

Russell's Representationalism About Consciousness: Reconsidering His Relationship to James

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NOTE for Bertrand Russell Society Conference:

This paper is too long for a standard conference presentation. So I suggest that we focus on sections 1 and 2. I am happy to discuss the rest of the paper if questions should arise, but I expect the analysis in the aforementioned sections to be most relevant to conference participants.

1. Introduction

In 1908 and 1909, Bertrand Russell published what are easily among the most influential criticisms of pragmatism ever.¹ Focusing his crosshairs on James, Russell argued that pragmatists mistake a mere “sign” that an idea might be true—namely, an idea’s utility—for the very “meaning” of truth itself.² After all, it is not hard to think of useful ideas that are not really true, or true ideas that seem to have no utility whatsoever. Russell would come to hold that truth is instead a matter of *correspondence*, not mere utility.³ And his celebrated takedown of James cemented for generations his reputation as *the* anti-pragmatist par excellence.

¹ See especially the 1908 “William James’s Conception of Truth” (Russell 2013, 465 – 85) and the 1909 “Pragmatism” (Russell 1992, 257 – 84).

² See (Russell 1992, 257 – 84).

³ It is noteworthy that in 1908 Russell himself was right in the middle of his conversion to a correspondence theory of truth, having defended a so-called “identity” theory up till that roughly point (Sullivan and Johnston 2018, 150). The role of Russell’s thinking about pragmatism in his initial conversion is a topic that demands further investigation, but that I cannot take up here.

Specialists also know that by 1918 (about a decade after his major attacks had appeared), Russell had taken a major shift towards James. The shift culminated in Russell's 1921 book, *The Analysis of Mind*. His transformation didn't concern truth—it had to do with the metaphysics of perception. Here's Russell reflecting back on his shift years later:⁴

I had regarded perception as a two-term relation of subject and object, as this had made it comparatively easy to understand how perception could give knowledge of something other than the subject. But under the influence of William James, I came to think this view mistaken, or at any rate an undue simplification. (Russell 1959, 13)⁵

Perhaps we remember pragmatism as James's central philosophical contribution. But he had also developed a metaphysical view about the relationship between the mental and the physical. That metaphysical view was surprisingly influential in its own day, and as the quotation indicates, Russell himself became a champion of it.

Russell calls the view he now shares with James “neutral monism.” It portrays all reality as fundamentally composed of particulars that are themselves

⁴ Russell is describing his shift from the explicit rejection of neutral monism in (Russell 1914), to the 1918 *Logical Atomism* lectures (Russell 1918/2010), which “expressed doubt” that acquaintance is a two-place relation between a subject and an object, to finally professing in the 1919 “On Propositions” (Russell 1919, henceforth “OP”) that “William James had been right in denying the relational character of sensations” (this sequence, along with the quotations, are drawn from Russell 1959, 134). The 1921 *Analysis of Mind* lectures carry out this neutral monist project in more detail. The *Logical Atomism* lectures briefly discuss neutral monism at (Russell 1918/2010, 120 – 22, henceforth “PLA”) where, with respect to this view, Russell says “I do not know whether it is true or not.”

⁵ Notice that Russell describes his gravitation towards James's metaphysical view in terms of issues connected with *perception*. While Russell came to reject his old view that perception is to be regarded as a two-place relation between a subject and an object, he does not reject either the existence of perception itself, or the distinction between subjects and objects. Instead, he comes to *complicate* his old view, which he now sees as “an undue simplification.” For more on this issue, see below, fn. 7 and pp. XXX.

neither mental nor physical, but are instead something “neutral” between the two (*AM* xix). The *Analysis of Mind* calls these neutral particulars “sensations.” Russell offers an illustration: “the sensation that we have when we see a patch of colour simply is that patch of colour, an actual constituent of the physical world.”⁶ But sensation can *equally* be a constituent of the mental world as well, on this view (*AM* 119). Like a single point that can lie at the intersection of two lines, sensations are physical when placed in one set of relations, and mental when placed in another set.⁷ Of all the various claims Russell defends in the *Analysis of Mind*, this is the one that is most obviously indebted to James.⁸

You might think this shift towards James is interesting, but little relevant to the older dispute between the two men about pragmatism. After all, neutral monism is, by James’s own reckoning, “logically independent” of his pragmatism.⁹

⁶ See (Russell 1921/1995, 117, henceforth “AM”).

⁷ More precisely, minds and bodies turn out to be “logical constructions” built from these neutral particulars (*AM* 117). Russell now treats subjects—minds, in other words—as constituted by series or classes of neutral sensations. And objects are understood to be constituted by different kinds of classes of sensations (*AM* 262). What Russell calls “perception” (he now generally drops the term “acquaintance”) amounts to a complex causal relationship between instantiations of these two kinds of sets—between subjects and objects (*AM* 111 – 112).

⁸ Russell says James first developed his neutral monism in a series of papers in 1904 – 1905, starting with “Does ‘Consciousness’ Exist?” (Russell 1959, 134). The key papers were posthumously collected in (James 1912/1976, henceforth “ERE”). This is the usual view of how that doctrine developed, but I note that James had already articulated a view that looks largely like neutral monism in his 1895 paper, “The Knowing of Things Together” (James 1895/1978, for a discussion, see Klein 2015). And I have argued elsewhere that the view is in any case a consequence of some basic methodological commitments of James’s earlier research in psychology (Klein 2020).

⁹ See (James 1907/1975, 6, henceforth “P”). James had called his view “radical empiricism,” or sometimes his “philosophy of pure experience,” but I will continue to use Russell’s more familiar name for this position.

And yet some recent scholarship has vigorously challenged the received view of Russell as an arch anti-pragmatist.¹⁰ Particularly in the *Analysis of Mind*, Russell adopted not just neutral monism, but also philosophical commitments that appear to be at the very heart of pragmatism. For instance, in that book Russell warms¹¹ to a behaviorist-style account of belief as that upon which we're prepared to act.¹² This is an account of belief of which Peirce says pragmatism is "scarce more than a corollary."¹³ Russell also now insists that linguistic meaning must be derived from linguistic usage ("the use of the word comes first," he says; *AM* 165). This is a fundamental commitment of pragmatism as well. The key influences on Russell here were apparently James, F. C. S. Schiller, and (via Lady Welby) Peirce. (Incidentally, one might think Russell derived this view from Wittgenstein. But Wittgenstein is not known to have advanced such a view until a decade later in the *Blue Book*.) Finally, Russell would even claim that for a belief to constitute knowledge, it must not only be accurate, but also display "appropriateness, i.e. suitability for realizing one's *purpose*" (*AM* 261, my italics).

¹⁰ For example, (Acero 2005, Baldwin 2003, Levine 2018a, Misak 2016, 2018).

¹¹ I use the ambiguous word "warms" deliberately. Russell first considers and rejects a behaviorist-style view, according to which belief is to be defined in terms of "efficacy in causing voluntary movements." This is roughly the view that the Scottish philosopher-psychologist Alexander Bain had pioneered. On this sort of view, believing that P requires "readiness to act" as though P is true (also see Bain 1859, 568, Bain 1868a, 7). This is the construal of belief that Peirce saw as a spur to pragmatism (Fisch 1954). Russell does say this account of belief is "suggestive of truth, and not so easily refutable as it might appear to be at first sight" (at Russell 1921, 206 – 07), but he finds the view untenable because some beliefs figure in to what Russell calls "thinking" without causing any bodily action at all (Russell 1921, 208). But as Thomas Baldwin points out in his introduction (Russell 1921/1995, xiii – xiv) and as we shall see below, Russell's preferred account goes on to depict beliefs as having *contents*, and contents get cashed out partly in terms of causing bodily action. So even if beliefs *themselves* are not dispositions to bodily action, the *content* of a belief does bear a close affinity with Bain's account. More on Russell's accounts of belief, content, and meaning below.

¹² See (*AM* lec. 12). And for James's influence on behaviorism, see (Klein 2020).

¹³ See (Peirce 1931 – 1958, 5.12).

Russell thereby introduces a measure of teleology that the pragmatists also thought essential to understanding cognition.¹⁴

So though he would never accept the pragmatist account of *truth*, Russell's philosophical drift towards pragmatism in *other* respects was, by 1921, remarkable. Indeed, this helps bring into focus Frank Ramsey's otherwise incredible (1927) statement: "*My pragmatism is derived from Mr. Russell*" (quoted at Misak 2016, 173, *my italics*).¹⁵

I think these observations about Russell's turn towards pragmatism raise an important historical question: why did Russell maintain his lifelong opposition to the pragmatist *theory of truth*? Through the end of his career, he continued to hold that truth is a matter of correspondence (e.g., Russell 1948/2009). And he always rejected the pragmatist account of truth, particularly as James had articulated it (e.g., Russell 1953-1955). Why?

This is a complex question. One plausible answer has been given by James Levine. He points out that Russell often complained about the pragmatists' refusal to distinguish considerations concerning how we humans come to judge a belief true from considerations concerning what *makes* a belief true. This is the supposed confusion between the criterion and the meaning of truth. As Russell had put it in a letter to Lady Ottoline, he thought (correctly) that the pragmatists'

¹⁴ The most important spur to my thinking on Russell's pragmatism is (Levine 2018a). For Levine, the priority of use over meaning is central to Russell's purported shift towards pragmatism, which coincided (in Levine's view) roughly with Russell's 1918 prison term. The observation about Wittgenstein, and the claims about links with James, Schiller, Welby, and Peirce, are also due to Levine.

¹⁵ A growing interest in understanding Ramsey's pragmatism has driven some of the scholarly attention to Russell's relationship to the American tradition; e.g. see (Acero 2005, Misak 2020, Misak 2016, Sullivan and Johnston 2018).

position made truth itself something manufactured in the context of human inquiry rather than something “greater than Man,” and he thought this position objectionably subjective (Levine 2018a, 121).

I think that is right so far as it goes. But the answer (which I shall return to on p. 32, below) risks reducing Russell’s multifaceted complaints about the pragmatist theory of truth to a single one of his objections—viz., that the latter theory confuses the meaning of truth with our criteria for recognizing it. I shall argue that Russell’s opposition to pragmatism about truth has another anchor in a disagreement concerning the nature of mind.

