

JOHN DEWEY'S RADICAL LOGIC: THE FUNCTION OF THE QUALITATIVE IN THINKING¹

*LA LÓGICA RADICAL DE JOHN DEWEY:
LA FUNCIÓN DE LO CUALITATIVO EN EL PENSAMIENTO*

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ABSTRACT

In his later works, John Dewey questioned some of the traditional assumptions about the nature and function of the qualitative in inquiry. Dewey foresaw what recent scientific accounts of human thinking are confirming: it is more complex, less linear, more emotional, affective, bodily-based, non-reflective, non-linguistic, non-conscious than philosophers have assumed. Commentators on Dewey have emphasized how inquiry is social, instrumental, and experimental, but for the most part have neglected the qualitative dimension of inquiry. The first section of this essay outlines the different forms that the neglect of the qualitative has taken in Dewey scholarship. The second addresses what Dewey means by the qualitative. The third presents nine specific functions the qualitative has on thinking (inquiry). The essay concludes in the fourth section with some implications of the view presented on the normative dimension of Dewey's philosophy, and suggests which promising future inquiries remain open regarding the function of the qualitative in inquiry.

KEYWORDS: John Dewey, Emotion, Experience, Inquiry, Logic, Qualitative, Thinking.

RESUMEN

En sus últimos trabajos, John Dewey cuestionó algunos de los supuestos tradicionales sobre la naturaleza y función de lo cualitativo en la investigación. Dewey previó lo que recientes explicaciones científicas del pensamiento humano están confirmando:

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es más complejo, menos lineal, más emocional, afectivo, basado en lo corporal, no reflexivo, no lingüístico, no consciente de lo que los filósofos han asumido. Lo comentadores de Dewey han subrayado que la investigación es social, instrumental y experimental, pero en su mayor parte han pasado por alto la dimensión cualitativa de la investigación. La primera sección de este ensayo ofrece un esbozo de las diferentes formas que ha adoptado la falta de atención hacia lo cualitativo en las investigaciones sobre Dewey. La segunda aborda lo que Dewey quiere decir con lo cualitativo. La tercera presenta nueve funciones específicas que lo cualitativo tiene en el pensamiento (la investigación). El ensayo concluye en la cuarta sección con algunas implicaciones de la perspectiva presentada sobre la dimensión normativa de la filosofía de Dewey y sugiere qué futuras y prometedoras investigaciones acerca de la función de lo cualitativo en la investigación quedan abiertas.

PALABRAS CLAVE: John Dewey, emoción, experiencia, investigación, lógica, cualitativo, pensamiento.

Language fails not because thought fails, but because no verbal symbols can do justice to the fullness and richness of thought.

John Dewey (LW 5:250)²

In his later works, more specifically in his seminal 1930 essay “Qualitative Thought” (QT), John Dewey questioned some of the traditional (common) assumptions about the nature and function of the qualitative in inquiry. Dewey foresaw what recent scientific accounts of human thinking are confirming: it is more complex, less linear, more emotional, affective, bodily-based, non-reflective, non-linguistic, non-conscious than philosophers have assumed. Secondary sources on Dewey have emphasized how, contrary to orthodoxy, inquiry is social, instrumental, and experimental, but for the most part have neglected the qualitative dimension of inquiry. Two of the most important exceptions are

² Citations of the works of John Dewey in this article refer to the critical edition, *The Collected Works of John Dewey, 1882-1953*, edited by Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1969-1953). In the citations the initials of the series are followed by volume and page numbers. Abbreviations for the critical edition are:

<i>EW</i>	The Early Works (1882-1898)
<i>MW</i>	The Middle Works (1899-1924)
<i>LW</i>	The Later Works (1925-1953)

Tom Alexander and Mark Johnson who have explored the implications of the insights found in QT for philosophy in regard to the importance of the aesthetic dimension of experience and the body.³ This paper contributes to this scholarship by explaining, in more detail and in a more systematic way, the variety of functions that the qualitative plays in Dewey's theory of inquiry, and how they are key to Dewey's view of inquiry that culminated in his 1938 *Logic*.

The paper clarifies the nature of the qualitative and, more importantly, formulates nine specific positive functions that the qualitative had for Dewey. The most radical ones are those that support Dewey's claim that the qualitative regulates inquiry. For Dewey the qualitative exerts a regulative force and function in inquiry that is relatively independent of the one exerted by logical forms. In fact, both of these are to be seen as complementary in the sense of working together to guide inquirers in concrete situations.

The first section of this essay outlines the different forms that the neglect of the qualitative has taken in Dewey scholarship. The attention to QT has been segregated and there are different subtle ways in which secondary sources have purged their presentation of Dewey's view of thinking from any reference to its qualitative dimension. The second section addresses what Dewey means by the qualitative. The qualitative became Dewey's way of making sense of the notion of a situation, a notion central not only to his views on logic, but also his entire philosophy.⁴ This section addresses some common misunderstandings about this notion that need to be cleared up before considering its several functions in inquiry. The third section presents nine specific functions the qualitative has on thinking (inquiry). Dewey mentioned these functions at different places in his later works but never in the positive, explicit, and systematic ways that they are presented here. Formulating and distinguishing these functions serves the

³ Tom Alexander has alerted us in *The Human Eros* (Alexander 2013) how once the role of the qualitative in Dewey's philosophy is properly understood, philosophy can no longer push art and the aesthetic to the periphery. It is key to his exploration of an ecological naturalism. Mark Johnson's *The Meaning of the Body: Aesthetics of Human Understanding* (Johnson 1999) has shown how Dewey's insights about the qualitative are supported by the most recent empirical research on cognition and meaning, and challenges the dominant disregard of the body in philosophy and the "conceptual-propositional" view of meaning.

⁴ Regarding "situations," Dewey asserted that without it his "view cannot be understood" (LW 14:33) and that "almost everything I have written is a commentary on the fact that situations are immediate in their direct occurrence, and mediating and mediated in the temporal continuum constituting life-experience" (LW 14:30).

purpose of reexamining them in light of how they cohere with each other as part of a much more radical but timely qualitative-embodied logic than has been appreciated. The essay concludes in the fourth section with some implications of the view presented on the normative dimension of Dewey's philosophy, and suggests which promising future inquiries remain open regarding the function of the qualitative in inquiry.

Dewey's views on thinking as inquiry underwent gradual but continuous reconstruction. While there were no major changes, there was a shift of emphasis in his work around the 1930's. His writings at this time reveal a refreshed and more careful appreciation of the function of the qualitative in experience. There is a more pronounced emphasis on the importance of the notion of a situation as the qualitative field in which thinking occurs.⁵ Dewey's interest in the qualitative has different sources. Historically, the emphasis placed on quality and immediacy in experience is already present in Charles Peirce and William James.⁶

Philosophically, Dewey's views on this topic are a consequence of his metaphilosophical commitment to a philosophy that begins with "experience as it is experienced."⁷ This starting point reveals that one of the most taken-for-granted but insidious assumptions of philosophy has been "the notion that knowledge is the only mode of experience that grasps things, assuming the ubiquity of cognition, and noting that immediacy or qualitative existence has no place in authentic science, have asserted that qualities are always and only states of consciousness" (LW 1:75). This favoritism for what is cognitive is what Dewey and James refer to as intellectualism. It is deep in "the epistemology industry," and is still evident in philosophical accounts of thinking that leave out the qualitative and instead emphasize propositional reasoning, justification, and explanation. It is troubling that this favoritism may even be present in the secondary sources on Dewey that downplay or neglect the qualitative, as I argue in the next section.

⁵ This greater phenomenological sensitivity signified that Dewey became more faithful to his early commitment to the radical empiricism already presented in "The Postulate of Immediate Empiricism" (MW 3:158-68). It is also plausible that at the time, Dewey was influenced by the personal experiences he had with art in his relationship with Albert Barnes.

⁶ See Innis 2011.

⁷ See "The Postulate of Immediate Empiricism" (MW 3:158-68) and the first chapter of *Experience and Nature*.

1. THE NEGLECT OF “QUALITATIVE THOUGHT” IN DEWEY SCHOLARSHIP

The neglect of the essay QT is part of a larger neglect of the general topic of the qualitative and situations in Dewey's philosophy. Some recent scholars have echoed my concern:

Dewey's idea of a pervasive unifying quality is the key to his view of thinking, but it is perhaps the most problematic and neglected part of his theory.⁸

Qualitative immediacy is one of the essential—and one of the most overlooked—features of John Dewey's theory of experience.⁹

His [Dewey] situationism, and the technical notion of a situation, is one of the most misunderstood and under analyzed elements of his theory of inquiry.¹⁰

The case for the neglect of the qualitative as a subject matter in presentations and reconstructions of Dewey's philosophy can be made by simply noting the few papers published about QT¹¹ and the few references to the essay in Dewey's scholarship. However, evidence by numbers is not enough. There is neglect relative to its importance. The neglect takes two forms. One is the extent to which attention to QT has been segregated to areas other than Dewey's logic (as a theory of inquiry); the other is evidenced by the different subtle ways in which secondary sources have purged their presentation of Dewey's view of thinking from any reference to its qualitative dimension. In other words, there is a problematic selectivity operative in the reading of Dewey's texts as well as in reconstructing it.

a) The Segregation of QT in Dewey scholarship

To be sure, QT has not been totally neglected, but the attention it has received has been segregated. Most scholars that have given QT its due work in the areas

⁸ Johnson 2010: 132.

⁹ Rochberg-Halton 1982: 162.

¹⁰ Brown 2012: 268.

