

# Indeterminate Analyticity

**Martin Montminy**

[montminy@ou.edu](mailto:montminy@ou.edu)

*University of Oklahoma*

## ABSTRACT

W. V. Quine is commonly read as holding that there are no analytic truths and no a priori truths. I argue that this is a misreading. Quine's view is that no sentence is *determinately* analytic or *determinately* a priori. I show that my reading is better supported by Quine's arguments and general remarks about meaning and analyticity. I then briefly reexamine the debate between Quine and Carnap about analyticity, and show that the nature of their disagreement is different than what it is usually thought to be.

## 1. Introduction

W. V. Quine rejects the analytic-synthetic distinction. That much is clear. But what is his position about analytic truths, exactly? That is much less clear. According to many, Quine contends that there are no analytic truths. In other words, Quine holds:

**(No Analyticity)** No sentence is analytic.

Gilbert Harman, for instance, writes:

When Quine denies there is an analytic-synthetic distinction, he does not claim merely that there is no sharp distinction. He means to say that nothing is analytically true. For him, the analytic synthetic distinction does not resemble the red-orange distinction, which is a distinction although a vague one. It resembles rather the witch-nonwitch distinction, which fails to distinguish anything since there are no witches. (Harman 1967, 125)

Many other commentators concur with Harman's interpretation. Here is a small sample:

All sentences of the form ‘S is analytic’ are necessarily false. (Boghossian [1996] 2017, 587)

According to Quine, no truths are analytic, so none can be either necessary or a priori. (Fodor 1998, 86)

But no sentence is absolutely immune from revision; all sentences are thereby empirical, and none is actually analytic. (Rey 2023, sec. 3.6.1)<sup>1</sup>

Quine’s attacks against analyticity are also attacks against the a priori. Laurence Bonjour, who emphasizes this point, interprets Quine as holding that “there is no *a priori* justification or knowledge” (1998, 66, 81). Several other commentators agree and attribute to Quine the following thesis:<sup>2</sup>

**(No A Priori)** No sentence is a priori.

In my view, (No Analyticity) and (No A Priori) both mischaracterize Quine’s position. Quine holds not that no sentence is analytic or a priori, but that no sentence is *determinately* analytic or *determinately* a priori. His view is not that the sentences that are alleged to be analytic (a priori) are in fact synthetic (a posteriori). His point is that it is indeterminate whether these sentences are analytic (a priori) or not. My goal here is to explain and defend this alternative reading of Quine’s position.

After making clarifications in [Section 2](#), I will explain my preferred reading further in [Section 3](#). In the following four sections, I will examine some much-quoted remarks Quine has made regarding meaning and analyticity and show that they support my interpretation better than they do the common one. In the [final section](#), I will briefly revisit the debate between Quine and Carnap and argue that the location of their disagreement is different from what it is usually thought to be. Although I do not have the space to examine and assess the details of Quine’s arguments against analyticity, my hope is that my proposed reading will show that his position is more plausible and defensible than is commonly believed.

---

<sup>1</sup>See also, among others, Cassam (2000, 55); Fodor and Lepore (1992, 25, 38–39, 56–57); Juhl and Loomis (2010, 111); Lycan ([1999] 2008, 107); Nimitz (2003, 115); Russell (2008, 30, 137; 2014, 181); Shapiro (2000, 334); and Wikforss (2003, 128).

<sup>2</sup>See also, among others, Boghossian and Peacocke (2000, 6–7); Glock (2003a, 86); Glüer (2003, 46); Orenstein (2002, 79, 85–88); Putnam ([1978] 1983, 98–99; [1972] 1983, 91); and Shapiro (2000, 334).

## 2. Preliminary Clarifications

Quine is often said to hold that the very notion of analyticity is itself unintelligible. Let us call this thesis (Unintelligibility). Paul Boghossian characterizes this view as follows: “No coherent, determinate property is expressed by the predicate ‘is analytic’ . . . consequently, no coherent proposition is expressed by sentences of the form ‘S is analytic’ ” ([1996] 2017, 587).<sup>3</sup> Bonjour also attributes this thesis to Quine. He remarks that “Quine’s major objection, at least to the concept of analyticity, is that it is *unintelligible*” (1998, 65).

There is clearly a tension between (No Analyticity) and (Unintelligibility). If the notion of analyticity is unintelligible, then the claim that no sentence is analytic should also be unintelligible. Elliott Sober, who perceives the problem, writes:

It would be a mistake to think that Quine’s point was simply that nothing is a priori or analytic. He didn’t regard these concepts as clear, but empty, like the concept of round square. Rather, the point was supposed to be that these concepts are ‘unclear’. (Sober 2000, 238; see also Glock 2003a, 86; and Miller 1998, chap. 4, among others.)

Some passages of “Two Dogmas of Empiricism” (1951, 26, 30) seem to encourage this reading. However, when one looks at the broader context of the passages, it becomes clear that Quine’s point concerns not the notion of analyticity itself, but merely a specific type of attempt at explaining analyticity. As some commentators have noted, Quine’s strategy in that article and other essays is not to put together one long argument against analyticity, but rather to examine various accounts of analyticity and show why they are inadequate. Gillian Russell expresses this point nicely:

There is no such thing as *the* argument against the distinction, and though it is easy to get the impression that ‘Two Dogmas of Empiricism’ contains the most important arguments, perhaps with the paper’s skepticism about meaning supported by the book *Word and Object*, in fact Quine’s work contains a wealth of different attacks, many of which can be found in the early paper ‘Truth by Convention’ and the later ‘Carnap and Logical Truth’. (Russell 2008, 16)

---

<sup>3</sup>Boghossian calls this view “non-factualism”.

The accounts of analyticity that Quine examines do not all suffer from the same flaw. His particular complaint about the unintelligibility of analyticity should be placed in the context of his so-called *circularity argument*. This argument focuses on attempts to define ‘analyticity’ in terms of related notions such as ‘meaning’, ‘synonymy’, and ‘necessary’. These notions, Quine remarks, form a small circle. A circularity problem arises, he points out, if the only way to define these notions is to appeal to other notions within the circle. Such definitions would fail to make the notion of analyticity intelligible. Quine’s point here is *not* that the notion of analyticity is unintelligible, since alternative attempts may propose ways out of the circle. Quine is well aware of this, since in later sections of his article (and elsewhere), he does consider alternative proposals that do not suffer from the circularity, or unintelligibility problem.

