

The Concept of “Situation” in John Dewey’s Logic and Philosophy of Science

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Abstract

This paper attempts to resolve a vexed interpretive problem for scholars of John Dewey’s logic, epistemology, and philosophy of science; namely, what is a “situation,” and what role does it play in Dewey’s theory of inquiry? I argue that these questions properly belong to the history of logic as well as epistemology and philosophy of science, and that scholars who have ventured interpretations of these ideas, from Dewey’s contemporaries to today, have misunderstood Dewey’s ideas. I provide an alternative interpretation of Dewey’s “situation” concept and the situational theory of inquiry that makes use of it, and I briefly trace some implications of these interpretations for thinking about the philosophy of scientific inquiry in particular.

1 Introduction

The core of both Dewey’s logic and his philosophy of science is his theory of inquiry, and a key concept in Dewey’s theory of inquiry is the “situation.” Dewey’s theory of inquiry is *situational*, which includes but goes beyond the usual use of “contextual,” and this has important consequences for thinking about what inquiry produces and how it can be used. Before we can grasp the specifics of Dewey’s form of situationism, we need to have a clear grip on how Dewey defines a situation and what role situations play in the definition of inquiry.

Unfortunately, Dewey’s critics and sympathetic commentators alike have fallen prey to a variety of mistakes and confusions about what situations are

and how inquiry works on Dewey's account. Dewey's "situation" concept has been variously misunderstood to be "no less than the whole universe" (Russell 1939), "episodes. . . of disequilibrium" (Burke 1994), and the "'surface' of an experience" (Burke 2000). They have disputed whether inquiry is "a changing succession or stream of situations" (Browning 2002) or "a transformation of *one* situation" (Burke 2009b). More often, Dewey's sympathizers describe "situations" in unhelpfully vague terms, such as "a state or episode of a system consisting of an organism in its environment" (Levi 2010), without providing further explanation.

In the bulk of this paper, I am concerned to clear up the confusions and mistakes about the central concept of a situation in Dewey's logic. I will also describe Dewey's situational definition of inquiry, which amounts to a kind of radical contextualist (or situationist) logic and epistemology. Lastly, I will show that Dewey's situational theory of inquiry holds great promise for thinking about some key problems in contemporary philosophy of science.¹ First, I will set the stage by describing the sense in which Dewey's work in what he calls both "logical theory" and "the theory of inquiry" is a contribution to logic, to epistemology, and to philosophy of science.

2 Dewey's 1938 *Logic* as Logic, Epistemology, and Philosophy of Science

A problem arises in treating Dewey's *Logic* (and related works like *Studies in Logical Theory* (1902) and *Essays in Experimental Logic* (1916)) as contributions to logical theory: despite Dewey's frequent statements to the contrary, Dewey's *Logic* does not look much like logic to the contemporary reader. Rudolf Carnap shared this assessment:

The situation is entirely different in cases where not only the general characterization but also the discussion of the problems themselves is consistently subjectivistic. A procedure of this kind, even if its author applies to it the title 'Logic', cannot be criticized as psychologism, because there is no mixture of heterogeneous components; there is merely a terminological difference in the use of the term 'logic'. It seems to me that John Dewey's *Logic, the theory of inquiry* (New York, 1938) is an instance of this kind. This book deals with that kind of behavior which is appropriate

¹The latter have been explored in greater detail in Brown (2012).

to problematic situations and leads to their “solutions”; it does not deal with logic in our sense (except in a few sections which seem somewhat out of place and have little connection with the remainder of the book). The fact that many logicians, that is, men who work in the field of logic in our sense, have erroneously characterized this field as the art of thinking has caused Dewey, who actually works on the art of thinking, that is, the theory and technology of procedures for overcoming problematic situations, to choose the title ‘Logic’. (Carnap 1962 [1950])

Carnap calls it a “terminological difference,” but when we think about logic today, we’re likely to be talking about, broadly speaking, what Carnap calls “logic in our sense.” So, is it true that Dewey is not doing logic “in our sense?”