¹¹ In the history of *Transactions of the Charles S. Peirce Society* there have been only two papers about QT: “Dewey's Notion of Qualitative Experience” by John J. Stuhr (1979), and “The Role of Mimesis in Dewey's Theory of Qualitative Thought” by Jim Garrison (1999). The first draws from QT but the focus is on Dewey's metaphysics of experience; the second is mostly about aesthetics. Neither of these articles presents an analysis of the functions of the QT, nor do they explore the implications of the themes in QT for understanding Dewey's logic.

of ethics, aesthetics, and education.¹² QT is mentioned in essays, introductory books, and encyclopedic-type entries that summarize Dewey's key ideas on his aesthetics, but is not included in the works that have to do with his logic or epistemology.¹³ In introductory books on Dewey's philosophy¹⁴ and in books that are considered elaborate systematic book-length treatments of Dewey's logic and epistemology,¹⁵ QT plays no role in the presentation of Dewey's view of inquiry, even in the few cases where the essay makes it to the suggested bibliography.

The reason this uneven and segregated attention to QT in Dewey scholarship is problematic is that it suggests a view utterly inconsistent with the main thesis of the essay. Has it been assumed that thinking in the areas of art, morals, and education is more dependent on the qualitative than in other types of inquiries, such as in the sciences? Dewey is clear in QT that his main theses are true of "all thinking" (LW 5:251). In the essay Dewey uses the arts as a clear example of qualitative thinking,¹⁶ but he never assumes that there is a separate logic of qualitative thought that occurs in artistic expression or appreciation. In fact, Dewey comes very close to claiming that the more intellectual, abstract, and theoretical the inquiries, the more the qualitative has an important function. "The more formal and mathematical science becomes, the more it is controlled by sensitiveness to a special kind of qualitative considerations" (LW 5: 251).

The scarce references or mention of "Qualitative Thought" by well-known scholars of Dewey's theory of inquiry are also puzzling because Dewey wrote QT just before or around the time he was composing his 1938 *Logic*.¹⁷ QT is hardly an

¹² See Alexander 1987; Garrison 1997; Shusterman 1992; Waks 2011; Fesmire 2003; Brigham 1989.

¹³ See Putnam, 1994; Levi 2010; Hickman 1998.

¹⁴ Campbell 1995; Boisvert 1997; Hildebrand 2008. One exception is the excellent but out-of-print *John Dewey* (1966) by Richard Bernstein; he argues that "quality" "play[s] a fundamental role throughout his [Dewey's] philosophy," so much that Bernstein finds it necessary to preface his chapter on inquiry with a chapter titled "Qualitative Immediacy." However, it is curious that Bernstein does not make explicit reference QT even in a footnote; instead, he draws on what Dewey says elsewhere.

¹⁵ See Sleeper 2001; Thayer 1952; Hickman 1992; Burke 1994; Burke, Hester, and Talisse, eds. (2002).

¹⁶ He says, "It exemplifies in accentuated and purified form the control of selection of detail and of mode of relation, or integration, by a qualitative whole" (LW 5: 251).

¹⁷ There is no published background information about the history of "Qualitative Thought." The introduction in LW 5 by Kurtz does not even mention it. But according to Tom Burke in a May 15, 2014 e-mail to me, "Dewey worked on the 1938 *Logic* for something like a

essay concerned with issues and notions at the margin of Dewey's philosophy.¹⁸ For reasons that will be made evident in the next sections, for Dewey the qualitative became inseparable from the notion of a situation. This should be sufficient to consider as problematic the neglect of QT by Dewey scholars. Dewey believed that the key to understanding his logic was his notion of a situation. In fact, the most common misunderstanding of his ideas in this area came from ignoring or not understanding what he meant by situation and its relation to discourse. Frustrated with Russell, Dewey says, "Mr. Russell has not been able to follow the distinction I make between the immediately had material of non-cognitively experienced situations and the material of cognition—a *distinction without which my view cannot be understood*" (LW 14: 33, my emphasis).

b) The problematic selectivity in Dewey scholarship about the *Logic*

The secondary literature of Dewey on inquiry often ignores the passages in the *Logic* where the qualitative is mentioned, or makes no reference to the role of the qualitative in presenting Dewey's theory of inquiry. A close reading of his 1938 *Logic* reveals that the most explicit place where Dewey incorporates the ideas of QT are pages 72 to 76, in the middle of the chapter "Common Sense and Scientific Inquiry". Given the central aim of this book, it is understandable why Dewey did not devote more pages to the qualitative. Dewey set out to provide an empirical-naturalistic account of logical forms (as an alternative to a priori accounts in logic) and to sketch the most general and formal structures of inquiry. These theoretical aims prevent Dewey from presenting a more concrete and embodied description of the process of inquiry. Nevertheless, pages 72 to 76 are important to Dewey's logic because they set the foundation that will mostly be taken for granted in the remainder of the *Logic*: all of the operations and phases to be distinguished later occur in, and are regulated by, the qualitative context of a

decade or more before it was published—which makes me think that QT (1930) was an early exploration of some key ideas developed in the 1938 *Logic*. The latter book is supposed to be self-contained, I suppose, but there are actually several articles appearing years earlier that explore various pieces of the larger work." According to Larry Hickman in a May 30, 2014 email to me, "Dewey is working on the *Logic* for many years before its publication. So I think it is fair to say that QT is linked with what he was thinking about during that period."

¹⁸ Some of the key notions in the essay, such as a "situation" and "immediacy," had already been discussed by Dewey in *Essays in Experimental Logic* (MW 6:111-22) and "The Postulate of Immediate Empiricism" (MW 3:158-68).

situation (i.e., the main thesis of QT). Both common sense and scientific inquiry are qualitative, even though in science “relations become the object of inquiry and qualities are relegated to a secondary status.” (LW 12:71) In other words, the relative indifference and sometimes elimination of qualities in the sciences, is only at the foreground of inquiry, and because it serves an instrumental purpose.¹⁹

As important as these bedrock points are, many standard presentations of Dewey’s theory of inquiry skip or downplay these pages in their account of Dewey’s view of thinking. Instead, they go straight to an outline of the different phases of the pattern of inquiry (chapter 6 of the *Logic*), as if what Dewey describes there can be adequately understood without first understanding a situation and the qualitative. This comes close to encouraging what Dewey views as the most fundamental mistake of traditional logic and epistemology: neglect of the context in which thinking occurs.²⁰

Even in regard to the pages where Dewey describes the pattern of inquiry, there is a peculiar selectivity worth noting. Dewey explicitly describes the pattern in relation to what is precognitive and qualitative, but secondary sources often do not. This is the case in regard to the general definition of inquiry and the different phases that Dewey describes there.

About the different phases that make the pattern of inquiry, Dewey makes it clear that before there is a problematic situation (in the section titled “II. Institution of a Problem”), there is a noncognitive indeterminate situation (“I. The Antecedent Conditions of Inquiry”), but it is common to conflate the two or ignore the first phase. In regard to the “indeterminate situation” Dewey writes, “There is nothing intellectual or cognitive in the existence of such situations” (LW 12:11), yet their unique quality “not only evokes the particular inquiry engaged in but ... exercises control over its special procedures” (LW 12:109). One easy and common way to ignore these passages is by simply presenting Dewey’s view of inquiry as a more elaborate version of Peirce’s doubt-belief picture of inquiry, interpreting “doubt” as a cognitive state and focusing on Dewey’s description of the cognitive processes and operations.²¹ This leaves out the function of noncognitively experienced situations. In fact, it amounts to reducing inquiry to the transformation

¹⁹ This is a function of Dewey’s collorary that the differences between subject matters of different inquiries are a function of “different kinds of problems” that “demands different emphases in inquiry” (LW 12:71).

²⁰ See “Context and Thought” (LW 6:3-21).

²¹ See, for example, Levi 2010.

of one state of belief by another—the view of traditional epistemology. However, Dewey cannot be more explicit: *inquiry is a qualitative transformation*, the transformation of an indeterminate situation to one that has a different quality.²² Secondary literature ignores or downplays this and instead stresses inquiry as “problem solving”²³ or as a transformation of a cognitive state (from doubt to warranted belief or assertion). There is an obvious preference for Dewey’s more theoretical account of the nature of inquiry and situations than for Dewey’s qualitative experiential formulation. Inquiry is defined as a transaction of an organism with its environment to “seek to achieve stability through adaptation.”²⁴

A problematic selectivity is present even in some of the most generous interpreters that acknowledge that there is more to Dewey’s view than the Peircean doubt-belief matrix. For example, in the introduction to *Dewey’s Logical Theory* the editors (Burke, Hester, Talisse) recognize that “Dewey elaborated Peirce’s doubt-belief picture in inquiry within the framework of his own theory of experience,” and that, with the influence of James, “Dewey is insistent that, as a subject matter of inquiry, a situation is given (taken) all at once as a qualitative whole.” However, there is no mention of the role of the qualitative beyond characterizing an initial spur of inquiry. In fact, their description of the process of inquiry is purged of any qualitative elements: “Inquiry, as pursued by thinking creatures, involves reflection, deliberation, and the use of conceptual tools.”²⁵ The impression is left that for Dewey the only thing that controls and guides inquiry is logical forms, norms, and guiding principles, but this omits the many passages where Dewey states that the qualitative context of the situation *guides* and *controls*.

The separation or silence about the qualitative elements of inquiry compared to the more structural elements runs counter to the spirit of Dewey’s criticism against traditional logic, where “logic in being ‘purified’ from all experiential taint has become so formalistic that it applies only to itself” (LW 12: 85). While most secondary sources on Dewey’s logic correctly point out how Dewey’s view

²² “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).