Quine finds circularity problematic, since, as Harman (1967, 136–37) reminds us, his discussion targets *technical* notions invoked by philosophers that are supposed to perform rigorous, explanatory work in philosophy. In many of his writings, Quine speaks favorably about analyticity and meaning: “Analyticity undeniably has a place at a common-sense level” (1991, 270; see also 1974, 78–80; 1992, 53–56). He also writes that a certain class of sentences, namely, *observation sentences*, have determinate meanings, which he equates with their stimulus meanings (1960, 68, 76; 1995, 81). Quine thus recognizes speakers’ intuitions about analyticity and meaning. Specifically, he grants that there are intuitively analytic sentences—henceforth, *apparently analytic sentences*. Quine remarks that “The intuitions are blameless in their way, but it would be a mistake to look to them for a sweeping epistemological dichotomy between analytic truths as by-products of language and synthetic truths as reports on the world” (1960, 67; see also [1960] 1976, 113; 1960, 56–57, 66–77; 1991, 271; 1992, 55). Hence, Quine does not reject Paul Grice and Peter Strawson’s (1956) contention that ordinary folks do have an understanding of locutions such as ‘means the same as’ and ‘is synonymous with’. However, Quine points out, these ordinary intuitions are insufficient for the purpose of accounting for a priori knowledge and metaphysical necessity.<sup>4</sup> It is useful to distinguish between the two separate important philosophical tasks analyticity is claimed to perform. First, it is supposed to explain a priori knowledge: to know that an analytic sentence is true,

---

<sup>4</sup>See Hylton (2021) for a useful discussion of this point.

it is not necessary to investigate the world. This means that any analytic sentence is a priori and thus immune to revision in light of empirical evidence. I will examine this issue in Sections 5 and 6. Analyticity is also supposed to explain metaphysical necessity. If a sentence is analytic, then it is true solely in virtue of meaning. This implies that the sentence is true, regardless of how the world is or could be. In other words, it would remain true even if the world were vastly different than what it actually is. I will consider this issue in Section 4.

Quine actually proposes an account of *apparently analytic sentences* in terms of how language is typically learned. An apparently analytic sentence is one such that (almost) “*everybody* learns that it is true by learning its words” (Quine 1974, 79). He adds that we may also count as analytic a sentence that is “obtainable by a chain of inferences each of which individually is assured by the learning of the words” (1974, 80). Quine’s account, it should be clear, does not purport to vindicate a technical notion of analyticity that can do serious, rigorous work in philosophy. His proposal is, to use Eric Margolis and Stephen Laurence’s terminology, a *deflationary* account of analyticity, that is, “one that aims to account for the analytic data without invoking real analyticities” (2003, 304). This is not the place to assess Quine’s deflationary account. (Margolis and Laurence find it unsatisfactory and propose their own rival account.<sup>5</sup>) The important point is that Quine is happy to grant the existence of apparently analytic sentences, but insists that such sentences should not be assigned any special epistemic or metaphysical status. From now on, I will reserve the words ‘analyticity’ and ‘a priori’ for the philosophers’ technical notions, rather than the innocuous notions Quine does not object to.

### 3. Inextricability and Indeterminacy

In an important passage of “Two Dogmas of Empiricism”, Quine writes:

It is obvious that truth in general depends on both language and extralinguistic fact. The statement ‘Brutus killed Caesar’ would be false if the world had been different in certain ways, but it would also be false if the word ‘killed’ happened rather to have the sense of ‘begat’. Hence the

---

<sup>5</sup>See also Kemp (2012, chap. 5), for a Quinean account of our “propensity to make judgements of analyticity” (170).

temptation to suppose in general that the truth of a statement is somehow analyzable into a linguistic component and a factual component. Given this supposition, it next seems reasonable that in some statements the factual component should be null; and these are the analytic statements. But, for all its a priori reasonableness, a boundary between analytic and synthetic statement simply has not been drawn. That there is such a distinction to be drawn at all is an unempirical dogma of empiricists, a metaphysical article of faith. (Quine 1951, 34)

Quine grants that a speaker may accept (or reject) a sentence partly because of what the sentence means and partly because of what she believes about the world; however, he adds, these two factors are impossible to disentangle precisely. In his view, the truth of a sentence cannot be precisely analyzed into a linguistic component and a factual component. In other words, he holds:

**(Inextricability)** There is no clear demarcation between the semantic (or linguistic) contribution and the factual contribution to the truth-value of any sentence.<sup>6</sup>

Inextricability should be understood as a metaphysical thesis. The point is not simply that we are not in a position to analyze the truth of a sentence into a linguistic component and a factual component, but that such an analysis is in principle impossible. (Inextricability), I will now explain, is key to understanding Quine's view about analyticity. (Inextricability) is ultimately a claim about the indeterminacy of meaning. If the contribution meaning makes to the truth of a sentence cannot be precisely separated from the contribution of the world, then a sentence's meaning does not determine exactly in which circumstances the sentence would be true. (Inextricability) thus entails:

**(Indeterminacy)** Every sentence is such that it is indeterminate exactly how the world would have to be for the sentence to be true (and how the world would have to be for the sentence to be false).<sup>7</sup>

(Indeterminacy) is different from *meaning eliminativism*, the view that words and sentences have no meaning. Meaning eliminativism is some-

<sup>6</sup>Quine uses the term 'inextricably' in ([1953a] 1976, 139). See also Dummett ([1974] 1978, 387–88).

<sup>7</sup>Indeterminacy should be distinguished from Quine's thesis of the indeterminacy of translation (1960, chap. 2; 1987a; 1992, 47–51). Explaining the connection between the two theses would require more space than I have here.

times attributed to Quine. But (Indeterminacy) is perfectly compatible with the fact that our linguistic conventions settle the truth-values of our sentences in a large proportion of possibilities. Quine grants that there are norms governing the correct use of language. We should thus regard the unsettled cases that (Indeterminacy) posits as *remote* possibilities. Here is another way to put it: For every sentence *S*, there are some worlds (or ways the world could be) such that it is indeterminate whether *S* is true in these worlds. The worlds in which the truth-value of *S* is indeterminate are distant. I will come back to this point in [Section 5](#), where I will offer a Quinean construal of what a remote possibility is. (Inextricability) and (Indeterminacy) concern every sentence. Let us apply the theses to a specific subset, namely apparently analytic sentences. Like all other sentences, apparently analytic sentences are such that it is indeterminate exactly in which circumstances they would be true. They are true in the actual world and in nearby worlds, but it is indeterminate whether they would be true in all remote possibilities. Hence, (Inextricability) and (Indeterminacy) entail that it is indeterminate whether an apparently analytic sentence would be true in every possible circumstance, or true regardless of how the world is. We thus have:

**(No Determinate Analyticity)** Every apparently analytic sentence is such that it is indeterminate whether it is true in virtue of meaning alone, or true in virtue of meaning together with worldly facts.

