become open to inquiry, contrary to how we commonly think of hinges. I proposed the substratum response. Like the minimal-belief view, it preserves the homogeneous structure of the belief system by excluding actions; but unlike that view, it allows hinges to operate outside logical structures keeping them asserted and not necessarily open to inquiry. On the substratum view, hinges, like ordinary beliefs, are justified: ordinary beliefs are justified internally, while hinges externally. I illustrated this by connecting hinge epistemology with Armstrongian metaphysics. Of course, the substratum response has challenges. For instance, it is not fully clear what it means for beliefs to be justified externally, just as it is unclear what it means for metaphysical substrata to have properties externally. These questions are important but best left for another occasion.

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