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*Dewey Studies* is a peer-reviewed, online, open-access journal of the John Dewey Society, dedicated to furthering understanding of John Dewey's philosophical work and enlivening his unique mode of engagement with the vital philosophical questions of our time.

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# DEWEY STUDIES

**VOLUME 2 · NUMBER 2 · FALL 2018**

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EDITOR'S INTRODUCTION

LEONARD J. WAKS
Temple University, Emeritus
Editor-in-chief
The editors of *Dewey Studies* are pleased to bring you the second issue of our second Volume. Please join me for a brief guided tour.

The issue opens with two articles which have passed through anonymous peer review. The first, “Pragmatism and the Critical Ethos: Reconstructing the Emancipatory Potential of Artful Criticism,” by Scott Stroud, draws upon Dewey’s work, in particular *Art as Experience* and “The Pragmatic Acquiescence,” to construct a pragmatic theory of criticism to counter the one-dimensional approach often found in critical theory. Stroud here advances the project of pragmatizing critical theory, as considered by Roberto Frega in “Pragmatizing Critical Theory’s Province,” in *Dewey Studies* Volume 1.2.

In the second peer-reviewed article, “Reconstruction In Philosophy Of Mathematics,” Davide Rizza makes use of Dewey’s logic to challenge the alleged ontological commitment to the existence of numbers as metaphysical objects implied by the use of mathematics in the natural sciences. Both of these studies make use of key insights from Dewey to advance contemporary debates in philosophy.

Prof. Vincent Colapietro, from the University of Rhode Island, next offers a thorough account of Paul J. Croce’s *Young William James Thinking* (Baltimore: Johns Hopkins University Press, 2018). He finds Croce’s revisiting of James “obviously a singular opportunity, also a significant accomplishment.”

Once again, *Dewey Studies* offers an interview with a leading pragmatist philosopher; Dr. Xu Li interviews Sor-hoon Tan, professor of philosophy at Singapore Management University and director of its program in Politics, Law and Economics. Prof. Tan, who received her Bachelor’s degree in philosophy from Oxford, and her Ph. D. in philosophy from the University of Hawaii, is the author of the influential study *Confucian Democracy: A Deweyan Reconstruction* (SUNY Press, 2004) among many other works. Her interests include Confucianism, Chinese Political Thought, John Dewey's Pragmatist Philosophy, Democratic Theory, and China's Democratization. Situating herself between East and West, and drawing on the full range of philosophical insights from analytic philosophy, pragmatism,
and Chinese philosophy, she has powerfully illuminated the most pressing philosophical, cultural and political issues of our time.

2019 marks the centennial of Dewey’s visit to China, which the John Dewey Society will embrace as the annual theme this year. Dewey Studies is also pleased to announce an important conference at the University of Chicago Lab School celebrating Dewey’s visit to China.

Finally, the editors have been preparing our 2018 special conference issue, focused on our 2018 theme, John Dewey and Nationalism. This issue will appear as *Dewey Studies* 2.3, and will be available soon.

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This issue of *Dewey Studies* demonstrates the on-going diverse interest in, and influence of, John Dewey throughout the world. The editors ask readers to submit articles to Associate Editor Jared Kemling (jaredkemling@gmail.com), ideas for panels and special issues, interviews, or research notes to Leonard Waks (ljwaks@yahoo.com), and book reviews and composite review articles to Reviews Editor Daniel Brunson (daniel.brunson@morgan.edu).
PRAGMATISM AND THE CRITICAL ETHOS: RECONSTRUCTING THE EMANCIPATORY POTENTIAL OF ARTFUL CRITICISM

SCOTT R. STROUD (University of Texas at Austin)

Drawing upon the thought of John Dewey, this article elucidates a notion of criticism that does justice to both the concern of critical theory for emancipation from structures of power in social settings, and the contingent individual's freedom in making sense of and with the world around them. It argues that the task of reasoned reflection on artistic and societal habits is not simply to unearth and extirpate a determinate set of oppressive ideologies, but also to engage in pragmatic and pluralistic acts of reconstruction; that is, agents critique objects and practices in a range of ways to recreate their own selves and the selves around them.
Many appropriations and employments of critical theory turn largely upon the promise of reason to emancipate us from systems of power that constrain subject activity and possibility. Let us call this orientation or spirit that animates many cultural, rhetorical, or ideological theorists and critics the critical ethos. In modern societies, achieving democracy’s true potential for such individuals is a vital theme of this way of instantiating critical inquiry. Yet democracy, at least in its current form, offers another challenge—that of pluralism. Modern democracies are remarkable arenas of a range of ways to think, talk, believe, live, and argue. Many of these perspectives criticize opposing viewpoints as being indicative of illusioned ways of thinking, as oppressive mindsets, or as shallow ideology that we ought to be free from in our reasoned moments. Thus, we see a clash of emancipation and a pluralistic respect for contradictory ways of living emerge in contemporary communicative situations. How can critical approaches honor a respect for different ways of thinking through the real and seek the goal of emancipating human potential?

What I am interested in exploring are the domains where critical theory—and the critical ethos that many extract from it—influences a certain everyday notion and practice of criticism. Perhaps a more concrete way of approaching the dilemma here is as follows. Take a concrete artifact, say, a popular wrestling program filled with male and female characters. Surely, audiences who watch this program will divide in how they react to and read such a text. Some will enjoy the hyper-masculinized characters, whereas others will react adversely to the stereotypical or derogative gender roles they see portrayed. Perhaps they will flesh out their reaction in theoretical garb, employing such terms as ideology or patriarchy. Their worry may reduce to the reading that this wrestling show relies upon and continues centuries of male traits being valued, and females being undervalued or outright oppressed. Yet the other person laughs at the outlandish characters on the wrestling show, and remarks that it’s just campy fun—and that no one is getting hurt.

There are countless other examples, such as the divergent reactions to television programs such as The Cosby Show and Will &
Grace. As Edward Schiappa notes, some claim that these are essentially oppressive or that they continue harmful racial or gender stereotypes, whereas others mark them as liberatory in their transgressions.1 Others may simply enjoy these shows without bringing in high theory and the discourses of emancipation and oppression. How do we settle such debates between what amounts to two opposed critical reactions to a communicative text? Is one critical, and the other not critical? What tells us this difference—the presence of terms standard to ideology critique? Another way to put this dilemma is: how do we proceed in democratic situations of everyday discourse and deliberation when something that person x takes seriously or truly becomes certified in the critical utterance of person y as a bearer of ideology or power? The urge to say that the wrestling event or sitcom is sexist, racist, etc., seems to undercut the view that it is just fun (or even more: the reaction that it illustrates a good reason to be manly, etc., in that fashion).

This article will approach this tension through the concept of criticism, especially as has emerged in the fields of communication and rhetorical studies. No article of this length can discuss a critical ethos of a field without risking charges of reductionism. Despite this inevitable risk, I want to proceed—even if I do not give critical theory and one form of its entailed critical practice as detailed a hearing as its advocates may want—because doing so is the only way to explore a difference in attitude toward everyday democracy and criticism resident in Deweyan pragmatism.

I’m sure others will sing the praises of critical theory, but not enough sing the praises of pragmatism in the applied areas of criticism that I frequent in communication and rhetorical studies. Drawing upon the thought of John Dewey, this project seeks to elucidate a notion of criticism that does justice to the concern of critical theory and related critical orientations for emancipation from structures of power in social settings and the contingent individual’s freedom in making sense of and with the world around them. I will argue that the task of reasoned reflection on artistic and societal habits is not simply

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to unearth and extirpate a determinate set of oppressive ideologies. Instead, criticism represents a pragmatic and pluralistic act of reconstruction—one critiques objects and practices in a range of ways to recreate their self and the selves around them. If we take Dewey's lead that art ultimately denotes a fine-tuned engagement with the challenges of our environment, we can see this reconstructive endeavor, in its best form, as *artful criticism*.

Building on the lead offered by Richard Shusterman, Richard Rorty, and other previous work on pragmatist aesthetics, I will enunciate a notion of artful criticism as a form of reconstruction, both in terms of resisting false consciousness and pernicious ideologies *and* in enabling cases of creative and imaginative self-fashioning. I want to limit this inquiry's main point to the arena of criticism—the use of communicative means to label other statements, texts, and communicative artifacts as bearers of certain ideologies that are unknown to their users. Thus, the pragmatic form of criticism explored in the general—and most likely, insufficient—form in this article will do justice to critical theory's concerns with democratic emancipation and the Deweyan pragmatist's pluralistic respect in situations of discursive disagreement. Pragmatic criticism then becomes a personal or social process of reconstruction of what and how we value, and not merely a tool for only one specific project of ideological emancipation.

**The Orientation to Perpetual Critique in Critical Endeavors**

Let us keep in mind, but not fully elucidate, the tradition of critical theory spawned by the work of Adorno and Horkheimer, as well as the work of Marcuse. Others, such as Frega, have done an admirable job talking about the forms of "totalizing critique" resident in Adorno and Horkheimer (but perhaps not in the form proffered by Habermas),

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and their relation to American pragmatism.\textsuperscript{3} Beyond these issues, however, let us emphasize a certain spirit or orientation, common to many “critical” authors in a range of fields. The common orientation is that the enlightenment project, as played out in historical settings of power and domination, has not led to the freedom promised by the idealistic defenders of “reason.” Instead, we get more technology and mechanized systems that grind the promised freedom into a contained dust. The role of critical theory is to use science and social theory against this oppression of modernity, in at least many important settings. The general practice here is to negate the real in search of an ideal that would minimize oppression and maximize actual human freedom. Thus, authors like Horkheimer and Adorno spare nothing in their criticism of the “culture industry,” asserting that “the whole world is made to pass through the filter of the culture industry.”\textsuperscript{4} This filter, of course, is not a neutral one—it is valenced, and tilted in favor of preserving existing systems of value. One does not get the truths they think they get from imbibing popular culture. Instead, their experience is created and harmfully imbued with ideological traces that the critic is attuned to reveal. True criticism would unseat or upend this structure, the orientation I’m sketching would claim, and would supposedly leave freedom revealed in its absence. Criticism becomes a form of power to unseat harmful forms of power and force.

Let us move beyond critical theory’s residence in philosophy proper, as I am more concerned with enunciating an imaginatively new reading of pragmatism as a critical orientation. One can find a similar ethos to that of those philosophers who proffer totalizing critique in the versions and visions of feminist, post-colonial, or ideological criticism sensitive to racial, sexualized, or gendered oppression in the fields of rhetoric and communication studies. Many, if not most, of these approaches will place on criticism a great burden—it will diagnose wholesale problems with the status quo, and unseat it in a revolutionary fashion through the act of criticism. Whole institutions and practices must be thrown out, for to fall for


\textsuperscript{4} Horkheimer and Adorno, Dialectic of Enlightenment, 126.
the “real as the rational” is to fall for the illusions proffered by power. In rhetorical studies, the criticism of communicative practices and artifacts is often encouraged as a way to unearth pernicious ideologies and power structures, an orientation codified in approaches that associate themselves with the critique of ideology. Confining the rest of my critique to these areas, let us survey a few representative approaches to the use of criticism as a tool to undermine existing power structures and the functioning of pernicious ideologies. This will in turn help us to see the unique role that pragmatist criticism will play, if we but give it a chance.

We shall look at some of the engagements of rhetorical criticism with sources and orientations endemic to critical theory. “Rhetorical criticism” is the critical analysis of communicative practices, texts, utterances, or artifacts. Many of these texts are speeches, but one can also practice such criticism on literary narratives or popular films. The key question is: does the act of criticism of a specific, concrete communicative artifact, unearth or reveal something of importance that was not noticed before, or that was not noticed by those valuing that act of communication? Typically, acts of criticism are not valued—or published—if they state the obvious. They must bring theories of power, meaning, and more to bear on the messy but concrete texts and utterances that fill our everyday worlds. One imaginative and important critic—and theorist of criticism—was Edwin Black. He was responsible for one of the first influential adaptations of the critical spirit to rhetorical criticism in his notion of the “second persona.”

Instead of older ways of looking at a speech in terms of its effectiveness in achieving a speaker’s goals, Black places ideology at the center of many interactions among an author, an artifact or text, and an audience. Intention is not eliminated, but instead it’s filtered through ideology.

Texts are created by authors for a certain purpose, and the tailings of this purpose are resident within the text’s public structure. What do texts assume about their audience, and those who would accept them as persuasive artifacts? What values do they enshrine, and what values do they allocate to various social constituencies? These

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are questions of the “second persona,” or the audience that is implied by a discourse or text. The first persona is the author or rhetor—the person behind this persuasive text. The second persona is the audience that’s assumed or created by the text. The text serves as a value-laden mediating force between actual rhetor and audience, thus Black thinks of the second persona assumed by the text to be ideological in Karl Marx’s sense of involving “the network of interconnected convictions that functions in a man epistemically and that shapes his identity by determining how he views the world.”

Discourses enshrine an ideology, or a certain way of being and valuing. If we nod our heads at such a text, we are enabling the ideology of what kind of auditor accepts this sort of text. Also, we run the risk of further habituating that image of agency within ourselves, Black warns. Criticism is called for in an attempt to undermine the functioning of texts, to question the ideological forces they marshal that attempt to “move [their auditor], unless he rejects it, to structure his experience on many subjects.” On this approach, we cannot trust texts as they are, since they come with an ideological bias that threatens to recreate us in their image unless we use critical insight as a way to thwart this process. Of course, the assumption is that ideological shaping, putatively an unthinking process, is not truly beneficial. Approaches such as Black’s share the critical theorist’s concern with being emancipated from sources of limitation and arbitrary coercion. Criticism as rejection of the type of person the text wants us to become and the values it wants us to hold represents true freedom on such an account.

