

# New Pragmatism and the Vocabulary and Metaphors of Scholarly Design Research

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The pragmatism of Dewey, James, and Pierce is familiar vocabulary to the philosophical, educational, social, and political landscape of North America. In its treatment of truth, action, values, and the theory-practice divide, it is particularly relevant to a range of fields including design. This pragmatist legacy is developed in Donald Schön's work, and Rittel's and Weber's metaphor of the wicked problems of planning and design—to suggest a distinctive disciplinary vocabulary of design research and practice. Existing treatments of the relations between pragmatism and design disciplines such as urban and environmental planning, architecture, and interaction design highlight this expanded version. However, such treatments have not addressed how the neo-pragmatist account developed by Richard Rorty might enlarge design research. Combining particular readings of Dewey, James, and others with Wittgenstein, Foucault, and Derrida; Rorty offers an account which reinforces conventional pragmatist theses, but then looks beyond them in an environment where science and the humanities have equal claims to truth, meaning, and representation. Reviewing existing treatments of these themes, including those in this journal, I trace connections between pragmatism and Horst's and Rittel's formulation of wicked problems and Schön's reflective practitioner. I examine the current use of Deweyan and new pragmatism in design fields, and suggest how Rorty's claims about redescription and vocabularies have some unexplored consequences for design research and scholarship. I close with some thoughts on how the expanded pragmatist approach might support the kind of epistemological and methodological perspective to benefit design scholarship.

## Pragmatism: Revisiting Terms of Reference

The pragmatism of the early twentieth century offered a distinctive perspective on knowledge, meaning, and truth. In particular, William James<sup>1</sup> and John Dewey's<sup>2</sup> work, through the late-nineteenth and early and middle years of the twentieth century, was prolific and continues to generate discussion in education, politics, and other fields.<sup>3</sup> Pragmatism holds to an instrumental account of ideas as plans of action that borrow their meanings from their practical real-world consequences. This contrasts with current philosophical positions, such as those of analytic philosophy, which propose abstract

- 1 William James, *The Varieties of Religious Experience, A Study in Human Nature* (New York: Collier, 1936); *Pragmatism: A New Name for Some Old Ways of Thinking: Popular Lectures on Philosophy* (London and New York: Longmans, 1907); and *The Will to Believe and Other Essays in Popular Philosophy* (New York: Dover, 1956).
- 2 Dewey's ability to show the relevance of pragmatism to multiple fields and social concerns is evident in John Dewey, *Reconstruction in Philosophy* (Boston: Beacon Press, 1958); *Experience and Nature* (New York: Dover, 2nd ed., 1958); *Art as Experience* (New York: Capricorn Books, 1959); *Moral Principles in Education* (New York: Philosophical Library, 1959); and *Democracy and Education: An Introduction to the Philosophy of Education* (New York: Free Press, 1966).
- 3 Some recent treatments showing the breadth of these concerns for knowledge, ethics, and politics include James Campbell, *Understanding John Dewey: Nature and Cooperative Intelligence* (Chicago: Open Court, 1995); Steven Fesmire, *John Dewey and Moral Imagination: Pragmatism in Ethics* (Bloomington: Indiana University Press, 2003); Matthew Festenstein, *Pragmatism and Political Theory* (Cambridge, UK: Polity Press, 1997); and Russell B. Goodman, *American Philosophy and the Romantic Tradition* (Cambridge, UK and New York: Cambridge University Press, 1990).

accounts of knowledge and ideas as correspondence with truth and objective reality. This truth-as-correspondence-to-reality position was roundly critiqued by analytic and post-analytic philosophy in the wake of the later Wittgenstein's work. Pragmatism also proposed that individual action and experience in the world was the most realistic basis for decision-making. This action-oriented environment was where an interdependent version of theory-practice knowledge developed. Pragmatism's demise as a flourishing perspective on the forms and practices of science, education, and other fields came with a shift to a rationalist and logical empiricist mood in North America following WWII.

In addition to the general postmodern challenges to existing philosophical positions, the recent renaissance of pragmatism and its broad appeal has been motivated by a shift to the current historicist mood of philosophy and allied areas. As a result, "Truth is now conceived more historically and, as a consequence, pragmatism is more generally acknowledged as a position, rather than as a consequence of particular arguments and theses or as a methodological limit."<sup>4</sup> In addition to this historicism, the current range of pragmatist positions that are grounded in intellectual readings of the early twentieth century and postmodern critique have other common features. Prado<sup>5</sup> identifies four key tenets of current manifestations of pragmatism: a pluralistic empiricism, a temporalistic view of reality, a contextualist conception of reality and values, and a secular democratic individualism. Pluralistic empiricism accepts alternative explanations of phenomena on the grounds of the inherent indeterminacy of theory relationships to data. A temporalistic view of reality enshrines the need to consider the historical situatedness of current philosophical, educational, and other views. The need to comprehend reality and address values from the perspective of concrete situational contexts is a concomitant of the two previous assumptions, while the fourth, democratic principle locates choice and reality within a political legacy that addresses both individual and community needs.