²³ See for example Campbell 1995.

²⁴ Hickman writes, “Dewey identified inquiry as the primary means by which reflective organisms seek to achieve stability through adaptation. It is by means of inquiry that humans are able to exert control over their own habit formation, thereby creating new instruments” (Hickman 1998: 167).

²⁵ Burke, Hester, and Talisse, eds. 2002: xvi.

of inquiry and logic is much more empirically robust or “thicker” compared to modern logic’s focus on formal properties in grammars and arguments, they leave out the qualitative aspects of the process.

The selectivity or bias against mentioning the qualitative in Dewey is also clear in the usual overall characterization that is made of his view of the knower and knowledge. Much is made of the fact that, compared to the traditional spectator view, for Dewey knowing is active (a doing) and social. But what about the fact that for Dewey a knower is also an *embodied* agent, and that in inquiry knowing, acting, and *feeling* are intimately related? Many Dewey scholars have emphasized that the alternative to the mind as transcendent reason or a passive receptacle is “intelligence: as an active, mediating, problem solving capacity,”²⁶ but somehow the qualitative is left out of the description.

This selectivity or avoidance of qualitative language in the presentation of Dewey’s view of thinking is puzzling. The de-emphasizing of the qualitative goes hand in hand with the de-emphasizing of situations, one notion depends on the other. But Dewey could not have been more clear about the importance of situations in understanding his overall philosophy. Dewey’s main criticism of “the epistemology industry” was “its tendency to treat knowledge as something separated from the contexts in which actual inquiry takes place.”²⁷ If this context is qualitative, then how are Deweyan reconstructions of his views that leave this out not guilty of the same sin as epistemologists?

Dewey had a general diagnosis of why philosophers in general neglect and avoid even talking about the qualitative in philosophy. The most common reason is a deep-seated prejudice in the history of philosophy: “intellectualism” or “the assumption of the ubiquity of cognitive experience” (LW 14:33). The selectivity in reading and rearticulating Dewey’s texts makes one suspicious that what is going on is an intellectualist bias to treat inquiry as something that is discourse and is guided by discourse. I want to believe that what has affected Dewey scholarship is not intellectualism. Perhaps the cause is a fear that speaking like Dewey did (e.g., of situations as “qualitative,” “ineffable,” and “noncognitive”) would make his view vulnerable and untenable today. Perhaps they are afraid that mentioning the qualitative would make Dewey appear to not be a logically careful thinker or fall into what is slippery and vague. Maybe it is easier and less controversial

²⁶ Westbrook 2010.

²⁷ Hickman 1998.

to reference things that are clearer and more distinct, and more amenable to propositional formulation. But this is a mistake; it is a sacrifice of the most radical aspect of Dewey.²⁸

The main focus of this essay is the function of the qualitative in thinking but some preliminaries about the nature of quality are important. There are certain challenges and misunderstandings that Dewey faced in using that word that are still with us today.

2. THE NATURE OF THE QUALITATIVE

One reason for the neglect or avoidance of the qualitative as a subject matter in Dewey scholarship may be the difficulties with the terminology and a subject that seems to escape rigorous analysis. Dewey had the same problem with two other closely related notions: situation and experience. In fact, Dewey appealed to the qualitative in order to explain the notion of the situation. To critics seeking clarity, this may seem to be a case of explaining the mysterious and vague by what is even more mysterious and obscure.

Like the term “experience,” the term “qualitative” has baggage or traditional associations that frustrated Dewey’s effort to reconstruct philosophy. In philosophy, quality is usually associated with either some abstract metaphysical property or some subjective phenomena (as in sense data or qualia in consciousness), neither of which is Dewey’s view. For Dewey, qualities are experienced, they require an experiencer, but they do not belong to consciousness. They are found in situations and reveal aspects of nature. Qualities are not subjective, nor are they objective in the sense of being antecedent to experience. The only sense in which Dewey says a quality is intrinsic or objective is that qualities are experienced as belonging to a thing as a “brute matter of space-time existence” (LW 15:43). In this sense, he states, “all qualities whatever are ‘intrinsic’ to the things they qualify at the time and place of the occurrence of the latter--provided only the things in question do genuinely ‘have’ them” (LW 15:43). Needless to say, these qualities may change or vary depending on the organism and the environment.

²⁸ The authors of introductions to Dewey could reply that, given that they are in charge of a short overview of Dewey on inquiry, they cannot delve into the kinds of details that are required to give the qualitative and situations their due or present the key ideas of the QT article. But this begs the question: why are these ideas not essential to even a short overview of Dewey on this subject?

Qualities are context-dependent, i.e., they have their home and meaning in a particular situation. This is true of all qualities. Color and sound are not qualities appreciated or discriminated in isolation, or self-sufficient elements that can be used to explain complex cases of sense perception. What is always experienced is the context of a situation as a scene of action, where what we are directly concerned with becomes focal and meaningful because of that implicit field. “When objects or qualities are cognitively apprehended, they are viewed in reference to the exigencies of the perceived field in which they occur” (LW 12:153). However, the context in which particular qualities occur is itself qualitative since for Dewey there are tertiary qualities, i.e., qualities that pervade all the parts of a whole. This is key to Dewey’s notion of a situation because the quality that pervades a situation is what demarcates it as a situation. A situation is a “complex existence that is held together in spite of its internal complexity by the fact that it is dominated and characterized throughout by a single quality” (LW 5:246). To say that this quality pervades is to say that the quality runs through every aspect and detail of a situation, and that it gives meaning to each and binds them together. “If the situation experienced is that of being lost in a forest, the quality of being lost permeates and affects every detail that is observed and thought of” (LW 12:203). In the following section we will see how important these tertiary qualities are to a well-functioning inquiry.

However, the modern notion of experience reduced experience to experiencing, as something subjective. This mistake, as well as the mind-body dualism and faculty psychology, has been responsible for the denigration or under appreciation of the function of what is qualitative (understood as emotions, feelings, passions) in thinking or cognition. Philosophers have continued to entertain intellectualist conceptions of thinking and intelligence. These are views that ignore the non-cognitive qualitative context in which thinking occurs. Instead, they emphasize objects of knowledge, cognitive states, beliefs, propositions, reasoning, justification, and explanation. In the sciences there have been similar views under the name of “cognitivism” in which thinking is described in terms of “information processing models.”²⁹ However, this view has recently been challenged by what is called “embodied cognition.”³⁰ Empirical research on embodied cognition has

²⁹ See Güzeldere 1998.

³⁰ See <http://plato.stanford.edu/entries/embodied-cognition/>.

exploded over the past thirteen years. As Mark Johnson has shown, these theories support Dewey's claims about the qualitative and thinking.³¹

Embodied cognition theorists accept a radical view of embodied logic and meaning that emphasizes the role of emotions. Cognitive neuroscientist Antonio Damasio's work has "opened the door to a serious reconsideration of James's claim [adopted by Dewey] that what we call logic requires an intact and functioning emotional system, and that our bodies play a crucial role in what makes sense to us and how we reason about it."³² While this new research is exciting and important, approaching "quality" scientifically is different than ontologically simply because of the nature of scientific inquiry.³³ Scientific inquiry has the important function of studying the conditions for having qualitative experiences. One key condition is the body. Qualities are the result of the transaction of the organism with its environment, but this is a theoretical account of the conditions of having qualitative experience, something that is given, had, immediate in everyday experience. This qualification is important in order to not ontologically reduce the qualitative to whatever bodily changes are determined by our theories to be crucial to the experience. Dewey was keenly aware of how the sciences were questioning the traditional view that the body and the qualitative were simply peripheral to cognition, but he was also aware of how even the sciences (e.g., psychology) can fall prey to dualisms or the ontologizing of quality as emotions and feelings.

What Dewey means by the qualitative includes and points to the dimension of our everyday experience that we call emotions or feelings, but he is concerned that we do not ontologize or hypostatize emotions and feelings as entities independent of or antecedent to our direct qualitative experiences. This is why he says, "Experience is emotional but there are no separate things called emotions in it" (LW 10:48). What we call emotions are things that we reflectively discriminate

³¹ Like Dewey, they do not start with the dualism mentioned but with a naturalistic starting point where "body and mind are just different aspects of an ongoing interactional process of experience. Thus, the nature of our human bodies determines both what we can experience and think and also how we think, that is, how we conceptualize and reason." (Johnson 2006.)

³² Johnson 2006: 46. See also Johnson 2010; Damasio 2003.

³³ Because qualities are often not quantifiable and subject to predictive control they are of no use to many types of scientific inquiries, but that does not make them less real in the context of our lives. This is the fallacy committed by recent "naturalists" when they reject the notion that qualities are natural qualities. For who counts as a "naturalist" in ethics today see Pigden 1991.

after we have certain immediate qualitative experiences. We identify anger as an emotion but “when angry we are not aware of anger but of these objects in their immediate and unique qualities” (LW 5:248).³⁴

Perhaps the more difficult thing to understand about the qualitative is that they are experiences “had” instead of cognitive or knowledge experiences. In “Postulate of Immediate Empiricism” (1905), Dewey is already aware of how common and tempting it has been for philosophers to reduce, for example, the immediate experience of being frightened by a noise to, “I knew I was frightened.” An empirical philosopher must not concede what seems like this simple point to the critic. Modern theories of knowledge have tended to reduce immediate qualitative experience to something cognitive, either to a type of belief or perception, but this is not what they “are experienced as.”³⁵ The reduction of immediate experience to perception is so prevalent that even recent neopragmatists assume it in their misdirected criticism of Dewey as succumbing to the “myth of the given,” the notion that there is some nonconceptual epistemological foundation.³⁶

To be sure, Dewey does not assume a dualism between experienced “had” and the more cognitive ones. The latter, though different, is continuous with the former.³⁷ “Later one may (or may not) have an experience describable as I

³⁴ Dewey issues the same warning about identifying too closely the “qualitative” with having a “feeling,” even though it is about what is “felt”: “If we designate this permeating qualitative unity in psychological language, we say it is felt rather than thought. Then, if we hypostatize it, we call it a feeling. But to term it a feeling is to reverse the actual state of affairs. Qualitativeness in the subject-matter defines the meaning of ‘feeling.’ The notion that ‘a feeling’ designates a ready-made independent psychical entity is a product of a reflection which presupposes the direct presence of quality as such” (LW 5:248).