Russell of course had an enduring commitment to the notion that truth involves a correspondence relation between a mental “picture” and a fact (Russell 1948/2009, 139), a view that he saw as anathema to pragmatism. And yet just what this apparent disagreement about truth comes down to is not as obvious as it might seem. For one thing, James presented his own pragmatist account of truth as kind of correspondence theory.¹⁶

In this paper, I lay some groundwork for bringing into relief Russell’s continued disagreement with James on truth, especially in light of the eventual convergence between the two men on neutral monism. My approach will be

¹⁶ This is a point that Edward Moore, founder of the Charles S. Peirce Society, was keen to press in correspondence with Russell during the 1950s (op cit.). The focus of the letters is whether Russell had fairly characterized the account of truth James, Peirce, and Dewey had offered, and either way, whether Russell’s central objections succeeded. Moore is at least right that James regarded his own view as a kind of correspondence theory. For instance, James wrote: “Truth, as any dictionary will tell you, is a property of certain of our ideas. It means their 'agreement,' as falsity means their disagreement, with 'reality.' Pragmatists and intellectualists both accept this definition as a matter of course. They begin to quarrel only after the question is raised as to what may precisely be meant by the term 'agreement,' and what by the term 'reality,' when reality is taken as something for our ideas to agree with” (James 1907/1975, 96).

somewhat unorthodox in foregrounding issues in the philosophy of mind.¹⁷ In particular, I will examine what Russell has to say about consciousness in the *Analysis of Mind*. For Russell conceives of truth as involving a correspondence between facts and mental “pictures,” and mental “pictures” are conscious states. I will argue that: 1) Russell’s approach to consciousness constitutes an early form of what we would today regard as *representationalism*, in that he thinks a state is phenomenally conscious in virtue of (truly) representing a (propositionally-structured) fact; 2) that although James also sees representation as a crucial

¹⁷ It is true that a position that has more recently been dubbed “Russellian Monism” has received considerable discussion. The phrase comes from (Chalmers 1997), and the book that is invariably cited as the inspiration for this view is Russell’s 1928 *Analysis of Matter*. There are two reasons for setting this more recent discussion aside. First, participants in the debate about Russellian monism have generally not had historical interests—in other words, they typically have not been concerned to show that Russell himself, as a historical matter, was a Russellian monist. Thus, in their own contribution to their edited book, Alter and Nagasawa write “We do not intend ‘Russellian monism’ to abbreviate ‘the version of monism Russell held’” (Alter and Nagasawa 2015, 424). My interests here are more directly historical. Second, “Russellian monism” strikes me as standing in tension with Russell’s actual neutral monism, at least the variety he was developing between 1918 – 1921 (the period under consideration in this paper). The chief source of this tension is that today’s Russellian monists typically treat the “neutral stuff” (that out of which the mental and the physical are constructions) as “currently (but not inevitably) unknown” (Pereboom 2013, 720), or at least as “inscrutable” (Alter and Nagasawa 2015, 425 – 26, also see Goff 2017, 18, who says we currently have “scientific ignorance” about the fundamental stuff). This is a profound departure from not just Russell, but also from James and Mach, who all styled their “neutral stuff” as what is *familiar*—even paradigmatically familiar—from everyday life, including things like sounds we hear and colors we see (see Stace 1944, 354, Tully 1988b, 212). There is something pernicious about using the moniker “Russellian” for a metaphysic whose fundamental level is composed of purely hypothetical entities that neither logic nor science nor everyday experience gives any countenance. What is more, contemporary “Russellian monism” is typically taken to involve some variety of structuralism about physics (Alter and Nagasawa 2015, 425), an issue I am going to wholly set aside in order to keep the focus on what Russell has to say about the mental sphere. In fact, “Russellian” treatments of consciousness in this literature typically pay little attention to Russell’s own, detailed treatment of consciousness in *Analysis of Mind*, preferring instead to develop their own “Russellian” theories of consciousness based primarily on what he has to say about the material world (in, again, *Analysis of Matter*). That is perfectly fine, given that “Russellian monism” does not make claims to historical accuracy; but when we do take a historical interest in neutral monism, I think we have ample reason to set these more recent treatments aside. In any case, two recent books that develop Russellian monism in considerable detail are (Goff 2017, Pereboom 2011).

component of consciousness, *he* contends that representation serves consciousness's larger, etiological function, which is affording *action control*; and 3) that these contrasting approaches to consciousness help explain an important aspect of the pragmatist theory of *truth* Russell would continue to reject, namely the productive role pragmatists assign in cognition to an agent's own *interests*.

I shall conclude by suggesting that Russell and James can be regarded as two respective fountainheads of important trends in philosophy of mind today. Russell is a spiritual father of representationalism, which is arguably the dominant approach to consciousness. He is also a spiritual father of a long-standing trend of employing conceptual analysis as the most important tool for making progress in the philosophy of mind. For his part, James can be regarded as a spiritual father of enactivism. And we can also see in James the seeds of a now widespread brand of naturalism that draws heavily from empirical psychology and neurophysiology in addressing philosophical questions about mind.

In section two, I offer a close reading of Russell's theory of consciousness from the *Analysis of Mind*. And in section three, I offer a quick and necessarily abbreviated sketch of James's approach to consciousness.

2. Russell's Representationalism about Consciousness

2.1 *Russell's Definition of Consciousness*

Russell's neutral monism has become the subject of an invigorated secondary literature.¹⁸ Let me begin by setting aside several questions related to

¹⁸ In addition to secondary literature cited in fns. 19 and 20 below, major, recent contributions to the study of Russell's neutral monism include three important papers by Robert Tully in the late

Russell's shift that have already been addressed in some detail by others, and that I won't be discussing.

One theme in this literature has been whether or not Russell remained a neutral monist in the 1927 *Analysis of Matter* and later. Nothing I have to say will turn on this question, as I'll confine myself to his initial adoption of this doctrine, particularly in the 1921 *Analysis of Mind*.¹⁹ Neutral monists offer two different kinds of analyses—analyses of the mental and the physical (respectively) into component neutral stuff. *Analysis of Mind* is rightly regarded as the high-point of Russell's neutral-monist construction of the *mental* parts of reality. In later work (starting especially with the *Analysis of Matter*), he focuses much more heavily on constructing the *physical* parts.

80's and early 90's (Tully 1988b, 1993a, b). More recently, Hatfield has examined Russell's neutral monism in the context of broader trends in late modern philosophy of mind, trends that have had an unheralded (in Hatfield's view) impact on the future development of analytic philosophy (Hatfield 2004, 2013, Hatfield 2002). And (Banks 2014) has sought to place Russell's work into a broader historical tradition of neutral monism that includes not just James, but also Ernst Mach.

¹⁹ In his contribution to the Schilpp volume, Stace claimed that the *Analysis of Matter* (which he mistakenly dates to 1928) "belongs on the whole to a later phase of Russell's thought," a phase to be characterized in terms of "scientific realism" instead of neutral monism (Stace 1944, 355.n). Ayer similarly regarded the *Analysis of Matter* as involving a shift away from neutral monism, a shift that he thought would grow ever more pronounced, through Russell's 1948 *Human Knowledge* (Ayer 1971, 122 – 24). In his response in the Schilpp volume, Russell himself expressed surprised disagreement with Stace's reading (Russell 1944, 706 – 07); and similarly, in an interview with Elizabeth Eames, Russell had said in 1964: "I am conscious of no major change in my opinions since the adoption of neutral monism" (Eames 1969, 108). Subsequent scholarship has tended to side with Russell on this front. Most notably, (Lockwood 1981) accused these earlier interpreters of misinterpreting neutral monism as a form of phenomenalism, in particular by running the neutral particulars of *Analysis of Mind* together with Russell's earlier notion of sense-data, which Russell had in fact abandoned. Other scholars who have, at least in outline, concurred with Lockwood's (and Russell's own) claim that Russell never abandoned neutral monism include (Banks 2014, Tully 1988b, who sees more continuity than is usually supposed going all the way back to the 1914 *Our Knowledge of the External World*, at 220).

A second issue has been what the *cause* of Russell's shift to neutral monism was. The consensus is that Russell was largely driven to neutral monism in response to Wittgenstein's (as he saw them) devastating criticisms of his multiple-relations theory of judgment, especially in the 1913 *Theory of Knowledge* manuscript.²⁰ I won't be concerned with this issue, either.

In fact, I'm not really going to talk much about the underlying metaphysics of neutral monism. Instead, I want to examine Russell's substantive and interesting analysis of consciousness without worrying too much about how or whether he succeeds in reducing this phenomenon, without remainder, to neutral particulars. One justification for my approach is that Russell (after 1918) and James (after 1904) are largely working within a shared metaphysical framework. But neither theory of consciousness is a logical consequence of the framework itself. Neutral monism places constraints on the theory of mind, but there are many different, incompatible theories of mind that are each consistent with neutral monism. I think this is precisely the situation with Russell and James.

²⁰ There is a dispute about just how narrowly we should construe the epistemological reasons for Russell's rejection of his earlier approach to judgment (and, in turn, for his subsequent adoption of neutral monism). A defense of a narrower interpretation, according to which Wittgenstein's famous, critical letter of 1913 gave Russell forceful and direct reasons for abandoning the old approach to judgment, is (also see Griffin 1985a, Griffin 1985b, and the letter is quoted at 142). Tully has instead suggested that Wittgenstein's objection was not by itself as devastating as he thinks Griffin and others believe (Tully 1988a). And in a rejoinder, Griffin makes clear that he sees Wittgenstein's objection as devastating not by itself, but in light of Russell's underlying, philosophical motivation *for* his older theory of judgment (Griffin 1991, esp. 550). Either way, it remains a consensus that quite a large measure of (both biographical and epistemological) responsibility for Russell's shift is to be attributed to Wittgenstein's criticism (e.g., see Baldwin 1995, ix – x, Banks 2014, 3, 114).

What's more, the task of logically constructing the mental out of neutral stuff is evidently left incomplete in the *Analysis of Mind*.²¹ But the book is still full of interesting analyses that deserve philosophical attention in their own right, including Russell's analysis of consciousness. Accordingly, let's now turn to this issue more directly.

The final lecture of the *Analysis of Mind* returns to the big question Russell had set himself early in this work, namely: "What is it that characterizes mind as opposed to matter?" (*AM* 244). To begin addressing this, he proposes to consider whether *consciousness* is the "essence" of mind, as many people have held (*ibid.*). (Though they are not mentioned in this connection, Descartes and James both shared such a view.)²² Russell had already rejected the notion that all mentality is conscious earlier in the book, on grounds that psychoanalysis shows (he thinks) that many of our beliefs and desires are *unconscious* (*AM* 21 – 22). But he now says "we must find a definition of" consciousness "if we are to feel secure in deciding that it is not fundamental" (*AM* 245).

²¹ Most notably, Russell sees minds as composed of two distinct kinds of entities, sensations and images. But he only regards sensations as neutral—as the kind of "stuff" that can get counted as either mental or physical, depending on the relations in which it is placed. Images are always strictly mental (*AM* 244, 249, 252), and Russell grants quite outright that he is unsure whether they can be "reduced" to sensations. He writes, "I am by no means confident that the distinction between images and sensations is ultimately valid, and I should be glad to be convinced that images can be reduced to sensations of a peculiar kind. I think it is clear, however, that, at any rate in the case of auditory and visual images, they do differ from ordinary auditory and visual sensations, and therefore form a recognizable class of occurrences, even if it should prove that they can be regarded as a sub-class of sensations" (*AM* 129). I take it a *completed* metaphysic of neutral monism would require images (which are mental) to be logically constructed out of neutral sensations. *Analysis of Mind* does not claim to have carried out this latter task.

²² An important point on which Russell and James disagree is the question of whether there is unconscious mentality. On James's (and Descartes's) rejection of unconscious mentality, see (Klein 2020).

Here's the passage that comes closest to giving his considered definition. I'm going to call this the "Definition Passage," as I'll have occasion to refer back to it. Russell writes:

I should define "consciousness" in terms of that relation of an image or a word to an object which we defined, in Lecture XI, as "meaning."²³ When a sensation is followed by an image which is a "copy" of it, I think it may be said that the existence of the image constitutes consciousness of the sensation, provided it is accompanied by that sort of belief which, when we reflect upon it, makes us feel that the image is a "sign" of something other than itself. ... The belief must be of that sort that constitutes objective reference, past or present. An image, together with a belief of this sort concerning it, constitutes, according to our definition, consciousness of the prototype of the image. (*AM* 245 – 246, my underlines)

I've underlined technical terms that Russell has already analyzed at length, at this point in the book. So to get a grip on this passage, we'll need to go through some of that underlined terminology. But before doing that, given the complexity of his account, it will be helpful to give you my outline of how all this hangs together, right up front.