On a pure formalist or syntacticist view of logic, where logic is the study of purely formal features of language, or the mathematical investigation of the properties of artificial formal languages, without regard to the semantics of those languages, Dewey is clearly doing something else. Nary a formalization appears in Dewey’s writings on “logic.” There is no algorithmic, syntactic machinery for manipulating propositions in Dewey’s “logic.” On the other hand, the formalist and syntacticist views has serious limitations with respect to providing fully satisfying explanations of, among other things, logical consequence, conditionals, names, and probability.² And Carnap (1962 [1950]) himself does not hold a purely formal view, presenting much of his theory in informal terms before providing a formal system. And while it is true that Dewey is not engaged in creating an artificial formal language, he has much to say about the nature of (logical) form in the *Logic*.

Hofweber (2014) suggests that there are four notions of what logic is:

- (L1) the study of artificial formal languages
- (L2) the study of formally valid inferences and logical consequence
- (L3) the study of logical truths
- (L4) the study of the general features, or form, of judgements

(L1) is historically the newest meaning of “logic,” one not much used until the late nineteenth century. The other three meanings, interpreted sufficiently

²See Burke (2000) for a critique of syntacticism and (???) for some of the outstanding problems for purely formalist theories.

broadly, are shared by a long tradition of logical theorists. Dewey's *Logic* is very much a part of the tradition that includes Aristotle's *Organon*, Avicenna's *Remarks and Admonitions*, Bacon's *Novum Organum*, Hegel's *Science of Logic*, Lotze's *Logic*, and Mill's *System of Logic*. The impression that Dewey's *Logic* is not really a kind of logic is an anachronism, based in a relatively recent shift in orthodoxy introduced and enforced by mathematical logicians and logical positivists, including many of Dewey's junior contemporaries and critics. The exclusion is indefensible in a larger historical perspective.

Dewey begins his 1938 *Logic* by addressing the question: if logic is a distinct field, what is its subject matter?

No one doubts that the relations expressed by such words as *is*, *is-not*, *if-then*, *only* (*none but*), *and*, *or*, *some-all*, belong to the subject-matter of logic in a way so distinctive as to mark off a special field.

When, however, it is asked how and why the matters designated by these terms form the subject-matter of logic, dissension takes the place of consensus. Do they stand for pure forms, forms that have independent subsistence, or are the forms in question forms *of* subject-matter? If the latter, what is that of which they are forms, and what happens when subject-matter takes on logical form? How and why?

These are questions of what I called the ultimate subject-matter of logic; and about this subject-matter controversy is rife. Uncertainty about this question does not prevent valuable work in the field of proximate subject-matter. But the more developed this field becomes, the more pressing is the question as to what it is all about. (LW 12:9)

Dewey considers a variety of familiar views about the "ultimate subject-matter" of logic, from psychologistic views ("that logic is the science of necessary laws of thought") to anti-psychologistic, formalist views ("Logic is . . . concerned with the formal structure of language as a system of symbols") (LW 12:10). While he briefly raises problems for each of these accounts, the main purpose of his logical writings is to defend his alternative answer:

The theory, in summary form, is that all logical forms (with their characteristic properties) arise within the operation of inquiry

and are concerned with control of inquiry so that it may yield warranted assertions. This conception implies much more than that logical forms are disclosed or come to light when we reflect upon processes of inquiry that are in use. Of course it means that; but it also means that the forms *originate* in operations of inquiry. To employ a convenient expression, it means that while inquiry into inquiry is the *causa cognoscendi* of logical forms, primary inquiry is itself *causa essendi* of the forms which inquiry into inquiry discloses. (LW 12:11-12)

Logical theory, then, is the theory of inquiry. While many aspects of the *Logic* deal with questions that today would be classified as epistemology, philosophy of science, or philosophy of language, Dewey stakes out the position from the beginning that these topics are necessary to understand logic, because the the ultimate subject-matter of logic is inquiry itself, or the general and formal features of inquiry.³ Whatever the merits of this conception of the ultimate subject-matter of logic, it is clear that it unifies the diverse concerns of Dewey's *Logic* and places them squarely in the history of logical theory.