³⁵ According to the postulate of immediate empiricism, “things are what they are experienced as” (MW 3:158).

³⁶ Robert Brandom states, “Rorty and I both think that Sellars’ critique of the myth of the given shows the notion of experience as simply outmoded ... I agree with him that there is no useful way to rehabilitate the concept of experience. We just need to do without that” (Interview with Robert Brandom, *Filosofisk Supplement*, 5). Scott Aikin (2009) claims that Dewey relied on noninferential and nonconceptual content or givens as perceptual inputs for cognitive experience. According to Koopman (2007), “To avoid this foundationalism... contemporary pragmatists who are eager to revive the concept of experience must be on guard to not treat experience as a kind of ultimate given-ness against which we might be able to measure our truth claims” (Koopman 2007: 696-97).

³⁷ Moreover, as I will soon explain, the cognized is within a qualitative situation “had” as its context or background.

know-I-am ... frightened. But this is a different experience," (MW 3:162) one that is a result of inquiry. Some experiences "had" may end up having an important cognitive function in inquiry because, as we will see, they are funded by previous inquiries or they lead to knowledge, but that does not change their ontological status, when they experienced, as noncognitive. Dewey explains the mistake made by philosophers:

When, in a subsequent reflective experience, we look back and find these things and qualities ... we are only too prone to suppose that they were then what they are now —objects of a cognitive regard, themes of an intellectual gesture. Hence, the erroneous conclusion that things are either just out of experience, or else are (more or less badly) known objects. (MW 3:162)

For Dewey "quality belongs to the domain of the occurrences of any single and total experience wholly irrespective of any cognitive or reflective reference" (LW 11:93). Having an experience and describing the experience are very different experiences. Quality is "ineffable" in that it cannot be objectively denoted in such a way that it is not embedded in another experience (a situation) with its own quality.

In *Experience and Nature* Dewey translates the difference between had and cognitive experiences in terms of two basic traits that can be attributed to nature: nature in its *finalities* (or consummations) and in its *relations*. In their immediacy or qualitative existence, natural existences have terminal qualities that cannot be duplicated and are unrelated and final. Immediate and terminal quality is something *had* and that can be pointed to, rather than known or captured in a description. An object, event, or person either has the immediate and terminal quality it has or it does not; there is not much else that can be said about that *qua* immediate quality.

However, relations are also part of experience, so that any quality "may be referred to other things, it may be treated as an effect or as a sign" (LW 1:82). The significance of these distinct traits for inquiry is that there are two ways in which one can judge or apprehend anything in experience: in its immediacy or in its relations to other things in experience. There is direct, spontaneous, and precognitive appreciation of something through its immediate quality before it is subject to reflection. But once something is reflectively considered because of a problematic situation, it is being considered in light of its relations, i.e., in its connections as a means or as a sign. To think requires looking "at a thing in its relations with other things" (LW 7:265). Reflection is comparative and attentive

to conditions, relations of means and ends, consequences, implications, and inferences. The reflective process of arriving at this kind of judgment is inquiry, but it is a process embedded in and guided by the immediate qualities.

More could be done to clarify the ontological status of the qualitative, but the above should be sufficient to avoid some common misunderstandings and serve as a background to the central task of this essay: to outline the functions that Dewey thought the qualitative had in inquiry and its implications.

3. THE FUNCTION OF THE QUALITATIVE IN DEWEY'S VIEW OF INQUIRY

Dewey's philosophical insights about the important functions of the qualitative in inquiry are scattered in his works, though most of them appear in QT. One difficulty in sorting them out as I do here is that Dewey mainly writes about what happens if the qualitative is defective or fails to guide, instead of specifying the positive functions of the qualitative. This strategy makes sense, given that he is trying to make us aware of something about our experience of thinking that is so taken for granted. The consequences of lack of control of the operations of inquiry (e.g., observation, reasoning) by the qualitative are confusion, incoherence, arbitrariness, lack of logical force, and leaving relations unexplained. However, making explicit the positive functions of the qualitative seems a worthwhile task. First, it makes evident how central Dewey's view on the qualitative is to his views on inquiry and logic. Second, it demonstrates that Dewey's views on the function of the qualitative are more than mere trumpeting of its importance or vague and emotional hand waving. Third, explicit formulation of these functions makes them available for present evaluation in light of recent research in the sciences of cognition. In this regard, Dewey was ahead of his time. Whenever possible and applicable I will mention how some of these functions are receiving scientific verification today by recent cognitive and psychological sciences.

At the end of QT Dewey summarizes his main thesis: "The immediate existence of quality, and of dominant and pervasive quality, is [a] the background, [b] the point of departure, and [c] the regulative principle of all thinking" (LW 5:261).³⁸

³⁸ I have added the [...] in the above quotation because there are actually three different claims made here about the qualitative. Dewey does not separate them, nor has Dewey scholarship considered them separately as I do.

[a] “The Background”

i. The Qualitative as the Background that Unifies and Demarcates the Situation in which Thinking Occurs

The notion that the qualitative functions as the background of thinking has already been addressed or implied in the idea that knowledge is just one mode of experience located within experience at large, and in the distinction between experiences had and cognized. Dewey states that “the background, the thread, and the directive clue in what we do expressively think of ... is ‘felt’ rather than thought” (LW 5:248).

The qualitative is what characterizes our pretheoretical and precognitive experience in the world. A qualitative world of persons and things is the most basic and inclusive context in which one finds language, knowledge, and all of our more discursive activities, including philosophy. “The universe of experience surrounds and regulates the universe of discourse but never appears as such within the latter” (LW 12:74). However, there is no qualitative experience at large that makes the background of discourse-thinking, there is always a specific situation. Thinking arises from within and emerges out of the pervasive qualitative situations that make up the moments of our lives. All thought is situated, embodied, and interfused with feeling.

In his philosophical career Dewey struggled to make sense of his important notion of a “situation.”³⁹ Philosophers like Russell found the notion too vague and wanted Dewey to come up with a clear definition and the exact boundaries of a situation,⁴⁰ but Dewey could not possibly provide a definition or a theoretical criterion that sets the boundaries of situations since he was pointing to something uniquely experienced about each situation and ineffable in the sense already

³⁹ Dewey did not abandon the importance of the correlated notions of situations and the qualitative to his philosophy even after the publication of QT. In the recently published *Unmodern Philosophy* that Dewey wrote in 1945, Dewey stresses in the last chapter how “everything inquired into and discussed belongs in a field or situation” (p. 334) and how “qualities ... characterize the matter of first hand experience” (p. 334). In fact, Dewey repeats almost the same central thesis of QT: “Every case of knowing begins and ends with and in situations and is *regulated* all the way through in its capacity as a transition from one situation to another” (Dewey 2012: 342, emphasis added). I will later show why for Dewey regulation of thinking by a situation is synonymous with regulation of thinking by the qualitative.

⁴⁰ See Burke 1994.

explained. While Dewey had a well-formulated naturalistic account of situations and the qualitative in terms of an evolutionary-biological theoretical framework, he never confused a theory of situations with the experience of situations. As Browning says, “The notion of a situation is introduced by Dewey in the *Logic* without appeal to any theory, logical or otherwise, which is already in place. It is a primitive notion.”⁴¹ In fact, Dewey writes, “I begin the discussion by introducing and explaining the denotative force of the word *situation*. . . 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” (LW 12:72). It is an experienced unifying quality that demarcates a particular situation and each situation is unique. You can describe and have a theory about situations, but these forms of discourse point to something that is experienced. This sounded (and still sounds) mysterious or contradictory to philosophers who assume the ubiquity of knowledge or language (discourse) in life.

Dewey’s frustration with Russell on this issue is obvious in these passages:

Mr. Russell has not been able to follow the distinction I make between the immediately had material of non-cognitively experienced situations and the material of cognition—a distinction without which my view cannot be understood. (LW 14:33)

Any one who refuses to go outside the universe of discourse—as Mr. Russell apparently does—has of course shut himself off from understanding what a “situation,” as directly experienced subject-matter, is. (LW 14:31)

Mr. Russell is so wedded to the idea that there is no experienced material outside the field of discourse that any intimation that there is such material relegates it, ipso facto, to the status of the “unknowable.” (LW 14:33)

Dewey understands the force of the objection that we must use language to refer to what is presumably nonlinguistic. “It *would* be a contradiction if I attempted to demonstrate by means of discourse, the existence of universes of experience.” But he offers this reply, which clarifies his view: “It is not a contradiction by means of discourse to *invite* the reader to have for himself that kind of immediately experienced situation in which the presence of a situation as

⁴¹ Browning 2002: 169. In presenting his theory of inquiry in the *Logic*, Dewey often draws on a background of theories that he argues for elsewhere, but this should be distinguished from his characterization of situations drawn from a descriptive survey of immediate experience.

a universe of experience is seen to be the encompassing and regulating condition of all discourse" (LW 12:75).