Others in communication and rhetorical studies continue to employ a similar critical spirit animated by concerns of ideology. A recent extension of Black’s notion of ideological critique in the area of rhetorical criticism is represented in the work of Philip Wander. Whereas Black’s notion of the second persona focuses on the ideological subject of a discourse, Wander’s notion of the “third persona” extends ideological criticism to a critique of who is left out of

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6 Ibid., 112.
7 Ibid., 113.
or disempowered by certain discourses. The second persona accounts for one function of ideology hidden in a text: what that text pushes an accepting auditor to become or to value. Wander describes this functioning as “an invitation” which “describes the being in the world it commends.”9 Texts seduce us with an image of the sort of powerful agent we ought to be, if we but listen to that text and its ways of valuing things and people. But this formation of a subject through a text’s ideology does not exhaust the overall capacity for ideological effects, Wander argues. The postulation of a preferred, desired, and valued accepter of a message also entails agents who are not present: “What is negated through the Second Persona forms the silhouette of a Third Persona—the ‘it’ that is not present, that is objectified in a way that ‘you’ and ‘I’ are not.”10 The notion of the “third persona” allows a critic to highlight who is left out of a discourse. Presence and agency go hand in hand, so what Wander is focused on here is a matter of who is valued by a text, and who is rendered as an object to be used or simply ignored. Thus, he asserts that “The objectification of certain individuals and groups discloses itself through what is and is not said about them and through actual conditions affecting their ability to speak for themselves.”11 The critic can notice such a lack, and he or she can give voice to people or groups oppressed by the ideological functioning of a given text. Wander describes this as the method of “rhetorical contextualization” or

a systematic reflection on: (a) the ‘I’ of the author and the not ‘I’ or who the author is not; (b) what the text did and did not say; (c) what audiences were and were not addressed or explicitly run down; (d) what problems were defined and/or ignored; and (e) what solutions were or were not offered and for whom.12

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9 Ibid., 209.
10 Ibid., 209.
11 Ibid., 210.
All of this concerns the value structures of social texts, and is based upon the assumption that “The meaning of what is said, in rhetorical theory, includes what is and what is not said.” The rhetorical critic, in the act of criticism, interrogates social texts in an attempt to see who is being valued, and how they are valued. Wander’s emphasis adds to this a sensitivity to who is de-valued through exclusion. If ways of talking are ways of valuing, the critic asks—how does this text encourage its audiences to value or de-value others? For Wander, texts are objective things. They are “out there” in the world, affecting those who attend to them, and they should display determinant ideologies upon critical investigation. A certain text, say a wrestling program employing gender stereotypes, is sexist or patriarchal, and the ideological critic notes this by observing what it says about males and females, and how it functions to devalue females or other genders through exclusion.

Another influential approach from rhetorical studies and communication can further highlight the orientation toward criticism that I want to resist with pragmatist resources. Ideology critique can focus on who is shaped by a discourse, and how discourses value or devalue others through what they focus on in their details. Yet such texts are part of larger systems, all of which are also of ideological import. Recent attempts to enunciate criticism as emancipatory have not failed to examine the systematic matrix in which texts and discourses find themselves. Raymie McKerrow’s “critical rhetoric” is one such permutation of ideology critique in contemporary rhetorical studies. In his account, the ideal seems composed of individuals constantly questioning accepted systems and practices that purport to enable freedom; they seek to find real freedom by tearing down these existent forms of domination. While this approach may differ from other critical approaches that postulate an external ideal of democratic community, it concurs insofar as the real is almost totally to be rejected. It is critical in the deepest sense of that term.

McKerrow’s account foregrounds orientation, and postulates critique as a possible orientation behind criticism that "examines the dimensions of domination and freedom as these are exercised in a

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13 Ibid., 422.
relativized world” and that seeks “to unmask or demystify the discourse of power.” McKerrow’s form of critique devalues the native impulse in certain practices of discourse, and instead searches for pernicious ideological forces at work. As he explains, in critical rhetoric “the emphasis has shifted from the question ‘is this discourse true or false?’ to ‘how the discourse is mobilized to legitimate the section interests of hegemonic groups.’” The critical rhetorician exhumes ethically problematic views—ideologies, effectively—in the discourse so valued by others for its supposed truth value: “The critique is directed to an analysis of discourse as it contributes to the interests of the ruling class, and as it empowers the ruled to present their interests in a forceful and compelling manner.” Criticism of “the discourse of power which creates and sustains the social practices which control the dominated” is called by McKerrow “a critique of ideologies.” The critical rhetorician must always search for sources of domination operating on and through discourse, as well as discursive practices that promise freedom but that enable constraint. We need not get into the critiques of domination or of freedom, but it is enough to say that both seek to de-value what the text—and its accepting audiences—want to value. This diligent scanning for ideological influence and domination does not reach an end, however. On McKerrow’s account of critique, “the telos that marks the project is one of never ending skepticism, hence permanent criticism.”

Similar to the previous two enunciations of a critical approach to ideology in the fields of rhetorical studies and communication,

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15 Ibid., 93.
16 Ibid., 93.
17 Ibid., 92.
McKerrow’s orientation sees ideologies in ways that “non-critical” receivers of a given message would miss. Critical rhetoric gives us a way to characterize the sense of critical in these approaches—the critic, extending the impulses resident in philosophical critical theory, seeks emancipation for self and others by identifying what is really at work in a specific text. An individual may enjoy a crude joke, say, but the critic is the one with the insight to identify the racist elements that go into that joke’s inner logic; if individuals would listen to the critic in this situation, they would cease to value the joke and its oppressive logic, and hence be that much more free of its ideological constraints.

The critic, on all of these approaches, reflects on the utterances of others in an attempt to be free of ideology. To do this, two principles must be followed. First, the critic must see texts and utterances, to use McKerrow’s way of putting it, as bearers of power instead of as bearers of truth. While one partisan sees the worth and value of Woodrow Wilson’s contributions to the U.S. and the world community, an ideological critic might note that such extollation only serves the ideological function contained in his pernicious views of race. A fan of a presidential candidate may take his immigration policies as the panacea to our nation’s economic woes, but the critic seems able to pronounce these policies as “dog whistle” politics that traffic in the ideologies of racism and anti-immigrant sentiments. What one audience member takes as a truth-claim, the critic sees as a token of ideological power that helps some and hurts or excludes others. Second, the critic is committed to a view that ideologies have strong causal powers. This underlies the critical theories of Black, Wander, and McKerrow, and underwrites their demand that critics exhume ideologies from texts; if we do not counter these ways of valuing and devaluing persons and groups, these theorists imply, they will shape us and those who attend to those texts.

The critic, in this tradition of critical theories of emancipation from ideology, holds a special charge in creating the better democracies and free communities we all supposedly desire. They do this by upending texts, turning upside down and destroying ordinary practices and readings that are valued by deluded—and ultimately unfree—individuals. This is all well and good, of course. Who does not
desire to be free? The problematic aspect to these ways of critically re-valuing texts and practices, however, becomes obvious in situations of critical pluralism. These situations are ones that evince a diversity of readings of the truth value or usefulness of some text or utterance. Take the instance of a person who believes that candidate x’s immigration policy is the best, most effective, most ethical way to protect citizens. Assume a critic objects not on grounds of truth or value claims (viz., disputing the policy’s efficacy, or the value of protecting citizens above others), but instead on the grounds that this policy and the text that advocates for it are animated by the ideology of racism. What are the disputants to do? How are they to talk to each other? The critic has rendered the discourse about the policy in question a causal object, subject to cold considerations of causes and effects. What the former individual took as a collection of truth-claims, the ideological critic re-evaluates as a malady, a pernicious pattern of influence that should be rejected wholesale. The critic’s reading of a text and its value trumps other views, and acts to destroy any real pluralism of views that hold differing truth values. In the radically diverse communities of belief that scholars such as Wayne Booth and Michael Krausz examine when looking at criticism, ideology critique would militate toward a critical monism—the view that there is one right reading or interpretation, especially in regard to the texts that the ideological critic wants to render as power-bearing causal artifacts in their discussions with disagreeing others. Yet this is the entailment of the orientation taken by those influenced by the critical theory tradition.

Is there a different critical orientation that can be taken that is more useful given the radically diverse communities of valuing audiences we see and desire in democracies?

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John Dewey and the Orientation of Synthetic Criticism

Instead of such a wholesale, revolutionary reading of critical acts, big or small, I want to flesh out a notion of pragmatist criticism as an orientation. The orientation behind most theories counted as “critical” hold up the present situation, practice, or artifact—be it a film, an industry, or a political system—and finds that it fails the ideal standard that normative aspects of theory provide us as a measure of judgment. The real is lacking in some way, or pernicious in its ideological content, so it would be better if it were to be changed in that dimension. Most of the time, these changes are very radical—the whole system must be changed to become acceptable to a reasonable critic. At other times, the whole discourse or text is thrown out—that joke is sexist, that statue is racist. This attitude evinces a profound disenchantment with the present setup of life or a communicative artifact, or at least the aspect at which the critic takes aim. One must sense that pragmatism will be different from this orientation, but how will it vary exactly?

One place to start will be an often-overlooked passage in Dewey’s 1934 *Art as Experience*. This book has spawned modern theories of pragmatist aesthetics, as well as my own ruminations on pragmatist rhetoric. Others, such as Frega, have done an admirable job exploring the relationship of pragmatist views on political matters to critical theory, but Dewey’s aesthetics represents relatively unexplored ground for such a critical inquiry.

There is more to be mined there, however. Early in the course of explaining his idea of aesthetic experience as wider than the practices of fine art in museum contexts, Dewey broaches the famous lines of “Beauty is truth, truth beauty—that is all/Ye know on earth,


22 Roberto Frega, “Pragmatizing Critical Theory’s Province,” 4-47.
“and all ye need to know.” Dewey enters into the dispute over what Keats meant by this, equating “truth” to a sense of “wisdom” in living. Such wisdom also held a certain orientation toward the world, one in which good seemed rare and evil seemed common: Keats was said to have focused in his work on “the question of justifying good and trusting to it in spite of the evil and destruction that abound.”

Philosophy, in Dewey’s estimation, becomes “the attempt to answer this question rationally.” Philosophy, however rational it pretends to be, must acknowledge that “Man lives in a world of surmise, of mystery, of uncertainties. ‘Reasoning’ must fail man—this of course is a doctrine long taught by those who have held to the necessity of a divine revelation.” Instead of divine revelation, Dewey applauds Keats’ substitute for the shortcomings of reason: imagination. Our imaginative capacities, best revealed in art and aesthetic activity, are what allows our arguments to grasp onto the tenuous, ever-changing world. This is part of what Keats calls “negative capability,” or the capacity “of being in uncertainties, mysteries, doubts, without any irritable reaching after fact and reason.” Dewey approves of this stance because it makes room for a couple of important insights. First, it acknowledges the presence in the world of “half knowledge,” or things believed that fall short of certainty but allow and facilitate action nonetheless. Second, it allows for a role for immediacy and intuition on the part of thinkers, further connecting them to the immediate sort of experience that all natural organisms outside of humans also instantiate. As Dewey puts the point,

Even “the greatest philosopher” exercises an animal-like preference to guide his thinking to its conclusions. He selects and puts aside as his imaginative sentiments move. “Reason” at its height cannot attain complete grasp and a self-contained

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24 Ibid., 40.
25 Ibid., 40.
26 Ibid., 41.
27 Ibid., 39.
assurance. It must fall back upon imagination—upon the embodiment of ideas in emotionally charged sense.\textsuperscript{28}

Our abilities to theorize and reason about problems—reflective thinking for Dewey—are vitally important, but they do not start and end the game of life. Experience is much richer than these activities, and the span of purposes enshrined in these activities is also myriad. Complexity and uncertainty is the character of life, and one with a high negative capability revels in those features.

It is the nature of our experiential context—the precarious world—that forces Dewey to highlight Keats’ final phrase: “The critical words are ‘on earth’—that is amid a scene in which ‘irritable reaching after fact and reason’ confuses and distorts instead of bringing us to the light. It was in moments of most intense esthetic perception that Keats found his utmost solace and his deepest convictions.”\textsuperscript{29} The correct estimation of reason vis-à-vis the best reading of our experiential setting is what Dewey is after here, and he makes this point in dualistic form to clarify its dimensions:

Ultimately there are but two philosophies. One of them accepts life and experience in all its uncertainty, mystery, doubt, and half-knowledge and turns that experience upon itself to deepen and intensify its own qualities—to imagination and art. This is the philosophy of Shakespeare and Keats.\textsuperscript{30}

What Dewey is highlighting here is that philosophical accounts are useful, but maximally so when they are animated by the right orientation or “philosophy” in a general sense. Unstated is what the other philosophy is, but it can be guessed. It is that approach that looks for a clean answer in a determinate world, along with its easily solvable problems. Instead of such a tight system of parts and relationships, Dewey revels in the messiness and uncertainty of the world. This will be the target and method of his aesthetic theory, long

\textsuperscript{28} Ibid., 40.
\textsuperscript{29} Ibid., 41.
\textsuperscript{30} Ibid., 41.
chided for being too flexible and vague. But it can also be the starting point for his critical orientation rooted in pragmatism.

The orientation enshrined in most “critical” approaches to the world go against the sort of negative capability that is emphasized by the pragmatist orientation toward criticism. Instead of seeing the world as intrinsically and irremediably complex, some critical theorists sensitive to ideology see the world—both natural and social—as allowing of clear and determinate answers; this is what enables their unearthing of certain problematic ideologies (and that disallows claims that such ideologies are not present). Imagination is used in such orientations, but only insofar as it can envision the ideal and then negate the real to some degree. Both, however, are singular and “captured” by descriptive and normative theories. What the pragmatic orientation would criticize is just this inflexibility, especially in matters of critical predication. One can take the case of a modern action film. Critics may cry out that it reifies existing gender norms, fails to criticize patriarchal ways of dividing up activities, and so forth. In other words, the film has one reading, or one pernicious ideology that it pushes onto passive viewers. Edward Schiappa has decried a similar tendency among those critiquing representations of gender, sexual orientation, and race in popular artifacts such as films. For the Deweyan position I’m developing here, such an approach is problematic insofar as it concretizes the real into one determinate shape through its critical predications. This clearly leads to conflict in situations of critical pluralism. What does the critic do when faced with another who judges differently? Perhaps another critic or lay person sees the film as having the opposite implications or messages concerning gendered roles—what move do critical theorist have left? Obviously, they must maintain that this opposing person misses something vital. Perhaps they can be re-educated, or told to read more of the appropriate theorists in order to see the oppressive tendencies that the critical theorist sees.