²³ The reference to Lecture XI is a little curious, because Russell's extensive discussion of meaning comes in Lecture X, which is entitled "Words and Meaning." Lecture XI is on "General Ideas and Thought," and though there are a few remarks there on the meaning of abstract words and images, respectively, these remarks don't alter the fundamental account (already given in Lecture X) of what meaning itself is. I will accordingly focus on Lecture X in examining Russell's analysis of meaning in *Analysis of Mind*.

On my reading (of *AM* 245 – 246), Russell thinks that for an image to be *conscious* of a sensation, the following two conditions are jointly necessary and sufficient. Each condition in turn has its own nested conditions. (And don't worry if this all seems quite dense now; I'm going to unpack the terms used in this account in a moment.)

1. The image must *mean* the sensation. In order to *mean* the sensation, the following two conditions are jointly necessary and sufficient:
 - a. The image must *resemble* the sensation. (*AM* 129)
 - b. The image must share some causes and/or effects with that sensation. (*AM* 174)
2. The image must be accompanied by a *true belief*²⁴ about the past, present, or likely future occurrence (*AM* 211) of the sensation. A *belief* about a sensation's occurrence must consist of elements (i) and (ii) below, and these elements must be related in the manner of (iii) (*AM* 212):
 - i. A complex *content*. This consists of determinately-related images, words, and/or sensations, from whose *meaning* the *objective referent* of the belief (this is the thing that makes the entire belief either true or false) can be derived. (*AM* 200 – 201, *PLA* 51 – 52)
 - ii. A *belief-feeling*. This is a possibly unanalyzable, possibly unconscious sensation that amounts to an attitude of assent towards the content. (*AM* 212, "OP" 35)
 - iii. The content must be what the belief-feeling is directed at. (*AM* 212)

In what follows, I will walk through each part of the above analysis. I begin in section 2.2 with an overview of Russell's distinction between sensation and image. In section 2.3 I will examine the notion of *meaning* at play in *Analysis of Mind*, and in section 2.4 I will examine what is involved in *belief*. In 2.5 I draw

²⁴ The requirement that the belief actually be *true* is introduced farther down the same page where the Definition Passage appears: "It would seem odd to say that we can be 'conscious' of a thing which does not or did not exist. The only way to avoid this awkwardness is to add to our definition the proviso that the beliefs involved in consciousness must be true" (*AM* 246).

the strings together and contend that Russell is offering an early form of representationalism about consciousness.

2.2 *Sensation and Image*

The first two terms to discuss are “sensation” and “image.” Russell says that all mental phenomena are built from *two* kinds of elements: “sensations,” and “images” that bear a “resemblance” to those prior sensations. These are akin to Humean impressions and ideas, respectively (*AM* 119 – 120, 128).

Though the distinction itself is indebted to Hume, Russell rejects Hume’s way of drawing it (*AM* 120 – 122). While sensations are *typically* more “vivid” (to use Hume’s phrase) than images, Russell doesn’t think this is always so in cases like dreams and hallucinations. So instead, Russell contends that we must distinguish sensations from images in terms of their different *causes*.²⁵ Sensations are caused by the stimulation of bodily organs, whereas images are caused by sensations or by other images (*AM* 124). That is, images are linked with sensations and with one another by an entirely distinct set of causal laws as compared with sensations.

To be more precise, Russell says that images are produced through what he calls “mnemonic causation,” following the psychologist Richard Semon.²⁶ Russell defines “mnemonic phenomena” as “those responses of an organism which, so far as hitherto observed facts are concerned, can only be brought under causal laws by

²⁵ James had developed a similar view in (James 1912/1976), which Russell approvingly acknowledges (along with acknowledging a similar view from Stout, at *AM* 122 – 123).

²⁶ An extremely helpful account of Semon’s significance for Russell is (Pincock 2006).

including past occurrences in the history of the organism as part of the causes of the present response” (AM 61). Unfortunately, images turn out to be only one of seven classes of mnemonic phenomena Russell recognizes (AM 62 – 65). So it will not do to say that images are what is produced through mnemonic causation, because many other things that are not images are produced through mnemonic causation (for example, habits). And so we have reason to suspect that Russell’s way of distinguishing sensations from images is not adequately worked out, at least in *Analysis of Mind*.

In any case, one important example of *psychological* causal laws (the kind that govern images) are the laws of association. These supposed mental laws were prominent in much Anglo-American psychology of the 19th century. For instance, consider the so-called “law of contiguity.” Suppose you often smell honey-roasted nuts when walking around New York City. This law says that you’re apt to have *mental images* of those city streets *whenever* you smell honey-roasted nuts, even if you smell them when you’re (say) off in a cabin in the woods.²⁷ This is an

²⁷ It is hard to say whether the laws of association are supposed to be one type of mnemonic causal law among many, or whether mnemonic causation itself is supposed to reduce to a law of association. When he first discusses association, Russell describes it as one among six “classes” of mnemonic phenomena (AM 63), emphasizing the continuity of association and bodily habit, the latter of which is presented as a different class. But when he comes around to articulating the one *substantive* law of mnemonic causation that is currently knowable, Russell is plainly making *use* of a law of association. He puts his substantive law of mnemonic causation this way: “*If a complex stimulus A has caused a complex reaction B in an organism, the occurrence of a part of A on a future occasion tends to cause the whole reaction B*” (AM 68, italics original). But this is only a minor reworking of what associationists had called “the law of contiguity.” Here is Bain on the law of contiguity, as approvingly quoted by James: “Actions, Sensations, and States of Feeling, occurring together, or in close succession, tend to grow together, or cohere, in such a way that when any of them is afterwards presented to the mind, the others are apt to be brought up in idea” (Bain 1868b, 85, quoted at James 1878/1983, 3 – 4).

example of a psychological causal law—the kind of law that governs the flow of *images*.

Now, sensations *can* be linked with one another by these same psychological laws that govern images; but they can also be linked with one another by the laws of physics (*AM* 15). Remember that a sensation is metaphysically neutral, so that qua red patch of paint on the wall, it will behave according to physical laws, but qua item in what Russell calls a subject’s “biography” (*AM* 65; James uses the same phrase in about the same way at *ERE* 8), it can alternatively behave according to psychological laws.

When an image arises via the psychological law of contiguity, we tend to get what Russell calls an “imagination-image.” I have an *imagination*-image of New York City streets when I smell honey-roasted nuts in the cabin, for example.

But Russell also talks about “memory-images,” and these are more central to his discussion of consciousness. Memory images are direct *copies* of prior sensations, as when I have a mental image of my breakfast table later in the day (*AM* 146).²⁸ I want to focus on the *copying* relation between sensations and memory-images. Russell writes that images “are said to be ‘copies’ of sensations, always as regards the simple qualities that enter into them, though not always as regards the manner in which these are put together” (*AM* 128). This is Russell’s version of what Hume scholars call the “copy principle.”²⁹ Hume had written that “[a]ll our simple ideas in their first appearance are deriv’d from simple

²⁸ Russell emphasizes that memory-images are not *just* copies of sensations; they are copies of sensation accompanied by a true belief in the actual occurrence of the past sensation as represented in the memory-image itself (*AM* 146).

²⁹ E.g., see (Garrett 1997, 41).

impressions, which are correspondent to them, and which they exactly represent.”³⁰ It’s worth taking a moment to talk about Hume’s copy principle, as Russell makes (I want to suggest) similar use of it.

Hume had insisted not just that ideas come from impressions, but that there is a *correspondence* or (as he also put it) “resemblance” between ideas and impressions. What’s more, this correspondence enables *representation*. Here is Hume again:

The first circumstance, that strikes my eye, is the great *resemblance* betwixt our impressions and ideas in every other particular, except their degree of force and vivacity. ... When I shut my eyes and think of my chamber, the ideas I form are exact *representations* of the impressions I felt. (Hume 1739/1978, 2 – 3, I.i)

Just after quoting Hume’s copy principle, Russell himself makes a similar point—that this *resemblance* relation enables *representation*. Here is how Russell puts it: “It is this fact, that images resemble antecedent sensations, which enables us to call them images ‘of’ this or that” (*AM* 129). Like Hume, Russell holds that resembling an antecedent sensation is necessary for an image to count as *representing* it. (In a moment we’ll see why Russell, at any rate, does not regard resemblance as *sufficient* for representation.)

Now let’s go back to the issue of consciousness. Recall from the Definition Passage that a necessary condition for an image to constitute “*consciousness* of a sensation” is that the image is a “copy” of that sensation. So look where we are.

³⁰ The passage is from (Hume 1739/1978, 4, I.i, italics original). Russell quotes the passage at (*AM* 128 – 129).

Copying is necessary for consciousness; but we've just seen that copying is also necessary for *representing*, according to Russell. In other words, he portrays an image's resemblance to a prior sensation as necessary for *both* consciousness *and* for representation of that sensation. The question is how Russell sees the relationship is between consciousness and representation.

My answer is that Russell sees consciousness as one *kind* of representation. Two of the most important sorts of things Russell thinks can *represent* are words and images. He would not say that a *word* is conscious of an object it represents.³¹ But the thrust of the Definition Passage, I contend, is that an *image* is conscious of an object in virtue of representing that object. Consciousness, in short, is to be analyzed as a form of representation—and indeed, Russell says it *may* be the most theoretically basic form of representation there is.³²

Russell is more apt to speak of an image's "meaning" (as in the Definition Passage) rather than its "representation." "Representation" is my word, not his. I use it because in a minute I want to draw out some important similarities between Russell's view and contemporary forms of so-called "representationalism" about consciousness.

³¹ The Definition Passage contains an ambiguity that we need to take care with. It says: "I should define 'consciousness' in terms of that relation of an image *or a word* to an object which we defined, in Lecture XI, as 'meaning.'" I take it he is saying that "meaning" is a relationship that can join *either* images *or* words to objects, not that *words* are conscious of the objects they mean. For the Definition Passage immediately goes on to apply the "meaning" relationship to images and prior sensations, not to words.

³² Russell makes a considerable effort to explain how a *word* can mean an object. But he says *image*-meaning "seems more primitive" than word-meaning (*AM* 173). However, it should be noted that he had backed away from this view by 1926. In his review of Ogden and Richards' *Meaning of Meaning*, Russell would write: "...I now hold that the meaning of words should be explained without introducing images" (*CP9*, 142).

But first, we do well to examine Russell's own account of how an image can *mean* an object. After all, in the Definition Passage Russell says (again): "I should define 'consciousness' in terms of that *relation* of an image ... to an object which we defined ... as 'meaning.'" In other words, when an image *means* a sensation, the image is thereby *conscious* of it.

Now resemblance is *necessary* for an image to have meaning, as I have said, but resemblance is not sufficient. For an image to *mean* a sensation—and so for an image to be *conscious* of that sensation—the image must share causes and effects with the sensation. Let us now examine his conception of meaning a bit more closely.

2.3 *Meaning*

When Russell writes about an image being conscious of a "*sensation*," it is worth keeping two peculiarities in mind. First, sensations are (again) the stuff out of which everything is built, according to Russell's neutral monism. When I have an image that is "conscious" of a prior sensation, the sensation of which I'm conscious can be taken as either something mental (a visual sensation of blue), or as something physical (a blue patch of paint on the wall). In other words, don't be fooled by his vocabulary—when I am conscious of a sensation in the latter sense, I am directly conscious of a physical thing.

Second, Russell holds that all consciousness is consciousness *of* something else. We would today say that Russell only accepts the existence of "transitive," not "intransitive," consciousness (*AM* 245). And as we've seen, this consciousness arises partly in virtue of the *meaning* relation obtaining. But

presumably because *sensations* don't have meanings, Russell doesn't count *them* as conscious (*AM* 248). Of all *basic* mental entities,³³ only images are conscious because only images have meanings.