Dewey's relationship with epistemology is vexed. If we conceive of the field of epistemology broadly as concerned with the nature of knowledge, belief-formation, reasoning, etc., then much of the *Logic* is as much a contribution to epistemology as to logical theory. But Dewey found that everywhere he looked, "epistemology" was concerned not with knowledge as such, but with questions about the conditions of the possibility of any knowledge whatsoever, with the attempt to resolve skepticism, or establish the existence of an external world (see, e.g., "The Experimental Theory of Knowledge," 1906/1910, MW 3:119f). In other words, Dewey found the epistemology of his day to presuppose a kind of transcendental or representationalist perspective that he regarded as the

³It is worth mentioning here that Carnap's interpretation of Dewey's *Logic* as "consistently subjectivistic" is doubly inconsistent with the plain meaning of Dewey's text. Carnap clearly reads "inquiry" as a kind of subjective mental operation, but Dewey is everywhere at pains in the text to make clear that inquiry is an objective activity of the inquirer or inquirers that has its own formal (if historically changing) features. Dewey also distances himself explicitly from psychologism and subjectivism in the opening chapter:

The autonomy of logic also precludes the idea that its "foundations" are psychological. It is not necessary to reach conclusions about sensations, sense-data, ideas and thought, or mental faculties generally, as material that preconditions logic. (LW 12:28).

wrong starting point for philosophy. He thus railed against “the epistemology industry.” Richard Rorty found much the same problem decades later, and followed Dewey in rejecting “epistemology” (but he also rejected Dewey’s writings on logic and inquiry along with it). I think we can happily say that the field is much broader than Dewey found in in the early decades of the twentieth century, or than Rorty found it in the later ones, and so recognize that Dewey has much to offer contemporary epistemology.

Science plays a special role in Dewey’s theory of inquiry. While scientific inquiry is not the only legitimate type of inquiry, it is perhaps the best example of inquiry. Scientific inquiry, though it “grow[s] out of” commonsense inquiry (LW 12:71), demands more, pushes further, and develops forms of inquiry more rapidly than other types of inquiry. Indeed, the history of science is excellent material for logical theory, first, because the methods or logical standards particular to mathematical and physical science are of recent origin, and second, because the history of science provides a record of forms of inquiry tried, tested, and, when they have failed, modified: “The developing course of science thus presents us with an immanent criticism of methods previously tried” (LW 12: 13). Because the (logical) forms of inquiry have developed and changed significantly from classical to contemporary to modern science, logical theory must keep up. What’s more, the historical progressiveness of logical allows Dewey to pursue the kinds of genealogical or cultural-historical analyses of logical concepts that he put to such good use in other philosophical contexts. Dewey’s systematic look at the workings of scientific inquiry likewise constitute a significant contribution to philosophy of science, a contribution that was recognized by many of Dewey’s contemporaries (See Brown 2012 for a defense of Dewey’s writings on logic as a contribution to philosophy of science).

3 The puzzle about situations

Dewey already uses “situation” as a technical term in *Studies in Logical Theory* (1902, MW 2), but it is in the 1938 *Logic* where Dewey makes fullest use of the term. Whereas earlier accounts of logic and thought in Dewey’s work sometimes discussed “perplexities” and “reflective thinking,” the *Logic* removes all such intrapersonal-psychological terms in favor of “situation” and “inquiry” understood in objective interpersonal-behavioral terms.⁴ It is thus

⁴Dewey still occasionally refers to “experience” in his account of situations, but he is relatively clear here and elsewhere that his view of experience is radically different from a

crucial that we understand Dewey's concept of the situation. Here is Dewey's definition of inquiry:

Inquiry is the controlled or directed transformation of an indeterminate situation into one that is so determinate in its constituent distinctions and relations as to convert the elements of the original situation into a unified whole. (LW 12: 108)

“Situation” itself is discussed in detail prior to this definition, and it is worth quoting that discussion at length:

I begin the discussion by introducing and explaining the denotative force of the word *situation*. Its import may perhaps be most readily indicated by means of a preliminary negative statement. **What is designated by the word “situation” is not a single object or event or set of objects and events.** For we never experience nor form judgments about objects and events in isolation, but only in connection with a **contextual whole**. This latter is what is called a “situation.” I have mentioned the extent in which modern philosophy had been concerned with the problem of existence as perceptually and conceptually determined. The confusions and fallacies that attend the discussion of this problem have a direct and close connection with the difference between an object and a situation. Psychology has paid much attention to the question of the *process* of perception, and has for its purpose described the perceived object in terms of the results of analysis of the process.