In a period where design fields were only beginning to distinguish themselves, pragmatism had little to say directly to design. However, Dewey's views on the success of techno-scientific methods of inquiry and art and aesthetics as forms of communication have direct relevance to the field of design. For Dewey, art and aesthetics were modes of public communication and experience that could help transcend ideological and moral boundaries. This Deweyan view of the role of art in social and political debate, and transformation, continues to have adherents and critics.<sup>6</sup> In *Art & Aesthetics*, Dewey deplored the separation of industrial arts from fine arts on the basis of a dichotomy between objects for use (industrial arts) and those for speculation and theorizing (fine arts). Dewey saw the separation of fine arts from experience and circumstances of production in

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4 "Truth is now conceived more historically and, as a consequence, pragmatism is more generally acknowledged as a position rather than as a consequence of particular arguments and theses or as a methodological limit," Charles G. Prado, *The Limits of Pragmatism* (Atlantic Highlands, NJ: Humanities Press International, 1987), 1.

5 Ibid.

6 John Dewey, *Art as Experience*; Robert E. Innis, "Meaning, Art, and Politics: Dimensions of a Philosophical Engagement," *The Journal of Speculative Philosophy* 19:1 (2005): 55–62; Mark Mattern, "John Dewey, Art and Public Life," *The Journal of Politics* 61:1 (1999): 54–75; and John H. White, "Pragmatism and Art: Tools for Change," *Studies in Art Education* 39:3 (1998): 215–229.

galleries as artificial. He also suggested that it was unproductive to a public understanding of the function and value of art in a democratic society.

This practical account of aesthetics and creativity has potential lessons for design fields. Following James's and Dewey's emphasis on the aesthetic nature of all thinking, Coyne,<sup>7</sup> for example, sees pragmatism as an approach to creativity that avoids the excesses of artistic romanticism and cognitive rationalism in design. Pragmatism also can control the flight of interpretation from practical realities. Interpretation is, for Coyne, the central concern for creativity within pragmatism; and involves focusing on the indeterminate, but active, engagement with the meanings of objects for both designers and users.

Hickman notes that Dewey's "productive pragmatism" amounted to showing how the techno-scientific disciplines and those of arts, law, and others shared general problem-solving strategies. "Both types of enterprise, when successful, are bound to criteria by means of which the elements and facts of their selected problem areas are subjected to critical appraisal, to honesty with respect to materials, to evaluations within a peer group or community of inquiry, and to relevance with respect to cultural-historical contexts."<sup>8</sup> This critical but productive engagement with technology is a decidedly late-modern vision, consistent with the liberal democracies within which pragmatism (and design) has flourished. As Hickman<sup>9</sup> also observes, the instrumentalism and techno-scientific focus of Dewey's "productive pragmatism" was anathema to a generation of critical theorists who condemned technology as the source of human ills. Although misunderstood as a view of science and technology as general panacea, especially by early critical theory, Dewey hoped to show rather that scientific and technological pragmatism "could be applied toward the resolution of pressing social ills."<sup>10</sup>

Notwithstanding the substantial intellectual legacy of Dewey, James, and their interpreters, current conversations about the significance of pragmatism for design can flounder on the multiple meanings of the term, which vary between a philosophically informed version, and a version that "is still widely (but inadequately) equated with a kind of theory-free common-sense pragmatism in the everyday sense of the word."<sup>11</sup> For example, Fisher identifies a current simplification of the pragmatist legacy as a market-oriented practicalism: "The so called pragmatists of our time are generally concerned only with the immediate consequences of their actions: will a building meet market expectations right away or bring in a short-term profit? A true pragmatist would argue that the meaning and value of an action depends upon its consequences over time and that by attending only to immediate effects, we may in fact completely misjudge what we do."<sup>12</sup> To avoid confusion and acknowledge a certain intellectual legacy, a number of scholars have distinguished critical pragmatism from its vulgar or popular

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7 Richard Coyne, "Creativity as Commonplace," *Design Studies* 18:2 (1997): 135–141.

8 Larry Hickman, *Philosophical Tools for Technological Culture: Putting Pragmatism to Work* (Bloomington: Indiana University Press, 2001), 67.

9 *Ibid.*, 81.

10 *Ibid.*, 66.

11 Richard J. Ormerod, "Philosophy for Professionals: Towards Critical Pragmatism," *Journal of the Operational Research Society* 58 (2007): 1109. Already in the 1950s, an intellectually vacuous conception of pragmatism is mentioned as prevailing in architectural education by Oskar Stonorov, "Education for Housing Design: A Dim View," *Journal of Architectural Education* 10:1 (1955): 33–36.