The Deweyan approach would emphasize criticism based on negative capability much more. Giving a critical account of some text

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or practice might be useful in light of a problematic situation, but we should never fall prey to the illusion that we’ve decisively captured the reading of some present situation in one theory-laden argument. We must always maintain the imaginative freshness to see that the real could be described differently from how we describe it, and to imagine that others who disagree with us have decent reasons for their view that should be respected at some level. Even if we do not find such reasoning decisive or finally acceptable, the pragmatist critic at least does not start from the position that their theory guides them to the ultimate nature of social reality, and the implicit or explicit theorizing of others is a mere false consciousness. The critical theorist will too often see those that take the status quo seriously or as desirable as myth-makers or myth-believers, but in any case at a lower level of rational or “critical thought” than the critical theorist and her refusal to be content with any aspect of the status quo. Of course, the pragmatist critic would not shy away from making judgments or acknowledging the influence of specific contexts on an artifact’s or practice’s functioning. What would be different would be the fallibilism that flows from basing an idea of criticism on negative capability and imagination directed at the beliefs of others and of one’s own self.

An example from Dewey’s own history will illustrate some of these lessons. In 1926, Lewis Mumford published his book, *The Golden Day: A Study in American Experience and Culture*. Acting as a literary critic, part of Mumford’s study focused rather harshly on William James’ contribution to American thought. Mumford judged that James reflected the pioneer spirit of his times, and that this infected the spirit of his pragmatism. James’ philosophy, however, did not do much with the “pluralism and free-mindedness” he appropriated from his cultural milieu. He is accused of merely echoing his status quo, with its values and ideals intact. Instead of this transmission, Mumford argued that “a valuable philosophy must take into account a greater range of experiences than the dominating ones of a single generation; it is good to include these, but if it includes only these, it is still in a state of

cultural adolescence. It is the remote and the missing that the philosopher must be ready to supply.”  

James simply regurgitated the spirit of his time, or as Mumford puts it, “James’s thought was permeated with the smell of the Gilded Age: one feels in it the compromises, the evasions, the desire for a comfortable resting place.”  

James did not intend to do this echoing, nor did he intend to perpetuate a status quo ideology of capitalism and greed: “Getting on was certainly never in James’s mind, and cash values did not engross even his passing attention; but, given his milieu, they were what his words re-enforced in the habits of the people who gave themselves over to his philosophy.”  

In the words of a modern critical theorist, James did not challenge the real, he extended it and its domination. If he was truly to be “critical,” he should have challenged the system in all of its imperfections.

Dewey was a named party in Mumford’s challenging of the philosophical status quo, but he got off with a lighter critique than James. Nevertheless, Dewey felt motivated enough to respond to Mumford’s attack on pragmatism in an article in the New Republic in 1927 entitled “The Pragmatic Acquiescence.”  

His response can be illustrative to our central issue here—how a pragmatist approaches the interface between the real and the ideal, and the present state of society and how theories of criticism envision it should be. Dewey focuses on the reading of Mumford that would most appeal to a critical theorist—that of James’ pragmatism being a philosophy of “acquiescence,” presumably for the status quo. Dewey extracts from this accusation the larger issues: “What is the relation of criticism to the social life criticized? What, more particularly, is the relation of philosophy to its social medium and generation?”  

He doubts that any philosophy is a complete restatement of “what is,” but the real issue lies in the same direction that those animated by the critical ethos want to push things.

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33 Ibid., 187.
34 Ibid., 192.
35 Ibid., 192.
37 Ibid., 147.
Can and should critique be separable from and refusing of what exists in society? Can our accounts of oppression and domination only succeed by revolutionary rejection of the existing power structures?

Dewey makes his pragmatist point very clearly: no instance of criticism breaks free from the surrounding systems and cultures. Philosophies, as he puts it, are always a reflection of something in the status quo:

Yet what makes it a work of reflection and criticism is that the elements and values selected are set in opposition to other factors, and those perhaps the ones most in evidence, the most clamorous, the most insistent: which is to say that all serious thinking combines in some proportion and perspective the actual and the possible, where actuality supplies contact and solidity while possibility furnishes the ideal upon which criticism rests and from which creative effort springs. The question whether the possibility appealed to is a possibility of the actual, or is externally imported and applied, is crucial.\(^{38}\)

What Dewey is arguing for is the point that critique reflects the status quo to some extent, whether it acknowledges this or not. Thus, all thought is an acquiescence to some extent to some values in the status quo. The real question is whether the theorizing and reflective activity inherent in some act of philosophizing or critique is closely connected to the actual, or is in some sense seen to be transcendental.

Using our modern terms, Dewey is distinguishing between immanent critique and transcendental critique as early as 1927. As a pragmatist who values negative capability as defining the locus of imagination in reflective engagement with a precarious world, Dewey clearly pushes for the former. Honest criticism will acknowledge that it is immanent and situationally-based. Our values and ideals must come from some aspect of the status quo, a point he makes with extreme clarity in the 1930s. There, his 1934 book *A Common Faith* postulates that our ideals of God come from successful virtues and relationships we see in actual communities; in his 1930 essay, “Three

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\(^{38}\) Ibid., 147.
Independent Factors in Morality,” he postulates that elaborate moral theories all stem from something traceable to common experience.39 We mislead ourselves when we start talking of the transcendental, either in terms of beings or in terms of moral laws or rules. Our imagination must be tied to the world, and that world is complex and messy.

What does this mean for acts of social and artistic criticism? It militates against holding the sort of rigid, predetermined orientation that many critical theorists bring to reading the world. As Dewey puts it in opposing Mumford’s reading of what James means:

The office of the literary and social critic in dealing with the broader human relationship of specialized philosophical thinking is, accordingly, to be cherished. But the office is a difficult one to perform, more difficult to do well than that of technical philosophizing itself, just as any truly liberal human work is harder to achieve than is a technical task. Preconceptions, fixed patterns, too urgent desire to point a moral, are almost fatal. A pattern is implied in such critical interpretation, but it must be tridimensional and flowing, not linear and tight.40

The critical theorist sees one pattern in the image of the real that they face; they see these institutions as oppressive, as an implement of some specific power. They see one reading as the extent of the imaginative overlay that can be set on top of the real. The pragmatist critic desires a plurality of synthetic readings of the real—imagination is not restricted to one cold ideal and its predictable application. Instead, one strives to give a “flowing” criticism, one that acknowledges the actuality of other readings and approaches to artifacts and practices.

Pragmatism on Criticism, Openness, and Assertion

The pragmatist sense of artful criticism that I have enunciated here opposes the overly critical impulse to throw out whole texts, practices, or utterances as pernicious bearers of power. It refuses to do this given the reality of pluralism in communities of arguers—many would simply disagree with the critic’s move, and the sense of Deweyan-Jamesian pragmatism that I am building on here would not push the elite view that a critic’s academic habits of reading and vocabulary give them real access to the world. The most useful orientation to criticism will be one that works in situations of strenuous disagreement; it ought to be an orientation that embraces possibility in meaning making and valuing such that it encourages harmony and relationship building, even in matters of temporary disagreement. Ideology critique and the ethos of most approaches to critical theory, on my reading, will ultimately leave large groups of individuals out in the cold, so to speak, in the search for social emancipation. They will be labeled as fools duped by ideology at best, or worse, active conspirators in extending a certain power-saturated system further into a democratic community. Either way, these attitudes on behalf of the critic do not help to create relationships attuned to solving social problems now or in the future. They tend to put forth a partisan or partial reading of the causes of social discontent and an evaluation of who is at fault, and then follow these moves with vigorous argumentation calculated to shut down opposition. The Deweyan approach to criticism enunciated here seeks to embrace the possibilities represented by disagreeing factions in society, and to find a way to bridge what gaps it can.

The artful criticism that we can extract from Dewey will have three important features. First, it will be melioristic. This term is difficult to grasp in all of its particularities, but it seems to denote an orientation that falls between optimism and pessimism. Dewey tries to clarify it in his Reconstruction in Philosophy:

Meliorism is the belief that the specific conditions which exist
at one moment, be they comparatively bad or comparatively
good, in any event may be bettered. It encourages intelligence
to study the positive means of good and the obstructions to
their realization, and to put forth endeavor for the
improvement of conditions.\textsuperscript{41}

Various studies have unpacked this term, but here we can emphasize
its divergence from the orientation of critical theory and ideology
critique.\textsuperscript{42} As Dewey puts it, it seems to emphasize that the present
situation is not always good or bad; our values relate to this situation,
and our ideals stem from some aspect of it. Bad community is
conceptually related to good community, and the dysfunctional
present situation contains the standards and seeds for the ideal that we
want to achieve. Not every relationship in a dysfunctional community
is worthless or valueless—we simply fixate so much on one imperfect
aspect that we follow the critical theorist and demand it all be radically
changed. The Deweyan ethos is more realistic than this, and forces us
to be open to what can be saved, meliorated, or optimized in our
present situations. Meliorism therefore continues the sort of past-
present optimizing that Dewey speaks of in his “Pragmatic
Acquiescence” essay. Such melioration does not end today, of course,
just as pursuing such goals as social justice do not reach a point of
cessation. New injustices may be purposefully or inadvertently
created. What is needed is a flexible, possibility-valuing orientation
toward critical engagement with problems of social groups. Dewey’s
form of criticism, building on the past to reform the present, is just
such an orientation.

Second, artful criticism holds a strong sense of \textit{fallibilism}

\textsuperscript{41} Dewey, John. (1920/1982). “Reconstruction in philosophy.” In \textit{The Middle Works
University Press, 181-182.

\textsuperscript{42} See Tadd L. Ruetenik, “Social meliorism in the religious pragmatism of William
does Pragmatic Meliorism mean for Rhetoric?” \textit{Western Journal of Communication}, 74
stemming from its valuing of diversity among critics and agents. Pragmatism, especially in the form that Dewey gives it, recognizes that inquiry and problem solving goes on within a social environment. This environment is composed of other people, functionally equivalent to the critic herself. These people have desires, projects, and needs just as the critic does. The success and flourishing of such communities depends on the relationships between and among all agents. Critics flushing out the pernicious effects on relations that occur because of ideology may simply create new enemies and new problems by destroying existing relationships. Artful criticism will be aware that other arguers, critics, and agents have diverse views; rendering some of these views or people as causal objects— influenced by racism, say— differentiates the critic from these parts of the social environment. The critic’s utterances are truth-bearing, but the utterances of those that she examines are power-bearing and harmfully illusory. Such a disparate valuing of agency and utterance does nothing to build relationships; instead, it most likely serves to alienate the object of criticism (a certain agent or utterance that agents take seriously) from the critic and her “group.” Yet the critic is of the same human stock as the others, and surely the critic is not grasping some foundational truth of the situation that the others continually miss. Reality is rarely that simple, nor do we have any assurances that our rarified vocabulary of critical discourse truly gives us such an advantage in diagnosing social ills to the detriment of large swaths of those we must live with. Critics must see their own pronouncements as limited and often in need of correction.

Third, such a nuanced and open orientation toward criticism will acknowledge the human or social aspects of criticism, and commit one to the stance that the other arguers are often correct or right in their views. After all of the arguments are accounted for, one must still live with those who agree and disagree with one’s own views. Complementing the fallibilistic sense of self-limitation noted previously, artful criticism will also be charitable to disagreeing others in a deep sense. One is counseled not merely to “tolerate” others as misguided fellow citizens, but instead, to respect their ability to form their opinions based on a reasoned foundation.
This is charity in the deepest sense—attempting to find or reconstruct an account of what someone else takes to be truth that could also seem appealing to you. Most of the instincts of the critical theorist point toward a shallow, objectivating reconstruction of those who we disagree with in social settings. They are motivated by racism and so forth, a critic may explain. The critic is not tempted to adopt these “racist” positions, however, as they are the result of a pernicious and blind cause; they do not approach the level of reasons for belief that the critic builds into her own critical theories and their applications. Misguided others are caused to be that way; the critic freely evaluates claims and reasons, facts and evidence in agetentially forming their own pronouncements. Thus, pragmatist criticism would be suspect of such an elitism in critical orientation, and seek to resist it through a notion of charity that builds up those whom we disagree with.

Going forward from here is difficult, of course, since the allure of partisan reasoning always seeks to truncate true openness to the radical other and place our own cherished positions as the result of new inquiries. Yet we cannot expect others to think well of us in the future if we diagnose them as “infected” by ideology in moments where they believe that they are engaged in a reasoned process of valuing certain things and experiences in certain ways. Artful criticism seeks to engage a problematic present, a target that so often involves other agents and reasoners as part of the equation. Coming to terms with other reasoners is, pragmatists like Dewey submit, part of what we mean when we say that reflective thinking has brought us into equilibrium with the environment. Finding a way to see others as reasoned and reasoning in those situations where we are inclined to immediately judge them as irrational or ideology-influenced is the communicative or rhetorical sense of negative capacity that Dewey refers to in his aesthetic theory. The artful critic has better odds of getting along with fellow citizens because they are good at resisting their own partisan habits and reactions, even to those “on the other side.” Imagination and charity are merged in artful criticism, and are

specifically focused on the social aspects to inquiry and critical disagreement.

**The Challenge of Artful Criticism**

Of course, there are still those that will claim that my project does not adequately characterize “critical theory,” or go into enough detail in disagreeing with its authors. Such criticisms may win that battle, but lose the war. It is clear to me, given my experience in fields of applied criticism (e.g., the areas of rhetorical studies and communication and their senses of ideology critique), that the spirit of critical endeavors animated by concepts such as power, ideology, and critique fail to foreground openness, at least toward artifacts, practices, and persons that the critic diagnoses as oppressive or ideological. This seems to me to be a fact—for instance, what critic argues that a certain political message is “racist, but just to me?” They instead claim that this person or utterance is racist, or a bearer of structural forces that inevitably work to oppress some individuals and not affect the opposite outcome. If one sees the person or message as liberatory, the critic has no room to explain this deviance; for instance, they see professional wrestling as a bearer of patriarchal toxic masculinity, and you err when you see it as campy fun. It is one thing, and that thing is pernicious, regardless of certain subjects’ self-understandings of it. Pragmatism rebels against this orientation to root out the ideological content of an artifact, and in doing so, to allow for a pluralism of readings. The hope is grand: perhaps one can claim the television program in question is sexist, and another claim it’s not sexist, all without the urge or requirement to sort out which reaction is more truthful or accurate.