I pass over the fact that, no matter how legitimate the virtual identification of process and product may be for the special purpose of *psychological* theory, the identification is thoroughly dubious as a generalized ground of philosophical discussion and theory. I do so in order to call attention to the fact that by the very nature of the case the psychological treatment takes a *singular* object or event for the subject-matter of its analysis. In actual experience, there is never any such isolated singular object or event; *an* object or event is always a special part, phase, or aspect, of **an enviroing experienced world—a situation**. The singular

“subjective mental theater of consciousness” view.

object stands out conspicuously because of its especially focal and crucial position at a given time in determination of some problem of use or enjoyment which the ***total complex environment*** presents. **There is always a *field* in which observation of *this or that object or event* occurs.** Observation of the latter is made for the sake of finding out what that *field* is with reference to some active adaptive response to be made in carrying forward a *course* of behavior. One has only to recur to animal perception, occurring by means of sense organs, to note that isolation of what is perceived from the course of life-behavior would be not only futile, but obstructive, in many cases fatally so. (LW 12: 72-73, italics in original, boldface emphasis added)

There is much to unpack, here. I hope these quotations give you a sense of the interpretive difficulties that the “situation” concept presents. Before giving my own attempt to explain what Dewey means in these passages by “inquiry” and “situation,” I will first recount and criticize previous attempts to understand them.

4 Confusion about situations (1939-2009)

Hopefully, it is clear that the concept of the “situation” plays a central role in Dewey’s logical theory, because it is central to defining inquiry. Unfortunately, this key concept has been persistently misunderstood by critics and sympathetic interpreters alike. I can only provide an incomplete catalog of the misunderstandings.

Bertrand Russell, in his contribution the *Library of Living Philosophers* volume on Dewey entitled “Dewey’s New *Logic*,” provides one of the first, or at least the most memorable and influential early misinterpretations of Dewey’s concept of a situation. Russell conflates Deweyan situations with a kind of Hegelian universal holism, in which the smallest unit of inquiry is the entire universe. As Russell says, “I do not see how... a ‘situation’ can embrace less than the whole universe... it would seem to follow that all inquiry, strictly speaking, is an attempt to analyze the universe” (Russell 1939, 139–40). As this is clearly absurd, Russell argues that we must “give more place to logically separable particulars than [Dewey] seems willing to concede” (ibid.). But Dewey insists that situations are “*contextual* wholes,” not universal ones.

Russell identifies Dewey's "insistence upon continuity" as the cause of what he regards as an absurd position, making it impossible, presumably for Dewey to specify his contextualism. We shall see below the importance of the notion of "continuity" in Dewey's theory of inquiry. Burke (1994) argues clearly and persuasively that Russell did not understand Dewey's concept of situations (and related ideas such as continuity), such that he badly misunderstood Dewey's logical theory as a whole. Burke's treatment cannot be improved upon here. Suffice it to say that Russell appears unwilling or unable to consider a middle ground between universal holism and logical atomism, and that he missed the sophisticated contextualism that Dewey was aiming at entirely.

Burke has made the most persistent, serious attempts to get right Dewey's account of situations and its role in the theory of inquiry (Burke 1994; Burke 2000; Burke 2009a; Burke 2009b). Unfortunately, in each attempt, Burke makes significant mistakes in his interpretation of the nature of situations.

Burke (1994) errs by tying the definition of "situation" too closely to the particular kind of situations that occasion inquiry: "Situations, occurring in the ongoing activities of some organism/environment system, are instances of episodes (or 'fields') of disequilibrium, instability, imbalance, disintegrations, disturbance, dysfunction, breakdown, etc." (22-23). This is a fair (if incomplete) account of what Dewey terms "indeterminate situations," but it will not do as an account of situations in general. First, Dewey defines and uses the term "situation" in an early chapter of the *Logic*, long before introducing the concept of "indeterminate situation," in a larger discussion of the nature of language and meaning rather than inquiry. Dewey describes meaning and language use as situationally dependent, and it is clear that he does not intend to limit the meaningfulness of language to conditions of "disequilibrium, instability, imbalance... etc." Furthermore, Dewey's theory of inquiry crucially depends on the concept of "determinate situation" as a goal-state of inquiry in which the original indeterminacy is removed; this would strictly be nonsense on Burke's (1994) definition.