Proponents of analyticity need not hold that every analytic sentence is apparently analytic: there may be sentences that are analytic but not intuitively so. However, according to Quine, the points I just made about apparently analytic sentences would apply to every sentence that may be alleged to be analytic, based on some semantic rules or framework. Hence, strictly speaking, (No Determinate Analyticity) should state that every *allegedly* analytic sentence is such that it is indeterminate whether it is true in virtue of meaning alone, or true in virtue of meaning together with worldly facts. Quine's view is thus not that no sentence is analytic, but that no sentence is *determinately* analytic. This is an important difference.

In [Section 1](#), we saw that Harman compared analytic truths to witches. Just like there are no witches, he contends, there are no analytic truths. In my view, this analogy is inadequate: Quine holds not that there are

no analytic truths, but that there are no determinate analytic truths. A better analogy would be with *motion*. Suppose that there is no such thing as absolute space. This means that the question whether an object is at rest or in motion (at a constant velocity) has an answer only relative to an inertial frame, and there is no privileged inertial frame. Hence, we *may* say of a (non-accelerating) object *o* that it is at rest; however, we should realize that this does not settle the question of *o*'s movement for good or absolutely, since relative to some equally acceptable inertial frames, *o* is in motion. The mistake here would be to draw a permanent conclusion about *o*'s immobility from the arbitrary adoption of a particular inertial frame.

Quine's position regarding analyticity is similar. According to (No Determinate Analyticity), an apparently analytic sentence *may* be deemed analytic relative to a meaning assignment or interpretation. But in making this judgment, we should be aware that according to other equally acceptable interpretations, the same sentence would count as synthetic. According to Quine, a dispute between the proponents of the alternative interpretations would be as spurious as a dispute among proponents of different inertial frames. According to the proposed analogy, it should be acceptable, in a given context, to construe an apparently analytic sentence as analytic, provided that one grants that this construal does not settle the analytic status of the sentence for good. Just like a choice of an inertial frame, this interpretation would be motivated by practical purposes. I will discuss this point in [Section 7](#) and show that Quine actually supports it.

Quine holds a similar view about apriority. His position is not that there are no a priori sentences. Instead, he holds:

**(No Determinate A Priori)** Every allegedly a priori sentence is such that it is indeterminate whether it expresses an a priori truth or an a posteriori truth.

In the following three sections, I will explore (No Determinate Analyticity) and (No Determinate A Priori) further and explain how they are more in line with Quine's remarks about analyticity and apriority than the two theses commonly attributed to him.



## 4. Alternative Accounts of Apparently Analytic Sentences

In a much-discussed passage of “Carnap and Logical Truth”, Quine invites us to consider the apparently analytic sentence ‘Everything is self-identical’:

Another point . . . was that true sentences generally depend for their truth on the traits of their language in addition to the traits of their subject matter; and that logical truths then fit neatly in as the limiting case where the dependence on traits of the subject matter is nil. Consider, however, the logical truth, ‘Everything is self-identical’, or, ‘ $(x)(x = x)$ ’. We *can* say that it depends for its truth on traits of the language (specifically on the usage of ‘=’), and not on traits of its subject matter; but we can also say, alternatively, that it depends on an obvious trait, viz. self-identity, of its subject matter, viz. everything. (Quine [1960] 1976, 113)

Proponents of analyticity would hold that ‘Everything is self-identical’ is true solely in virtue of what it means. However, Quine points out, we could also hold that this sentence is true in virtue of an “obvious trait” of the world, namely the self-identity of everything in it. Crucially, his point here is that there is no fact of the matter about which of the two interpretations is correct. The sentence that follows the passage just quoted is: “The tendency of our present reflections is that there is no difference” ([1960] 1976, 113).

This means that *pace* commentators such as Cassam (2000, 55); Glock (2003b, 150–51); Putnam ([1979] 1983, 128–29) and Russell (2008, 30; 2014, 197), Quine does *not* hold that the interpretation that construes ‘Everything is self-identical’ as synthetic is preferable to the one that deems the sentence analytic. His point is that there is no fact of the matter about which interpretation is the right one. In other words, Quine holds that it is indeterminate whether the meaning of ‘Everything is self-identical’ guarantees its truth. Quine’s reflections could be applied to any apparently analytic sentence. Instead of holding that the sentence is true in virtue of meaning alone, we could construe the sentence as true in part in virtue of how the world is. Hence, for every apparently analytic sentence, there are at least two equally acceptable interpretations: one according to which the sentence is analytic, and one that deems the sentence synthetic. The quoted passage thus supports (No Determinate Analyticity) rather than (No Analyticity).

Here is another passage making the same point:

Is logic a compendium of the broadest traits of reality, or is it just an effect of linguistic convention? Must all right-minded men agree on logic, or is it every language for itself? These are resonant questions. They seem to resound to the deepest level of the philosophy of logic. Clearly the two questions are in close harmony; almost they are two forms of the same question. Just now the first of the two questions, or forms, has proved unsound; or all sound, signifying nothing. (Quine [1970] 1986, 96)

Quine's disparaging remark concerns not the claim that logic is analytic, but the claim that the question whether it is analytic is a deep philosophical one. For him, this question lacks a determinate answer, and attempts at answering it are bound to fail.

## 5. The Revisability of Apparently Analytic (A Priori) Sentences

Let us look at another well-known passage from "Two Dogmas of Empiricism":

Furthermore it becomes folly to seek a boundary between synthetic statements, which hold contingently on experience, and analytic statements, which hold come what may. Any statement can be held true come what may, if we make drastic enough adjustments elsewhere in the system. Even a statement very close to the periphery can be held true in the face of recalcitrant experience by pleading hallucination or by amending certain statements of the kind called logical laws. Conversely, by the same token, no statement is immune to revision. (Quine 1951, 43)

Commentators sometimes point out that Quine's claim that no statement is immune to revision (hereafter, *No Immunity*) is perfectly consistent with a priori knowledge and the analytic-synthetic distinction. Friends of analyticity would grant that even an analytic sentence may be rejected; however, they would add, such a rejection would be correct only if the sentence acquired a new meaning.<sup>8</sup> Similarly, a sentence that expresses a priori knowledge could be rejected, but only if its meaning changed. Hence, Quine's (*No Immunity*) is dialectically ineffective.<sup>9</sup>

<sup>8</sup>See, among others, Carnap (1963) and Grice and Strawson (1956, 157–58).