12 Thomas Fisher, *In the Scheme of Things: Alternative Thinking on the Practice of Architecture* (Minneapolis: University of Minnesota Press, 2000), 130.

version.<sup>13</sup> The version of critical pragmatism of relevance here, which I will call “new pragmatism,” accepts the importance of the ideological contexts and consequences of social, educational, and other decisions, while resisting the foundational and rationalistic critiques of scholars like Habermas.<sup>14</sup>

The educational researcher and theorist, Cleo Cherryholmes, was the first to provide the relevant contrast between vulgar and critical pragmatism that is relevant for the concerns of this paper.<sup>15</sup> Cherryholmes has sustained a critical pragmatist critique of education and educational research to suggest, for example, that many versions of state-sponsored and institutionalized curriculum have negative consequences for learning and good pedagogical practice in general. Through a careful pragmatist (consequential) reading of objective and competency-oriented curricula, for example, Cherryholmes shows how the consequences for teacher professionalism and student learning are significantly curtailed. It is a similar critical and consequential reading of research and knowledge and practice proposals that design education should bring to its enterprise. The relevant neo-pragmatist version here incorporates traditional pragmatic concerns with an attempt to address postmodern concerns regarding discourses and ideology; an approach consistent with Richard Rorty’s conversations with Foucault, Derrida, Habermas, and others.

### Pragmatism and the Metaphoric Turn of Schön and Rittel and Weber

While pragmatism has found its way into various design disciplines, it is the appropriation of pragmatism in urban planning, architecture, and information technology where it appears to have had the most

13 A philosophically (and practically) vacuous concept of pragmatism is not helped by studies that use pragmatism as a designation for practical, de-contextualized problem-solving. For example, Dan Davies, “Pragmatism, Pedagogy and Philosophy: A Model of Thought and Action in Action in Primary Technology and Science Teacher Education,” *International Journal of Technology and Design Education* 13:3 (2003): 207–221.

14 Thus, Ulrich combines Schön’s work on reflective practice, Habermasian critical theory, and pragmatist thought; but resists postmodern pluralism, preferring critical systemics. He argues strongly for a “predefined” ideological position for critical pragmatism in the field of planning, and is critical of the less political stance of John Forester. Werner Ulrich, *Critical Heuristics of Social Planning: A*

*New Approach to Practical Philosophy* (Bern, Switzerland: Haupt, reprint ed. And Chichester, UK, and New York: Wiley, 1994); Werner Ulrich, “Reflective Practice in the Civil Society: The Contribution of Critically Systemic Thinking,” *Reflective Practice* 1:2 (2000): 247–268; and Werner Ulrich, “The Quest for Competence in Systemic Research and Practice,” *Systems Research and Behavioral Science* 18:1 (2001): 3–28.

15 Cleo H. Cherryholmes, *Power and Criticism: Poststructural Investigations in Education* (New York: Teachers College Press, 1988). Tom Barone notes that “Cherryholmes contrasts vulgar pragmatism with critical pragmatism, the kind of neopragmatism favored by writers such as Richard Rorty and Hilary Putnam,” Tom E. Barone, “On the Demise of Subjectivity in Educational Inquiry,” *Curriculum Inquiry* 22:1 (1992):

25–38. While Cherryholmes has revisited the negative connotations of the term “vulgar,” the distinction remains a useful one. For some of the flavor of this contrast and its function in discerning where research discourses are, see also Cleo H. Cherryholmes, “Construct Validity and the Discourses of Research,” *American Journal of Education* 96:3 (1988): 421–457; and Cleo H. Cherryholmes, “Notes on Pragmatism and Scientific Realism,” *Educational Researcher* 21:6 (1992): 13–17. For an analysis, see Jean Anyon, “The Retreat of Marxism and Socialist Feminism: Postmodern and Poststructural Theories in Education,” *Curriculum Inquiry* 24:2 (1994): 115–133.

impact. In these fields, pragmatism is collocated with the oft-cited work of Donald Schön, and Rittel's and Weber's wicked problem formulation. Although Schön's writing, including the *Reflective Practitioner*, is widely cited in a range of fields, Schön's pragmatism is less well known.<sup>16</sup> Building on Dewey's pragmatism, Schön emphasized that reflective practice in design was the characteristic property of professional practice by which expertise emerged over time. As Waks<sup>17</sup> also points out, among the major achievements of Schön was to recognize the power of metaphor: "He discovered that generative metaphors permitted us to 'construct meaning in our perpetually changing circumstances, providing continuity between our older experiences and our new situations by pointing at similarities or family resemblances between them.'" <sup>18</sup>

This vision of the productive power of metaphor echoes Wittgenstein. As Waks observes, "Schön's theory of inquiry as design can be seen as an attempt to update Dewey's theory of inquiry by substituting within it ideas from the later philosophy of Wittgenstein in place of those of Pierce."<sup>19</sup>

Productive metaphors are central to the development of design theory and models. Coyne and Snodgrass<sup>20</sup> have suggested that models of the design process may in fact be viewed as relatively useful or useless metaphors. They claim, for example, that design science as metaphor / model represents designing in ways that are disabling to advancing the field. In general, they note that "metaphors provide the means by which problems are defined and resolved, but if we are uncritical of the metaphors that prompt our actions, we may miss opportunities for useful action."<sup>21</sup> Rittel's and Weber's wicked-problem metaphor has proved to be a more

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16 Schön's commitment to Dewey is evident in Donald A Schön, "The Theory of Inquiry: Dewey's Legacy to Education," *Curriculum Inquiry* 22:2 (1992): 119–139. For a fuller account of his thinking, see Camilla Stivers and Mary R. Schmidt, "You Know More Than You Can Say: In Memory of Donald A. Schön (1930–1997)," *Public Administration Review* 60:3 (2000): 265–274.