Burke (2000) provides an alternative, but even more mistaken, definition of situation. There, he identifies Dewey's situations with the "qualitative wholeness of individual experiences" that bridges the gap between appearance and reality in order to further the Cartesian project of "securing solid ground in epistemology" (96-97). He then identifies situations with surface appearances:

In this regard, we are committed to the claim that an experience—

with a beginning, a direction, potentiality, extending out of and into the world, and so forth—is typically more than what or how it “appears” to be on the surface; but a situation, while potentially complex, is just that “surface” of an experience. A situation is exactly as it appears to be, wherever one may be within the unfolding of the experience which the situation uniquely presents to the agent. (Burke 2000, 109)

While the immediate, pervasive quality of a situation is an important feature of situations, that is not all there is to a situation. As we will see below, Dewey clearly states that situations include all sorts of elements, including events and objects that are not “on the surface” of an experience. For this reason, it is inaccurate to say that a situation is “given (taken) all at once as a qualitative whole” (Burke, Hester, and Talisse 2002, introduction). Indeed, Dewey describes situations as “present as the background and the control of *every* experience” (LW 12:76); “the background” seems in many ways the *opposite* of the *surface* of an experience.

Other confusions about the nature of situations arise in the context of Dewey’s situational definition of inquiry, quoted in §2 above, as transformation from indeterminate situation to determinate and unified situation. This definition raises a host of interpretive problems. Burke (2000) describes situations as bridging the appearance/reality gap and providing an epistemological foundation for inquiry (97). While hitting on some important features of Dewey’s theory of inquiry, this is ultimately misleading, as it conflicts with several of Dewey’s core commitments. First, Dewey is explicit that there is no such thing as immediate knowledge. Second, that “The situation as such is not and cannot be stated or made explicit” (LW 5:243). Second, it is possible to be mistaken when judging whether or not one is in a certain kind of situation (e.g., whether one is in an indeterminate situation or suffering from a “mania of doubting” (LW 12:109-10)).

Some have wondered whether it is inappropriate to characterize *inquiry* (as opposed to *successful* inquiry) as “controlled or directed” and as actually terminating in a determinate situation (Browning 2002, 168; Burke 2009b, 160). What’s more, it may seem confused to define the goal of inquiry as a situation that is a “unified whole,” since all situations (even indeterminate and problematic situations) are unified wholes in virtue of their pervasive qualitative characters (Browning 2002, 169; Burke 2009b, 166). Finally, Browning (2002, 161, 170–2) and Burke (2009b, 161–6) disagree whether

Dewey thinks of inquiry as a succession of numerically distinct situations or as a transformation of a single situation. Another possibility is that there is a merely verbal dispute between them.

In the following 2 sections, I will provide my own interpretation of Dewey's "situation" and "inquiry" concepts, respectively, and address these interpretive puzzles and mistaken interpretations.

5 What is a situation?

One of the most useful texts for unpacking Dewey's theory of situations comes in an odd source, a reply to a letter from Albert G.A. Balz that was published in the *Journal of Philosophy*, XLVI (1949) and attached as an appendix to *Knowing and the Known* (1949, LW 16). Dewey writes,

"Situation" stands for something inclusive of a large number of diverse elements existing across wide areas of space and long periods of time, but which, nevertheless, have their own unity. This discussion which we are here and now carrying on is precisely part of a situation. Your letter to me and what I am writing in response are evidently parts of that to which I have given the name "situation"; while these items are conspicuous features of the situation they are far from being the only or even the chief ones. In each case there is prolonged prior study: into this study have entered teachers, books, articles, and all the contacts which have shaped the views that now find themselves in disagreement with each other. (LW 16:281-2)

It is telling that Dewey adds this as an appendix to a work that he and Arthur Bentley thought would clear up problems of terminology and conceptualization (??? [secondary lit on *K&K*]), and that the first major idea he tries to clarify for Balz is "situation."