<sup>9</sup>Ebbs interprets *No Immunity* as equivalent to "No statement we now accept is guaranteed to be part of every scientific theory that we will later come to accept" (2017,

Some commentators have proposed a stronger interpretation of (No Immunity). Cory Juhl and Eric Loomis write:

If any statement can be revised in the face of empirical experience, then there is no purely ‘linguistic component’ of the truth of a statement that is immune to revision. Hence, there are no statements whose truth is solely a consequence of that alleged purely linguistic component, in other words, no analytic statements *in fact*. (Juhl and Loomis 2010, 111)

In the same spirit, George Rey contends that according to Quine, “no sentence is absolutely immune from revision; all sentences are thereby empirical, and none is actually analytic” (2023, sec. 3.6.1).<sup>10</sup> Juhl, Loomis and Rey thus clearly take Quine’s remarks in the quoted passage to express support for (No Analyticity) and (No A Priori). They interpret Quine’s (No Immunity) to imply that every apparently analytic sentence could be rejected (in light of empirical evidence) *without changing its meaning*. But this interpretation goes against Quine’s repeated claims against the possibility of distinguishing a change of meaning from a change of (factual) belief, when speakers cease to accept an apparently analytic sentence (Quine 1960, 77–78; 1976, 132; 1979a, 141; 1987a, 8; 1987b, 131; 1995, 81–82).

This delicate issue is worth exploring further. First, *pace* Grice and Strawson (1956, 150–51), Quine does not reject the distinction between a change (difference) of meaning and change (difference) of belief. He holds that *in many cases*, the question of whether a speaker’s change of verdict about a sentence involves a change of meaning or not is determinate. Many changes of verdict clearly do not involve a change of meaning. Consider for example a speaker who changes her mind about the truth of an observation sentence. Suppose our speaker is now led to accept ‘It’s raining’ after witnessing the beginning of a rainfall. Clearly, her new verdict on the sentence does not involve any change of meaning. To be sure, there are possible exceptional situations in which this interpretation could be challenged, but in the vast majority of cases, the claim that a change of meaning occurred is completely unwarranted.

Here, Quine’s interpretive canon ‘Save the obvious’ yields a determinate outcome. According to this canon, “It behooves us, when

---

178), and adds that this is a thesis that “all parties to the dispute about analyticity should accept” (2017, 178). I agree with Ebbs; however, later on in this section, I will propose a way to strengthen the thesis.

<sup>10</sup>See also Orenstein (2002, 79, 85–88).

construing a strange language, to make the obvious sentences go over into English sentences that are true, and, preferably, also obvious" ([1970] 1986, 82).<sup>11</sup> For Quine, a sentence is obvious to a community just in case (almost) everyone in the community would unhesitatingly assent to it. Some sentences, such as 'It's raining', may also be obvious in particular circumstances. Since the speaker we just imagined would still accept (without hesitation) the sentence 'It's raining' roughly when and only when she observes rain in her vicinity, what this sentence means for her has not changed. In other words, because the sentence is still obviously true for her in the same type of circumstances, it would be incorrect to hold that 'It's raining' has a new meaning for her. The observation of a rainfall on this particular occasion does not affect her speech dispositions regarding 'It's raining'; it merely *triggers* them.

By contrast, some changes of verdict determinately involve changes of meaning. Quine proposes a few hypothetical illustrations of this point. First, recall his remark quoted above that "The statement 'Brutus killed Caesar' would be false . . . if the word 'killed' happened rather to have the sense of 'begat' " (1951, 34). In another essay (1975, 319), Quine imagines that we transform our current physical theory by switching the terms 'electron' and 'molecule' throughout. In this case, he writes, the difference between the two theories is not substantive but merely terminological. Quine considers a similar case involving logical connectives:

Suppose someone were to propound a heterodox logic in which all the laws which have up to now been taken to govern alternation were made to govern conjunction instead, and vice-versa. Clearly, we would regard his deviation merely as notational and phonetic. (Quine [1970] 1986, 81)

Here, Quine's interpretations are common-sensical: if our apparent disagreements with a speaker can be completely dissolved by a simple reinterpretation of some of her words, then we should hold that our dispute with her is purely verbal. Once again, the canon 'Save the obvious' is at work. In the three cases just presented, homophonic translation, that is, interpreting the deviant speaker as meaning the same thing as we do, would clearly violate the canon, since sentences obviously true for the deviant speaker would be translated into sentences obviously false for us, and vice versa. Reinterpreting the deviant speaker's words

---

<sup>11</sup>This canon is similar to Davidson's (1984, essays 9–11) principle of charity.

the suggested way, on the other hand, would eliminate any disagreement over obvious sentences.

Some revisions determinately involve changes of meaning and some determinately do not. Now, recall that according to Indeterminacy, every sentence *S* is such that it is indeterminate exactly how the world would have to be for the sentence to be false. This entails that there are circumstances in which we would go from accepting *S* to rejecting it, but it is indeterminate whether that change of verdict involves a change of meaning. Now, suppose that *S* is an apparently analytic sentence. According to Quine, it would not always be possible in principle to tell whether the meaning of *S* has changed if we changed our minds about its truth. It is worth noting, once again, that the indeterminacy in question would occur only in relatively remote possibilities. These considerations support my contention that Quine endorses (No Determinate Analyticity) and (No Determinate A Priori), rather than (No Analyticity) and (No A Priori).

I need to address the worry that my appeal to remote possibilities may conflict with Quine's reservations about modal notions. In the last part of "Two Dogmas of Empiricism", Quine proposes a holistic picture, according to which our claims about the external world are tested not individually, but collectively "as a corporate body" (1951, 38). This corporate body works like a field of force that contains in its center logic, mathematics and other apparently analytic sentences, as well as sentences expressing well-entrenched views about the world. At the periphery, we find observation sentences. For the purpose of this essay, we can define a remote possibility as a discovery (or set of discoveries) that would contradict some sentence or other at the center of the field of force. I will illustrate this kind of possibility in [the next section](#).