What does this account of artful criticism as *melioristic*, *fallible*, and *charitable* mean in practice? This is an on-going question, and one that we can explore more and more now that a firm foundation of work in rhetoric and pragmatism has been established.44 Pragmatist

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44 See, for instance, Nathan Crick, *Democracy and Rhetoric: John Dewey on the Arts of Becoming* (Columbia: University of South Carolina Press, 2010); Robert Danisch, *Pragmatism, Democracy, and the Necessity of Rhetoric* (Columbia: University of South
criticism will be critical in that it can engage the real and attempt to meliorate it toward some idea of the good. But it will always acknowledge that this ideal is drawn from existing values, and that it may itself change over the course of future experience. Pragmatist criticism will also recognize that relational harmony is also a desired outcome of criticism. How our act of criticism treats the views of others is a vital effect of our critical orientation. We live in relational contexts, and our solutions to one social problem should ideally not create additional social problems. The use of self-focused or occluded theoretical concepts to denigrate one view will surely not enliven those who take that view to further cooperation. As Dewey puts it, criticism is instrumental and has effects. We must further categorize these effects as relating to tasks we wish to accomplish in our acts of critique, and those relating to relationships among our fellow community members. These other individuals might be members of groups we view with solidarity, or they might be our “enemies” that function as part of an oppressive system. Nonetheless, if democracy is the internal, force-free functioning of some group of individuals, then critics ought to evince some respect even for those they see as their greatest enemies. For solving a problem now through force and zero-sum rhetoric will surely not encourage the opposing individuals to assist one in the next problematic situation. The critic simply creates more human obstacles and problems in the form of further retrenched individuals who support “oppressive” systems of the status quo. The artful critic that emerges from this Deweyan account seeks to engage the present, and reconstruct it in light of the resources bequeathed by

tradition and past institutions; it also seeks to improve what is desirable about social arrangements, while leaving room for disagreements in judgments of fact and value among social participants. In this way, it seeks to solve present challenges without creating more formidable future obstacles to community building.
RECONSTRUCTION IN
PHILOSOPHY OF
MATHEMATICS

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Throughout his work, John Dewey seeks to emancipate philosophical reflection from the influence of the classical tradition he traces back to Plato and Aristotle. For Dewey, this tradition rests upon a conception of knowledge based on the separation between theory and practice, which is incompatible with the structure of scientific inquiry. Philosophical work can make progress only if it is freed from its traditional heritage, i.e. only if it undergoes reconstruction. In this study I show that implicit appeals to the classical tradition shape prominent debates in philosophy of mathematics, and I initiate a project of reconstruction within this field.

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1. Introduction

In recent years, a renewed attention has been paid to John Dewey's logical works, notably LW12, as a significant resource for current philosophy of science\(^1\). It has been perceived that widely debated issues concerning realism or the truth of scientific theories can be fruitfully re-examined along the lines suggested by Dewey. It has not been so far suggested, however, that a systematic reconstruction of current philosophical debates on the basis of Dewey's logic is possible and desirable and that it will have to encompass philosophy of mathematics as well as philosophy of science.

My goal in this study is to initiate a project of reconstruction in philosophy of mathematics by outlining its initial steps with respect to a class of contemporary debates. I offer an explication of the reason why the task of reconstruction is needed and worthwhile, as well as an indication of the manner in which it should proceed. In doing so, I hope to offer concrete proof of the effectiveness of Dewey's ideas when adopted critically to investigate specific issues in current philosophy. Although my discussion is largely self-contained, it is assumed to take place within the framework of LW12\(^2\).

2. The task of reconstruction

John Dewey's motivation for reconstruction in philosophy stems from what he regards as a proliferation of puzzling questions within this discipline, whose distinctive feature is that they prove insoluble by the manner in which they have been set up. Reconstruction is called for because philosophical work has to be reorganised in such a way that it can escape artificial problems and, thus, irrelevance. In order for reconstruction to be possible, the source of artificial problems has to be identified.

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\(^1\) See in particular Brown (2012) and Godfrey-Smith (2002, 2010).

\(^2\) In particular, I work with the account of propositions offered in Chapter 15 of LW12 and with the account of mathematical discourse offered in Chapter 20 of the same text.
Dewey traces the source back to a deeply ingrained contradiction pervading modern philosophical thought. The poles of this contradiction are an attachment to a traditional, pre-modern theory of knowledge as apprehension of ultimate, immutable Being on the one hand, and the acknowledgment of the significance of scientific inquiry on the other hand. A contradiction arises because, briefly put, modern scientific inquiry owes its effectiveness to a manner of acquiring knowledge that is at variance with the pre-modern conception. The latter, whose original, systematic expression Dewey finds in Plato and Aristotle, requires drawing a sharp ontological divide between what is precarious and subject to change on the one hand, and what is absolutely invariable and exempt from modification on the other. Only the latter is recognised as the proper object of knowledge. To know is then to apprehend or assimilate an antecedently given reality that is ultimate and self-sufficient. Knowledge so conceived issues only in the internal modification of the knowing agent, leaving ultimate reality unchanged. It follows that the aim of knowledge is to get hold of the unblemished picture of immutable Being or to identify oneself with its synthetic unity. Ultimate reality can, in other words, be an object of aspiration and contemplative attention but not a partner in any transactions.

By contrast, Dewey characterises modern scientific inquiry as a problem-solving activity that involves an enquirer and her surroundings in controlled processes of change. Its import is revealed by the consequences it can settle through the intelligent management of given existential conditions. Scientific theories or propositions take part in this enterprise as instruments of intelligent management, as opposed to representations of fundamental realities or highest Being. The pre-modern conception of knowledge has little to do with this picture. Despite this, it has exercised a persisting influence on the manner in which philosophical reflection problematised the materials

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3 See e.g. MW12: 140-143 and LW4: 13.
4 As pointed out in e.g. LW4: 12.
6 For Dewey’s discussion of the structure of inquiry, see, in particular, Chapter 6 of LW12.
of scientific inquiry. Such influence has led to the construction of several artificial problems\(^7\).

For instance, the centrality of the concepts of particle and force in XVII century natural philosophy could be interpreted, along pre-modern lines, as the discovery that reality is fundamentally a system of mechanical interactions between material bodies. Once materialistic metaphysics had pinned down the essential characters of reality, the presence of affectional and volitional objects in ordinary human dealings could be taken as a perplexing problem, capable of animating indefinitely protracted disputes\(^8\). The ensuing dialectic, disengaged as it was from the practice of specific, limited enquiries, could not satisfy any expectation for a definite outcome.

Whenever philosophical reflection integrates a pre-modern conception of knowledge into the analysis of materials belonging to scientific inquiry, similar predicaments arise. Aspects of inquiry are exploited as cues to metaphysical conundrums that cannot be resolved, while they implicitly lead, among other things, to a dismissal of independent analytical efforts directed towards a better understanding of scientific practice and its liberation from metaphysical dogmatism. Dewey calls for reconstruction under these circumstances. His goal is to take leave of metaphysical disputes irrelevant to inquiry and replace this activity with the practice of inquiry itself. For this to be possible, a preliminary critical work is needed, which identifies the prepossessions animating existing philosophical debates and shows that their plausibility depends on neglect or misrepresentation of the context of inquiry itself.

Prominent debates in philosophy of mathematics call for reconstruction in Dewey’s sense, animated as they are by the pre-modern conception of knowledge. This study is mainly devoted to showing that this is the case and to providing a definite orientation for reconstructive work. The critical analysis I articulate in the following sections can easily be applied to other topics in contemporary philosophy of mathematics and in philosophy of science.

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\(^7\) See LW1: 107-114.

\(^8\) See LW4: 33 and LW1: 110.
3. The indispensability argument

A matter of continued concern in contemporary philosophy of mathematics is the ontological status of mathematical entities. The possibility of developing this concern rests on the presumption that the references to entities such as numbers, lattices, graphs et cetera, as they are encountered in mathematical statements, have existential import. If this is the case, mathematical entities are to be conceived as entities that exist apart from ordinary experience: they are not items with which daily commerce is to be had under changing conditions, but eternal realities that cannot be located in the spatio-temporal continuum within which empirical change takes place. On this view, mathematical knowledge is the apprehension of immutable mathematical realities and, as such, it provides an ineffable connection between experience and transcendence. It is clear how profoundly the pre-modern conception of knowledge discussed in the previous section is in operation here.

Philosophers who view mathematical propositions in the manner just described are mathematical realists or, as they are sometimes called, Platonists. A widely discussed attempt on the part of Platonists to establish the correctness of their position, upon which I shall focus, invokes the pervasiveness of mathematical propositions within scientific discourse as evidence for its central ontological claim.

This kind of strategy is of special interest because it relies on the ancient conception of the object of knowledge as ultimate and immutable and seeks to reconcile this view with the results of scientific practice, whose significance it acknowledges as a matter of course. I argue that, if the latter acknowledgment is serious, the ancient conception must be abandoned, because it is untenable in the light of scientific practice. With it must also go the speculative effort proposed by the Platonist as worthy of being pursued.

Platonists make the application of mathematics in empirical science serve their cause by locating its significance in the context of a particular argument, usually traced back to the writings of Quine and
Putnam\textsuperscript{9}, and known as the indispensability argument. Its canonical formulation\textsuperscript{10} (a variant will be examined in the next section) runs as follows:

(P1) We ought to have ontological commitment to all and only the entities that are indispensable to our current best scientific theories.
(P2) Mathematical entities are indispensable to our best scientific theories.
(C) We ought to have ontological commitment to mathematical entities.

The most important statement in this argument is (P2), since it mentions mathematical entities, whose existence the Platonist intends to prove, as well as their ineliminable role within scientific theories. A trivial, but necessary, remark is that mathematical propositions, rather than entities, figure in scientific theories. Thus, at best, references to mathematical entities or, more precisely, mathematical terms, may be indispensable. Although this looks like a statement of fact, it raises a crucial issue, which goes unnoticed if no attention is paid to the scientific enterprise as a form of inquiry, i.e. as an activity aiming at the resolution of problematic situations. If mathematical subject-matter is to play any useful role within inquiry, then it must serve the purpose of attacking problematic situations and supporting their resolution or reorganisation.

Once this is acknowledged, it is legitimate to ask how mathematical subject-matter can guide intervention on specific empirical problems. It appears at least doubtful that it should do so by a sudden shift of attention from the terms of the problem at hand, which are empirical, to an altogether unrelated ontological realm, in which the eternal relations of non-empirical entities are crystallised. To invoke the structural resemblance between these non-empirical entities and empirical ones in order to legitimise an appeal to the latter would be, on the one hand, to identify the stability of experimental control or methodical action with a feature of fleeting events and, on

\textsuperscript{9} Among others, Quine (1976, 1980) and Putnam (1971).
\textsuperscript{10} It is taken from Colyvan (2011), 49.
the other hand, to render the ontological appeal to extra-natural entities superfluous, if the patterns they display do have empirical realisations directly amenable to study\textsuperscript{11}.

Thus, to accept (P2), given a cursory look at the structure of inquiry is, at the very least, to adopt a conception of the successful application of mathematics that turns it into a miraculous occurrence\textsuperscript{12}, as opposed to the fruit of deliberate and focussed reflection. It is nothing short of miraculous that mathematics should be effective insofar as it conveys no information upon the terms of the problems it is invoked to resolve. It is more plausible to think that its effectiveness depends on what it can do as an instrument capable of managing information for the sake of definite purpose: this type of function does not call for a supernatural reality supporting its performance.

The last conclusion is strengthened by any explicit analysis of the functions performed by mathematical resources within scientific inquiry. Without going into detailed illustrations, it is possible to show why by means of a few remarks and a couple of brief examples. Intelligent conduct within inquiry demands deferring overt action in favour of strategic planning: for this to be possible, symbols have to be introduced, since it becomes necessary to talk about envisaged occurrences and future ways of acting, as opposed to handling given existences at once. Thus, within inquiry, the terms of a problem have to be symbolised and, once symbolised, they may be subjected to a formal treatment oriented towards the resolution of the problem itself.

It is then possible to regard references to mathematical entities as modes of treatment of the terms of a problem, i.e. ways of putting available evidential materials into a form amenable to particular trains of thought governed by mathematical propositions. For example, to assign a street network a directed graph, in the context of an application of mathematics, is to declare how streets (seen as directed

\textsuperscript{11} It is noteworthy that Field (1980) makes use of the correspondence between mathematical and empirical structures to mount an argument against Platonism.

\textsuperscript{12} Platonists have not hesitated to take it in this way: see in particular Colyvan (2001).
edges or, if two-way, pairs of directed edges) and their crossings (seen as vertices) are going to be reasoned about\(^\text{13}\). Similarly, to assign a 3-simplex to an election involving three candidates\(^\text{14}\) is to declare how voter preferences can be studied and classified. Examples could be multiplied at will. Items like graphs and simplices are not, in applied capacity, nouns, but adverbs: they describe selected modes of operation, not entities foreign to the problematic situation under study\(^\text{15}\).

When this conception of terms occurring in mathematical propositions involved in scientific applications is available, (P2) loses its force. What this premiss can now convey is that, at most, mathematical terms prove strategically crucial in problem-solving because they select modes of operation that are used to develop in reasoning the terms of the problem at hand. Ontological considerations are not relevant to this process. To defend their relevance is to defend the supernatural where only natural processes are at play.

In view of this discussion, (P1) appears to be a hasty statement. There is no obligation to attach an ontological commitment to any term whatsoever that happens to enter the formulation of a scientific theory before carrying out a study of the particular functions performed by kinds of terms in inquiry. The latter study should be the primary goal of philosophical reflection, since the indispensability argument is of highly uncertain force before that study is carried out: it remains undecided what force its premisses exactly carry and whether or not they are pointing to an interesting problem. In view of the foregoing discussion, which is an immediate articulation of Dewey's ideas, it is clear that the premisses in question may seem compelling because no sufficiently thorough study of the application of mathematics as a complex of functions supporting enquiries is

\(^{13}\) This is done in models of municipal street-sweeping. See e.g. Tucker and Bodin (1976).