Note that strictly speaking, and as Russell acknowledges, I'm not actually conscious of my sensation of the blue patch at the moment I'm having it. Russell thinks I may *become* conscious of a sensation immediately after having it (*ibid.*). Also, sensation can figure into inferentially-mediated *perceptions*, and in those cases Russell thinks I can be conscious of the object of that perception (*AM* 246). So even though my occurrent sensations are not themselves "conscious" at the moment I have them (because, again, they have no representational content), they can figure into larger processes that are themselves conscious.³⁴

I'm going to set aside the perceptual case, about which Russell has surprisingly little to say, and continue focusing on the case where an image is said to be "conscious" of a prior sensation. That kind of consciousness arises, we've seen, in virtue of the image *meaning* that sensation.

We have already seen that *resemblance* is necessary for image meaning. But it's not sufficient because images often bear only *vague* resemblances to their objects. Russell offers this example:

³³ I intend "basic" to exclude constructed mental entities like beliefs and desires, which Russell thinks *can* be conscious, though they need not be (*AM* 20, 203 – 204). But he does not include these as basic elements of mind (*AM* 119).

³⁴ For instance, suppose I perceive a distant mountain. Assuming that distance is perceived rather than sensed, Russell can say I am *conscious* of the distant mountain. In the interest of space, in this paper I leave to one side Russell's account of the consciousness of a *perceived* object. Russell calls this kind of case "difficult to analyse," and offers a sketchy account that takes up only about half a page (*AM* 246).

When we call up an image of a friend's face, we are not likely to reproduce the expression he had on some one particular occasion, but rather a compromise expression derived from many occasions. And there is hardly any limit to the vagueness of which images are capable. In such cases, the meaning of the image, if defined by relation to the prototype, is vague: there is not one definite prototype, but a number, none of which is copied exactly. (*AM* 174)

He is tacitly alluding to so-called *composite portraiture*, a 19th-century technology pioneered by Francis Galton.³⁵ Galton would photograph sets of people or objects from the same distance and angle. He devised a photographic apparatus for then projecting all the resulting negatives on precisely the same spot of one photographic plate. This produced a “composite”—a single portrait that depicted all the subjects blended together, in one image.

You might think such a composite would produce only a blurry image, but when these are executed well, the result is sharp where the facial features of the subjects coincide, and blurry where they do not. For instance, if ten subjects have noses of similar shapes, but eyes that are differently set (some wide apart, some close together), then their composite portrait will look like an image of a face with a sharply-defined nose but rather blurry eyes. Galton himself contended that these images provided a visual representation of both similarity and variation in a group—sharpness indicates similarity, blurriness indicates variation (Galton 1879a, 161 – 62). See figure 1.

³⁵ Composite portraiture crops up more explicitly elsewhere in *Analysis of Mind* (e.g., 184 – 185).



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Figure 1: A set of composite portraits, on the left, of boys who are individually pictured on the right.³⁶

Because of this, many philosophers had come to regard composite portraits as concrete illustrations of what it is for a *mental* image to be abstract. The

³⁶ Galton was an advocate of eugenics—he claimed that these kinds of images can be used to depict ethnic “types.” Here we have the “Jewish type” (ominously). He also created such portraits of criminals, patients with different diseases, and so on. These depictions are plainly chilling. And although Russell himself would give his own qualified support for eugenics (Heathorn 2005), composite portraiture would not have seemed to readers of the era to be an exclusively eugenicist tool. Galton really did offer up his composite portraiture as a way pictorially to represent similarity and dissimilarity, constructing many such pictures of inanimate objects that lacked a connection to eugenics (such as ancient coins, as at Galton 1879b). In the photo in the text, E is the composite of the five portraits marked with small *e*; F is the composite of the *f*’s; G is a co-composite of E and F reversed, and thus represents all the ten components on the right (from Galton 1885).

hypothesis—which Galton himself had advocated³⁷—is that we form an abstract general idea of a house, say, by mentally superposing a group of individual houses we have seen on different occasions into one, composite *mental* image. This composite mental image can then play the role of an abstract general idea in virtue of the similarities it bears to group members. Philosophers who expressed sympathy with this sort of account of abstract general ideas include Peirce, James, and Wittgenstein³⁸—also Richard Semon and Russell himself, apparently.

But given this model of abstraction, Russell faces the challenge of distinguishing ideas that are merely *vague* from those that are genuinely *abstract*. I have a vague image of what the gears inside my watch look like, but (not being a watchmaker) I certainly lack the abstract ideas associated with the various parts one finds in there. What’s the difference?

Russell’s answer is that we must also look to what he calls an image’s “causal efficacy”:

What is called an image “of” some definite object, say St. Paul’s, has some of the effects which the object would have. This applies especially to the effects that depend upon association. The emotional effects, also, are often similar: images may stimulate desire almost as strongly as do the objects they represent. And conversely desire may cause images:[fn omitted] a hungry man will have images of food, and so on. In all these

³⁷ Galton says that composite portraits are “strictly analogous” to abstract general ideas (Galton 1879a, 164).

³⁸ For instance, see (Huxley 1879/1914, 112-14, James 1890/1981, 443-53, esp. fn. 17, and ch. 18, Robertson 1879). On Peirce, see (Hookway 2002). On Wittgenstein, see (Conant 2005).

ways the causal laws concerning images are connected with the causal laws concerning the objects which the images “mean.” (AM 174)

So the problem Russell is addressing here is that he takes meaning to involve copying; but copying can be ambiguous, particularly in that one idea can copy (or resemble) many *different* prototypes, as in the case of Galton’s composites. So he introduces a second condition to help disambiguate what an image “means.” The second condition is that the image must share “some of the effects which the object would have.” In the cases we’re considering, the image’s meant “object” is a sensation. So he has in mind examples such as when the image of St. Paul’s creates the same desire to go inside the cathedral that one might feel upon actually being confronted with St. Paul’s itself. And he holds that the image can *also* share *causes* with its object. For instance, my hunger for honey-roasted nuts might cause an *image* of honey-roasted nuts; but it might also cause me to procure actual honey-roasted nuts. In short, images share at least some causes and/or effects with the objects that they “mean.”

Here is what I draw from this passage, along with Russell’s (already discussed) Humean copy principle. Russell thinks the following two conditions are jointly necessary and sufficient for an image to *mean* a sensation: a) the image must resemble the sensation, and b) the image must share “some of the effects”—and/or some of the same causes—“which the object would have.”

The second condition helps distinguish vague images from abstract images in the following way. Suppose I have what Russell calls a “nondescript” image of a dog. If that image shares associated causes and effects that any dog would have, regardless of breed, then this is an abstract image of a dog. But if the image shares

associations that only spaniels would have, then this is an abstract image of a spaniel. And if the image only shares associations with some particular dog (perhaps it's a vague mental image of Ruby, my own dog at home)—then this is merely a vague image of an individual.³⁹

2.4 *Belief*

So Russell thinks that for an image to be *conscious* of a sensation, the image must *mean* the sensation. In order to *mean* the sensation, the image must both resemble the sensation and share some causes and/or effects of that sensation.

We have also seen that meaning itself is not sufficient for consciousness. In the Definition Passage, Russell indicates that the image must also be accompanied by a *true belief* about that sensation. Russell adds this condition because he holds that we can only be conscious of something that actually exists (*AM* 246). He wants to rule out, say, an image that *means* a unicorn from counting as a *consciousness of* a unicorn. He accomplishes this by adding that consciousness arises when we have an image that *means* a sensation, *and* when reflection leads us to believe in the actual existence of the sensation that is meant. When both of these conditions are met, Russell says that we have “consciousness of the prototype of the image” (*ibid.*).

This is not the place to get deeply into Russell's rich account of belief. But we can briefly draw some distinctions to at least get the gist of his view as it stood in 1921.

³⁹ Russell's discussion of the spaniel example is at (*AM* 175).

First of all, beliefs are truth-apt in that they depict what Russell calls a “fact.” The *fact* of Lance Armstrong’s past actions is what makes my belief that he was guilty of blood-doping either true or false. Russell also calls the particular fact that makes a given belief true or false that belief’s “objective” (*AM* 195 – 196).

Recall that Russell uses the term “meaning” to characterize the relationship in virtue of which an *image* represents some sensation. But beliefs don’t bear a *meaning* relationship to their objects—instead, they bear a relation that he calls “reference,” or sometimes “objective reference”:

...if I believe that Columbus crossed the Atlantic in 1492, the “objective” of my belief is Columbus’s actual voyage, and the “reference” of my belief is the relation between my belief and the voyage—that relation, namely, in virtue of which the voyage makes my belief true (or, in another case, false). (*AM* 196)

So, a belief bears the *reference* relation to its *objective*.

Unlike in the relationship between an image and the sensation that it “means,” there is a third entity that intercedes between a *belief* and its *objective*. For in the case of Columbus crossing the Atlantic in 1492, the *objective* of my belief is far removed from me in both time and space—that event cannot itself be present to my current belief. So Russell holds that beliefs have *contents* that are present to them; strictly speaking, the *contents* are what represent some objective—that is, some *fact* that may be distant in time and/or space.

Russell writes:

What a man is believing at a given moment is wholly determinate if we know the contents of his mind at that moment What is believed,

however true it may be, is not the actual fact that makes the belief true, but a present event related to the fact. This present event, which is what is believed, I shall call the “content” of the belief. (*AM* 197)

The *contents* of a belief can consist of images, words, and/or sensations. A content is always “complex” in that it must consist of a *collection* of words, images, or sensations, and these items must bear “definite relations” to one another (*AM* 198 – 199). You can think of the *content* of a belief as the kind of representation that would normally be expressed by a “that” clause: the belief *that* the earth is warming, the belief *that* Ontario has better Vietnamese food than California. And so on.

To be more precise now, Russell says that a content “must contain at least one constituent which is a word or an image, and it may or may not contain one or more sensations as constituents” (*AM* 200). This is because only words and images have *meanings*; sensations do not, and so by themselves cannot mean (represent) any fact at all. As Russell puts it: “objective reference is of the essence of belief, and objective reference is derived from meaning” (*AM* 201). So in short, it is in virtue of the meaning of the belief’s *content* that the belief refers to its objective.

Still, reference is an importantly different relation from meaning because it (reference) comes in two varieties—true reference and false reference (*AM* 195 – 196). Russell sometimes speaks of true reference as pointing *towards* its objective, and false reference as pointing *away* from its objective (*AM* 230).

Russell acknowledges that the kind of tripartite division between act, object, and content that he had argued against early in *Analysis of Mind* in some sense

recurs here in his account of belief, since he is prepared to distinguish “the believing, what is believed, and the object” (*AM* 197). *The believing* is a kind of feeling, *the believed* is the content, and *the object* is the objective to which the content refers. But unlike the “act” from Brentanean psychology—which Russell regards as an objectionably speculative entity—believing is “an actual experienced feeling” (*ibid.*), and this is supposed (somehow) to insulate the tripartite account of belief from the criticisms Russell had leveled at act-psychology.

So what, finally, is this “feeling” Russell calls “belief”? It is a feeling of *assent* towards the content,⁴⁰ a feeling that Russell says he cannot further analyze, but that it may nevertheless be complex (*AM* 212). More on this feeling of assent in a moment.

For now, let me summarize: for an image to be conscious of a sensation, there must be an image that *means* the sensation, and the image must be accompanied by a belief about—i.e., a distinctive, emotional feeling of *assent* towards—a content, and the content must bear the *true reference* relation to the sensation.