## 6. Illustrating the Theses

Hilary Putnam (1962) imagines a scenario involving the apparently analytic (and a priori) sentence 'All cats are animals.' Suppose we discovered that the creatures we call 'cats' did not evolve on Earth, but have always been robots built by Martians in order to spy on us. Putnam contends that we would keep calling these robots 'cats'; however, we would no longer describe them as 'animals'. Hence, according to him,

we would no longer accept the sentence 'All cats are animals.' Putnam grants that other decisions are possible:

Someone else may feel that the correct thing to say is, 'It's turned out that there aren't and never were any cats.' Someone else may feel that the correct thing to say is, 'It's turned out that some animals are robots'. (Putnam 1962, 661)

However, he adds:

What is not clear is which of the available decisions should be described as the decision to keep the meaning of either word ('cat' or 'animal') unchanged, and which decision should be described as the decision to change the meaning. I agree with Donnellan that this question has no clear sense. (Putnam 1962, 660–61)<sup>12</sup>

Although he does not mention Quine in this particular essay, Putnam's claim that it is indeterminate whether a revision of the apparently analytic and a priori sentence 'All cats are animals' involves a change of meaning is very much in the spirit of (No Determinate Analyticity) and (No Determinate A Priori).

The possibility imagined by Putnam is remote, in the sense that it clashes with some central sentence (or sentences); however, it is indeterminate which sentences the possibility would force us to reject. As Putnam points out, to accommodate the discovery, we may reject the apparently analytic sentence 'All cats are animals' or the apparently analytic sentence 'Animals are living beings.' Another option is to reject the apparently synthetic sentence 'There are cats.' (As I pointed out at the end of the previous section, a central sentence need not be apparently analytic; it may instead be thought to express a well-entrenched belief about the world.) These options illustrate Quine's claim that:

... there is much latitude of choice as to what statements to re-evaluate in the light of any single contrary experience. No particular experiences are linked with any particular statements in the interior of the field, except indirectly through considerations of equilibrium affecting the field as a whole. (Quine 1951, 39–40)

---

<sup>12</sup>Donnellan (1962) reaches a similar conclusion regarding the sentence 'Whales are mammals.' See also Harman (1967) for similar examples. Curiously, in later essays ([1962] 1975, 50–54; [1979] 1983, 128–29; [1972] 1983), Putnam holds that no change of meaning would occur in those types of scenarios.

Suppose that following the discovery, we decide to reject the sentence 'All cats are animals.' According to (No Determinate Analyticity), there is no fact of the matter whether this rejection involves a change of meaning. As we saw in [the previous section](#), commentators such as Juhl, Loomis and Rey would contend that this revision illustrates Quine's view that 'All cats are animals', like every other sentence we accept, is synthetic and a posteriori. But such a view would presuppose that the meanings of 'cat' and 'animal' are specific enough to settle the question whether the sentence is true in virtue of meaning alone, or true in virtue of meaning together with worldly facts. As we have seen, this is contrary to the spirit of Quine's views about meaning. Quine holds that the meaning of the apparently analytic sentence 'All cats are animals' is *not* completely determinate. It is indeterminate whether a rejection of that sentence in Putnam's scenario would involve a change of meaning or not. This also means that it is indeterminate whether 'All cats are animals' is a priori.

What I have said about 'All cats are animals' also applies to logical truths. Recall Quine's ([1970] 1986, 96) remark, cited at the end of [Section 4](#), that the question whether logic is analytic (and a priori) is misguided, and merely has the appearance of a deep philosophical question. We could thus imagine scenarios in which some logical law is revised and there is no fact of the matter whether this revision involves a change of meaning or not. However, Quine at times suggests that any change of logic would involve a change of meaning: "Here, evidently, is the deviant logician's predicament: when he tries to deny the doctrine he only changes the subject" (Quine [1970] 1986, 81). As several commentators have noted (Carlson 2015; Hylton 2021; Parent 2008; and Verhaegh 2018, 132–35), Quine's suggestion should not be construed as implying that logical laws are true in virtue of meaning and cannot be revised without a meaning change. In passages such as the one I just quoted, Quine is expressing his position that given the systematic role it plays in many domains, logic occupies a special place in the field of force. This makes logic less susceptible to revision. Quine sometimes invokes the *maxim of minimum mutilation* to express this position: because of the drastic changes a revision of logic would produce, logical laws are accorded an especially high degree of immunity to revision (Quine 1960, 253; [1950] 1982, 3; [1970] 1986, 7, 85–86; 1992, 15). Nevertheless, he

would insist, this relative immunity does not preclude revision (Quine 1951, 40; [1950] 1982, 3; [1970] 1986, 100; 1991, 270; 1992, 15).

Let us return to Quine's (No Immunity) ('No statement is immune to revision'). As I remarked in the previous section, we should not construe this thesis as implying that every apparently analytic sentence could be rejected without changing its meaning. (No Immunity) is thus not a thesis that distinguishes Quine from proponents of the analytic-synthetic distinction and apriority. However, in light of my discussion of Putnam's scenario, we may propose the following strengthened version of (No Immunity), which Quine would accept:

**(Strengthened No Immunity)** No apparently analytic sentence  $S$  is such that every possible rejection of  $S$  would *determinately* involve a change of meaning.

(Strengthened No Immunity) is clearly incompatible with an analytic-synthetic distinction.

## 7. Context-Sensitive Definitions

In Section 3, I proposed an analogy between analyticity and motion. The same object may be construed as moving at a constant velocity or at rest, depending on the inertial frame. There is nothing wrong with construing that object as being at rest in a given context if that serves our purposes. Hence, if we take the analogy seriously, it should be acceptable, in a given context, to construe an apparently analytic sentence as analytic (and a priori). Interestingly, Quine does at times make this very point:

When in relativity theory momentum is found to be not quite proportional to velocity, despite its original definition as mass times velocity, there is no flurry over redefinition or contradiction in terms, and I don't think there should be. The definition served its purpose in introducing a word for subsequent use, and the word was thereafter ours to use in the evolving theory, with no lingering commitments. Definition is episodic. Mostly in natural science we are not even favored with definitions, much less bound by them. (Quine 1991, 271; see also [1960] 1976, 118–20, 131–32.)