17 Leonard J. Waks, "Donald Schön's Philosophy of Design and Design Education," *International Journal of Technology and Design Education* 11:1 (2001): 37–51.

18 *Ibid.*, 38.

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19 *Ibid.*, 50. Significantly, Schön places Wittgenstein; along with Dewey, Piaget, and Vygotsky; in his pantheon of exemplary educators. Waks links this latter claim to Donald A. Schön, "The Theory of Inquiry: Dewey's Legacy to Education," *Curriculum Inquiry* 22:2 (1992): 119–139.

20 Richard Coyne and Adrian Snodgrass, "Models, Metaphors and the Hermeneutics of Designing," *Design Issues* 9:1 (1992): 57–64.

21 Richard Coyne and Adrian Snodgrass, "Problem Setting within Prevalent Metaphors of Design," *Design Issues* 11:2 (1995): 31–61.

productive metaphor, in this sense, for design. The wicked-problem metaphor has been taken up as an appropriate formulation of problem-solving in many fields of practice, including design.<sup>22</sup> Coyne<sup>23</sup> recently has suggested that, in fact, the original intent of the “wicked” qualifier as a form of aberrant and unusual problem-solving now can be revised: all design problems are fundamentally wicked, but they also are in other fields. This current reevaluation of the cash value of “wicked” does not, however, displace the value of the metaphor as a convenient semantic packaging of the nature of design.

Rittel’s and Weber’s oft-cited formulation of the wicked nature of planning and policy problems,<sup>24</sup> which they distinguish from those of science and engineering paradigms, is very much a part of the pragmatist manifesto. It offers a vision of problem-formulation and iterative solution-making that attends to circumstances, and where solutions are judged by standards of usefulness and aesthetics. As Buchanan suggests, the wicked-problem formulation claims that “there is a fundamental indeterminacy in all but the most trivial design problems.”<sup>25</sup> As a result, the designer does not so much solve a problem, but “must discover or invent a particular subject out of the problems and issues of specific circumstances.”<sup>26</sup>

Given its origins in considerations about planning practices, it is not surprising that Rittel’s and Weber’s heuristic has been developed in the fields of urban and environmental planning and design.<sup>27</sup> Bryan Norton, for example, has foregrounded the need for (pragmatic) wicked-problem perspectives in environmental planning to address issues such as sustainability.<sup>28</sup> He contrasts the limitations of conventional linear modeling and decision-making in environ-

22 For example, see David Watson, “Managing in Higher Education: The ‘Wicked Issues,’” *Higher Education Quarterly* 54:1 (2000): 5–21. Marshall W. Kreuter, Christopher De Rosa, Elizabeth H. Howze, and Grant T. Baldwin, “Understanding Wicked Problems: A Key to Advancing Environmental Health Promotion,” *Health Education Behaviour* 31:4 (2004): 441–454; Donald Chisholm, “Problem Solving and Institutional Design,” *Journal of Public Administration Research Theory* 5:4 (1995): 451–492; and Gerald Emison, “The Complex Challenges of Ethical Choices by Engineers in Public Service,” *Science and Engineering Ethics* 12:2 (2006): 233–244. Emison deals with “reflective pragmatism” as an approach which employs Dewey’s five-stage process of inquiry to engage the ethical complexity inherent in the practice of engineering in the public service.

23 Richard Coyne, “Wicked Problems Revisited,” *Design Studies* 26:1 (2005): 5–17.  
 24 In Horst W. Rittel and Melvin M. Webber, “Dilemmas in a General Theory of Planning,” *Policy Sciences* 4 (1973): 155–169. Herbert Simon uses the term “ill-structured” to attempt to capture these ambiguities and contingencies in design decision-making. Herbert A. Simon, “The Structure of Ill-Structured Problems,” *Artificial Intelligence* 4:3–4 (1973): 181–201.  
 25 Richard Buchanan, “Wicked Problems in Design Thinking,” *Design Issues* 8:2 (1992): 15–16.  
 26 *Ibid.*, 16.

27 I deal with specific texts and scholars below. For some further versions, see Donald Ludwig, Marc Mangel, and Brent Haddad, “Ecology, Conservation and Public Policy,” *Annual Review of Ecology and Systematics* 32:1 (2001): 481–517. *Environmental Pragmatism*, Andrew Light and Eric Katz, eds. (London and New York: Routledge, 1996).  
 28 Bryan G. Norton, *Searching for Sustainability: Interdisciplinary Essays in the Philosophy of Conservation Biology* (New York: Cambridge University Press, 2002); *Sustainability: A Philosophy of Adaptive Ecosystem Management* (Chicago: University of Chicago Press, 2005); and Bryan G. Norton and Douglas Noonan, “Ecology and Valuation: Big Changes Needed,” *Ecological Economics* 63:4 (2007): 664–675.