\(^{14}\) The geometric treatment of voting alluded to is due to Donald Saari and developed e.g. in Saari (1995).

\(^{15}\) Note in this connection Dewey's remark that the referents of abstract terms are modes of operating, in LW12: 350.
available. In reconstructed philosophy of mathematics, this task takes centre stage, if only as a preliminary to making well-founded assertions about the employment of mathematical resources within scientific practice.

4. The enhanced indispensability argument

The main purpose of the foregoing discussion was twofold. On the one hand, it aimed at detecting, with respect to a philosophical topic of current interest, fragments of the conception of knowledge and of the object of knowledge that prompted Dewey’s call to reconstruction in philosophy. On the other hand, it aimed at showing that, since this conception of knowledge can be enforced only if the context of inquiry and its purpose are held in abeyance, a reinstatement of the latter context suffices to motivate and to direct reconstruction. Thus, the philosophical content at variance with the structure of inquiry is set aside in favour of a philosophical task directly connected with the structure of inquiry.

In the illustration of this process offered in section 3, I attempted to show that the canonical indispensability argument in philosophy of mathematics presumes for mathematical statements employed in scientific inquiry a position that must be in sharp conflict with the role they actually play in it. When this role is clarified, the initial presumption can no longer be upheld. A discussion of the indispensability argument is to be replaced by a study of the functions performed by mathematical resources within inquiry.

This outcome seems to have been partially perceived by the proponents of indispensability arguments. In particular, Alan Baker framed what has come to be known as an enhanced indispensability argument\(^{16}\), motivated by a recognition that not every occurrence of mathematical terms in discourse relevant to scientific enquiries may carry an ontological commitment to transcendent mathematical realities\(^{17}\). The modification of the indispensability argument

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\(^{16}\) See e.g. Saatsi (2011).

\(^{17}\) Baker (2005), 224.
demanded by this recognition goes in the direction of a search for substantive employment of mathematical resources in scientific practice. Substantive, however, simply means 'unambiguously carrying ontological commitment'.

It is conjectured that, when mathematical resources are used in an explanatory capacity, substantive commitment should be guaranteed. Since, however, explanatory capacity does not, on its own, provide an automatic or dependable lead to ontological commitment, the search for 'genuinely' mathematical explanations\textsuperscript{18}, as opposed to spurious ones, is in question. In this context, 'genuine' means, again, an 'unambiguously carrying ontological commitment'. Thus, if one replaces 'scientific theory' with 'genuine explanation' in the indispensability argument from section 3, one obtains an enhanced indispensability argument.

The discussion from section 2 suffices to show that enhanced indispensability arguments trigger an indefinite search for something that cannot be found, as long as one remains within the compass of ordinary scientific research, as opposed to the reaches of mystical contemplation. Insofar as the goal of indispensability arguments is to identify ontological commitment, it fundamentally differs from the goal of inquiry, which is to adopt certain symbolic instruments in order to resolve problematic situations. The idea that such instruments should promote an effective way of handling the terms of a problem precisely because they refer to something alien to it is not directly entertained by Platonists. What Platonists defend is the thought that mathematical resources prove effective and that there is no better way of interpreting mathematical statements than one taking them as pointers to supernatural realities. From the point of view of reconstruction, the latter statement does not expound a view but highlight a conflict. It is the conflict between the pre-modern view of the object of mathematical knowledge as an unchanging, self-contained reality, and the modern recognition that mathematical resources are extensively used to advance empirical investigations and thus function cooperatively within specialised activities wholly included in the natural world.

\textsuperscript{18} Baker (2005), 233-236.
The proponents of enhanced indispensability arguments have not acknowledged the presence of this conflict because it has seemed to them clear that certain traits of mathematical treatment, notably abstractness and generality, cannot be ascribed to empirical particulars. The seemingly natural conclusion is that they must be features of abstract, mathematical objects. It is for instance argued\textsuperscript{19} that mathematical objects ensure scope generality, in the sense that they identify patterns to which a variety of empirical instances conform, as well as topic generality, in the sense that the same mathematical entity (say, a graph-theoretical structure) can be applied to disparate situations.

These features are not distinctive of the application of mathematics and they are not to be ascribed to entities. For instance, an evacuation procedure is scope general in the sense that it identifies a pattern of interactions transferrable to distinct venues of a similar kind. Physical exercise is topic general in the sense that it applies to disparate goals, medical, agonistic or spiritual. If generality is to be of any use, it cannot pertain to entities but to activities and procedures. Reasoning itself may be one such procedure and mathematical reasoning one special form thereof. The generality of mathematical reasoning becomes the trait of an entity only when the fact that certain interactions can be liberated from particular occurrences and formulated as procedures involving generic conditions is hypostatised into the quality of an ultimate object that cannot pertain to any particular object encountered in experience.

When the adoption of mathematical means is not understood as an activity within inquiry but as a self-contained appeal to eternal truths, generality may at first look as if it could be conceived as a quality of mathematical entities foreign to empirical problems. If, however, it can be so conceived, it immediately becomes a source of perplexity, since it is disconnected from the more precarious pursuit it was intended to support. It must be brought to bear on it and there is no a priori reason safely to rest in the conviction that this can be done by clinging to an ontology that does not offer any possibility of interaction with empirical traits. Reconstruction begins with noting

\textsuperscript{19} Baker (2017), 200-201.
that, within the dynamics of enquiry, features peculiar to extra-natural mathematical entities cannot prove helpful in practical situations thanks to their thorough irrelevance to them. Conjectures about such inexplicably effective entities are put aside in favour of a more straightforward examination of the place occupied by mathematical propositions within problem-solving activities.

Even though enhanced indispensability arguments encourage the hypostatisation of strategies within inquiry as traits of objects foreign to all empirical inquiry, which reconstruction must undo, they have the merit of pointing to more clearly defined goals for reconstruction than canonical indispensability could do. These goals are the analysis of generality, abstraction and explanatory function in mathematised empirical inquiry.

The manner in which the latter goals are to be pursued can, to some extent, be determined contrastively, i.e., by looking at the way in which they are pursued under the controlling influence of a pre-modern conception of knowledge. Whenever philosophical work evinces attachment to such conception, it does not merely provide a misleading suggestion. As soon as it is compared against the context of inquiry, it also offers useful indications as to what information concerning the conduct of scientific practice was omitted or misrepresented and needs to be reinstated or faithfully portrayed. The act of reinstatement or rectification does not coincide with a simple dismissal of the earlier philosophical effort but with a more effective reorganisation of this effort that can shed greater light on the structure of its object, namely scientific practice.

By contrast, to neglect the task of reconstruction where it should be engaged in, is to cloud what would have been a sharper picture of scientific practice with ideas ill-suited to it. Such undesirable outcome is not merely achieved by forgetting about the context of inquiry and deploying an old-fashioned ideal of knowledge in its place, but also by selecting certain features of inquiry, which are later hypostatised and treated as metaphysical entities or metaphysical truths.

This kind of proceeding is instructively exemplified by some recent work concerning mathematical explanation, intended to
characterise it independently of any preoccupations with indispensability. The characterisation of interest has been proposed by Marc Lange\textsuperscript{20}. Its critical discussion is the subject of the next section.

5. Distinctively mathematical explanation

Marc Lange’s recent account of mathematical explanation presupposes a hierarchy of laws exhibiting various levels of necessitating strength. Within this hierarchy, mathematical necessity exercises a stronger constraint on a phenomenon to which it applies than, in particular, physical necessity does\textsuperscript{21}.

The view defended by Marc Lange is that explanation has a distinctively mathematical character when it describes a configuration of empirical traits as the result of sufficiently strong, real necessitation. In the next subsection, I shall show that this view is arrived at by committing what may be called the fallacy of selective emphasis. This is the hypostatisation of a distinct element or moment of inquiry, which is first isolated as significant and then identified with ultimate reality\textsuperscript{22}. In subsection 5.2 I shall provide further elaboration on the particular manner in which Lange commits the fallacy and offer a few remarks on the ensuing misrepresentation of scientific practice.

5.1. Explanation and inquiry

In order to provide instances of mathematical explanation, Lange must isolate certain resolved situations, with their terms identified and their import known, i.e. their consequences settled. Under these conditions, an explanatory demand is the request of a *rationale* for the consequences so settled. Lange provides more or less sophisticated examples: since the exact same ideas apply to all of them, it will suffice to discuss only the simplest one\textsuperscript{23}. A mother seeks evenly to distribute

\textsuperscript{20} In Lange (2013, 2016).
\textsuperscript{22} For a discussion of selective emphasis, see LW1:31-32.
\textsuperscript{23} Lange (2013), 495 and Lange (2016), 19.
twenty-three strawberries among her three children. She then realises that twenty-three is not a multiple of three. This is regarded as a distinctively mathematical explanation of failure to allocate the fruit in the desired manner. On Lange's view, divisibility absolutely constrains the allocation of discrete units. It is in force as a constraint even if one could envisage a scenario where physical laws had been altered.

The significance of constraint, as well as its mathematical connotation, are not in question. Lange is certainly correct to emphasise them. He runs into troubles by interpreting them along metaphysical lines. To clarify this point and to identify the specific problem that affects Lange's account, some close analysis of his proposed example is required.

The mother of three, whose plight Lange discusses, faces the problem of distributing some strawberries among her children. She needs to tackle this problem intelligently. The fact that twenty-three strawberries cannot be evenly divided, when regarded as units, both restricts her allocation strategies and directs her towards a viable one. The appeal to divisibility is for her an immediate development of evidential materials in a form more suitable to the resolution of a problem that presently matters to her. This is because the mother's initial observation, spelled out in terms of divisibility, identifies a hinderance only subject to a particular way of singling out the terms of the problem: if strawberries are the units of allocation, then even allocation is not possible.

A proposition about divisibility here is a way clarifying what the successful lines of action are, by pointing out what action will be unsuccessful and by suggesting that success may be achieved by choosing the terms of the problem in such a way that divisibility no longer matters. The import of an appeal to divisibility is the partial result that, for allocation to be even, either strawberries are not to be regarded as units (slices might) or more of them should be bought, or fewer allocated or, finally, the arithmetical notion of even divisibility discarded. Since the controlling practical concern is with fair allocation, the same amount of strawberries measured in grams might be the objective of allocation. In this case, the three children may
possibly receive the same amount of strawberries, but different numbers of them.

Such pedantic analysis has been gone through simply to emphasise, as forcefully as possible, that the significant content of the basic mathematical considerations in which the mother of Lange's example engages, i.e. the content that is consequential to her pursuit, is a discrimination of alternative courses of action. Discrimination includes the possibility of modifying the terms of the problem. Their initial, tentative position, under which strawberries, as opposed to e.g. slices thereof, were units of allocation, allows progress in problem resolution by pointing to an obstruction and calling for further reflection. The fact that, when strawberries are conceived as units and even allocation as allocation of these units in equal number, something cannot be done with them, is just a way of spelling out the relevance of the conceptions initially entertained to the problematic situation at hand.

Strawberries are tentatively treated as units and it emerges that something cannot be done with them if they are so treated. This impossibility is an obstacle within an envisaged or attempted transaction. It is not surprising, but crucial to bear in mind, that transactions – because they are not delusional episodes in which desire attains complete fulfilment without resistance – involve effort, frustration and suffering. These features of transactions, as they occur within inquiry, can be meaningfully isolated. Mathematical instruments may facilitate their isolation, as in the example just discussed.

When, however, this straightforward fact of inquiry is singled out and hypostatised into a metaphysical reality, i.e. law-like necessitation, the fallacy of selective emphasis is committed. Absolute reality takes the place of a salient trait of experience.

The concrete basis of Lange's account is the fact that the constraints encountered as inquiry progresses are adversities or advantages emerging in the course of purposeful interaction. They are recognised and dealt with as obstructions and opportunities that present themselves in a given pursuit. Mathematical instruments that figure in applications are designed or adapted to support any such
pursuit by highlighting adversities and developing advantages into strategies of action. If they were powerless to do so, they would be of no use in scientific inquiry and, consequently, never taken up or overhauled.

To transform the above set of ordinary features of inquiry into evidence for the existence of metaphysical necessities, is effectively to dismiss inquiry as a source of knowledge and reinstate in its place an anachronistic conception of knowledge as the apprehension of a fundamental, unchanging reality constituted by eternal laws holding the cosmos together. What is a feature of inquiry is thus transformed into an absolute feature of reality that must escape inquiry, since eternal and universal laws, unlike manageable interactions between particulars, are never to be encountered in experience.

Lange’s account of distinctively mathematical explanation requires that the latter transformation be effected. Various undesirable consequences follow: one of them consists in the deletion of the role of laws as instrumentalities allowing the resolution of gross qualitative events for the sake of tighter control. Focus on laws as the ultimate bounds locking Nature into an immutable order excludes a more productive focus on the function of laws in inquiry. The latter is contrastively singled out as the objective of philosophical reconstruction. The particular way in which it is forgotten against the background of Lange’s account is the subject of the next subsection.

5.2. Laws and necessity

Lange’s conception is not only erected on the fallacy of selective emphasis, but on an iteration thereof. In its first stage, the application of selective emphasis in Lange’s study of explanation isolates obstructions or advantages within inquiry and identifies them with signs of necessitating constraints or laws. In the iterated stage, the distinctive methods (mathematical or non-mathematical) whereby obstructions and advantages may be detected are isolated and hypostatised as distinct orders of laws.

\[ \text{Cf. LW12: 449.} \]
This is why Lange can work with a hierarchy of stronger and stronger necessitation, where mathematical necessity is in particular stronger than physical necessity. Behind the distinction one may easily discover features of enquiries concerning mathematical or physical subject matter that undergo a process of hypostatisation.