What Dewey makes clear in this passage is that situations have breadth and depth. They include elements distant in space and time. Dewey here clearly speaks of ordinary things as elements of situations, not just the surfaces of things, as Burke (2000) suggests. Things like teachers and books have depths beyond their surface, and those depths make a difference, especially to scientific inquiry. In most respects, situations are not, as has sometimes been argued, metaphysically peculiar. They are made up largely of ordinary, everyday things and events like people, books, letters, discussions, study, etc.

There are two ways in which Dewey's conception of situation may still seem peculiar. One, mentioned above, is that Dewey often describes a situation as the "background" of an experience or of thought or inquiry. Paintings, photographs, and criminal suspects have backgrounds, but it is less clear what it means to say that a situation has or is a background. The second is that situations have a "pervasive quality" or "pervasive qualitative character" that unifies the situation and makes it a whole. Both of these seemingly strange features of situations can be better understood by thinking about the relationship of situations to activities and practices, and of activities and practices to experience and perception.

Dewey comes closest to a definition of a situation in the *Logic* when he describes it as "an environing experienced world" (LW 12:72). This cimmerian description must be unpacked. A situation is "environing" in the sense that it forms the context, background, or environment (in a Gibsonian sense to be explored below) for a practice or activity. It is "experienced" because, for Dewey, experience just is a feature of practices or activities wherein certain organisms interact with their environments. A situation is a "world" because it forms a whole or has a certain kind of unity, not in the sense of The World (the universal holism Russell saw), but in the sense that we talk about "the world of baseball" or "the corporate world" or "the post-9/11 world."

Centering situations on practices and activities helps to answer Russell's question about the extent of situations: what determines the horizon of a situation is not a matter of distance in time or space, nor of mere causal connection. Rather, it is *relevance* of some thing or event to some practice or activity that determines whether it is a part of a certain situation. While the mass of some distant exoplanet is causally connected to my activity of typing on the computer (by way of Universal Gravitation), it is certainly not relevant to that activity in any significant way (unless I am writing on astrophysics, perhaps).

Dewey's talk of situations being wholes with "pervasive qualitative character" makes more sense in this connection with practices and activities. Some activity, say a basketball game, occurs on the background of a situation that includes players, ball, court, training regimes, rules of the sport, and many other things. That activity has an overall quality: perhaps it is a close game, tense, balanced, outcome uncertain. According to Dewey, this overall quality is an objective feature of the situation. It is also a quality that participants and observers, if they are aware enough of the situation and the activity, can perceive.

A situation is an “environment” not in the sense of a spatiotemporal surround, but rather in an ecological sense, closely connected with the psychology of JJ Gibson (1979). According to Gibson, “The environment consists of the *surroundings* of animals” (7-8). An environment is constituted by what the organism perceives and responds to, what is “ambient” for it, what plays a part in its activities and interactions. For the human animal, mediating those interactions through language and technology, the constituents of their ecological niche may be quite spatiotemporally far flung, but they do not, as Russell worries, include the entire universe. The Gibsonian environment is a bearer of information, and perception consists not of passively receiving and then mentally processing that information but of actively navigating the array of information that the environment presents. [Is the analogy here helpful?]

6 The situational definition of inquiry

Dewey’s situational definition of inquiry bears repeating: “Inquiry is the controlled or directed transformation of an indeterminate situation into one that is so determinate in its constituent distinctions and relations as to convert the elements of the original situation into a unified whole” (*Logic*, LW 12: 108, emphasis removed). This is a radical conception of inquiry. Inquiry is not a process of thought that takes place in the mind of an inquirer. It is a process of transforming an objective situation from one sort into another.