mental planning to a wicked- problem formulation; observing that, in environmental policy and planning, “there is no single, accepted formulation of the problem; and answers are often in more-or-less terms in which planners and managers at best can find reasonable, but shifting balances among competing interests and values ... the correct formulation of the problem cannot be known until a solution is accepted.”<sup>29</sup> This vision of the essentially pragmatic nature of urban planning and design, combined with critical perspectives, also has been championed by John Forester and, more recently, Charles Hoch.<sup>30</sup> Thus, Forester argues that wherever urban planners work, “They will soon have to do the complex work of *anticipating*—and responding reflexively to—the pressures of *political power* and the challenges of working with, even reconciling *value differences*.... I try to explore planning practice by taking seriously but not uncritically planners own accounts of the challenges, accounts, and lessons—the friction—of their own practice.” Hoch<sup>31</sup> meanwhile suggests that a pragmatist outlook on evaluating planning decisions should displace rationalist approaches as more appropriate to the wicked problems of planning.<sup>32</sup> He concludes that: “The pragmatic approach reviews the plausibility of plan alternatives; the similarity binding plan and product, the breadth and depth of the consensus the plan informs and the responsibility the plan inspires among those able to follow it. These prudent pragmatic judgments provide theoretical coherence for the practical common sense that wise planners acquire on the job. Instead of promoting an exaggerated distance between the judgments of experts and practitioners, it invites a critical engagement.”<sup>33</sup>

29 Bryan G. Norton, “Building Demand Models to Improve Environmental Policy Process” in *Model-based Reasoning in Scientific Discovery*, L. Magnani, N. J. Nersessian, and P. Thagard, eds. (New York: Kluwer Academic/Plenum Publishers, 1999), 194.

30 John Forester, *Critical Theory, Public Policy, and Planning Practice: Toward a Critical Pragmatism* (Albany: State University of New York Press, 1993), 98. Also see John Forester, “Creating Public Value in Planning and Urban Design: The Three Abiding Problems of Negotiation, Participation and Deliberation,” *Urban Design International* 3:1 (1998): 5–12 and “Reflections on the Future Understanding of Planning Practice,” *International Planning Studies* 4:2 (1999):175–189. Hoch’s work is wide-ranging, but in Charles J. Hoch, “Evaluating Plans Pragmatically,” *Planning Theory* 1:1

(2002), 66, he contrasts rationalist and pragmatic approaches to planning evaluation: “When we evaluate plans, our judgments do differ as we select alternatives, compare consequences, conduct critiques, or assess competence. But these ideas flow less from the logic of rational method and more from fitting purposes to context, helping blind persons learn to speak to one another. A pragmatic viewpoint encourages us to refine our practical reasoning critically and contextually, but without the confinement of rational precision, fit, principle, and expertise.” In Charles J. Hoch, “Pragmatic Communicative Action Theory,” *Journal of Planning Education and Research* 26:3 (2007): 272–283, Hoch concludes with the practical focus of a pragmatic account of planning theory thus: “Adopting a pragmatic orientation shifts debate about political and moral

differences for planning from doctrinal disputes about knowledge claims to a focus on empirical and interpretive claims about the effect of particular urban changes and planning activity.” (280).

31 Charles J. Hoch, “What Can Rorty Teach an Old Pragmatist Doing Public Administration or Planning?” *Administration Society* 38:3 (2006): 389–398.

32 Charles J. Hoch, “Evaluating Plans Pragmatically,” *Planning Theory* 1:1 (2002): 53–75.

33 *Ibid.*, 70.

In his recent book, *In the Scheme of Things*,<sup>34</sup> Thomas Fisher connects a consideration of architecture and pragmatism to the need to revitalize the discipline. Fisher sees the pragmatist architectural legacy in North American environment and architecture, including Frank Lloyd Wright's work and others.<sup>35</sup> In a sustained treatment, Betsky and De Long,<sup>36</sup> for example, develop a particular account of the pragmatist architectural vision of James Gamble Rogers—visible in Yale and elsewhere. They see Roger's vision as "an architectural practice that connected the rational strains inherent in both Neo-Gothicism and Classicism with the picturesque tendencies also present in both, while rejecting both hierarchies and symmetries and systems of preplanned order and mystical ideas about the inherent rightness of organic form."<sup>37</sup> The late-modern and current dominance of formalism and the postmodern in architectural theory displaced these pragmatic material concerns. However, having recently moved beyond a period in which the postmodern has dominated intellectual conversation, architecture and the built environment also have begun to reconsider the merits of pragmatism in an environment of global competition.<sup>38</sup> Thus, Michael Speaks<sup>39</sup> argues that the architectural fetish with postmodernism in the '80s and '90s has been superseded by a confrontation with professional realities, which must now address practical problem-solving and innovation through a pragmatist approach that values the recent theoretical past, but must supersede it. He concludes that, to survive, architectural thinking "must focus on time, interactivity, and innovation, and give up its obsession with space, genius and the Utopian search for the new."<sup>40</sup>

34 Thomas Fisher, *In the Scheme of Things: Alternative Thinking on the Practice of Architecture* (Minneapolis: University of Minnesota Press, 2000). And see his "Letter to the Editor" on contemporary confusion and the need for engagement with neo-pragmatism in *The New York Times* (December 1, 2000): "Pragmatism is not against theory, nor is it an 'imperialist gambit' by American thinkers. Pragmatism urges us to look to the consequences of what we do; which the discipline of architecture, infused with an idealistic focus on intentions; frequently resists. And it has deep roots in modern European thought; which architects, unfamiliar with the work of the 'neo-pragmatist' philosopher Richard Rorty, might easily miss. The architectural community would greatly benefit from a

more serious engagement with the ideas of pragmatism, which can illuminate some of the blind spots in architecture today."