To clarify the point, consider a concrete example of inquiry from mathematical logic, revolving around the question about which subsets of the real numbers endowed with addition and multiplication are first-order definable. The question confronts an investigator with an indeterminate situation, whose full resolution will issue in a specific characterisation of the relevant subsets. It is clear that the conceptions leading to the construction of the indeterminate situation given at the start of inquiry, e.g. the notion of a real number or the logical notions of a first-order language and of definability, are the results of previous enquiries, which have arisen and developed independently of physical subject-matter. In Dewey's terminology, such enquiries proceed independently of existential content. They take as initial materials the objects of earlier reflection into relationships between formal languages and models. The latter are given only in the sense that they result from trains of thought that can be developed out of an axiomatic system (e.g. the theory of sets ZFC, conceived of as the axiomatised semantic meta-theory in use), not in the sense in which the components of an experimental setup are given. In a situation of this type, no treatment of a model-theoretical problem needs to attract the contents of physical subject-matter in order to be carried to a close.

What the last remarks highlight is that the independence of mathematical results from physical considerations is a consequence of the disjoint trajectories followed by the way actual investigations have been set up. To think of independence as the fact that certain eternal mathematical truths about definable subsets of the reals would

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25 A set is first-order definable in the given structure if, and only if, it is a union of intervals with algebraic endpoints.
26 See e.g. LW12: 392.
27 Obviously, this is not to say that they cannot be integrated at a later stage, in the face of a distinctive, new problematic situation.
continue to hold even where physical truths differed from those familiar at present is to misrepresent the matter. Misrepresentation is achieved through the metaphysical hypostatisation of one selected feature of actual, distinct enquiries, namely, the fact that, along their career, they do not need to rely upon one another. This simple fact is metaphysically sanctified when it is transformed into the assertion that mathematical necessity is stronger than physical necessity.

Because the latter assertion is the cornerstone of Lange's analysis of distinctively mathematical explanations, it follows that its endorsement makes any attempt at understanding the role played by laws within scientific inquiry more arduous, by involving it into undesirable metaphysical detours, each of which replaces the career of investigation with absolute features of Nature.

This criticism cannot only be voiced from the standpoint of Dewey's logical work\textsuperscript{28} but it is also implicit in much later philosophical work on natural laws. A notable example is provided by the writings of Nancy Cartwright, who extensively emphasises the intimate connection between the notion of physical law and the tight delimitation of an experimental setup shielded from external interferences\textsuperscript{29}. When Cartwright's analysis is read from the standpoint of LW12, its most important result is that the very conception of a law arises within inquiry and cannot be ascribed to a universal regularity that is observable or significant apart from deliberate efforts aimed at experimental control and from technical restrictions of empirical possibilities. To revive a notion of law as a universal constraint that is actualised under a variety of contingent conditions, as Lange seeks to do, is to dismiss the structure of inquiry as an object of philosophical reflection in order to replace it with a conception that, being in essence pre-modern, is also pre-scientific.

6. Prospects

Work in philosophy of mathematics is often profound and insightful.

\textsuperscript{28} Especially Chapter 22 of LW12.

\textsuperscript{29} In this connection, see especially Chapter 3 of Cartwright (1983).
The critical remarks proposed here are intended to suggest that its level of depth and insight can easily increase where metaphysical presuppositions incompatible with the structure of inquiry are in operation. This is the sign that a reconstructive task is needed, as a result of which greater insights may be obtained and hinderances to understanding may be removed.

Reconstructive activity, as pointed out in this paper, is especially needed in connection with philosophical work dealing with the application of mathematics. Its first order of business is to replace debates concerning the ontological import of mathematical propositions with an analysis of their functions within the context of scientific enquiries.

Although the required analysis cannot be fully carried out here, it seems appropriate to describe its general orientation. Because the goal of any inquiry is the resolution of an indeterminate situation, culminating in overt action aimed at modifying initially given existential conditions, the functions of mathematical resources are to be understood in relation to this goal.

Apart from their specific characterisation, these functions play an intermediate role, in the sense that they are performed once a situation has been problematised and its terms can be put into a specific symbolic form amenable to mathematical treatment, which is in turn guided by mathematical propositions. The results of mathematical treatment are also intermediate, since they lead to the formulation of plans of action that either trigger further development of symbolic form or prelude to intervention.

This picture is very rough but it sets the task of discerning the functions of mathematical treatment in the course of inquiry. Once this is done, mathematical resources can be looked at as instrumentalities aiding problem-solving, as opposed to descriptions of ultimate traits of self-sufficient realities. When viewed as such descriptions, or attempted descriptions, they institute a separation between formal models and their targets, with the attending problem of deciding what kind of bridge may be invoked to make models relevant. Moreover, descriptions that do not match the respective targets, e.g. on account of idealisations, appear as imperfect, false or
distorted pictures thereof. The artificial puzzle arises of accounting for the usefulness or effectiveness of models that are cut off from their targets and in addition misrepresent them.

If, on the contrary, following a reconstructive approach, mathematical ideas come to be studied as instruments of symbolic intervention that help develop the terms of a problem into a resolution thereof, the generic notion of a formal model is to be replaced by the distinct notion of a complex of functions or a site of symbolic interventions that advance problem-solving. The problem of the relation between a mathematical model and what it seeks to describe is replaced by the analysis of the manner in which mathematical techniques promote interaction with an indeterminate situation.

The puzzle of useful yet hopelessly inaccurate descriptions of phenomena is replaced by the analysis of idealisations or other assumptions as strategies employed to open a line of attack on particular problems. The effectiveness and insufficiencies of these plans are evidently a matter of philosophical interest.

It is to be expected that paying a closer attention to scientific inquiry, as implied in the execution of a reconstructive task, should eliminate a number of puzzles in favour of a more lucid and more nuanced account of scientific practice, which can serve the purpose of providing the working scientists themselves with a sharper and more serviceable understanding of their activities and goals. This is a task of some importance, because it helps prevent the dogmatic habit of thinking promoted by the uncontrolled, because unsuspected, influence of philosophical prepossessions from the past on present common sense.

It was perceptively remarked by Dewey that many philosophical ideas of the past survive as “the presupposed background, the unexpressed premises, the working (and therefore controlling) tools of thought and action”\textsuperscript{30}: it is a worthwhile task of philosophical critique to recognise their persistence and encourage progress beyond them.

\textsuperscript{30} EW 4: 62.
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BOOK REVIEW: YOUNG WILLIAM JAMES THINKING

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[https://jhupbooks.press.jhu.edu/content/young-william-james-thinking](https://jhupbooks.press.jhu.edu/content/young-william-james-thinking)

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When the playmates of his children asked about his profession, Henry James, Sr., “replied banteringly, ‘Say I’m a philosopher, say I’m a seeker of truth, say I’m a lover of my kind, say I’m an author of books if you like; or best of all, just say I’m a Student. Wilkey [one of Henry’s children]...envied a playmate who said his father was a ‘stevedore.’ He didn’t know what a stevedore was, but it was definite and sounded impressive. Why, he asked his brothers, couldn’t their father have been a stevedore?” While in becoming an instructor at Harvard he secured a profession in its own way as definite if not as impressive as that of a stevedore, Henry Senior’s oldest son was until the end his father’s son in this critical respect (ever the Student, the seeker). While the son would josh, “it is better to be than to define your being” (quoted by Croce, p. 9) or simply (!) to illuminate Being. As it turns out, however, part of William’s being was bound up with, if not defining Being or his being, coming to terms with being, in the idiosyncratically personal form it took in the unique life of a human self or, more broadly, in the experientially multitudinous forms observable in the natural world. If nature or reality is (as the mature James would proclaim) but a name for excess, this facet of it is nowhere more manifest than in the innumerable forms of being, becoming, and relation so ceaselessly and indeed tumultuously disclosed to us in our experience. Arguably, the being of any self is also a name for excess, for processes of becoming opening out and running into the world far beyond the determinate locations of its finite striving. At any rate, the life of William James suggests as much.

As far as humans are concerned, the drive or desire to be cannot but assume the form of being someone specifically, not anyone generally, and this entails both doing something and, conjoined to doing, being something such as a stevedore or a scientist, a physician or a physiologist, a psychologist or a philosopher. As James would write in 1898, there is “no difference in abstract truth which does not express itself in a difference of concrete fact, and of conduct consequent upon the fact, imposed on somebody, somehow, somewhere, and somewhen.”¹ To be a self is to be, at every actual

moment of one’s uncertain existence, “somebody, somehow, somewhere, and somewhen.” That is, it demands being determinate and decisive, wherein determination entails negation (saying no to certain possibilities for the sake of realizing other ones) and decisiveness demands self-denial (saying no to certain impulses, often very strong and even seemingly imperative impulses, for the sake of carrying other ones forward).

Some temperaments seem naturally disposed to being decisive, whereas other ones are often overwhelmed by the exigency of making and sticking to a decision. In the case of the latter, the habit of seeing alternatives (cf. Croce, p. 26), so valuable in our theoretical pursuits, frequently turns out to be actually crippling in practical contexts. Obviously, the decision to pursue this vocation rather than these other possibilities, to marry and, if so, to wed this woman rather than another, and to characterize the universe as, say, “so much cosmic weather,” “a theatre for heroism,” or in some other way is each a momentous decision. As easily and confidently as Henry James glided into a literary life, his older brother William only haltingly and anxiously tried on the role of a scientist. After a short time, he played it more or less convincingly but never entirely sunk himself into this role to the point of transfiguring himself into being unquestionably or unqualifiedly a scientist, as, say, Wundt or Helmholtz did. As a young man, he might have written: “[M]y only ideal of life is a scientific life” (quoted by Croce, p. 95), going so far as to claim, “if I were able by assiduous pottering to define a few physiological facts however humble I shd. feel I had not lived entirely in vain” (p. 96). No less an authority on science than C. S. Peirce, in a letter dated 1877, noted James was “not only “deeply read in old Philosophies” but also “thoroughly a scientific man” (quoted by Croce, p. 75). In identifying James as such a scientist, Peirce was giving him his highest praise. As it played out, James’s life however demonstrated he did not accurately calibrate the reach of his ambition. Contenting himself with discovering a few such facts was not possible for a youth given to the most debilitating self-doubts, but one in a life-and-death struggle at

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2 This is of course adapted from WJ’s Pragmatism. Pragmatism & The Meaning of Truth (Harvard), p. 30.
least to neutralize these doubts. Nothing less than devoting himself to confronting the fact of being in its invincible opacity and its unbounded suggestiveness would ultimately content him, insofar as contentment was a possibility for his ceaselessly restless mind. At the time when he was trying on the role of the scientist, he was already in the grip of such questions as those put so memorably in “The Sentiment of Rationality.” His embrace of science did little, if anything, to loosen the grip of such questions. On the contrary, this embrace seems to have intensified the lure of such questions. In time, the “intrusion” of metaphysics in his treatise on psychology would be yet another exemplification of this aspect of his thinking.

While providing his children with “a sensuous education,” and encouraging them to go in the direction of their natural impulses, it turns out that, when his oldest child William was seriously considering a career in painting, Henry, Sr., strongly discouraged his son from pursuing this passion. “I had always counted on,” William’s father emphatically asserted, “a scientific career for Willy” (quoted by Croce, p. 9). In temporary defiance of paternal disapproval, Willy studied painting but the very delight he took in sensuous particulars and in the creative integration of contrasting elements quickly led him to the study of science (above all, physiological psychology as it was just coming into being due to the efforts of Wundt, Helmholtz, and others). Young William James Thinking is the story of James’s intellectual development after he turned from art to science, specifically, from figurative painting to physiological psychology, even if an aesthetic sensibility is evident, from first to last, in his scientific and philosophic pursuits.3 It is instructive to recall Wundt’s appraisal of James’s most singular contribution to natural science, The Principles of Psychology (1890): “It is literature, it is beautiful, but it is not psychology” – that is, however admirable The Principles is, it is not science. So much the worse of science! Of course, not all scientifically

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oriented psychologists would pronounce so harshly on James's singular achievement.

Even for the privileged offspring of Henry James, Sr., the task of establishing a career was as much in William James's day as our own a daunting one. William was born in 1842 and thus was, at the point of forging a path for himself, beginning around 1862. This involved more than the choice of a career. It also involved coming to terms with the traditional institution of marriage and, without exaggeration, with nothing less than (in words drawn from his later years) “the total push and pressure of the cosmos” (Pragmatism, p. 9). That is, it meant, at least in the case of James, the choice of a career, a stance toward marriage (first and foremost, confronting the question of whether to marry at all), and the refinement of his orientation toward the universe. The decisions confronting the young James ranged from the most intimately personal to the sweepingly cosmic, from the most mundanely practical choices to the most ethereally theoretical commitments (at least, seemingly ethereal commitments). Even so, each had to do with how he comported himself in the world. For thinking was one form of conduct bearing upon other, more directly public or tangible forms.

The process of identifying a profession, one especially congenial to an individual's talents, interests, and (somewhat paradoxically) also to that person's flaws and even neuroses, ordinarily encompasses the challenge of forging a self-identity more or less in line with the demands, expectations, and promises of, for most individuals, historically instituted professions. Even in the case of, say, a “born” scientist, the innate inclinations and gifts need to be shaped over time to fit the rigorous demands of experimental inquiry. Put otherwise, individuals chose the path of science by making themselves into someone capable of making their way along this path and through the thickets of the bypaths onto which they are inevitably forced, at least if their minds are in “an earnestly inquiring state.” Innate inclinations and talents do not suffice. An experientially acquired sensibility and a typically wide range of specific skills are needed.

The university is, as Adam Phillips astutely suggests, “for some
people essentially a crisis of ambition".\textsuperscript{4} But, as the life of J. S. Mill (Phillips's example) reveals, simply the first years of early manhood can also be such a crisis. So, too, does the life of the young William James, quite apart from the university. To use Croce's telling expression, "the school of experience" no less than the university can be the site of such crises. From his late adolescence until his first appointment in 1873 at Harvard, as an instructor of anatomy, James's young adulthood was indeed a protracted crisis of not only professional but also erotic ambition. Selves are not found. They are forged. How a bright, multitalented, but deeply insecure and, in the presence of young women, socially awkward youth forged himself into a professional self makes for a fascinating and instructive tale. While many of the details are familiar to students of James, a detailed narrative of how William James became William James is unquestionably such a tale.