For Dewey, a situation is in the background and always remains there. One cannot "decline to have a situation for that is equivalent to having no experience" (LW 12:74). To some extent, the experience of a unifying quality of a situation defies description, for as soon as we describe it we are making discriminations of a situation that was once felt while we are in a new situation that cannot be stated and made explicit. This claim about "ineffability" is bound to make twentieth-century philosophers who are committed to the "linguistic turn" in philosophy suspicious that Dewey is committed to some mysterious metaphysical domain. It is one reason why a neopragmatist like Robert Brandom thinks it would be best for pragmatism to abandon the notion of "experience"; thinking is only embedded in "linguistic practices."⁴² However, Dewey was puzzled as to why philosophers think his claims about the ineffable aspect of experience commits one to any mysterious domain. "The importance attached to the word 'experience' [and similarly of qualitative situations] is a reminder to philosophers that one's own thinking and explicit knowledge are already constituted by and within something which does not need to be expressed or made explicit." But he adds, "there is nothing mystical about this, though mysticism doubtless roots in this fact. Its import is only to call notice to the meaning of, say, formulae communicated by a chemist to others as the result of his experiment" (MW 10:325). Chemists communicate with other chemists by means of formulae and propositions but in the lab these function as "a direction to other chemists to try certain procedures and see what they get. The *direction* is capable of expression; the result of the experiment, the experience, to which the propositions refer and by which they are tested, is not expressible" (MW 10:325). Dewey's next sentence summarizes best Dewey's position on the nature and function of the ineffable in thinking, a central thesis of QT: "The word 'experience' is, I repeat, a notation of an inexpressible as that which decides the ultimate status of all which is expressed; inexpressible not because it is so remote and transcendent, but because it is so immediately engrossing and matter of course" (MW 10:325).

The received Enlightenment view that has concerned logicians, of thinking as a conscious reasoning process, is for Dewey only one aspect of what occurs at the foreground of thinking. When we think at the foreground, we discriminate objects,

⁴² Brandom 2011: 26.

patterns, and relations, but beneath such fruits of reflection there is a felt experience of a pervasive unifying quality of the entire situation that one is inhabiting. This unity is precisely the situation that one is in. Critical to this view is the existence of tertiary qualities already mentioned, i.e., qualities that pervade entire contexts.

Dewey does not have an argument to show that there are such qualities. All he does, and perhaps all he can do, is appeal to the reader's experience. In QT he uses examples in the experiences of the arts. The experience of pervasive quality is how we immediately identify or distinguish, for example, a Picasso from a Matisse. "A man sees a picture and says at first sight that it is by Goya or by someone influenced by him. He passes the judgment long before he has made any analysis or any explicit identification of elements. It is the quality of the picture as a whole that operates." (LW 5:251) Similarly, beneath or encompassing the rich variety of things found in a thinking event in which we partake, there is a single quality that pervades the entire experience. When we are engaged in thinking about a particular scientific problem or any ordinary problem, there is an all-encompassing way it feels and colors all the things we recognize or discriminate in that situation, that demarcates it from other events. Dewey warns that "this unity is neither emotional, practical, nor intellectual, for these terms name the distinctions that reflection can make within it" (LW 10:44).

This general idea that there is a larger unity or context that unifies and makes meaningful the parts, so that without it the parts are not a unity nor meaningful, is not new. Twentieth-century philosophy of language and epistemology has moved beyond the atomistic view that meaning and truth are properties of a single word, to the more holistic view that particular words and beliefs can only be meaningful because of the broader context of a language, in "webs of belief" or "conceptual schemes." What is radical about Dewey is that all of these larger contexts are unified and meaningful because of what is not discursive: a unique and qualitative situation. Dewey writes, "Discourse that is not controlled by reference to a situation is not discourse, but a meaningless jumble, just as a mass of pied type is not a font much less a sentence" (LW 12:74).

Being unable to discern what Dewey meant by the qualitative and a situation is not a small thing; as Dewey says, "almost everything I have written is a commentary on the fact that situations are immediate in their direct occurrence, and mediating and mediated in the temporal continuum constituting life-experience" (LW 14:30). This is key to his contextualism as well as his view of reality and thought. Thinking is neither in the mind nor in the universe at large. For Dewey, situations were the

viable alternative to an atomism which logically involves a denial of connections and to an absolutistic block monism which, in behalf of the reality of relations, leaves no place for the discrete, for plurality, and for individuals ... a *via media* between extreme atomistic pluralism and block universe monisms (LW 14: 29).

ii. The Qualitative as the Background that Gives Continuity to Thinking

Since inquiry is a process, the unity provided by the qualitative as background is also temporal, that is, it provides a needed continuity without which inquiry could be easily diverted. The qualitative therefore functions as the underlying “thread” and “directive clue” (LW 5:248) of what is explicitly thought about. Inquiry begins with a situation that has a tertiary quality of being indeterminate, but is soon experienced as “problematic,” that is, as answering the question “what is the problem?” At this point, Dewey says, “to mistake the problem involved is to cause subsequent inquiry to be irrelevant or go astray” (LW 12:112). For Dewey, it is the qualitative that guides the inquirer in knowing whether he/she is still dealing with the same problem or is venturing into a different one. Dewey explains how feeling the problem is what protects us from leaps or diversions in the process of inquiry. Attention to the continuous but changing feeling is what “enables us to keep thinking about one problem without our having constantly to stop to ask ourselves what it is after all that we are thinking about. We are aware of it not by itself but as the background, the thread, and the directive clue in what we do expressly think of. For the latter things are its distinctions and relations” (LW 5: 248).

The background functions of the qualitative in thinking that we have outlined are the least radical claim in the above summary thesis of Dewey in QT. Even the most intellectualist of philosophers may easily acknowledge that there is a background surrounding discourse that is nondiscursive and nonlinguistic. The more controversial claims in Dewey’s thesis are the next two clauses: the qualitative is “the point of departure,” and it is also “regulative.”

[b] “The Point of Departure”

iii. The Qualitative Motivates, Gives Initial Sense of Direction and Material for Inquiry, and is a Condition for the Emergence of Genuine Thinking

While this statement mentions four different functions of the qualitative, I address them together since they are all about inquiry in its inception or point of departure. The less controversial of these functions is that the qualitative is the

starting point in the sense that it motivates (sparks or triggers) inquiry. In fact, this has been one of the most common traditional views about the function of the qualitative, usually understood as our passional-affective nature: it is what drives the intellect (or reason) but once inquiry is on its way, the qualitative plays no cognitive function. But this is hardly Dewey's view.

While all thinking is embedded in a qualitative context, only a qualitative context of a particular mode, indeterminacy, makes thinking emerge from the stream of life. Situations that demand reconstruction through inquiry are situations that are qualitatively experienced as unsettled, confused, and indeterminate. The transformation of the pervasive quality of this sort of situation is, in effect, the general function of inquiry.⁴³ The indeterminate situation is at first precognitive—"A problem must be felt before it can be stated" (LW 12:76)—but it is soon experienced as "problematic," that is, as reflecting on answering the question "what is the problem?"⁴⁴

Experiencing the situation as problematic or requiring inquiry is the initial step in inquiry but it arises from a precognitive indeterminate situation that is not a subjective or mental state or a confused cognitive state.⁴⁵ Moreover, Dewey stresses that its qualitative indeterminacy is unique and cannot be ignored or passed over by an inquirer because however unstable or confusing the situation may feel, it is through it and by it that we receive any empirical guidance as to where to go next in inquiry. In other words, even when the qualitative is functioning as a "point of departure," it is a departure that already provides a much needed point or sense of direction as to where to go—it is already exercising a regulative function. Dewey says, "It is this unique quality ... that exercises control over its special

⁴³ It is important to keep in mind that this is not a subjective transformation. Situations in their qualitative immediacy and uniqueness are primary and prior to any subject and object distinction. Dewey explains: "According to my theory, while the initial problematic situation and the final transformed resolved situation are equally immediately qualitative, no situation is subjective nor involves a subject and object relation" (LW 5:70).

⁴⁴ One phase merges into the other but must not be confused. "The unsettled or indeterminate situation might have been called a *problematic* situation. This name would have been, however, proleptic and anticipatory. The indeterminate situation becomes problematic in the very process of being subjected to inquiry. There is nothing intellectual or cognitive in the existence of such situations, although they are the necessary condition of cognitive operations or inquiry" (LW 12: 111).

⁴⁵ He stresses that "it is the *situation* that has these traits. *We* are doubtful because the situation is inherently doubtful" (LW 12:109).

procedures. . . . Unless a situation is uniquely qualified in its very indeterminateness, there is a condition of complete panic; response to it takes the form of blind and wild overt activities” (LW 12:109).

Dewey's insistence that the problems that evoke inquiry be initiated by a qualitative indeterminate situation is his way of distinguishing inquiries that are genuine from those that are subjective in the sense that they start with “personal states of doubt . . . that are pathological” (LW 12:109) or what Peirce called “paper doubts.”⁴⁶ “To set up a problem that does not grow out of an actual situation is to start on a course of dead work. Problems that are self-set are mere excuses for seeming to do something intellectual, something that has the semblance but not the substance of scientific activity” (LW 12:112). What Dewey is presenting is not a criterion of what is genuine doubt; it is advice or a prescription based on our best inquiries. Scientific inquirers, no matter how theoretical or abstract their problems may be, begin with and take seriously their qualitative starting point, i.e., the unique indeterminacy that is felt. If there is not enough of a problem grounded in these qualitative experiences, inquiry lacks more than a spark, it lacks a sense of where to go.