2.5 Representationalism

⁴⁰ Russell actually distinguishes between three types of belief-feelings—assent, memory, and expectation. I confine myself to assent in the text for ease of exposition, and Russell suggests that each of these three feelings play the same structural role in his account (*AM* 212).

So is Russell's account of consciousness a form of representationalism? I take *representationalism about consciousness* to be the view that phenomenal properties arise in virtue of representational properties (Hellie 2006).

What are "phenomenal" and "representational" properties, respectively? It is said to be "like" something to be in some mental states. The properties of a mental state in virtue of which it is like something to be in that state are called the state's *phenomenal properties*. These properties might include the bitter-taste qualia associated with my mental state when I drink coffee, or the clanging-sound qualia when a tram is passing. Mental states can also have *representational properties*. These are the properties in virtue of which a mental state is said to be "about" something else. For instance, I can have a desire for grapefruit; whatever properties *make* my desire point to grapefruit are that desire's representational properties.

There are many disagreements about just how to further cash out the concepts of phenomenal and representational properties. But for our purposes, what is important is the broad approach to consciousness called "representationalism." Representationalists claim that it is in virtue of a mental state's representational properties (the properties that make it a representation of, say, the coffee as having a bitter taste) that the state has phenomenal properties (the properties that give it a subjective, something-it-is-like feeling of tasting the bitter coffee). One common argument for representationalism is an argument from theoretical convenience. Where once philosophers of mind had been troubled by

two fundamental problems (phenomenality and representation), the representationalist proposes to solve two problems at once.⁴¹

I would now make several points about Russell's analysis of consciousness. First, it is at least *necessary* that a state represents an object for that state to count as conscious, on Russell's view; and in that sense his view is clearly at least a *weak* form of representationalism. (Strong representationalism says, in contrast, that representational properties are both necessary *and sufficient* for consciousness). For one thing, for a mental image to be conscious of an object it must *mean*—represent—the object. And for another, it must be accompanied by a belief concerning a complex content that must be directed at—again, that must *represent*—the object. So Russell clearly offers at least what we would today call a “weak” form of representationalism.

What is more, for a state (like an image) to be conscious, the state must involve a content with a proposition-like structure (*AM* 203). For we have seen that Russell thinks consciousness is a mental image that not only *means* its object, but the image must also be accompanied by a feeling of belief (assent) towards a *content*, and these belief-contents must be structured in a proposition-like way—assent *that* the apple is on the table, or *that* the apple is yellow. That means that Russell offers (at least) a (weak) representationalism that insists that conscious experience always has some propositional content.⁴² On this view, one is never

⁴¹ [[Michael Tye reference.]]

⁴² Russell in fact speaks of the kinds of images involved in belief-contents as “image-propositions.” He distinguishes these from “word-propositions,” writing: “We may identify propositions in general with the contents of actual and possible beliefs, and we may say that it is propositions that are true or false” (*AM* 204).

simply conscious of an apple full-stop. One is conscious *that* the apple looks delicious (or whatever).

I think Russell in fact demurs from *strong* representationalism though. For conscious states (as he sees them) also involve beliefs *concerning* the content, and beliefs get cashed out in terms of some kind of pro-attitude towards that content. Are these pro-attitudes—*assents*, paradigmatically—simply more representations?

It seems not. Russell concludes his analysis of belief this way:

The view of belief which I have been advocating contains little that is novel except the distinction of kinds of belief-feeling such as memory and expectation. Thus James says: “Everyone knows the difference between imagining a thing and believing in its existence, between supposing a proposition and acquiescing in its truth. . . . *In its inner nature, belief, or the sense of reality, is a sort of feeling more allied to the emotions than to anything else*” (*Psychology*, vol. ii, p. 283. James’s italics). He proceeds to point out that drunkenness, and, still more, nitrous-oxide intoxication, will heighten the sense of belief (AM 213)

And in fact this sort of emotion-based account of assent is demanded by one of Russell’s deeper commitments about the contents of belief. This is his view that the same content can be believed, doubted, or merely considered, and an account of belief should be able to distinguish between these (AM 211; cf. 91, 198). This means that the difference between a content we believe and a content we doubt is not to be found in the content—in the representation—itself. The difference is to be found in the attitude we take *towards* the content, and as we see above Russell regards such attitudes as kinds of feelings or emotions.

In any case, it is not hard to see why Russell might have liked a representationalist approach to the mind. For it promises to reduce questions about subjective experience to questions about representational content, and these latter are precisely the sorts of questions to which the tools of logical analysis are suited.

So let me step back for a moment. It has often been said that the *Analysis of Mind* is Russell's attempt to marry James's neutral monism with Watson's behaviorism. In his important study, Levine has argued that Russell's lingering commitment to mental images in that work marks a failure to bring these strands together satisfactorily; and Levine thinks what *explains* Russell's heavy reliance on images is his (Russell's) enduring opposition to the pragmatist theory of truth (Levine 2018a, 135).⁴³ But I would suggest a different interpretation. We can think of the *Analysis of Mind* as attempting to juggle three balls, not just two—behaviorism, neutral monism, *and* a representationalist conception of mind. But Russell's blend of representationalism with behaviorism is incompatible with the conception of mind on which pragmatism about truth (James's, at any rate) is built. In other words, we should appeal to a deep disagreement about the nature of mind as a way to explain Russell's enduring opposition to pragmatism about truth, rather than (as I think Levine would have it) vice versa.

This is not the place to develop a full picture of James's analysis of consciousness, which is remarkably complex. But let me now at least indicate in

⁴³ For Levine's articulation of what Russell most objected to in the pragmatist theory of truth, see p. 5, above.

general terms why his approach might be thought incompatible with Russell's blend of behaviorism and representationalism.

3. *James on Consciousness, Action, and Belief*

James wrote voluminously on the subject of consciousness, first in an evolutionary-psychological vein,⁴⁴ and then in a more metaphysical capacity when he later developed his neutral monism. Despite that consciousness is no longer taken as metaphysically basic in the neutral monist phase, many of James's core, psychological ideas about consciousness are nevertheless preserved there (Klein 2020). Accordingly, I now offer a brief overview of some key aspects of James's evolutionary-psychological account of consciousness, which should be enough to bring out some important differences with Russell.

Between about 1872 and 1890, James developed an evolutionary account of phenomenal consciousness. He contended that consciousness enables organisms actively to *evaluate* what is in (or might be in) their environments, responding with "prudence" (James 1890/1981, 33; henceforth PP) to what is of interest, and ignoring much else. He hypothesized that this evaluative capacity was selected (in the Darwinian sense) because it helped "regulate"⁴⁵ the behavior of creatures with highly-articulated brains. In short, consciousness's main business is worldly evaluation; and its etiological function is behavior regulation, for James. He does think consciousness typically involves representations, and here there is

⁴⁴ I examine James's evolutionary-psychological account of consciousness at length in a forthcoming book (Klein Forthcoming).

⁴⁵ For this term, see (James 1987, 303, from an 1875 review; PP 90, 147).

considerable consonance with Russell. But for James, representations operate in service of evaluation; and they do so in a way that is at odds with reflex-arc theory, a movement in psychology with which James battled, and which was a forerunner of the very trends in behaviorism that would later inspire Russell.

What evidence did James offer for his account of consciousness? He proposed his evaluationist hypothesis as an inference to the best explanation—as a way to explain some puzzling vivisection experiments that seemed to demonstrate a capacity for purposive behavior in pithed or decapitated frogs.⁴⁶ These experiments were controversial in light of the then-widespread appeal to purposive behavior as an outward criterion of consciousness; accept this criterion, and one is seemingly forced to accept that a living, brainless frog is conscious.

James's most extensive academic training was in physiology. With many other physiologists of his day, he held that the cerebrum is the seat of consciousness, so that we cannot regard a de-cerebrated vertebrate as conscious, even if it is shown to be capable of purposive behavior. And he naturally accepted that the purposiveness criterion alone cannot differentiate between the behavior of decapitated and intact creatures. But he proposed adding a second criterion: to be counted as genuinely conscious, creatures must not only have a capacity for

⁴⁶ The classic example is Pflüger's 1853 experiment, in which acid is dripped on the skin of a pithed frog. It had long been known that such a frog will wipe away the acid reflexively. But Pflüger showed that if the reflexively-favored foot used for the wiping is impeded or amputated, the pithed frog is typically capable of *choosing a different foot* to wipe away the acid. This is what is thought to constitute purposive behavior—choosing different means to reach a goal. I discuss the pithing experiments in (Klein 2018).

purposive behavior, but they must also have a capacity to take account of what he called “remote sensations” (PP 1890, 32).⁴⁷

James’s idea, in a nutshell, is that frogs that have been decerebrated (but who have all other brain structures intact, up to and including the optic thalami, which are just posterior to the cerebrum) behave in ways that are largely indistinguishable from their intact peers; the key difference is that they only respond to *present* stimuli, and almost never *initiate* behavior of their own accord. This can be explained, James thinks, if the cerebrum gives rise to a capacity to entertain ideas other than what the senses are presenting. These are the so-called absent sensations.

He writes:

If I step aside on seeing a rattlesnake, from considering how dangerous an animal he is, the mental materials which constitute my prudential reflection are images more or less vivid of the movement of his head, of a sudden pain in my leg, of a state of terror, a swelling of the limb, a chill, delirium, unconsciousness, etc., etc., and the ruin of my hopes. But all these images are constructed out of my past experiences. They are *reproductions* of what I have felt or witnessed. They are, in short, remote sensations; and the difference between the hemisphereless animal and the whole one may be concisely expressed by saying that the one obeys

⁴⁷ Here we have an anticipation of a point advocated more recently by representationalists: that an aspect of mental states that is important for guiding intelligent behavior is so-called “decouplability”—e.g., a mental state’s capacity to intend or depict a lemon whether or not the lemon is perceptually present (Clark and Grush 1999, cf. Grush and Mandik 2002 for the related notion of “independent targetability”). A summary of the literature on decouplability, along with an attempted refutation, can be found at (Gallagher 2017, 13 – 14, 91 – 96).

absent, the other only present, objects. (PP 1890, 32; italics original, my underline)

James thought the exercise of this capacity was publicly observable, finally calling a behavior “prudent” if it is purposive *and* undertaken in a way that takes account of absent objects.

So the surprising physiological facts that James thought demanded explanation were the subtle, observed differences between the hemisphereless vertebrate’s purposive (but otherwise impaired) behavior and the genuine prudence displayed by intact conspecifics. He accounted for these observations, then, roughly as follows. Based in part on brain damage evidence from humans and dogs (PP 1890, 74 – 75), he proposed that consciousness is primarily a product of the hemispheres. So he held that the hemisphereless creatures in the laboratory are unlikely actually to be conscious. But James then offered both phenomenological and third-person evidence that consciousness incessantly evaluates its objects, and conjectured that if consciousness is *characteristically* or *typically* evaluative, it might play a quasi-mechanical role in regulating the behavior of (i.e., in enabling prudent behavior in) creatures with complex neural circuitry. In fact, he hypothesized that consciousness might have been selected for precisely this purpose. And he pointed to experimental evidence that hemisphereless creatures *lack* this evaluative capacity he takes to be so central to behavioral regulation.