We, and indeed James, are extremely fortunate to have such an intellectual historian as Paul Croce devote himself to the reconstruction of this story. Croce has immersed himself in the published and private writings of James (diaries, letters, and miscellanea) for the purpose of exploring in depth and detail the series of acts by which James made himself into an empiricist or a thinker animated at every turn by his fidelity to the facts of experience, however much these facts might conflict with the sanctioned categories of the most secure disciplines. This meant initially trying to make himself into a scientist, though even the young James felt the tension between becoming a scientist and becoming a thinker increasingly faithful to the disclosures of experience. Above all else, he was committed to a broader, deeper empiricism than that exemplified in the natural sciences, though this only became fully apparent in his later years. His empiricism drove him both to and beyond the science of his day, but one suspects that, in his father and Emerson, William saw a too easy way of reconciling experimentally acquired knowledge and spiritually needed guidance. That is, he was not altogether given to go beyond science in the manner of his elders. Stringing the bow demanded Herculean effort, not literary flourishes,

no matter how uplifting or suggestive. As Croce so skillfully sketches his story, the protracted crisis at the center of the years when James turned from painting to science was both an integral phase in James’s intellectual development having its own inherent fascination and a proleptic time in which we can observe clear anticipations of the mature James. But the author wants us to tarry with James as he works through his subject’s crisis of ambition. The rewards of doing so are many. For Croce has an exquisite eye for the revelatory detail, also an equally discerning ear for the resonant phrase or sentence. We are the great beneficiaries of his archival explorations, but no less of his storytelling skills. Passages from James’s letters or diaries are inserted into the story at the points where they are most apt. Moreover, James’s talent for, and delight in, visual experience are honored in this book.

In his earlier book on James, as its subtitle indicates, Croce examined the young James in the context of overlapping cultural crises. No crisis was more central or disconcerting than, to recall the subtitle, *The Eclipse of Certainty* (or, to use Dewey’s expression, the abandonment of the quest for certainty, specifically, the increasingly fantastic quest for absolute or apodictic certitude). Part of the irony is that, in the case of James’s personal and professional struggles, the eclipse of theoretical certainty was the crucible in which the young James forged the existential self-assurance to make himself into a scientist, at the same time into an empirically responsible theorist. As already indicated, there is a tension at the heart of such self-fashioning, for scientific empiricism was unduly limited when compared to the empirical orientation of a truly earnest inquirer who had the courage to identify the limits of science for what they were: artificially self-limiting perspectives imposed for the sake of making a field of inquiry amenable to narrowly focused observation and experimentation. These self-limits or -constraints are to a great extent enabling constraints. They are indispensable to establishing a specific field of empirical inquiry. Even in their totality, however, they fall far short of defining human experience in its full scope. Their power is in large measure a function of the limits within which their devotees conscientiously impose upon their work. James was as appreciative of the necessity for a science to impose such limits on its field of inquiry...
as he was committed to exemplify the need for empiricists to transgress such boundaries.

The Eclipse of Certainty is the story of the overlapping contexts in which James’s intellectual life took its singular shape, whereas Young William James Thinking is focused on “the center of these circles” (p. 7), the process of thinking through the central controversies in especially the natural sciences but, no less, through the complex entanglement of these controversies with the broader culture. These enveloping crises were superimposed upon the thinker’s deeply and, in some respects, idiosyncratic crises. The gerund in the title of the later book is critical. It underscores, no doubt deliberately, the process of maturation, of halting steps, decisive breakthroughs, prolonged arrests, quick reversals, and much else, so evident from the documents so painstakingly investigated by Croce. It also recalls, intentionally or not, Emerson’s characterization of the scholar as man thinking.

This is a deeply personal book in at least two senses, while being a study meeting the highest standards of historical scholarship. For it is an intimately personal portrait of the young William James thinking and doing so in contexts in which he his doubts and anxieties worked both to undermine and drive his efforts to stake an identity in the world beyond the circle of his family and friends. (There is one respect in which it is arguably not intimate enough, a point to which I will return.) But this study is also framed by a personal revelation by the author regarding the final phase of this book’s precarious completion. Its writing appears to mirror its subject, for the process was protracted. In his characteristic manner, Croce reads his experience through the lens of James’s reflections on life, above all, James’s advice that “Results shd. not be too voluntarily aimed at or too busily thought of” (quoted on p. xviii). The writing of this book exemplifies the complex process the author presents in a section entitled “Acceptance and Struggle” (pp. 218ff.). Part of the paradox here is that acceptance can, in some instances, extend all the way to the acceptance of failure or defeat and, from the depths of that experience, drive toward a renewal of struggle (think here how soldiers who realize they will soon be utterly vanquished fight with intensified vigor, often greater vigor than they have ever before
marshalled). Blurry vision in his left eye prompted Croce to seek a medical diagnosis, including “an MRI, [in the words of one of his doctors] just to rule some things out” (p. xviii). As it turned out, the result of the MRI revealed “a tumor near my pituitary gland that was pushing on my optic nerve.” “After immediately imagining the worst, and getting advice on the next steps, within a few hours,” Croce informs his readers, “I was back at my writing desk, revising the paragraph I had written the day before.” He further reveals to us: “Like James [i.e., like especially the young James so often in his early maturity], I too was discouraged, but also, like him, letting go of results had a ‘potent effect in my inner life.” He had no plan “for publication or for even for just completing the book.” The hours of his days were sufficient unto themselves, the task at hand without prospect or promise of completion (“the process, the doing”) “was what mattered” (pp. xviii-xix).

This is, I am disposed to imagine, the unifying thread not only of James’s story and the author’s own, but also of Croce’s portrait of the young James (i.e., it is what ties together author and subject as well as the author’s treatment of that subject). This points to the need of accepting one’s frailties, limitations, and even failures as a condition for taking up the interminable task or struggle: To give up can be a decisive step in going on. Croce does not quite say this, though he nearly does. He finished this book by distancing himself from the resolve or determination to finish it, by throwing himself into the process for its own sake, come what may. In doing so, he appears to have been content with utterly transient achievements (e.g., writing several pages that might never make their way into a published work) and an uncalculating engagement in a radically uncertain endeavor.

Experience had or lived is one thing, experience understood or simply illuminated, however partially, is quite another. As Croce so masterfully shows at various turns, the young James lacked the conceptual resources to illuminate his struggles and crises, his ambitions and ambivalences, while the mature James crafted far more adequate Denkmittel (Pragmatism, p. 84; The Meaning of Truth, 208). Even so, an important question is the extent to which the resources provided by William James, after he became William James, are
adequate. For example, as erotic a person as James, young and old, manifestly was, he did not confront this facet of his existence with his characteristic candor. His admirable anti-reductionism disinclined him to make too much of Eros, but it possibly disposed him also to make too little of it (an overcompensation on his part to certain tendencies already evident in the closing decades of the 19th and the opening years of the 20th century). Croce’s mention of Pauline Goldmark (p. 212) points to an aspect of James’s character and temperament worthy of much deeper examination than Croce provides. He is all too close to James here, too prone to divert attention from the patent facts in their glaring obviousness, to turn from them all too quickly. While he calls attention to James being susceptible to being smitten by attractive young women, he leaves the matter unexamined. In one sense, James’s marriage to Alice resolved the erotic crisis of his youth, just as his securing a position at Harvard resolved his career crisis. But, in another sense, it seems it did nothing of the sort, in either case. He evolved into an emotionally and intellectually promiscuous being. His career at Harvard was a series of transitions to philosophy and, then, from within philosophy, a series of transitions from one position to another more experientially adequate one. James’s experience reveals, especially in his later but already in his younger years, a deeply erotic persona, but the conceptual resources provided by him, regardless of the specific phase of his intellectual development, do little to throw light on this prominent feature of his idiosyncratic psyche.

In a work in which an intellectual historian of such impressive gifts focuses on “the center of the circles” or contexts in which James fashioned himself into an empiricist, open to all facets and levels of experience, it is somewhat disappointing to have him evade such questions. Given what Paul Croce has so skillfully illuminated, however, this is a trivial complaint. For no one has enabled us to see better how the young William James, as often as not “thinking through his pen” (Perry, I, 491) in writings intended solely for himself, became the figure so many of us admire and adulate (in Whitehead’s words, became that “lovable genius”) than the author of the book under review. It is possible to imagine the self-portrait on the cover of
Science and Religion in the Era of William James, the reproduction of the photograph on the cover of Young William James Thinking, and finally the portrait by Sarah Wyman Whitman hanging in Emerson Hall at Harvard University superimposed on another one, with the early self-portrait largely hiding the 1965 photograph and the 1903 portrait. That is, it is possible to imagine these and other images of James forming the reverse of a palimpsest. On this construal, Whitman’s portrait of the mature James is not superimposed on the images of his earlier self to the point of mostly, or completely, obscuring the underlying images. Rather the self-portrait, with a somewhat sidelong glance, is slightly giving way to the image of the mature James, but for an extended time holds its own. It commands attention in its own right. We cannot help but see the youth as the father of the man, but also the man as himself inextricably entangled in crises of ambition reaching back into his late adolescence. Above all, we see the youth thinking, thinking his way through and into problem after problem. “By the end of his years as a student and then a teacher of science, from 1861 until 1877, when he was searching for direction in his vocation, philosophical orientation, and personal life,” Croce stresses, “he didn’t solve the problems of his youth; he worked around them, and he worked through them, without expecting results” (p. xix). For Croce no less than his subject, this “was a freeing mental posture that allowed him [James] to take his first ‘act of free will’ in 1870” (ibid.). “My first act of free will shall be,” James proclaimed to himself, “to believe in free will” (quoted on p. 228). As it actually unfolded, however, such an act called for both reiteration and, paradoxically, the willingness to abandon ambition and goals, allowing oneself to work without “too” busily thinking of, or voluntarily aiming at, results (quoted on p. xviii). Even at this juncture in his life, the gospel of work seems to be conjoined with that of letting go, of even giving up. Whether it has the warrant of the Absolute or not, the willingness of the young person, especially one aspiring for an exalted career, to take a vocational holiday might be, for certain youths at least, one of the best approaches to vocational self-fashioning. The crippling Calvinist sense of being utterly unworthy of one’s chosen vocation can rob the talented individual of that vocation before the individual has even begun to
fashion himself into a minimally competent practitioner. On this account, grace alone saves one, though the recovery of the capacity to work is a sign of the influx of grace. In more mundane terms, giving up is often the most effective way of going on. It is perhaps simply a way of tricking oneself into persisting in a task when one’s increasingly strenuous efforts have proven to be increasingly enervating. One is reminded of a passage from Robert Louis Stevenson quoted by James in The Varieties of Religious Experience: “There is indeed one element in human destiny that not blindness itself can controvert. Whatever else we are intended to do, we are not intended to succeed; failure is the fate allotted.” James notes, but only in a footnote: Stevenson “adds with characteristic healthymindedness: ‘Our business is to continue to fail in good spirits.’” Whatever truths we discover, we do so by means of making mistakes. Whatever success we attain, it is itself wrested from lessons learned by failures, often of a humiliating or devastating cast. While this is only one strand or perhaps pattern in the tapestry woven by Croce, it is an arresting one. There is more to William James becoming William James than this dialectic of surrender and exertion, or acceptance and struggle. One of the many virtues of Croce’s book is that he sets this dialectic alongside other patterns of development.

One of the greatest benefits is that it (paradoxically?) achieves its goal. “The stories [assembled by Croce here] present a chance to meet James again for the first time” (p. 25). This is obviously a singular opportunity, also a significant accomplishment. Much like William James’s own conception of experience, our debt to the author of The Eclipse of Certainty has grown wider and deeper with Young William James Thinking. The story of how James moved, so haltingly, so uncertainly, from his youthful embrace of science to his first appointment as an instructor of science, is, in truth, a sequence of stories, coursing through an intense engagement with ancient philosophy and through sectarian alternatives to mainstream medicine. He revealed himself to be his father’s son (“Say I’m a philosopher, say I’m a seeker of truth … or best of all, just say I’m a Student”) but also much more than that (for the task of reconciling the scientific and the spiritual impulses of the human psyche was much
more demanding, complex, and dangerous than either Henry, Sr., or Emerson appreciated). In seeing the student becoming a scientist, we see the empiricist from the very first suspicious of the pretensions of scientific imperialism, that is, attentive to the limits of purely scientific empiricism and, thus, open to possibilities of human encounter beyond the methods of the natural sciences. In becoming a scientist, James was already moving beyond science, by remaining a Student in his father’s sense or a Scholar in Emerson’s. He also was animated by a faith he inherited from his father, a faith in the benefits which science was destined to bestow on humanity, especially if its practitioners accepted the limits of their own practice and hence did not use the authority of Science to rule out of court other approaches than those sanctioned by that authority. While Freud was drawn to physiology and anatomy out of an almost strictly theoretical interest, the humanitarian desire to relieve human suffering being secondary, William was here once again his father’s child, motivated by the desire to relieve human beings from needless suffering. In an early study, Freud set as his goal transforming neurotic misery into ordinary human unhappiness. In his early years no less than later ones, James was unabashed to fly in the face of respectability and defend whatever might prove effective in alleviating especially the paralyzing effects of human misery, neurotic or otherwise.

At the heart of this story, then, there is more than the embrace of science itself. There is the embrace of ambivalence, in diverse contexts. The forms of conciliation championed by James were, in Hanna Segal and thus in Freud’s sense, achievements of ambivalence. Our deepest ambivalences are not resolved: they are worked through. The process of working through ambivalence always encompasses to some extent that of working through loss (in a word, mourning), since some part of what is loved on both sides must be let go (or its having been destroyed by the countervailing love must be more candidly acknowledged than our love of what has been lost tends to allow). “A close look at his youth shows,” as Croce stresses in his Introduction, “James refining the burdens of his indecisions in his development of a decisive ambivalence, a decisiveness within his ambivalence, in the creation of perspectives boldly integrating contrasts” (p. 26; emphasis
added).