Within a particular context, we may treat a certain sentence as true by definition, or analytic. This may be done to serve our purposes. For



example, it may ensure that all concerned have the same understanding of the relevant terms. It may also be convenient, for methodological reasons, to take for granted the truth of certain claims, when we are at the early stage of an investigation. Harman expresses this point nicely:

In a particular inquiry certain premises may be taken for granted and not questioned. We could say such premises are known a priori, i.e., at the beginning of the inquiry, while other things, discovered in the course of the inquiry, come to be known only a posteriori. (Harman 1967, 131)

As Quine insists, the analytic or a priori character of a sentence is merely a “passing trait” ([1960] 1976, 119), and should not be perceived as conferring any special epistemological status to the sentence. As Harman remarks:

... this would not mean that we have a priori knowledge of the premises of the inquiry in any sense usable by the philosophical defender of analyticity. For these premises need not be known solely by virtue of knowledge of their meaning. They may well be known as the result of prior empirical inquiry. They may not be known at all, but only assumed to be known. The defender of analyticity needs more than such relatively a priori knowledge. (Harman 1967, 131–32)

Quine’s example of the original definition of ‘momentum’ is a good illustration of a contextual definition that was eventually rejected. Once again, for reasons offered in the previous sections, it would be pointless to try to ascertain whether this rejection and the adoption of a new definition changed the original meaning of ‘momentum’.

Quine proposes a similar treatment of formal languages, where stipulations are made by means of axioms and rules of inference ([1960] 1976). In the context of deriving theorems within the formal system, it is crucial not to challenge the axioms and rules. However, these stipulations should not be perceived as epistemologically significant: they are episodic and at most confer a context-dependent analyticity and apriority to the axioms and rules of inference. New stipulations may lead us to revise some of the axioms or rules. This revision may be understood as introducing a new context, relative to which different axioms and rules are now considered analytic. No “lingering”, or context-independent, commitment to analyticity or apriority should be read into the process.

It is difficult to make sense of Quine’s remarks about the context sensitivity of analyticity and apriority, if we take him to hold that there are

no analytic or a priori truths.<sup>13</sup> On the other hand, if the analytic status of some sentences is indeterminate, then we may plausibly allow that status to be settled one way or another, given our (context-sensitive) purposes. Hence, Quine's views about the context sensitivity of definitions cohere better with (No Determinate Analyticity / A Priori) than with (No Analyticity / A Priori).

## 8. Quine vs. Carnap

Quine's concession that a sentence may be deemed analytic in a given context suggests that the gulf between Rudolf Carnap and him is much narrower than commonly believed. After all, Carnap also holds that the analyticity of a sentence is relative to what he calls a *framework* (1952). A framework, for Carnap, is a linguistic system that includes semantic and syntactic rules. Crucially, for Carnap, ontological questions such as 'Are there numbers?' and 'Are there material objects?' make sense only as *internal* questions within a specific framework. For example, suppose we adopt a framework that involves terms for material objects such as 'tree' and 'rock', and includes semantic rules specifying the types of verification that would confirm sentences such as 'There is a tree' and 'There is a rock.' We may then answer the question whether material objects exist by engaging in the relevant empirical observations. However, understood "absolutely", as an *external* question, the question of the existence of material objects makes no sense. A framework thus helps answering ontological questions. It also establishes, thanks to its semantic rules, an analytic-synthetic distinction. A sentence is analytic just in case it is true in virtue of the semantic rules. Once again, the question whether a certain sentence is analytic or not should be construed as an internal question within a framework; as an external question, it makes no sense. Moreover, for Carnap, the adoption of a framework can be motivated *only* by practical concerns. A framework is thus assessed by its usefulness rather than its truth.

Carnap's views are thus similar to Quine's in two crucial respects. First, within a framework, or given a contextual stipulation, we may say that a certain sentence is analytic. For example, the sentence 'Momentum is mass times velocity' would be analytically true in the classical

---

<sup>13</sup>Russell (2008, chap. 5) finds Quine's remarks very puzzling.

mechanics framework or context, and would be analytically false in the relativist framework or context. Second, outside a framework or context, claims about analyticity do not make sense, or are indeterminate. Carnap and Quine would thus both hold that the fact that 'Momentum is mass times velocity' was once adopted as a definition does not entail that this sentence is analytic, *independently of a framework or contextual stipulation*.

So, what do Carnap and Quine disagree about? Briefly put, they disagree about the relevance of frameworks in answering philosophically interesting questions. While Carnap holds that ontological and semantic (as well as epistemological) questions are best approached by first adopting a framework, Quine holds that these questions should be approached by first appealing to our best scientific theory of the world. For instance, if our best physics requires the existence of mathematical entities such as numbers, then we should admit such entities in our ontology (1979b). Similarly, for Quine, a scientifically sound semantics should be naturalistic, and thus behaviorist:

I hold further that the behaviorist approach is mandatory. In psychology one may or may not be a behaviorist, but in linguistics one has no choice. Each of us learns his language by observing other people's verbal behavior and having his own faltering verbal behavior observed and reinforced or corrected by others. We depend strictly on overt behavior in observable situations. (Quine 1992, 37–38)

Quine may be wrong that his brand of behaviorism is the best kind of semantics warranted by science, but the point remains that for him, whatever we say about meaning should be informed and constrained by our best scientific outlook.

I am now in a position to describe two key disagreements between Quine and Carnap regarding meaning. (To simplify, I will now set aside ontology.) The first concerns Carnap's claim that unlike scientific questions, semantic questions are dependent on purely pragmatic considerations. As he notes, these questions are a matter of finding the most efficient and convenient language, given our purposes. Quine rejects Carnap's dichotomy between the two types of justification. This disagreement has been highlighted by many commentators. For example, in a recent essay, Peter Hylton writes:

Carnap's view, as we saw, requires that we have a notion of theoretical justification, applicable to choice of theory within a language, and a distinct notion of practical justification, applicable to choice of language. The distinctness is precisely what Quine denies. (Hylton 2021, 459)

Quine grants that pragmatic considerations such as simplicity and conservatism may influence the adoption of a scientific theory; however, he would insist that evidence plays a much more important role. Moreover, since meaning should be studied like any other scientific phenomenon, *pace* Carnap, questions of meaning are not settled simply by pragmatic considerations.

Quine's rejection of Carnap's claim may appear puzzling, given that he does not dispute Carnap's view that we may give determinate answers to semantic questions relative to a contextual inquiry and that we can make sense of analyticities by means of episodic stipulations. Why is Quine averse to letting frameworks settle questions of meaning? This leads to the second disagreement between Quine and Carnap. In my view, this disagreement is at the heart of the debate between them. For Quine, ad hoc, episodic definitions are of very limited theoretical use, because they reveal very little about meaning. Questions of meaning are best addressed *independently* of episodic, contextual maneuvers. As we saw, for Quine, meaning is a matter of verbal dispositions. And crucially, according to him, contextual stipulations do not significantly impact the way speakers' verbal dispositions evolve over time.