Now a full grasp of James’s account of consciousness also requires taking notice of his closely related work on will. According to James’s so-called “ideo-motor” principle, every conscious thought naturally brings about some bodily

response or other. He goes so far as to declare: “All consciousness is motor” (James 1892/1984, 321). But because conscious creatures (especially those with highly articulated brains) have a capacity to think of “absent objects” while simultaneously undergoing normal sensation and perception, rivalries can arise between different thoughts that cannot all be put into action at once.⁴⁸ Will is the subject’s “fiat” (James 1983, 44 – 45, 86) that one among these several conflicting thoughts shall be allowed to be put into action. Viewed in its connection with will, consciousness then amounts to a workshop for more deliberative evaluation of which response to actualize. In fact, it is precisely through the exercise of will that consciousness helps achieve the behavioral regulation that is its etiological function. Consciousness and will thus work hand-in-glove, for James.

As he put it, consciousness is a phase that we abstract out of a larger reflex “loop,” both ends of which “have their point of application in the outer world” (WTB 1881, 92). Consciousness is an integrated part of a whole interaction between an organism and its environment, for James, and the organism is to be regarded as an evolved, physiological “machine for converting stimuli into reactions” (PBC 1892, 321).⁴⁹

⁴⁸ Russell surprisingly endorses James’s account of volition, and seems to recognize the central role these idea-rivalries can play; see (*AM* 242).

⁴⁹ I mentioned (in fn. 47, above) that James anticipated some insights of contemporary representationalism. Here we see an important respect in which James also anticipated aspects of enactivism about consciousness and cognition. Noë writes that for enactivists, perception involves the physiological mastery of “pattern[s] of sensorimotor dependence”—for instance, we know how to move our bodies to hear a sound source more clearly or to get a closer look at something, and our ability to perceive is “constituted by” this sort of skillful engagement with the environment (Gallagher 2017, 6, Noë 2004, 1 – 2, also see Noë and O’Regan 2002, 569). Similarly, James sees consciousness as inherently tied to the dynamic regulation of bodily activity inside an environment. That he anticipates two warring factions—representationalism and

James had positioned his own view as in opposition to that of so-called reflex-arc theorists like T. H. Huxley and William Clifford (especially in his first major publication on consciousness, James 1879). These figures had a so-called “sensorimotor” conception of action in that they portray all behaviors as reflexive responses to sensory inputs.⁵⁰ They explain the difference between simpler responses and more goal-directed actions (those we would typically call “voluntary”) by appealing to increasingly complex, and increasingly educated, reflexive responses.⁵¹ Now *in principle*, this group could be amenable to James’s idea that our mental lives are in *some* sense implicated in the middle part of a reflex loop (cf. WTB 1881, 92); and the same might be said of later forms of behaviorism. So what was really so different about James’s approach?

The reflex theorists’ insistence that physiological response is always to be understood on the model of reflexes means that all action is ultimately sensorimotor—on their approach, behavior is always (as a psychological matter)

enactivism—is paradoxical, particularly since enactivists (op. cit.) often cash out their position by denying that there *are* truly decouplable mental states worth treating as genuine representations. In the *Principles*, James claims that mental states are intentional and potentially decouplable at least in the sense of being able to intend what is absent. Also, I note that James’s foreshadowing of enactivism is not surprising as a historical matter, since his student Edwin Holt was working out the implications of radical empiricism for psychology at the time he (Holt) mentored a young James Gibson at Princeton (Heft 2001, 2002), and Gibson has been a major influence on enactivists. Gallagher also cites Dewey’s pragmatism as an important inspiration for enactivists (Gallagher 2017, ch. 3), but says little about James.

⁵⁰ For example, see (Huxley 1866, 16 – 17, 192 – 93). Also see fn. 51, below.

⁵¹ Thus Huxley distinguished between “*natural*” and “*artificial* reflex actions,” contending that “the possibility of all education” depends on the capacity for the latter. He includes as examples of artificial reflex actions reading a book out loud upon seeing the page, and getting into the attitude of “attention” upon hearing the command (Huxley 1866, 285 – 86). And in “On the Hypothesis that Animals are Automata,” Huxley would portray responses we conventionally consider to be volitional as simply more *complex* reflexive responses, and crediting Descartes with this insight (Huxley 1874/1894, 218). And Clifford gives a reflexive account of the act of copying a book by hand (Clifford 1874/1886, 251 – 52).

elicited by some prior stimulus, however remote. James retained a notion of reflex action for responses like wincing; but his ideo-motor model of volition marks a crucial departure from sensorimotor theory in that James gives a central role in both action induction and motor control to *endogenously*-generated goal-representations.⁵²

To be more precise, absent sensations—especially one variety of these that James calls “*anticipatory images*”⁵³—are effectively an agent’s internal representation of goals.⁵⁴ Anticipatory images are (in brief) representations of expected future sensations a movement would cause. These images directly trigger motions that have been linked, in past experience, with these expectations, James held. For instance, in the past we have performed the motions that constitute getting out of bed, which led to an experience of being upright; when we are presently in bed and think of the feeling of being upright, and this

⁵² I owe the broad distinction between two approaches to action in late 19th century psychology—the sensorimotor and the ideomotor—to the work of Wolfgang Prinz; for a concise example of his way of drawing this distinction, see (Prinz 2003, esp. 165 – 67). It is not clear to me though, as Prinz and his colleagues sometimes imply, that James should be seen as departing from physiological orthodoxy full-stop. The fact that Laycock, Carpenter, Herbart, Lotze, and Harless (Stock and Stock 2004), to say nothing of Renouvier (Girel Forthcoming), all offered ideo-motor principles of action suggests that James’s view was not entirely unorthodox in its own day, even if it flew in the face of respected theories by figures like Bain, Wundt, and Spencer (Bromhall 2015, 42 – 52). The influence of sensorimotor thinking on the coming tide of behaviorism perhaps makes the reflex theorists seem like the undisputed establishment; but that may be a retrospective distortion.

⁵³ James’s notion of an “anticipatory image” has come to play a major role in the psychology of volition today. But the phrase more commonly used now is “response image.”

⁵⁴ It might be thought that we can give a sensorimotor model of goal-directed action by appealing to the notion of asynchronous imitation. Perhaps I’ve seen someone pitch a ball in the past, so when I am (at a later time) standing on the pitcher’s mound, this experience triggers a series of imitative acts, leading me to throw the ball towards the catcher’s mitt. Knuf and colleagues have shown experimentally that in at least some cases of goal-directed behavior, there is evidence that actions are induced by goal representations, and not by mere imitation (Knuf, Aschersleben, and Prinz 2001, for a discussion see Prinz 2003, 182 – 84).

anticipatory image now triggers the getting-out-of-bed movements, unless we are simultaneously entertaining rival anticipatory images.

Absent sensations are not just internally-housed mental states, so to speak—they are (typically) internally *generated* as well. Since these internally-generated states tend to trigger behavior, some behavior (on James's view, and contra sensorimotor theory) is *not elicited by externally-presented stimuli*. These are the *ideo-motor actions*.

Although the sensorimotor approach helped set in motion the coming tide of behaviorism, James's *ideo-motor framework* has more recently become one of the most important sources of influence on some dominant approaches to action in cognitive psychology (see especially Prinz 1987), and the concept has been put to fairly widespread use in other areas of cognitive psychology as well.⁵⁵ James is now widely recognized as the most important historical figure who synthesized various disparate strains of theorizing about *ideo-motor action* in the 19th century.⁵⁶

Now what do James's conceptions of consciousness and action have to do with pragmatism, or with Russell? Let's take pragmatism first. Although James did not begin publicly discussing pragmatism until 1898, we can see roots of that

⁵⁵ Prinz cites (Greenwald 1970) as an important pioneer of ideomotor theory as well, a work taken notice of in philosophy by (Goldman 1976). But it was not until Prinz's 1987 paper that ideomotor theory began being put to wide use in psychology, as Shin et al contend (Shin, Proctor, and Capaldi 2010, 943, an enormously helpful overview of recent developments in *ideo-motor theory*). Examples of more recent psychological research that develops *ideo-motor theories* in various directions include (Hoffmann et al. 2007, Hommel 2009, 2015, Hommel et al. 2001, Klapp, Porter-Graham, and Hoifjeld 1991, Massen and Prinz 2009, Prinz 2005). For a history that emphasizes the neglect of the *ideo-motor principle* in behaviorism, and its resurgence in the era of cognitive psychology, see (Neumann and Prinz 1990).

⁵⁶ See in particular (Stock and Stock 2004), which assigns James a pivotal role in the history of 19th-century work on *ideo-motor action*. Baars and Prinz often cite his influence directly.

philosophical movement in some of his early reflections on consciousness and will, such as in this telling 1881 passage:

The structural unit of the nervous system is in fact a triad, neither of whose elements has any independent existence. The sensory impression exists only for the sake of awaking the central process of reflection, and the central process of reflection exists only for the sake of calling forth the final act. All action is thus *re*-action upon the outer world; and the middle stage of consideration or contemplation or thinking is only a place of transit, the bottom of a loop, both whose ends have their point of application in the outer world. If it should ever have no roots in the outer world, if it should ever happen that it led to no active measures, it would fail of its essential function, and would have to be considered either pathological or abortive. The current of life which runs in at our eyes or ears is meant to run out at our hands, feet, or lips. The only use of the thoughts it occasions while inside is to determine its direction to whichever of these organs shall, on the whole, under the circumstances actually present, act in the way most propitious to our welfare. The willing department of our nature, in short, dominates both the conceiving department and the feeling department; or, in plainer English, perception and thinking are only there for behavior's sake. (WTB 92)

This passage is from a lecture to theologians, and it nicely expresses James's basic orientation towards the mind—that what is conscious is part of a larger mechanism for adjusting the organism's behavior to its dynamic environment. This much would have been in keeping with later behaviorist thinking.

But what is importantly different—both from pure behaviorism and from Russell’s brand of neutral monism, I submit—is the role of an active will in affording *endogenous* control of behavior. Remember, for James consciousness is a kind of theater in which occurrent sensory experience is continually compared with absent sensations. And it is *will*—construed as a faculty that brings the agent’s interests to bear in choosing *which* sensation shall be acted upon—that is ultimately responsible for planning and controlling action. This is the sense in which will “dominates” the mental, for James.

In contrast, reflex-arc theorists in James’s day had adopted epiphenomenalism, which denies that conscious states have *any* causal influence over behavior.⁵⁷ Behaviorists typically dropped that philosophical thesis, but still quietly neglected the problem of action control (Rosenbaum 2005).

It would not be a stretch to say that for James, action control is the natural fountain of epistemology. What I mean is that James does not portray cognition as a purely external matter of whether an image *matches* an outer fact, as Russell does (*AM* 215).⁵⁸ James regards cognition as a matter of whether the agent’s active *control* of its own behavior produces a successful policy for navigating the environment—again, understanding “control” as a function of an interested and productive will.

⁵⁷ I discuss James’s influential, evolutionary objection to this view in (Klein 2019).

⁵⁸ It is true that in *Analysis of Mind*, accuracy of match is necessary, but not sufficient, for knowledge. Appropriateness to purpose is also needed; but purpose gets cashed out in a purely behaviorist fashion—in terms of whatever it is that in fact terminates a “behaviour-cycle” (*AM* 50)—rather than in terms of some endogenous *interests* or *goals* that drive the behavior in the first place. In fact, he quite explicitly rejects the latter view, that we can understand *purpose* in terms of an internal mental state (*AM* 44 – 47).