In sum, we encounter, in *Young William James Thinking*, a student of science whose apprenticeship makes him aware of the limits of science in a manner doing nothing to undercut his passionate commitment to experimental methods; someone whose training in medicine, at the time when medical materialism was taking decisive hold of mainstream medicine, took seriously *some* of the “quacks” denounced by champions of the mainstream; the wisdom of ancient thought, not least of all classical Stoicism, as a counterbalance to both Christianity, as an anxious struggle for individual salvation, and the newly emerging scientific ethos as an all too confident regime for human betterment, social and personal; the crisis, the confrontation with the shape of madness as possibly that of his own insecure, precariously self, and the decision in the face of this to use his freedom as a resource for his and freedom’s radical self-affirmation (“My first act of free will shall be to believe in free will” [quoted on p. 228]); a traditional marriage, one in which gender roles in a stereotypical form tended to be securely in place, allowing for emotional promiscuity, at least on the part of the husband; an empiricist for whom the tender promptings of our spiritual side are as deserving of candid, indeed unblinking, recognition as the brute confrontation with irreducible facts; and the impulse to philosophize, at the center of which is the disposition “of always seeing an alternative” (quoted on p. 26), but an impulse, since it is that of a human actor implicated in one dramatic situation after another, not that of an idle spectator floating with a foothold nowhere in the natural world, to conciliate between (or among) alternatives. Such conciliation does not preclude an uncompromising commitment to what can never be anything more than an inherently uncertain stance. Ineradicable ambivalence itself does not preclude “decisive ambivalence,” a steady enough decisiveness in the context of the countervailing lures and pushes of rival loves. If William James was, as Charles Taylor called him, “a great philosopher of the cusp” (quoted on p. 26) – and I, along with Croce, endorse this characterization – then it is in no small part because James wrested his decisiveness from his dividedness, a dividedness more than personal (put positively, a broadly cultural dividedness as well as
This is nowhere more apparent in his attitude toward philosophy itself. Let us move toward our conclusion by recalling what is, in miniature, an encomium to his philosophical ambivalence (perhaps also his ambivalent philosophizing):

Philosophy is at once the most sublime and the most trivial of human pursuits. It works in the minutest crannies [contemplatively grubbing among the sheer particulars imaginable by theoretical reason] and it opens out the widest vistas. It 'bakes no bread' ... but it can inspire our souls with courage; and repugnant as its manners, its doubting and challenging, its quibbling and dialectics, often are to common people, no one can get along without the far-flashing beams of light it sends over the world's perspectives. These illuminations at least, and the contrast effects of darkness and mystery that accompany them, give what it says an interest much more than professional. (Pragmatism, pp. 10-11).

On this score, the young William James in his passion for philosophizing thought no differently than the mature James who penned this encomium to his deep ambivalence toward this peculiar human pursuit. But the capacity to give such arresting form to this definitive ambivalence was the fruit of many years, rooted deeply in the soil of youthful hesitation, uncertainty, indecisiveness, gusto, and an irrepressible if also frequently stultified vitality. Paul Croce shows, in detail, how James's thought drove deeply into the darkness of that soil and, at the same, how the plant growing from these roots struggled to break the surface and radiate in the open-air of variable weather.
Dr. Sor-hoon Tan serves as Academic Director of the Politics, Law, and Economics (PLE) major at Singapore Management University. Her research focuses on John Dewey's pragmatism, Confucianism, Chinese political thought, and democratic theory. She specializes in comparative philosophy, political philosophy and political theory. She is the author of *Confucian Democracy--A Deweyan Reconstruction of Confucianism* (2004), as well as the editor of *Bloomsbury Research Handbook of Chinese Philosophy Methodologies* (2016), *Challenging Citizenship: Group Membership and Cultural Identity in a Global Age* (2005).

Li Xu conducted this interview by email with Dr. Tan on behalf of *Dewey Studies* in December 2018. Li Xu is a Ph.D. in philosophy and her work focuses on Dewey studies, aesthetics, and art education.

Neither Xu's questions nor Tan’s response have been edited in any way.
Q: Why did you decide to study in Hawaii? Was Roger Ames your thesis director? Did you go to Hawaii specifically to study with him? Can you sum up in just a few sentences what unique lessons you learned from him? Who else did you interact with there?

Colleagues at the National University of Singapore, which offered me a scholarship to pursue doctoral studies in comparative philosophy, suggested that I apply to the University of Hawaii. Before my arrival in Hawaii, I was more familiar with the works of Tu Wei-ming and Ted de Bary, but I wanted to do my PhD in a philosophy department. I had not read any of Roger’s writings previously, but signed up for his graduate seminar on Daoism in my first semester at UH. My reasoning was to challenge myself by plunging in at the deep end, to see if I could really do Chinese and comparative philosophy. To someone whose basic philosophical training had been analytic, Daoism made little sense philosophically. It was hard initially, even though Roger was a very encouraging teacher. It took me almost half the semester before I ‘saw the light’ – in other words, achieved the paradigm shift that enabled me to make philosophical sense of Daoist texts. I enjoyed the class and learned so much from it that I asked Roger to be my thesis supervisor at the end of that first semester at UH.

Roger’s love for Chinese philosophy is infectious, and what I learned from him will take too much time to even list in an interview. The most valuable among them I would say is respect for the texts and philosophies one is trying to understand, meticulous care in carrying out one’s investigations, and a combination of daring questioning and intellectual humility. Besides his excellent scholarship, Roger is also an exemplary mentor. I have tried to emulate him as a teacher, and in ways of conducting oneself in relation to others – while still a long way from his level of excellence, I hope the attempt has made me a better person.

Others on my dissertation committee include Mary Tiles, Jim Tiles, and Ken Kipnis. They all helped to stimulate my thinking and subjected my efforts to rigorously questioning from different
perspectives and traditions. The learning environment at UH is in my view an excellent one for doing cross cultural comparative philosophy. I did not read classical Chinese before going to UH, and I have David McCraw to thank for giving me a sound knowledge of classical Chinese. He was a genius at finding fascinating texts from a wide range of genres for translation practice, and I had great fun in those classes.

Q: Had you studied Dewey before you came to Hawaii? How did you find your way to Dewey? What was it about Dewey that attracted your interest?

I had not read any of Dewey’s works before going to Hawaii. However, I had been an admirer of Hu Shih, Dewey’s famous student, for his role in the New Culture movement, as I was very much into May Fourth literature as a teenager. During my undergraduate years, Rorty’s *Philosophy and the Mirror of Nature* was one of my favorite books, although I did not appreciate the significance of that preference until later. Sad to say, I never looked up the connections with Dewey, and in a totally unthinking manner, shared some of the misunderstandings and prejudices against Pragmatism common among analytic philosophers, although the butt of analytic jokes and contempt among my Oxbridge contemporaries was James rather than Dewey.

In my first semester at UH, Professor Joseph Grange was visiting UH, and offered a graduate seminar on John Dewey’s philosophy. The course outline seemed interesting. I was totally captivated once I started reading *Democracy and Education* and the collection of Dewey’s political philosophy writings, which were required for that seminar. The term paper I wrote for this seminar became one of my first publications. I changed my intended topic of research from a comparison of the philosophies of Aristotle and Confucius to a comparison of Dewey’s Pragmatism and early Confucianism. I have never regretted my choice, although I maintain a keen interest in Aristotle. After that first semester, Jim Tiles nurtured my interest in Dewey and deepened my interest in Pragmatist philosophy.

Fortuitously, I discovered that Roger himself had a major interest in Dewey, although I felt rather ambiguous about my topic when I
realized that he had a book comparing Confucius and Dewey (Democracy of the Dead) coming out. I was prepared to change my topic, worried that I might not have anything different to say. He was kind enough to let me read the manuscript, which reassured me that I could and would write a thesis with original contribution to the comparison between Dewey’s Pragmatism and Confucianism different from that book.

I find Dewey’s approach to philosophy, treating it as a tool to solve problems in the real world, the most attractive aspect of his thought. I came to share many of his critical views about traditional Anglo-Saxon philosophy. Indeed, he helped me understand why I was dissatisfied with my philosophical education in Oxford, when previously I only had vague misgivings that I could not really articulate as an undergraduate – I had always thought the problem was entirely with my own inadequacies. His emphasis on the importance of education and its relation to philosophy is also something that fits my own outlook and interest. And, more specifically, his conception of democracy offers me the best tool for the task I have set for myself: a reconstruction of Confucianism so that those who inherited a Confucian legacy today need not choose between their cultural heritage and democracy, but could try to combine the two.

Q: Your book Confucian Democracy got great reviews. Has that opened new opportunities for you or new conversations about democracy in China and elsewhere?

I am glad that the book is still read and cited after more than a decade. I have been working on issues related to the book over the years, besides Confucian democracy. Specifically, I have been invited to contribute to conferences and publication projects on Chinese political philosophy, Confucianism, as well as Pragmatism in China, and Pragmatism-Chinese philosophy comparisons. It has put me in touch with other scholars working on similar topics, from whom I have learned a great deal, and continue to learn.
Q: Do Dewey’s ideas still have influence in contemporary China and the East Asian region?

It is not “flavor of the month” – but popularity is not the best measure of influence. In academia, Dewey is still among the more well known of Western philosophers. I believe the interest is increasing, and Chinese scholarship on Dewey will receive a great boost from the recent publication of the Chinese translation of Dewey’s *Complete Works*. The publisher will also be publishing shorter collections on specific areas of interest within Dewey’s works, with substantive introductions from Chinese scholars of Dewey. This will make Dewey’s philosophical works more accessible.

Dewey’s influence might be stronger in Chinese education than in the specialized discipline of philosophy, even though putting his ideas into practice has also met with many problems in that area.

Although I would not go so far as deny the presence of metaphysical interests and discussions in Chinese thought, I believe that there is a stronger practical orientation that makes Pragmatism relatively more appealing within Chinese culture, and other societies with Confucian influence. Ironically, this might make Dewey’s philosophy seem too obviously true and therefore from certain academic perspectives not challenging and interesting enough.

Q: What is going on in philosophy in Singapore? Are pragmatism and Dewey hot topics there?

There are two philosophy departments in Singapore, one at the National University of Singapore and another at the Nanyang Technological University. A few philosophers also work in the School of Social Sciences at the Singapore Management University. The majority are trained in departments in the UK, US, or Australia, with analytic philosophy interests and approaches. There are only a few of us working on Chinese philosophy, comparative philosophy, and continental philosophy. I do not know of any other philosophers with a strong interest in Dewey among my Singapore colleagues, except a
young scholar working on music education in the Institute of Education at the Nanyang Technological University.

Q: What is your vision of future scholarly relations between Western and the Eastern countries?

The potential for more and better mutual learning is there, but unfortunately there are many obstacles posed by the way universities and departments are organized, and the way academic research, especially in the humanities, is structured.

Q: What is your currently working on in philosophy? What do you hope to accomplish in your new role at Singapore Management University?

I am working on a book about the relevance of Dewey’s pragmatism to China’s democratization, and various shorter projects such as global justice from a Confucian perspective and Confucian feminism.

I joined SMU because I believe it offers me a chance to contribute to tertiary education in Singapore beyond the teaching of a few specialized philosophy courses every year. I hope to make philosophy relevant to the education SMU offers its undergraduates in ways that would help them become more effective and fulfilled in their careers and personal lives.
Nobel Laureate James J. Heckman will keynote an upcoming conference that will explore how John Dewey’s ideas shaped the Chinese educational system and are so relevant today.

DATE: May 2–4, 2019
LOCATION: University of Chicago Laboratory Schools, Illinois, USA
REGISTER: www.ucls.uchicago.edu/deweythenandnow
From 1919 to 1921, John Dewey, founder of the University of Chicago Laboratory Schools, traveled throughout China. During his visit, he gained what some have called "superstar" status, with people flocking to his lectures or reading them in translation in books and newspapers, and widely applying his philosophies of education. From May 2–4, 2019, some of the world’s most passionate Dewey scholars and educators will convene at the Laboratory Schools—the Dewey school—for a three-day colloquium honoring the 100th anniversary of that two-year trip to China made by John and Alice Dewey.

Keynote speaker, James J. Heckman, is the Henry Schultz Distinguished Service Professor of Economics at the University of Chicago, a Nobel Memorial Prize winner in economics and an expert in the economics of human development. Through the University’s Center for the Economics of Human Development, he has conducted groundbreaking work showing that quality early childhood development heavily influences health, economic and social outcomes for individuals and society at large.

In the span of a century, research partnerships between UChicago scholars and their Chinese counterparts have blossomed into dozens of ongoing relationships, spanning many fields of study. The University of Chicago Laboratory Schools are excited to deepen this connection. Lab started in 1896 with fewer than a dozen students. Today the school educates more than 2,160 students in nursery through high school. It is an institution known around the world and continues to be very much a laboratory school that emphasizes critical thinking and problem-solving, creative and scholarship.

This May 2019 conference will bring together researchers, policymakers, and school-level educators from the United States and China to further our understanding of how Dewyan education has evolved. Attendees will leave having created a base for further collaborative work between American and Chinese educators and policymakers who share an interest in Dewey. They will understand how Dewey’s ideas are shaping educational policy and have the opportunity to see his ideas in practice at the school he founded.
Over several days, through keynote speeches, panel discussions, hands-on activities, field visits, and presentations, attendees will honor, and reflect upon, John Dewey’s role in education and his continued global relevance. Tentative conference offerings include:

- Expert-led sessions covering topics such as: the role of interdisciplinary thinking in education today; arts in education; current issues in Chinese educational practice; the value of civic education; and the role of democratic education.
- Programs that emphasize current educational challenges in China in context of Deweyan beliefs and values on schooling and democratic education.
- Opportunities to tour the Laboratory Schools and observe classes.
- Activities that model “learning by doing,” including a hands-on art project—participants will work with a local artist on a project that, when completed, will be shared with the greater Laboratory Schools community.
- Visits with local civic organizations. Dewey learned about China, in part, by engaging with local communities. To honor his approach, participants will have the opportunity to conduct field visits, which may include: a community garden, arts center, or youth-based community organization.
- Educational site visits at local area schools to see student learning in action.
- Tours of the University of Chicago and Chicago sights.
Conference presenters include:

Yajun Chen, Director of the Dewey Center
Fudan University

Kai-Ming Cheng, Emeritus Professor
Division of Policy, Administration and Social Sciences Education
Hong Kong University

Dali Yang, William Claude Reavis Professor of Political Science
University of Chicago

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