35 For some thoughts on the pragmatist outlook of Frank Lloyd Wright and his contemporaries, see Peter Kucker, "Framework: Construction and Space in the Architecture of Frank Lloyd Wright and Rudolf Schindler," *The Journal of Architecture* 7:2 (2002): 171–183.

36 Aaron Betsky and David G. De Long, *James Gamble Rogers and the Architecture of Pragmatism* (New York and Cambridge, MA: Architectural History Foundation; MIT Press, 1994).

37 *Ibid.*, 65.

38 I focus on architecture and architectural education, although note that Susan Savage tries to put Dewey and Schön in conversation with urban design education and new forms of knowledge production in universities. Susan Savage, "Urban Design Education: Learning for Life in Practice," *Urban Design International* 10 (2005): 3–10.

39 Michael Speaks, "Theory Was Interesting ... but Now We Have Work," *Architectural Research Quarterly* 6 (2003): 209–212.

40 *Ibid.*, 212.



This respecification of architectural education and practice must, it seems, tread a path between both critical and vulgar tendencies. Kathryn Moore,<sup>41</sup> for example, suggests that pragmatic skepticism towards the prevailing romantic metaphor of visual thinking in design could produce a more educationally useful version. The current version, she suggests, “mystifies design discourse, is responsible for the invidious distinction made between theory and practice and lies at the heart of the dangerous argument that it is, to all intents and purposes, impossible to even teach design.”<sup>42</sup> This is so because such primitive form of thinking that escapes language and is, therefore, fundamentally idealized and abstract. Guy and Moore,<sup>43</sup> meanwhile, view the pluralist imagination exercised in architectural conceiving as encouraged by pragmatism and as an advantage to resisting prevailing notions of technical and scientific certainty in the field of sustainable architecture in particular. Similar to Ockman and others,<sup>44</sup> the authors want to see how a pragmatist approach to designing with technical and social constraints in mind might be combined with an eye to critical theory into a “critical pluralism” that echoes concerns mentioned about critical pragmatism.

Information technology design also has attempted to engage with new pragmatism. As a response to the limitations of rationality in design, Richard Coyne<sup>45</sup> has been a leading voice in addressing the potential of pragmatism to inform design, and claiming that the characterization of design problems as “wicked,” following the Rittel and Weber formulation, is essentially a pragmatic proposal: “Rittel and Webber ... argued persuasively, and in terms understandable to the systematizers, that the design process, and any other profes-

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41 Kathryn Moore, “Overlooking the Visual,” *The Journal of Architecture* 8:1 (2003): 25–40.

42 Ibid., 26.

43 Simon Guy and Steven A. Moore, “Sustainable Architecture and the Pluralist Imagination,” *Journal of Architectural Education* 60:4 (2007): 15–23.

44 *The Pragmatist Imagination: Thinking about “Things in the Making,”* Joan Ockman, ed. (New York: Princeton Architectural Press, 2000).

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45 Richard Coyne, “Wicked Problems Revisited,” *Design Studies* 26:1 (2005): 5–17. Coyne is not alone though in seeing the need for critical and social dimensions to information technology design. See, for example, Geraldine Fitzpatrick, *The Locales Framework: Understanding and Designing for Wicked Problems* (Dordrecht and London: Kluwer Academic Publishers, 2003).

sional task, is only very poorly explained in terms of goal setting, constraints, rules, and state-space search.... Problem-setting is a contingent, fraught, and sometimes consensual process for which there is no authoritative set of rules, criteria, or methods.”<sup>46</sup> Citing Dewey and Rorty, Coyne shows that pragmatism highlights the fact that all scientific and professional judgments are imbued with aesthetic considerations: the theory-practice distinction vanishes when considering the actual practices of designers.

Following Coyne’s lead on the design of technology and information systems, Wakkary<sup>47</sup> chooses complexity to designate the typically messy contingent factors and problem formulations typical of interaction design and HCI. Wakkary argues for designing as “a dynamic process that is improvisational and responsive to the changing design situation.”<sup>48</sup> Wakkary also compares the improvisational, but situated, response of reflective design practice to Schön’s description of “frame experiments” by the designer.<sup>49</sup> Referring to the Schön the pragmatist, Keulartz et al.<sup>50</sup> extend the frame experiment metaphor to include double vision<sup>51</sup> as part of designer competency to resolve tensions in problem solutions. According to Wakkary, Coyne<sup>52</sup> and Gedenryd,<sup>53</sup> root the reflective practitioner model in pragmatism of Dewey, Heidegger, and Rorty, particularly where the designers interpret the effects of their designs on the situation at hand.