An indeterminate situation is one in which the relevant practice or activity has become disordered or even ground to a halt by some disturbance in its constituent components and context. Dewey emphasizes again and again in the *Logic* that successfully concluded inquiry requires *actually* transforming a situation in such a way that the indeterminate quality of the situation is actually removed, the disturbance or block of the situation’s constituent practice or activity swept away, and the practice or activity itself probably transformed in the process. The precise workings of inquiry, on Dewey’s account, are complex and beyond the scope of this paper.⁵

This basic discussion is enough to answer many of the quandaries raised above about Dewey’s situational definition of inquiry. It is clear, as Burke (2000) insists, that with respect to the pervasive quality of a situation, “things... are what they are experienced as” (“The Postulate of Immediate Empiricism” MW 3:158). A situation that is experienced as doubtful *is* doubtful; one experienced as settled *is* settled. But this experience does

⁵FOOTNOTE: Brown (2012) and other work in progress.

not have cognitive content, but is more of an affective state. (Hence Dewey likes to say that the pervasive qualitative character of a situation is “felt” rather than “perceived.”) When one *takes* a situation to be a certain way, i.e., when one cognitively identifies a situation as of a certain type, then there is a possibility of error, as when one is overtaken by a “mania of doubting” (LW 12:109).

First, it is worth considering the idea that Dewey’s definition of inquiry is *normative*, a success term. Properly speaking, engaging inquiry requires proper control and actual transformation toward a settled, determinate situation. Inquiry that was not properly controlled would this not be inquiry but more-or-less blind groping; to end inquiry without reaching a determinate situation would be to give up, for inquiry to cease and dissolve rather than to “terminate unsuccessfully.” Burke (2009b, 166) rightly points out that Dewey simply (but unfortunately) uses “unified whole” in two separate senses, which he describes as “qualitative uniqueness” and “stable interactive integration.” The first refers to the qualitative unity of any situation whatsoever, the latter to a particular quality of situations in which practices and activities proceed smoothly. Whether we should say, with Browning (2002, 161, 170–2), that inquiry is a succession of different situations, or with Burke (2009b, 161–6), that it is the transformation of the same situation, should depend on whether we want to say that the practices or activities are numerically identical or distinct before and after the inquiry. It is not entirely clear what, if anything, hangs on this dispute.

These features of a situation and the situational nature of inquiry have a variety of consequences for philosophy of science.

7 Dewey’s situationism and the uses of science

[This will need to be expanded.]

A variety of important points can be made about the nature of science on the basis of Dewey’s situationism:

1. A central task of philosophy of science is to understand what kind of practices or activities and situations constitute science and are modified by scientific inquiry. The importance of this task is clear from Dewey’s length attempts in the *Logic* and later in *Knowing and the Known* to clarify the differences and continuities between science and common

sense. It is not clear to me that Dewey succeeds in this adequately charting this relationship, but its centrality to his project is clear.

2. The unity between science and technology should be emphasized. Both are primarily aimed at transforming situations and practices to make the latter work more smoothly, to more satisfying and productive ends.
3. The situational account of inquiry amounts to a thoroughgoing form of contextualism. According to Dewey, the goal of inquiry is to transform a *particular* indeterminate situation. This closely circumscribes the potential applicability of the results of scientific inquiry to situations continuous to the one that generated those results. Wide applicability is an achievement to be sought, not an automatic result of inquiry.
4. The situation also provides an answer to an important question posed by science-based policy and the problem of “evidence for use” (Cartwright 2006), namely, the problem of relevance. The situation involves everything that is relevant to a practice or activity; what is relevant to the inquiry is that part of the situation that causes the indeterminacy or is an instrument to its removal. Some putative evidence is relevant to *this* situation if it can be used to develop the inquiry towards resolution.
5. The thoroughgoing contextualism of Dewey’s theory of inquiry, and the criterion of relevance implied by it, means that there is no general, automatic way that results generated in a scientific context can be put to use in a very different situation, such as policymaking. What is required for science-based policy is not evidence-based policy, but *inquiry*-based policy.

(Many of these lessons are explored in further detail in Brown (2012), Brown (2015) and work in progress.)

Questions for Draft Readers

1. Does the analogy to JJ Gibson help?
2. Is the last section a good way to conclude? Should it be expanded, removed, or replaced with something else?
3. Is §3 necessary, or would it be better to skip to the problems with the secondary literature, and introduce the quotes as needed?
4. Publication venue ideas? *History and Philosophy of Logic*? Any good Open Access options?

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