Let me illustrate this point with an example. At the end of "Carnap and Logical Truth", Quine imagines a group of scientists who introduce and define a new term by an act of stipulation. Let us call the claim they adopt by stipulation *Claim 1*. Later, through empirical investigation, they come to accept another claim, *Claim 2*, which involves the same original term and gets to play a central role in their theory. From this, proponents of the analytic-synthetic distinction would conclude that *Claim 1*, adopted on the basis of stipulation, is analytic, while *Claim 2*, which is based on empirical evidence, is synthetic. Quine rejects this conclusion:

Revisions, in the course of further progress, can touch any of these affirmations equally. Now I urge that scientists, proceeding thus, are not thereby slurring over any meaningful distinction. (Quine [1960] 1976, 131; see also 1960, 270–76.)

Hence, the fact that a sentence such as 'Momentum is mass times velocity' was once accepted by stipulation has no long-term impact on scientists' verbal dispositions with respect to this sentence, or how the sentence would be assessed in future inquiries. Hence, the question of whether a sentence was accepted by stipulation or otherwise is of little interest in figuring out what the sentence means.<sup>14</sup>

This brief foray into the debate between Quine and Carnap shows that it is overly simplistic to characterize their disagreement as centered on the possibility of drawing an analytic-synthetic distinction. Their disagreement about analyticity actually stems from a different kind of disagreement that concerns the role of stipulation in settling questions about meaning, ontology and epistemology.

## 9. Conclusion

Quine often writes that there is no philosophically interesting difference between the way logic, geometry or mathematics may be revised, and the way scientific claims, as well as empirical claims in general, are revised. Recall Quine's field of force metaphor. According to him, the difference between central sentences and peripheral ones is simply a matter of degree. Given that there is no difference in kind between the mechanisms by which apparently analytic sentences may be revised and the mechanisms by which a posteriori sentences, such as observation ones, are revised, one may think that Quine supports (No A Priori).

My argument in this essay has been that Quine's holism provides no such support. Quine's rejection of analyticity and the a priori can be construed in two different ways. The first attributes both (No Analyticity) and (No A Priori) to Quine. I have argued that this interpretation does not cohere well with many of Quine's key remarks about meaning and analyticity. I have defended a better construal, according to which Quine holds that it is indeterminate whether there are analytic or a priori sentences. Because of this indeterminacy, Quine deems the notions of analyticity and apriority explanatorily useless, and proposes an alternative picture in which these notions play no significant role. (At best, they may play a minor, context-sensitive role.) This means that

---

<sup>14</sup>It is also worth noting that Quine ([1936] 1976) doubts that it is possible to completely specify the meanings of logical constants on the basis of stipulations.

his rejection of analyticity and the a priori should be understood as a rejection of any outlook in which these notions are taken to perform important philosophical tasks. Hence, when Quine claims that there is no difference in kind between the way apparently analytic sentences may be revised and the way observation sentences may be revised, he is not implying that none are a priori and all are a posteriori; instead, he is advocating for an outlook that dispenses with the notions of a priori and a posteriori, as well as the notions of analytic and synthetic (Quine [1953b] 1976, 171; [1970] 1986, 9–10; 1992, 55–56).

## Acknowledgements

Thanks to two anonymous referees for this journal for their valuable comments.

## References

- Boghossian, Paul A. (1996) 2017. "Analyticity." In *A Companion to the Philosophy of Language*, edited by Bob Hale, Crispin Wright, and Alexander Miller, 2nd ed., 2:578–618. Oxford: Wiley Blackwell.
- Boghossian, Paul A., and Christopher Peacocke. 2000. "Introduction." In *New Essays on the A Priori*, edited by Paul A. Boghossian and Christopher Peacocke, 1–10. Oxford: Oxford University Press.
- BonJour, Laurence. 1998. In *Defense of Pure Reason: A Rationalist Account of A Priori Justification*. Cambridge: Cambridge University Press.
- Carlson, Matthew. 2015. "Logic and the Structure of the Web of Belief." *Journal for the History of Analytical Philosophy* 3: 1–26.
- Carnap, Rudolf. 1952. "Empiricism, Semantics and Ontology." In *Semantics and the Philosophy of Language*, edited by Leonard Linsky, 208–28. Chicago: University of Illinois Press.
- . 1955. "Meaning and Synonymy in Natural Languages." *Philosophical Studies* 6: 33–47.
- . 1963. "W. V. Quine on Logical Truth." In *The Philosophy of Rudolf Carnap*, edited by P. A. Schilpp, 915–21. La Salle, IL: Open Court.
- Cassam, Quassim. 2000. "Rationalism, Empiricism, and the A Priori." In *New Essays on the a Priori*, edited by Paul A. Boghossian and Christopher Peacocke, 43–64. Oxford: Oxford University Press.

- Davidson, Donald. 1984. *Inquiries into Truth and Interpretation*. Oxford: Clarendon Press.
- Donnellan, Keith S. 1962. "Necessity and Criteria." *The Journal of Philosophy* 59: 647–58.
- Dummett, Michael. (1974) 1978. "The Significance of Quine's Indeterminacy Thesis." In *Truth and Other Enigmas*, 375–419. Cambridge, MA: Harvard University Press.
- Ebbs, Gary. 2017. *Carnap, Quine, and Putnam on Methods of Inquiry*. New York: Cambridge University Press.
- Fodor, Jerry A. 1998. *Concepts: Where Cognitive Science Went Wrong*. Oxford: Oxford University Press.
- Fodor, Jerry A., and Ernest Lepore. 1992. *Holism: A Shopper's Guide*. Oxford: Blackwell.
- Glock, Hans-Johann. 2003a. *Quine and Davidson on Language, Thought and Reality*. Cambridge: Cambridge University Press.
- . 2003b. "The Linguistic Doctrine Revisited." *Grazer Philosophische Studien* 66: 143–70.
- Glüer, Kathrin. 2003. "Analyticity and Implicit Definition." *Grazer Philosophische Studien* 66: 37–60.
- Grice, H. Paul, and Peter F. Strawson. 1956. "In Defense of a Dogma." *The Philosophical Review* 65: 141–58.
- Harman, Gilbert. 1967. "Quine on Meaning and Existence, I. The Death of Meaning." *The Review of Metaphysics* 21: 124–51.
- Hylton, Peter. 2021. "Carnap and Quine on Analyticity: The Nature of the Disagreement." *Noûs* 55: 445–62.
- Juhl, Cory, and Eric Loomis. 2010. *Analyticity*. New York: Routledge.
- Kemp, Gary. 2012. *Quine Versus Davidson: Truth, Reference, and Meaning*. Oxford: Oxford University Press.
- Lycan, William. (1999) 2008. *Philosophy of Language: A Contemporary Introduction*. 2nd ed. New York: Routledge.
- Margolis, Eric, and Stephen Laurence. 2003. "Should We Trust Our Intuitions? Deflationary Accounts of the Analytic Data." *Proceedings of the Aristotelian Society* 103: 299–323.
- Miller, Alexander. 1998. *Philosophy of Language*. Montreal and Kingston: McGill-Queen's University Press.
- Nimtz, Christian. 2003. "Analytic Truths—Still Harmless After All These Years?" *Grazer Philosophische Studien* 66: 91–118.