### **Beyond Wicked Problems: Rorty’s Distinctive Contribution: Vocabularies, Redescription, and Design**

Rorty is no stranger to the power of metaphor. In his landmark book *Philosophy and the Mirror of Nature*, Rorty challenged the familiar ocular metaphor of the mirror of philosophical and empiricist discourse as an accurate reflection of the world.<sup>54</sup> Rorty replaces

46 Coyne, “Wicked Problems Revisited,” *Design Studies*: 6.

47 Ron Wakkary, “Framing Complexity, Design and Experience: A Reflective Analysis” in *Digital Creativity* 16:2 (2005): 65–78.

48 *Ibid.*, 67.

49 Donald A. Schön, *The Reflective Practitioner: How Professionals Think in Action* (New York: Basic Books, 1983), 150. Schön describes frame experiments as the iterative modeling and revision of solutions to design problems through a range of strategies, including sketching, scenarios, etc. The reflective engagement with the design situation itself constitutes the nature of the response, a familiar design experience.

50 Jozef Keulartz, Michiel Korthals, Maartje Schermer, and Tsjalling Swierstra, “Pragmatism in Progress: A Reply to Radder, Colapietro and Pitt,” *Techné: Research in Philosophy and Technology* 7:3 (2004). Available at: <http://scholar.lib.vt.edu/ejournals/SPT/v7n3/reply.html> (last accessed February 2, 2008). Schön is interested in the creative and constructive resolution of policy controversies. They require what Schön calls “frame restructuring”—a necessary condition for frame restructuring. The recasting and reconnecting of things and relations in the perceptual and social fields is frame reflection.

51 Double Vision is “the ability to act from a frame while cultivating awareness of alternative frames,” Donald A. Schön and Martin Rein, *Frame Reflection: Toward the Resolution of Intractable Policy Controversies* (New York: Basic Books, 1994), 207.

52 Richard Coyne, *Designing Information Technology in the Postmodern Age: From Method to Metaphor* (Cambridge, MA: Leonardo Books, MIT Press, 1995).

53 Henrik Gedenryd, *How Designers Work* (Lund: Lund University, 1998).

54 Richard Rorty, *Philosophy and the Mirror of Nature* (Princeton: Princeton University Press, 1979).

the ocular metaphor with a discursive one in which philosophy is replaced by an enlarged conversation among texts of science and the humanities to help transcend current dead and misleading metaphors. Such metaphoric transition from old to new also has been signaled by Schön.<sup>55</sup>

Rorty's new pragmatism<sup>56</sup> takes up the instrumental account of knowledge and ideas in pragmatism, but rejects the Deweyan view of the privileged status of science methods in engaging inductively and deductively with the world. In his later work, Rorty<sup>57</sup> emphasizes the power of vocabularies to achieve public and private aims: "Keenly aware of the contingency of human belief and the precarious status of our liberal institutions, Rorty insists that we keep our pursuit of private desires and public expectations separate—publicly focus on developing practical alternatives for resolving differences through compromise and consensus; privately imagine possibilities for self-development that generate and celebrate new differences."<sup>58</sup> Rorty's anti-foundational, pragmatist program looks to the practical benefits and consequences of an enlarged reading list and conversation. Rorty, like Dewey, recognizes that the validity of poetry or policy does not flow from the command of more inclusive propositions about human nature or matter, but the consequences they evoke. Thus, "We need to pay attention to consequences—the quality of the edification that poetry delivers or the quality that family planning policy offers a particular clientele. In such cases, we cannot escape the contingency of human judgment in specific cultural contexts."<sup>59</sup>

Hiley and Guignon suggest that one interpretation for vocabulary, as Rorty's uses it, is Kuhn's notion of "agreed-upon disciplinary matrix" which underpins normal discourse and practice in

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55 Terry Barnes, "Metaphors and Conversations in Economic Geography: Richard Rorty and the Gravity Model," *Geografiska Annaler: Series B, Human Geography* 73:2 (1991): 111–120.

56 I'm using Charles Hoch.

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57 Here, I'm thinking of the work that followed his explicit pragmatist manifesto: Richard Rorty, *Consequences of Pragmatism: Essays, 1972–1980* (Minneapolis: University of Minnesota Press, 1982); and particularly Richard Rorty, *Contingency, Irony, and Solidarity* (Cambridge, MA and New York: Cambridge University Press, 1989); and *Objectivity, Relativism, and Truth* (Cambridge, MA and New York: Cambridge University Press, 1991), where the instrumental value of redescription and vocabularies are on a level playing field, where science and the humanities have an equal chance and stake in dealing with truth (but not "Truth").

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58 Hoch, "What Can Rorty Teach an Old Pragmatist Doing Public Administration or Planning?" *Administration Society* 38:3 (2006): 395.