One key aspect of the *Analysis of Mind* that commentators have regarded as pragmatic is its functionalist account of knowledge, according to which the human mind can be conceived of as a measuring “instrument” making relatively more or less reliable responses to its environment (*AM* 215 – 216).⁵⁹ And yet it is important to note that the mental measuring instrument, as Russell conceives it, itself is understood as making no substantive contribution to the incoming stimulus signal or to the outflowing behavioral response. Thus even after his post-prison shift towards pragmatism in some important respects, Russell nevertheless rejects a conception of cognition as involving a *creative* agent whose endogenous interests add something fundamental to the functional, in/out connection between stimulus and response.

It is precisely here where we see quite a deep mismatch with James’s approach, and I want to suggest that this mismatch helps explain Russell’s enduring hostility to the pragmatist view of truth. For in addition to the alleged confusion between the criterion and meaning of truth, Russell was also deeply dissatisfied with the way pragmatism builds *purpose* into its account of cognition. In his 1909 criticism, Russell had written:

But when once the question has arisen concerning some actual belief, “Is it a true or a false belief?” how do we in fact decide the question? The answer of pragmatism is that if the belief furthers the purpose which led us to ask the question, it is regarded as a “true” belief; if it fails to further the

⁵⁹ I use “reliable” as a shorthand for a response that balances what Russell calls “accuracy” and “appropriateness.” For an account that treats Russell’s reliabilism in *Analysis of Mind* as basically pragmatistic, see (Baldwin 2003, 445).

purpose it is regarded as a “false” belief. This, therefore, according to pragmatism, is the meaning of the words "true" and "false". "True" means "furthering the purpose which led to the question". Or, more explicitly: When, in pursuing any purpose, a belief is entertained which is relevant to the purpose, the belief is "true" if it furthers the achievement of the purpose, and "false" if it does not do so. (Russell 1992, 267 – 68).

And from later in the same article, he says that for pragmatists:

There is no such thing as 'mere' knowing, in which we passively apprehend the nature of a merely 'given' object. All knowing is bound up with doing and everything that we know has been in some degree altered by our agency. (Russell 1992, 277 – 78)

Russell offered various objections to the way pragmatists had construed “purpose,” and this is not the place to assess his worries.⁶⁰ But I would make two points in closing.

First, suppose I am right that James portrays endogenously-generated goals—*purposes*, if you like—as essential to the proper functioning of consciousness. Russell’s contention that James also sees purposes as playing an essential role in *cognition* would then pass the test of *prima facie* plausibility, at least. I do not take myself to have fully articulated James’s theory of truth or of cognition more generally, much less to have defended either. But Russell’s charge, that for pragmatists “everything we know has been in some degree altered

⁶⁰ For a helpful discussion of one of Russell’s objections to the pragmatist account of purpose, and of the question of whether his own later account in *Analysis of Mind* (see above, fn. 58) is subject to the same criticism, see (Griffin 2015).

by our agency,” strikes me as entirely in keeping with James’s psychological contention that endogenously-generated purposes mediate between sensory inputs and behavioral outputs.

Second, recall Levine’s contention that what Russell most objected to in the pragmatist account of truth is the supposed confusion between the meaning and criterion of truth. In support of this contention, Levine quotes a 1911 letter from Russell to Lady Ottoline in which he (Russell) complains about something objectionably subjectivistic inherent in pragmatism. Without denying that the meaning/criterion confusion is probably one manifestation of such subjectivism, in Russell’s eyes, I would point out that the role pragmatists think human purposes play in cognition is probably another. In the letter, Russell writes:

But the worship of my life, as you said, is Truth. That is the something greater than Man that seems to me most capable of giving greatness to Man. That is why I hate pragmatism—do read the last paragraph of my essay on Pragmatism in my book, where I have tried to express this.⁶¹

The last paragraph of the “Pragmatism” essay doesn’t mention either the meaning/criterion problem or the role of purpose in cognition, per se. But the penultimate paragraph does press a criticism of the role pragmatists think interests play in cognition. Russell worries, in a nutshell, that such a view is particularly ill-suited to matters of international justice. We do not want such matters to be decided by appealing to the “interests of the community.” Instead, if we are to hope for a peaceful resolution of our differences, we want to be able to appeal to

⁶¹ The letter is quoted in part at (Levine 2018b, 121) and in full at (Russell 1992, liii).

an objective assessment of right and wrong that is independent of any community's interests, and Russell thinks this independence would be impossible given the pragmatist account of cognition (Russell 1992, 283).

4. Conclusion

Russell and James can both be regarded as neglected figures in the history of the philosophy of mind, for different reasons. We remember Russell principally for his work in logic, and for his role as a key architect of analytic philosophy itself. Given the long-running narrative of the rise of analytic philosophy as co-extensive with a so-called “linguistic turn,” it is perhaps understandable that Russell's serious engagement with the philosophy of mind has been comparatively neglected. And for his part, James has been strongly associated with a form of pragmatism that has long been out of fashion in analytic philosophy, and this has perhaps led to his neglect in the field more generally.

I hope I have said enough here to indicate that this neglect is unjust on both sides. More recent analytic philosophy has made important contributions to the study of mind via a distinctive technique—the logical analysis of mental concepts like *consciousness*. It is not far-fetched to conjecture that the use of this technique in the philosophy of mind might be something the discipline learned, in large measure, from Russell. What is more, Russell's own analysis of *consciousness* in terms of *representational content* is an approach that makes this particular mental concept particularly tractable if we are using the standard tools of analytic philosophy. That is an important and sophisticated insight that is widely

appreciated in the philosophy of mind today, and that Russell seems to have arrived at remarkably early, by at least 1921.

On the other hand, James's own insistence on connecting consciousness with the active control of behavior prefigures enactivism, which has become an important rival to representationalism in recent philosophy of mind.⁶² And his insistence on grounding philosophical theories of mind in concrete observation (including introspective, experimental, and clinical observation)⁶³ also foregrounds a general turn towards naturalism in philosophy of mind and cognitive science today.

Finally, I have suggested that we can shed light on the disagreement between Russell and James on truth by appealing to some underlying disagreements concerning the mind. If I am right, then I hope this might inspire other historians to examine the philosophy of mind as part and parcel of early analytic philosophy's evolution more generally.

⁶² See above, fn. 49.

⁶³ Two of my forthcoming articles emphasize the extensive role of empirical observation in James's accounts of consciousness and will; see {Klein, Forthcoming #3405; Klein, Forthcoming #3851}.

Bibliography

- Acero, Juan José. 2005. "Mind, Intentionality, and Language: The Impact of Russell's Pragmatism on Ramsey." In *F.P. Ramsey: Critical Reassessments*, edited by María José Frápolli, 7-40. London: Continuum.
- Alter, Torin Andrew, and Yujin Nagasawa, eds. 2015. *Consciousness in the Physical World: Perspectives on Russellian Monism*. New York: Oxford University Press.
- Ayer, Alfred Jules. 1971. *Russell and Moore: The Analytical Heritage*. Cambridge, MA: Harvard University Press.
- Bain, Alexander. 1859. *The Emotions and the Will*. London: Parker and Son.
- . 1868a. Belief. *Chambers's Encyclopaedia: A Dictionary of Universal Knowledge for the People*.
- . 1868b. *Mental and Moral Science: A Compendium of Psychology and Ethics*. London: Longmans, Green, and Co.
- Baldwin, Thomas. 1995. "Introduction." In *Bertrand Russell's the Analysis of Mind*, vii-xvii. London: Routledge.
- . 2003. "From Knowledge by Acquaintance to Knowledge by Causation." In *The Cambridge Companion to Bertrand Russell*, edited by Nicholas Griffin, 420-48. Cambridge, U.K.; New York: Cambridge University Press.
- Banks, Erik C. 2014. *The Realistic Empiricism of Mach, James, and Russell: Neutral Monism Reconsidered*. New York: Cambridge University Press.
- Bromhall, Kyle. 2015. "James's Account of the Phenomena and Conditions of Action." PhD Dissertation, Philosophy, University of Guelph.
- Chalmers, David. J. 1997. "Moving Forward on the Problem of Consciousness." *Journal of Consciousness Studies* 4 (1):3-46.
- Clark, Andy, and Rick Grush. 1999. "Towards a Cognitive Robotics." *Adaptive Behavior* 7 (1):5-16.
- Clifford, William Kingdon. 1874/1886. "Body and Mind." In *Lectures and Essays, by the Late William Kingdon Clifford*, edited by Leslie Stephen and Frederick Pollock, 244-73. London: Macmillan and co.
- Conant, James. 2005. "Family Resemblance, Composite Photography, and Unity of Concept: Goethe, Galton, Wittgenstein." September 15.
- Eames, Elizabeth Ramsden. 1969. *Bertrand Russell's Theory of Knowledge*. New York: G. Braziller.
- Fisch, Max H. 1954. "Alexander Bain and the Genealogy of Pragmatism." *Journal of the History of Ideas* 15:413-44.
- Gallagher, Shaun. 2017. *Enactivist Interventions: Rethinking the Mind*. Oxford: Oxford University Press.
- Galton, Francis. 1879a. "Generic Images." *XIXth Century* 6:157-69.
- . 1879b. "Generic Images." *Proceedings of the Royal Institution* 9:161-70.
- . 1885. "Photographic Composites." *Photographic News* 29:234-45.
- Garrett, Don. 1997. *Cognition and Commitment in Hume's Philosophy*. New York: Oxford University Press.

- Girel, Mathias. Forthcoming. "James and Renouvier." In *The Oxford Handbook of William James*, edited by Alexander Klein. New York: Oxford University Press.
- Goff, Philip. 2017. *Consciousness and Fundamental Reality, Philosophy of Mind*. New York: Oxford University Press.
- Goldman, Alvin I. 1976. "The Volitional Theory Revisited." In *Action Theory*, edited by Myles Brand and Douglas N. Walton, 67-84. Dordrecht: D. Reidel Pub. Co.
- Greenwald, Anthony G. 1970. "Sensory Feedback Mechanisms in Performance Control: With Special Reference to the Ideo-Motor Mechanism." *Psychological Review* 77 (2):73-99.
- Griffin, Nicholas. 1985a. "Russell's Multiple Relation Theory of Judgment." *Philosophical Studies* 47 (2):213-47.
- . 1985b. "Wittgenstein's Criticism of Russell's Theory of Judgment." *Russell: The Journal of Bertrand Russell Studies* 5 (2):132-45.
- . 1991. "Was Russell Shot or Did He Fall?" *Dialogue* 30 (4):549-54.
- . 2015. "Russell's Neutral Monist Theory of Desire." *Russell: The Journal of Bertrand Russell Studies* n. s. 35 (1):5-28.
- Grush, Rick, and Pete Mandik. 2002. "Representational Parts." *Phenomenology and the Cognitive Sciences* 1 (4):389-94.
- Hatfield, Gary. 2004. "Sense-Data and the Mind-Body Problem." In *Perception and Reality: From Descartes to the Present*, edited by Ralph Schumacher, 305-31. Paderborn: Mentis Verlag.
- . 2013. "Russell's Progress: Spatial Dimensions, the from-Which, and the at-Which." In *Self, World, and Art: Metaphysical Topics in Kant and Hegel*, edited by Dina Emundts, 321-44. De Gruyter.
- Hatfield, Gary C. 2002. "Sense-Data and the Philosophy of Mind: Russell, James, and Mach." *Principia: Revista Internacional de Epistemologia* 6 (2):203-30.
- Heathorn, Stephen. 2005. "Explaining Russell's Eugenic Discourse in the 1920s." *25* (2):97-192.
- Heft, Harry. 2001. *Ecological Psychology in Context: James Gibson, Roger Barker, and the Legacy of William James's Radical Empiricism, Resources for Ecological Psychology*. Mahwah, N.J.: L. Erlbaum.
- . 2002. "Restoring Naturalism to James's Epistemology: A Belated Reply to Miller & Bode." *Transactions of the Charles S. Peirce Society* 38 (4):559-80.
- Hellie, Benj. 2006. "Consciousness and Representationalism." In *Encyclopedia of Cognitive Science*, edited by Lynn Nadel. Wiley.
- Hoffmann, Joachim, Michael Berner, Martin V. Butz, Oliver Herbort, Andrea Kiesel, Wilfried Kunde, and Alexandra Lenhard. 2007. "Explorations of Anticipatory Behavioral Control (Abc): A Report from the Cognitive Psychology Unit of the University of Würzburg." *Cognitive Processing* 8 (2):133-42.
- Hommel, Bernhard. 2009. "Action Control According to Tec (Theory of Event Coding)." *Psychological research* 73 (4):512-26.
- . 2015. "The Theory of Event Coding (Tec) as Embodied-Cognition Framework." *Frontiers in Psychology* 6 (1318).