About the indeterminacy experienced at the start of, or preceding inquiry, Dewey says in QT:

In itself, it is the big, buzzing, blooming confusion of which James wrote. This expresses not only the state of a baby's experience but the first stage and background of all thinking on any subject. There is, however, no inarticulate quality which is merely buzzing and blooming. *It buzzes to some effect; it blooms toward some fruitage.* That is, the quality, although dumb, has as a part of its complex quality a movement or transition in some direction. It can, therefore, be intellectually symbolized and converted into an object of thought. (LW 5: 254, emphasis added)

The notion that a noncognitive and immediate quality can become or be the seed of intellectually symbolized subject matter or objects of thought—i.e., that “the underlying quality is being transformed into determinate distinctions of

⁴⁶ Peirce says: “Some philosophers have imagined that to start an inquiry it was only necessary to utter a question whether orally or by setting it down upon paper, and have even recommended us to begin our studies with questioning everything! But the mere putting of a proposition into the interrogative form does not stimulate the mind to any struggle after belief. There must be a real and living doubt, and without this all discussion is idle” (Peirce 1877: Section IV; <http://www.peirce.org/writings/p107.html>).

terms and relations or has become an object of articulate thought” (LW 5:249)—may seem strange to someone with different metaphysical assumptions or may seem like Dewey is presupposing a dualism. However, the view is that there is continuity between two kinds of experiences. He states, “When it is said that a thing cognized is different from an earlier non-cognitionally experienced thing, the saying no more implies lack of continuity between the things, than the obvious remark that a seed is different than a flower” (MW 3:166). Our more reflective judgments (the flower) emerge from within the same initial qualitative experience (the seed) that provoked it. Moreover, what occurs is not a total displacement of one kind over the other, i.e., from the qualitative to the purely symbolic or cognitive. Even the most symbolic, cognitive proposition is contained within a qualitative context, a context that participates (contributes) to the development of the process, even if it is not in the foreground, or even addressed in our explicit justifications and explanations.

Once inquiry is on its way, Dewey distinguishes between different phases and operations such as reflection on what the problem is, the determination of a solution, reasoning, testing of hypotheses, and so on. The outcome is a warranted assertion or final judgment but it is also a situation with a unique qualitative determinacy. Hence Dewey could have added to the above thesis that the qualitative is the “point of departure” *and* the point of arrival. Next, we turn to Dewey’s most controversial claim in QT: that throughout the entire process the qualitative plays a substantial regulative role.

[c] “*The Regulative Principle of All Thinking*”

One could agree that the qualitative (as a felt situation) is the background and the starting point of all thinking, but also claim that once discourse is on its way, its development or regulation is independent of the felt dimension of experience. Logic is concerned with the normative aspect of thinking, i.e., what should regulate thinking. Therefore the qualitative, though it may be important to the psychology of thinking, is not all that important to logic as a theory of inquiry. This is not Dewey’s view.

As soon as reflection gets started in any of the events in which we think, we make discriminations and engage in the operations of inquiry, but even when it is in the background, as it is in the sciences, the qualitative operates by regulating and controlling the process of inquiry.

The following are specific ways mentioned throughout several of Dewey’s later works in which the qualitative exerts a regulative function in inquiry.

iv. The Qualitative as "Intuition" that Precedes Reflection and Functions as Funded Experience

For Dewey the function of immediate qualitative experience is not limited to the preinquiry phase of the indeterminate situation. The best of our inquiries begin and end with experiences that are immediate and qualitative. Dewey says that they "come at the beginning and at the close of every scientific investigation. These open with the 'Oh' of wonder and terminate with the 'Good' of a rounded-out and organized situation. Neither the 'Oh' nor the 'Good' expresses a mere state of personal feeling. Each characterizes a subject matter" (LW 5:250).

In inquiry, reflective activities such as reasoning, discrimination, analysis, inference, examination, and justification are preceded by a qualitative assessment that can be called "intuition." Dewey claims that reflection is often "ideational and conceptual transformation of what begins as an intuition" (LW 5:249). Dewey is well aware of the problem with the word "intuition." He does not mean a faculty or a type of knowledge; it is simply an immediate qualitative judgment that is functionally different from those later in the same inquiry that are considered more reflective or preceded by reflection.

The word "intuition" has many meanings. But in its popular, as distinct from refined philosophic, usage it is closely connected with the single qualitiveness underlying all the details of explicit reasoning. Reflection and rational elaboration spring from and make explicit a prior intuition. But there is nothing mystical about this fact, and it does not signify that there are two modes of knowledge, one of which is appropriate to one kind of subject-matter, and the other mode to the other kind.... Intuition, in short, signifies the realization of a pervasive quality such that it regulates the determination of relevant distinctions. (LW 5:249, emphasis added)

When we are in a problematic situation we start with immediate unreflective qualitative judgments that precede the more definite recognition of which particular features of the situation confirm or go against our judgment. We engage in analysis, survey, and reasoning in order to examine (test) or revise this preliminary reaction. The overwhelming first impression comes first; it changes as inquiry proceeds, and it serves to guide the subsequent phases of analysis and discrimination. Dewey explains how all inquiry starts with a hunch or impression, but this is not something psychical or psychological. It is the presence of a dominant quality in a situation as a whole.

To say I have a feeling or impression that so and so is the case is to note that the quality in question is not yet resolved into determinate terms and relations; it marks

a conclusion without statement of the reasons for it, the grounds upon which it rests. It is the first stage in the development of explicit distinctions. All thought in every subject begins with just such an unanalyzed whole. (LW 5:248-249)

The view that intuition precedes reasoning (reason giving and justification) has received considerable support in recent research in social psychology and cognitive science. Psychologists Hauser and Haidt have presented a model of moral cognition in which judgments are primarily intuitive, “gut-level,” emotionally guided evaluations that occur prior to explicit reasoning or deliberation:

Intuitions are fast, automatic, involuntary, require little attention, appear early in development, are delivered in the absence of principled reasons, and often appear immune to counter-reasoning. Principled reasoning is slow, deliberate, thoughtful, requires considerable attention, appears late in development, justifiable, and open to carefully defended and principled counterclaims.⁴⁷

For Dewey the model of thinking suggested by this recent research is true of all thinking, not just moral cognition. This reversal of the traditional function of reasoning may seem like Hume’s view that the intellect is at the mercy of the passions, but some qualifications are necessary to avoid confusing it with the Humean view or with what we usually call rationalizations. First, for Dewey there is no dualism between intuition and our more reflective judgments. On the contrary, there is continuity and in proper inquiry, one follows from the other. Second, while the qualitative as intuition starts and guides explicit reasoning or articulated propositional thought, it is itself transformed in the process by reflection. Third, even though our first intuitions are immediate, qualitative, and noncognitive, they are funded by previous experience. This is why they are such an important resource to inquiry. Dewey claims that sometimes our immediate experiences of pervasive quality have “intellectual import” because they are not mere immediate responses; they are well funded, i.e., they “sum up and integrate prolonged previous experience and training, and bring to a unified head the results of severe and consecutive reflection” (LW 5:250).

Sometimes our intuitions are so well funded by previous experience and reflection that they are the source of brilliant thinking. However, as we know, intuitions can at other times be funded with malignant prejudices or narrow perspectives. There is no way to find out a priori which ones are which.

⁴⁷ Hauser 2006; Hauser, Young, and Cushman 2008.

Nevertheless, experimental thinking needs to start where we are or with what we have. Different individuals and communities start with different intuitions. Hopefully, inquiry and criticism will reveal whether they are to be questioned or transformed, but there is no Archimedean standpoint where intuitions can be examined, nor is there a reflective standpoint that is not itself guided by an immediate quality of a situation.

For Dewey the view that judgments and evaluations are reached by reasoning (with premises and rules in propositional form) is a theoretical-abstract explanation that we can devise after we make actual judgments and decisions. This is not how the most competent inquirers experience these situations. This is the case in all areas of our lives where judgment is required. Good scientists, trumpet players, and cooks may formulate the basis of their judgments in a set of rules or criteria, but this is done for the purposes of the novice, it does not come into their experience. In “Logical Method and Law” (MW 15:65), Dewey distinguishes “vital logic” from the “logic of exposition.” A lawyer may present a well-argued justification for a thesis or conclusion by showing how it follows from premises—this is the logic of exposition—but “no lawyer ever thought out the case of a client in terms of the syllogism” (MW 15:72). In the vital logic “he begins with a conclusion which he intends to reach, favorable to his client of course, and then analyzes the facts of the situation to find material out of which to construct a favorable statement of facts, to form a minor premise” (MW 15: 72). Therefore theoretical or formal conceptions of logic often fail to describe how we actually think. Dewey makes the same point in *Art as Experience*.

We say of an experience of thinking that we reach or draw a conclusion. Theoretical formulation of the process is often made in such terms as to conceal effectually the similarity of “conclusion” to the consummating phase of every developing integral experience. These formulations apparently take their cue from the separate propositions that are premises and the proposition that is the conclusion as they appear on the printed page. The impression is derived that there are first two independent and ready-made entities that are then manipulated so as to give rise to a third. In fact, in an experience of thinking, premises emerge only as a conclusion becomes manifest. (LW 10:45)

The purpose of the logic of exposition is “to set forth grounds for the decision reached so that it will not appear as an arbitrary dictum” (MW 15: 73). For Dewey the demand for reasons and justification is not a function of reason as a faculty nor guided by an abstract quest for the truth, but something that emerged socially:

It is quite conceivable that if no one had ever had to account to others for his decisions, logical operations would never have developed, but men would use exclusively methods of inarticulate intuition and impression, feeling; so that only after considerable experience in accounting for their decisions to others who demanded a reason. (MW 15: 73)

Articulating in propositional form what traits or features of a situation sustain one's judgment is key to justifying ourselves to others, and to invite them to consider the situation for themselves. In other words, it facilitates a more communal inquiry. Having a predisposition to try to reflect on and state the reasons for our judgments is important even when there is no *prima facie* reason not to trust our intuitions. This openness is key to learning and improving our existing intuitions. More importantly, the phase of reflective analysis may lead to a change in the overall qualitative judgment of what is correct as inquiry proceeds.