- Orenstein, Alex. 2002. *W. V. Quine*. Princeton: Princeton University Press.
- Parent, Ted. 2008. "Quine and Logical Truth." *Erkenntnis* 68: 103–12.
- Putnam, Hilary. 1962. "It Ain't Necessarily So." *The Journal of Philosophy* 59: 658–71.
- . (1962) 1975. "The Analytic and the Synthetic." In *Mind, Language and Reality: Philosophical Papers*, 33–69. Cambridge: Cambridge University Press.
- . (1979) 1983. "Analyticity and Apriority: Beyond Wittgenstein and Quine." In *Realism and Reason*, 115–38. Cambridge: Cambridge University Press.
- . (1978) 1983. "There Is at Least One A Priori Truth." In *Realism and Reason*, 98–114. Cambridge: Cambridge University Press.
- . (1972) 1983. "'Two Dogmas' Revisited." In *Realism and Reason*, 87–97. Cambridge: Cambridge University Press.
- Quine, W. V. 1951. "Two Dogmas of Empiricism." *The Philosophical Review* 60: 20–43.
- . 1960. *Word and Object*. Cambridge, MA: MIT Press.
- . 1974. *The Roots of Reference*. La Salle, IL: Open Court.
- . 1975. "On Empirically Equivalent Systems of the World." *Erkenntnis* 9: 313–28.
- . 1976. "A Comment on Grünbaum's Claim." In *Can Theories Be Refuted?*, edited by Sandra Harding, 132. Dordrecht: D. Reidel.
- . (1960) 1976. "Carnap and Logical Truth." In *The Ways of Paradox and Other Essays*, 107–32. Cambridge, MA: Harvard University Press.
- . (1953a) 1976. "Mr. Strawson on Logical Theory." In *The Ways of Paradox and Other Essays*, 137–57. Cambridge, MA: Harvard University Press.
- . (1953b) 1976. "Three Grades of Modal Involvement." In *The Ways of Paradox and Other Essays*, 158–76. Harvard University Press: Cambridge, MA.
- . (1936) 1976. "Truth by Convention." In *The Ways of Paradox and Other Essays*, 77–106. Cambridge, MA: Harvard University Press.
- . 1979a. "Cognitive Meaning." *The Monist* 62: 129–42.
- . 1979b. "Facts of the Matter." In *Essays on the Philosophy of W. V. Quine*, edited by Chris Swoyer and Robert Shahan, 155–69. Norman, OK: University of Oklahoma Press.
- . (1950) 1982. *Methods of Logic*. 4th ed. Cambridge, MA: Harvard University Press.
- . (1970) 1986. *Philosophy of Logic*. 2nd ed. Cambridge, MA: Harvard University Press.



- . 1987a. "Indeterminacy of Translation Again." *The Journal of Philosophy* 84: 5–10.
- . 1987b. *Quiddities: An Intermittently Philosophical Dictionary*. Cambridge, MA: Harvard University Press.
- . 1991. "Two Dogmas in Retrospect." *Canadian Journal of Philosophy* 21: 265–74.
- . 1992. *Pursuit of Truth*. Cambridge, MA: Harvard University Press.
- . 1995. *From Stimulus to Science*. Cambridge, MA: Harvard University Press.
- Rey, Georges. 2023. "The Analytic/Synthetic Distinction." *The Stanford Encyclopedia of Philosophy*. 2023. <https://plato.stanford.edu/archives/spr2023/entries/analytic-synthetic/>.
- Russell, Gillian. 2008. *Truth in Virtue of Meaning: A Defence of the Analytic/Synthetic Distinction*. Oxford: Oxford University Press.
- . 2014. "Quine on the Analytic/Synthetic Distinction." In *A Companion to W. V. O. Quine*, edited by Gilbert Harman and Ernie Lepore, 181–202. Oxford: Wiley Blackwell.
- Shapiro, Stewart. 2000. "The Status of Logic." In *New Essays on the a Priori*, edited by Paul A. Boghossian and Christopher Peacocke, 333–66. Oxford University Press.
- Sober, Elliot. 2000. "Quine's Two Dogmas." *Proceedings of the Aristotelian Society* 74: 237–80.
- Verhaegh, Sander. 2018. *Working from Within: The Nature and Development of Quine's Naturalism*. New York: Oxford University Press.
- Wikforss, Åsa Maria. 2003. "An A Posteriori Conception of Analyticity?" *Grazer Philosophische Studien* 66: 119–39.

# Journal for the History of Analytical Philosophy

VOLUME 11, NUMBER 5 (2023)

## **Editor in Chief**

Audrey Yap, University of Victoria

## **Editorial Board**

Annalisa Coliva, UC Irvine

Vera Flocke, Indiana University, Bloomington

Henry Jackman, York University

Kevin C. Klement, University of Massachusetts

Consuelo Preti, The College of New Jersey

Marcus Rossberg, University of Connecticut

Sanford Shieh, Wesleyan University

Anthony Skelton, Western University

Mark Textor, King's College London

## **Editor for Special Issues**

Frederique Janssen-Lauret, University of Manchester

## **Review Editors**

Rachel Boddy, Utrecht University

Sean Morris, Metropolitan State University of Denver

## **Design and Layout**

Daniel Harris, Hunter College

Kevin C. Klement, University of Massachusetts

ISSN 2159-0303

*[jhaponline.org](http://jhaponline.org)*