- Hommel, Bernhard, Jochen Müsseler, Gisa Aschersleben, and Wolfgang Prinz. 2001. "The Theory of Event Coding (Tec): A Framework for Perception and Action Planning." *Behavioral and Brain Sciences* 24 (5):849-78.
- Hookway, Christopher. 2002. "...A Sort of Composite Photograph: Pragmatism, Ideas, and Schematism." *Transactions of the Charles S. Peirce Society: A Quarterly Journal in American Philosophy* 38 (1-2):29-45.
- Hume, David. 1739/1978. *A Treatise of Human Nature; Being an Attempt to Introduce the Experimental Method of Reasoning into Moral Subjects*. Edited by L. A. Selby-Bigge and P. H. Nidditch. 2nd ed. Oxford: Clarendon Press.
- Huxley, Thomas Henry. 1866. *Lessons in Elementary Physiology*. London: Macmillan and Co.
- . 1874/1894. "On the Hypothesis That Animals Are Automata, and Its History." In *Collected Essays: Method and Results*, 199-250. New York: Appleton.
- . 1879/1914. *Hume, with Helps to the Study of Berkeley, Collected Essays by T.H. Huxley, Vol. Vi*. New York: D. Appleton and company.
- James, William. 1878/1983. "Brute and Human Intellect." In *Essays in Psychology*, edited by Frederick H. Burkhardt, Fredson Bowers and Ignas K. Skrupskelis, 1-37. Cambridge, MA: Harvard University Press.
- . 1879. "Are We Automata?" *Mind* 4 (13):1-22.
- . 1890/1981. *The Principles of Psychology*. Edited by Frederick H. Burkhardt, Fredson Bowers and Ignas K. Skrupskelis, *The Works of William James*. Cambridge: Harvard University Press.
- . 1892/1984. *Psychology: Briefer Course*. Edited by Frederick H. Burkhardt, Fredson Bowers and Ignas K. Skrupskelis. Cambridge: Harvard University Press.
- . 1895/1978. "The Knowing of Things Together." In *Essays in Philosophy (Works of William James)*, edited by Frederick H. Burkhardt, Fredson Bowers and Ignas K. Skrupskelis, 71-89. Cambridge, MA: Harvard University Press.
- . 1907/1975. *Pragmatism*. Edited by Fredson Bowers and Ignas K. Skrupskelis, *Works of William James*. Cambridge: Harvard University Press.
- . 1912/1976. *Essays in Radical Empiricism*. Edited by Fredson Bowers and Ignas K. Skrupskelis. Cambridge: Harvard University Press.
- . 1983. *Essays in Psychology*. Edited by Frederick H. Burkhardt, Fredson Bowers and Ignas K. Skrupskelis, *The Works of William James*. Cambridge: Harvard University Press.
- . 1987. *Essays, Comments, and Reviews*. Edited by Frederick H. Burkhardt, Fredson Bowers and Ignas K. Skrupskelis, *The Works of William James*. Cambridge: Harvard University Press.
- Klapp, Stuart T., Kimberly A. Porter-Graham, and Annabel R. Hoifjeld. 1991. "The Relation of Perception and Motor Action: Ideomotor Compatibility and Interference in Divided Attention." *Journal of Motor Behavior* 23 (3):155-62.
- Klein, Alexander. 2015. "Hatfield on American Critical Realism." *HOPOS* 5 (1):154-66.

- . 2018. "The Curious Case of the Decapitated Frog: On Experiment and Philosophy." *British Journal for the History of Philosophy* 26 (5):890-917.
- . 2019. "William James's Objection to Epiphenomenalism." *Philosophy of Science* 86 (5):1179-90.
- . 2020. "The Death of Consciousness? James's Case against Psychological Unobservables." *Journal of the History of Philosophy* 58 (2):293-323.
- . Forthcoming. *Consciousness Is Motor: Warp and Weft in William James*. New York: Oxford University Press.
- Knuf, Lothar, Gisa Aschersleben, and Wolfgang Prinz. 2001. "An Analysis of Ideomotor Action." *Journal of Experimental Psychology: General* 130 (4):779-98.
- Levine, James. 2018a. "Russell, Pragmatism, and the Priority of Use over Meaning." In *Pragmatism and the European Traditions*, edited by Maria Baghramian and Sarin Marchetti, 110 - 54. New York: Routledge.
- Levine, Steven. 2018b. William James and Phenomenology. In *The Oxford Handbook of William James*, edited by Alexander Klein. New York: Oxford University Press.
- Lockwood, Michael. 1981. "What Was Russell's Neutral Monism?" *Midwest Studies in Philosophy* 6 (1):143-58.
- Massen, C., and W. Prinz. 2009. "Movements, Actions and Tool-Use Actions: An Ideomotor Approach to Imitation." *Philos Trans R Soc Lond B Biol Sci* 364 (1528):2349-58.
- Misak, Cheryl. 2020. *Frank Ramsey: A Sheer Excess of Powers*. First edition. ed. Oxford: Oxford University Press.
- Misak, Cheryl J. 2016. *Cambridge Pragmatism: From Peirce and James to Ramsey and Wittgenstein*. First edition. ed. Oxford, United Kingdom: Oxford University Press.
- . 2018. "James and British Philosophy." In *The Oxford Handbook of William James*, ed Alexander Klein. New York: Oxford University Press. <http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199395699.001.0001/oxfordhb-9780199395699-e-25> (accessed 2018-08-08).
- Neumann, Odmar, and Wolfgang Prinz. 1990. "Prologue: Historical Approaches to Perception and Action." In *Relationships between Perception and Action: Current Approaches*, edited by Odmar Neumann and Wolfgang Prinz, 5-19. Berlin, Heidelberg: Springer Berlin Heidelberg.
- Noë, Alva. 2004. *Action in Perception, Representation and Mind*. Cambridge: MIT Press.
- Noë, Alva, and J. Kevin O'Regan. 2002. "On the Brain-Basis of Visual Consciousness: A Sensorimotor Account." In *Vision and Mind: Selected Readings in the Philosophy of Perception*, edited by Alva Noë and Evan Thompson, 567-98. Cambridge: MIT Press.
- Peirce, Charles S. 1931 – 1958. *Collected Papers*. Edited by Charles Hartshorne, Paul Weiss and Arthur W. Burks. 8 vols. Cambridge: Harvard University Press.
- Pereboom, Derk. 2011. *Consciousness and the Prospects of Physicalism*. Oxford: Oxford University Press.

- . 2013. "Précis of Consciousness and the Prospects of Physicalism." *Philosophy and Phenomenological Research* 86 (3):715-27.
- Pincock, Christopher. 2006. "Richard Semon and Russell's *Analysis of Mind*." *Russell: The Journal of the Bertrand Russell Archives* 26 (2):97-192.
- Prinz, Wolfgang. 1987. "Ideo-Motor Action." In *Perspectives on Perception and Action*, edited by H. Heuer & A. F. Sanders, 47-76. Hillsdale: Lawrence Erlbaum.
- . 2003. "Experimental Approaches to Action." In *Agency and Self-Awareness: Issues in Philosophy and Psychology*, edited by Naomi Eilan Johannes Roessler, 165-87. Oxford: Clarendon Press.
- . 2005. "An Ideomotor Approach to Imitation." In *Perspectives on Imitation: From Neuroscience to Social Science: Vol. 1: Mechanisms of Imitation and Imitation in Animals.*, 141-56. Cambridge, MA, US: MIT Press.
- Robertson, George Croom. 1879. "Mr. F. Galton on Generic Images and Automatic Representation." *Mind* 4:551-57.
- Rosenbaum, David A. 2005. "The Cinderella of Psychology: The Neglect of Motor Control in the Science of Mental Life and Behavior." *American Psychologist* 60 (4):308-17.
- Russell, Bertrand. 1914. "On the Nature of Acquaintance: Neutral Monism." *The Monist* 24 (2):161-87.
- . 1918/2010. *The Philosophy of Logical Atomism*. London: Routledge.
- . 1919. "On Propositions: What They Are and How They Mean." *Proceedings of the Aristotelian Society, Supplementary Volumes* 2:1-43.
- . 1921. *The Analysis of Mind*. London: Allen & Unwin.
- . 1921/1995. *The Analysis of Mind*. London: Routledge.
- . 1944. "Reply to Criticisms." In *The Philosophy of Bertrand Russell*, edited by Paul Arthur Schilpp, 679-741. Evanston, IL: Northwestern University Press.
- . 1948/2009. *Human Knowledge: Its Scope and Limits*. London: Routledge.
- . 1953-1955. "Correspondence between Bertrand Russell and E. C. Moore." In Bertrand Russell Archive, at McMaster University, Box 5.31.
- . 1959. *My Philosophical Development*. London: Allen & Unwin.
- . 1992. *The Collected Papers of Bertrand Russell*. Edited by John G. Slater and Bernd Frohmann. 36 vols. Vol. 6: Logical and Philosophical Papers, 1909-13. London: George Allen & Unwin.
- . 2013. *The Collected Papers of Bertrand Russell*. Edited by Gregory H. Moore. 36 vols. Vol. 5: Toward "Principia Mathematica," 1905-08. London: George Allen & Unwin.
- Shin, Y. K., R. W. Proctor, and E. J. Capaldi. 2010. "A Review of Contemporary Ideomotor Theory." *Psychological Bulletin* 136 (6):943-74.
- Stace, W. T. 1944. "Russell's Neutral Monism." In *The Philosophy of Bertrand Russell*, edited by Paul Arthur Schilpp, 351-84. Evanston, IL: Northwestern University Press.
- Stock, Armin, and Claudia Stock. 2004. "A Short History of Ideo-Motor Action." *Psychological Research* 68 (2-3):176-88.
- Sullivan, Peter, and Colin Johnston. 2018. "Judgments, Facts, and Propositions: Theories of Truth in Russell, Wittgenstein, and Ramsey." In *The Oxford*

Handbook of Truth, edited by Michael Glanzberg, 150-92. Oxford: Oxford University Press.

Tully, Robert E. 1988a. "Forgotten Vintage." *Dialogue* 27 (2):299-320.

---. 1988b. "Russell's Neutral Monism." *Russell: The Journal of Bertrand Russell Studies* 8 (1):209-24.

---. 1993a. "Three Studies of Russell's Neutral Monism." *Russell: The Journal of the Bertrand Russell Archives* n. s. 13 (Summer 1993):5-35.

---. 1993b. "Three Studies of Russell's Neutral Monism, Concluded." *Russell: The Journal of the Bertrand Russell Archives* n. s. 13 (Winter 1993-1994):185-202.