The logic of exposition is particularly important in science and law where, given their aims and function in society, inquirers must be able to produce conclusions that must be tested by others and are applicable to further cases and inquiries. Publicity, requirements of consistency in regard to precedent, and the need to refine theories for further inquiry are important in these types of inquiry. However, even in these inquiries the vital logic that relies on the qualitative is primary. Our intuitions are usually the result of what habits have been developed from previous experience. However, Dewey does not limit the function of the qualitative to bringing to bear past funded experience on present experience. This is important to distinguish his view from other contemporary views.

Some twentieth-century philosophers have given the qualitative (as either "gut feelings," "emotional reactions of 'yuk,'"⁴⁸ or "intuitions") some guiding role in deliberation, but it clearly plays a subordinate role in more ways than one. For example, when gut feelings are determined to have some weight it is because they are conceived as or reduced to habits, or some useful form of intuitive social knowledge.⁴⁹ They are given some function in deliberation because they are conceived as, at best, disguised (embodied) crude rules of thumb that have served us in the past. Nevertheless, they are useful only at the beginning of inquiry and

⁴⁸ See <http://philosophybites.com/2009/03/julian-savulescu-on-the-yuk-factor.html>.

⁴⁹ This is the view of our immediate emotional intuitions that is assumed by, for example, R.M. Hare in *Moral Thinking: Its levels, Method and Point* (Hare 1981). This view is also explained in "Julian Savulescu on the 'Yuk' Factor" available at: <http://philosophybites.com/2009/03/julian-savulescu-on-the-yuk-factor.html>.

are inept in dealing with the complexity and nuances of particular situations. We have to rely on them because, unfortunately, we don't have time for reflection in many situations. For example, it is a good thing that most of us have an immediate feeling toward incoherence, danger, and injustice, but nothing replaces deliberation by reason. In an ideal world, a world without limitations on time to make well-reasoned decisions, we would not need to rely on the qualitative. This is not Dewey's view.

Dewey agrees that because immediate experience is funded we have good reason to trust the gut feelings of the experienced on some subjects. However, for him the function of the qualitative is not limited to lessons from the past, it is also what guides the present operations of inquiry in light of the present situation that is being transformed. To put it crudely, we feel the present situation as we think, so that contrary to the above view, we often need the qualitative to assess the complexity, uniqueness, and nuances of particular situations. The particular details of a situation or what operations are relevant, are determined by being sensitive to the present context of inquiry. In other words, guiding ourselves by the qualitative in a situation amounts to more than just guiding ourselves by our habits. A skilled scientist or a jazz musician certainly responds automatically (habitually to certain cues in experience). There is a know-how that is the result of previous experience, but there is also responding to the unique qualitative guidance of the situation as it develops. The present situation sometimes guides in ways that are not reduced to previously found know-how. The richness of present qualitative experience and its instructions for us are not always reduced to the conditions of what we bring from past experiences.

v. *The Qualitative Determines the Relevance and Weight of Distinctions, Facts, Concepts, and Principles in Inquiry*

In inquiry the search for the reasons that ground our overall impression or intuition must be a sincere survey of how the relevant features that make up a situation are related, and it may lead to assertions or propositions to be tested. However, how do we determine what features are relevant in a particular inquiry and how much weight they should be given relative to others? The answer is by being sensitive to the quality of the situation.

The qualitative has the important function of guiding inquirers in their immediate sense of what is relevant and irrelevant as inquiry proceeds. In QT Dewey says, "The underlying unity of qualitiveness regulates pertinence or relevancy and force of every distinction and relation" (LW 5:249); and in the *Logic*,

“without its controlling presence, there is no way to determine the relevancy, weight or coherence of any designated distinction or relation” (LW 12: 74). In *Art as Experience* he claims that emotion is not just the moving force of inquiry but the “cementing” that “selects what is congruous and dyes what is selected with its color, thereby giving qualitative unity to materials disparate and dissimilar” (LW 10: 44).

Sensitivity to the quality of a situation is crucial in determining the relevance of our rules and principles in any inquiry. “The situation controls the terms of thought; for they are *its* distinctions, and applicability to it is the ultimate test of their validity” (LW 5:247). No matter how good or true the propositions or principles, “there is no label, on any given idea or principle, that says automatically, “use me in this situation” (LW 8:215). The direct tact and discernment of a good judge in any type of inquiry is not a matter of being equipped with information. No rules can replace the power to seize the significant factors in a situation or the sensitivity to the quality of the problematic situation that is being transformed.

vi. The Qualitative Provides Guidance in Selection and Rejection

Determining relevance and weight in inquiry is usually a means to deciding what to select and reject as inquiry develops. Therefore the qualitative is also key to these operations. Dewey says that the qualitative “guides selection and rejection and the manner of utilization of all explicit terms” (LW 5:249) and that

the selective determination and relation of objects in thought is controlled by reference to a situation—to that which is constituted by a pervasive and internally integrating quality, so that failure to acknowledge the situation leaves, in the end, the logical force of objects and their relations inexplicable. (LW 5: 246)

The consequences of not regulating inquiry by the qualitative can be what we usually call “scattered thinking” and incoherence. In some forms of inquiry the qualitative accounts for the “intellectual definitiveness” and “coherence” of the objects of a thought.⁵⁰

⁵⁰ “Such intellectual definiteness and coherence as the objects and criticisms of esthetic and moral subjects possess is due to their being controlled by the quality of subject-matter as a whole. Consideration of the meaning of regulation by an underlying and pervasive quality is the theme of this article” (LW 5:246).

vii. The qualitative guides the proper relation and proportion between the operations of inquiry

In the *Logic*, Dewey distinguishes between observation, fact gathering, perception, conception, reasoning, and ideas as different operations exercising different functions in inquiry. He does not, however, describe exactly what the ideal relation should be between these operations, beyond the claim that they need to mutually affect each other in the process. However, it is clear from the following passage that he holds many defects in thinking are the consequence of one of the operations exercising too much control over another. Dewey's solution is also clear: let the sensitivity to the qualitative situation as a whole regulate how much, for example, observation and conceptual ordering should relate to one another.

It is more or less a commonplace that it is possible to carry on observations that amass facts tirelessly and yet the observed "facts" lead nowhere. On the other hand, it is possible to have the work of observation so controlled by a conceptual framework fixed in advance that the very things which are genuinely decisive in the problem in hand and its solution, are completely overlooked. Everything is forced into the predetermined conceptual and theoretical scheme. The way, and the only way, to escape these two evils, is sensitivity to the quality of a situation as a whole. In ordinary language, a problem must be felt before it can be stated. If the unique quality of the situation is had immediately, then there is something that regulates the selection and the weighing of observed facts and their conceptual ordering. (LW 12: 76)

viii. The Qualitative as the Control-guidance Provided by Phases of Undergoing and Synthesis of All Experimental Inquiries

The above functions of the qualitative need to be understood as integral to a large and complex process. In any process of inquiry we can make a functional distinction between phases of doing and undergoing as well as phases of analysis and synthesis.⁵¹ These phases are mutually dependent and are what make inquiry a cumulative undertaking that can guide itself to some final judgment. The qualitative is responsible for the undergoing and synthesis phases that regulate the doing and analysis. Analysis is what we do when inquiry is centered on making some finer discrimination of the parts that make up our problematic situation. Synthesis

⁵¹ These are distinctions that Dewey made about inquiry in his more educational texts such as "How We Think"; MW 6, pp. 177-356.

takes place when we are concerned with weighing how the parts contribute to the making of overall judgments. For instance, reaching a hypothesis about what the problem is, is an act of synthesis from the more particular survey or analysis of particular features of one's indeterminate situation. We do not, however, wait until we have a clear and definite formulation of the problem to entertain and examine possible solutions. In the midst of the ambiguity and uncertainty, we usually start with vague suggestions about the solution, even though we are suspending a final judgment and are willing to revise this overall judgment (hypothesis) as inquiry proceeds. Any tentative proposal about what the problem is provokes in turn, an examination (analysis) of possible solutions that issues in a tentative overall judgment (synthesis) about the best solution, which may lead to guiding a further analysis and survey of new aspects of the situation. The final judgment in any inquiry is a synthesis that results from the analysis of the situation as a whole, but it is only the final step in a series of tentative overall judgments that have occurred throughout the entire process of deliberation. This same process can also be described in terms of the phases of the doing and undergoing of any mundane experimental learning process. The doing might be acting to gather more evidence or the active operations of recollection and exploration. There is undergoing in the form of a constant receptivity to what is revealed by our doings or the reactions of others engaged in the process.

In describing the process of experimental inquiry, Dewey can be even more specific. What we take to be a possible right answer at any point in inquiry guides our survey of what we take to be settled, or the "facts of the case" (through observation or recollection of similar cases), which may in turn generate new suggestions and revision of our judgment, which may in turn lead to a further survey of different aspects of the situation. In this process principles and habits have the function of bringing to bear previous experience. Reasoning provides us with the inferences needed to go beyond what we have, or it helps us elaborate our suppositions in light of other beliefs. "Reasoning" (LW 12:115) is the examination of the implications of a proposed solution in light of its logical relations with other beliefs or meanings. This can be useful in developing and revising suggestions and considerations in such a way that they can be more easily tested. This is an experimental process insofar as the results of its operations are tentative and subject to receiving confirmation or frustration as inquiry proceeds. Experimental thinking is not the exclusive domain of the sciences. The notion that empirical testing is the confrontation of ideas and hypotheses with direct observation by the senses is a narrow form of empiricism. In some cases, imagination helps us survey and test our options.

ix. The Qualitative Guides Judgment: Dewey's Contextualism

In philosophy, because of the intellectualist fallacy and the recent linguistic turn, judgments are often treated as or simply equated with propositions that are the result of other propositions. But for Dewey a judgment is not a proposition,⁵² a judgment is a practical “act,” “affirmation,” or “assertion” that “in distinction from propositions which are singular, plural, generic and universal, is individual, since it is *concerned with unique qualitative situations*” (LW 12: 283, my emphasis). Dewey was a contextualist in regard to judgment. His contextualism is radical since what ultimately guides and warrants our judgments are not the shared standards of a community, nor the most stable inherited norms, however useful and binding these resources may be, but the individual unique qualitative situation that we are in. In his contextualism, the control and guidance provided by context is provided in part by the underlying and pervasive quality of the situation that is being transformed. To be sure, propositions in inquiry are tested by their coherence with other propositions as well as the result of operations with inquiry (observation, reasoning, and so on), but applicability of the final judgment to the problematic situation is the ultimate test of its validity. In inquiry the agent is engaged in a process of continually shaping and reshaping (doing and undergoing) until she qualitatively appreciates that the proposed solution meets the demands or problems presented by the developing situation that has been explored. When this happens a judgment is warranted, but this is experienced as an immediate quality of determinacy that can be described as a fittingness or appropriateness to the situation. In other words, the final judgment is the qualitative appreciation and assertion that, in light of the terrain explored, this is the solution that is called for by the situation, and not a deduction from propositions or from a universal criterion. To acquire the habits capable of making these kinds of context-sensitive judgments is to have intelligence. Notice what this entails. The qualitative instructions telling whether one has come close to fulfillment in inquiry are not to be found outside of the particular unique qualitative situation that is experienced as needing transformation. “The making comes to an end when its result is experienced as good—and that experience comes not by mere intellectual and outside judgment but in direct perception” (LW 10:56). The situation itself can give the agent a pervading qualitative sense of relevance and satisfactory closure during the process of reconstruction.

⁵² For more on this important tenet of Dewey see Burke 1994.

The above contextualism is assumed in Dewey's *Logic*. Without it, one misses an important restraint or control that he takes for granted in his presentation of the structure and operations of inquiry. Without it, his view of inquiry seems vulnerable to the charges that it is not robust enough to account for how, without presupposing some universal criteria or standard of truth, inquiry can arrive at justified belief. Critics of Dewey cannot understand how Dewey's empirical approach to inquiry, one that denies the absolute and a priori character of logical forms, could have enough normative force or constraints to avoid laxity or relativism in matters of inquiry. The following reply of Dewey applies to many of his critics: "The source of Russell's misconception of my view is his imperviousness to what I have said about the problematic quality of situations as giving both the occasion for and the *control* of inquiry" (LW 14:33, emphasis added).

Appreciating the function of the qualitative in Dewey is important for appreciating how he reverses the order of where normative-regulative force comes from. Philosophy has been very top down on this issue. It is common to assume that the normativity or reasonableness of particular judgments is solely derivative from general rules. For Dewey, this is backwards and puts the emphasis in the wrong place. Judgments are individual acts and are concerned with a unique qualitative context. Rules, criteria, standards, and reasons are instrumentalities that ultimately derive their validity from particular judgments, even though after many successful inquiries, and because of their success, they acquire their own normative force. As was previously said, the wiser among us rely on these instrumentalities only when our habitual response to situations is not sufficient, or after a judgment is made in order to justify the judgment to oneself or invite others to consider the situation for themselves.

4. SOME IMPLICATIONS AND SUGGESTIONS FOR FUTURE INQUIRY

Dewey's view is one that questions some of the traditional (common) assumptions about not only the role of the qualitative but the role of reasoning in its relation to judgment. Dewey foresaw what recent scientific accounts of human thinking are confirming: it is more complex, messy, and less linear than philosophers have assumed. Secondary sources on Dewey have emphasized how, contrary to orthodoxy, inquiry for Dewey is social, instrumental, and experimental, but that it is qualitative is also an important qualification. I have outlined nine functions of the qualitative in inquiry. The most radical ones are

those that support Dewey's claim that the qualitative "regulates" inquiry. None of this is inconsistent with Dewey's main claim in the *Logic* 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" (LW 12:11). Notice that he never says that *only* logical forms control inquiry and yield warranted assertions. It is clear that for Dewey the qualitative exerts a regulative force and function in inquiry that is relatively independent of the one exerted by logical forms. In fact, both of these are to be seen as complementary in the sense of working together to guide inquirers in concrete situations.

Both of these sources of regulation and control are related in the historical development of inquiry. At the most general level there are the logical forms of inquiry. These function as regulative of more particular general rules and reasons used in particular types of inquiry, but ultimately these two general levels derive their validity from the function and success (over time) of these instrumentalities in concrete and particular cases, i.e., particular qualitative judgments in situations.

To some, Dewey's appeal to the guidance of the unique qualitative context may seem to be another form of subjective-relativism, and therefore not robust enough, or an invitation to licentiousness; to others it may seem a form of epistemic experiential foundationalism. It should be obvious from what has been said about the nature and the function of the qualitative that these charges presuppose much that is not in Dewey. With the functions of the qualitative Dewey is in effect proposing an alternative for the regulation of inquiry beyond these traditional options.

There is an alternative to the view that in order for it to be properly guided, inquiry must receive guidance from a reality independent of experience. If a problem has a solution, it must emerge from guiding our inquiry by its initial direct and unique problematic character. It is not true that without some external criteria of truth or validity we are lost and cannot transform the situation. Dewey's ultimate grounding is a historical and contextual one, but the appeal to context is not just to discourse, community standards, or consensus. These things are important but they are part of a situation. Dewey appeals to a faith in our transactions within nature, that is, within a situation that can guide our judgments. The functions of the qualitative that I have outlined in this essay assume something deep in Dewey's philosophy: a positive trust in the possibilities and instrumentalities available in a situation is the alternative to looking outside experience for guidance. The qualitative is one of the most important instrumentalities we have. Any eventual correction or improvement of a present experience comes from the

same experience in need of reconstruction. Dewey's empiricism is committed to the view that "whatever gain in clearness, in fullness, in trueness of context is experienced must grow out of some element in the experience of this experienced as what it is" (MW 3:164). This became the basis of Dewey's faith in experience. We need to trust the potential of any present experience to carry the seed of its own transformation.

There are important consequences or implications of QT for education and our conception of the ideal inquirer that we have not explored here. Experimental inquiry presupposes that one has inquirers with certain habits (character). It is not hard to envision how all of the above functions are integrated in an ideal inquirer, one that has habits beyond the rational capacities or epistemic virtues favored by philosophers. Sustained, disciplined, and continuous inquiry is not a matter of an emotionless will to inquire or rational discipline. Ideal inquirers are sensitive to the qualitative transformation that is occurring as they think; their doing is guided by undergoing. Ideal inquirers are not easily distracted or diverted by what is not felt to be relevant to the problem at hand. They are sensitive to the unique doubt of each inquiry. In the following quote Dewey hints that each type of inquiry may even call for the development of different habits because they require different types of sensitivity or qualitative guidance: "Scientific thought is, in its turn, a specialized form of art, with its own qualitative control. The more formal and mathematical science becomes, the more it is controlled by sensitiveness to a special kind of qualitative considerations" (LW 5:252). He had little more to say about what specific sort of qualitative sensitivity is particular to scientists. This opens the possibility of some future research on this issue.

As a reaction to the modern notion of reason in the twentieth century, philosophy has stressed the historical, social, and linguistic aspects of thinking, but often at the expense of the role of the qualitative in thinking. There remains much work to be done on the functions of the qualitative. For instance, thinking is now understood by many as including deduction, induction, and abduction. If these are forms of reasoning, what is the function of the qualitative in regard to each of these forms? These forms of reasoning do not account for all that seem to guide concrete inquires. For instance, how do inquirers determine what is possible in a particular inquiry, or distinguish what is conceivable from what is really possible? Where do suggestions and hypotheses come from? How do they determine which hypothesis to try first? The quest or tendency of philosophers (logicians) has been to account for how we do these things in terms of facts (information) and some rules. Dewey's hypothesis suggests that if we look into

the qualitative we may find context-relative constraints that have been ignored by philosophers in their quest to account for these in the form of rules.

Philosophy must come to terms with the recent affective revolution and embodied cognition in social psychology and the cognitive sciences with regard to the nature of deliberation. The findings by scientists have called into question the traditional downplaying of emotions and intuitions in comparison to reasoning in deliberation. The research shows that the rational choice models used in political science—and the conceptions of public deliberation in philosophy—are out of touch with the way average citizens actually make decisions. The research findings, however, corroborate the view of John Dewey: deliberation or thinking is qualitative, i.e., all thought is situated, embodied, and interfused with feeling. Philosophy and the sciences can complement each other as part of a larger inquiry into what the role of feelings in our lives should be.

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