59 *Ibid.*, 396.

the sciences.<sup>60</sup> Malachowski<sup>61</sup> also makes the Kuhnian connection, but points to the similarities between vocabulary in Rorty's writing and the "language game" in Wittgenstein. Prado rightly, to my mind, makes a terminological distinction between "discourses" and "dialects" which is relevant to the overall pursuit of design as discipline and sub-disciplinary conversations. Prado suggests that when Rorty talks of vocabularies, discourses, and metaphor sets (synonymously), the scope of the terms are as broad as Foucault's discourse or Kuhn's disciplinary matrix. Exemplifying dialects as the working jargon of physicists or that of graphic artists, Prado describes dialects as "specialized implementations of metaphor-sets."<sup>62</sup> Discourses are "ways of speaking and thinking that shape and condition what we do and say, not just specialized pursuits but in an overall way. For example, consider the differences between the thought and conversation of a sixteenth-century theistic serf and a twentieth-century atheistic technician."

The key mechanism Rorty uses to reinforce the merits of his own self-creative and public project is a synergistic redescription of particular readings of past thinkers. Rorty demonstrates the technique by drawing simultaneously on Freud, Derrida, Orwell, Nabokov, Wittgenstein, and others to do this.<sup>64</sup> His use of this rhetorical and literary technique itself instantiates the practice he observes in his intellectual peers and predecessors. Thus, Rorty wants to show how change or "progress" happens when a visionary poet, philosopher, musician, or writer redescribes aspects of the world in new ways with new metaphors, and gets others to talk this way. Available vocabularies are tools that have proved useful for some purposes and not others. His method has design parallels in that appropriating the past in text and form and transforming it into designed outcomes produces a distinctive (self-creative) interpretation of the physical world, which also remains open to public interpretation and use for social and ethical projects such as sustainable design or social critique.

One possible consequence of taking the new pragmatism's concern with language seriously is to accept that the vocabulary of design is not something that we should be too concerned to pin down.<sup>65</sup> On the one hand, as Whitfield and Smith<sup>66</sup> suggest, the significance of a consensual dialect of design is to help legitimize a professionalism some design disciplines seek. This entails combining a program for professional recognition with an agreed upon set of terms with legal, membership, and other consequences. However, at the level of concrete practice, terminological definitions have different values and processes of negotiation. For example, "A neo-pragmatic planning view suggests that the choice of linguistic form should be determined on the basis of the purpose(s) and goals of the planning process and not on the basis of what accords better with reality. Categories such as 'environmentalist' and terms such as

60 Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 3rd ed. (Chicago: University of Chicago Press, 1996).

61 Alan R Malachowski, *Richard Rorty* (Teddington: Acumen, 2001).

62 Prado, *The Limits of Pragmatism* (Atlantic Highlands, NJ: Humanities Press International, 1987), 147.

63 *Ibid.*, 147.

64 It is particularly, though not exclusively, Davidson's theory of meaning and language in Donald Davidson, *Inquiries into Truth and Interpretation* (Oxford and New York: Clarendon Press, 1984) that Rorty brings in. Although, like other appropriations by Rorty, Davidson challenges some of the interpretations of his work.

65 This suggests that the concerns of some to pin down a language of design may be misplaced (e.g., Sharon Poggenpohl, Praima Chayotsahakij, and Chujit Jeamsinkul, "Language Definition and Its Role in Developing a Design Discourse," *Design Studies* 25:6 (2004): 579–605). For a more complex account of how sources are as a language of inspiration in design, see Claudia Eckert and Martin Stacey, "Sources of Inspiration: A Language of Design," *Design Studies* 21:5 (2000): 523–538. And for categorization systems underlying product semantics, see Uday A. Athavankar, "Categorization: Natural Language and Design," *Design issues* 5:2 (1989): 100–111.

66 Thomas W. A. Whitfield and Gillian Smith, "The Social Standing of the Design Professions: An Intercultural Comparison," *Journal of Intercultural Studies* 24:2 (2003): 115–135.

'ecological integrity' are therefore fluid, that is, they involve characteristics, properties, and descriptions that are open and evolving over time rather than being rigidly definable, fixed, and real. The choice of linguistic forms, categories, names, and labels should be in the service of our goals rather than being their master."<sup>67</sup> The question design might ask is whether a flexible pragmatism in the interpretation of disciplinary terms could be compatible with the formalization necessary for social and professional legitimization.

In the specific context of academic design research, the notion of vocabulary or metaphor set discussed here as a project for design scholarship aims to take up the existing disciplinary considerations of neopragmatism in design, and suggest this as a vision or framework of design scholarship that novice scholars (students) should embrace. Conventional Deweyan and Jamesian pragmatism, supplemented by the now familiar perspectives on reflection in action of Donald Schön and Rittel's and Weber's characterization of wicked problems in design take us a long way along this path. Combined with Rorty's proposal that the projects of private self-creation and public significance may both be achieved through a broader reading of the textual artifacts of science, humanities, and culture in general is a project that connects with certain aspirations of the design field and its communities.

Responses to the possibilities of a neo-pragmatist approach to design research have been mixed. In the field of planning and public administration, Hoch argues that: "Rorty has little to say that public administrators or planners can put to practical use, but I think he does help us understand why we should replace metaphysical belief with social hope. This is enough for me."<sup>68</sup> Noting a general absence of consideration of the built environment in pragmatist writing, Ockman,<sup>69</sup> meanwhile, argues that the pragmatist tradition is unlikely to help with revitalized space, place, and scale, especially transnational, and post-national projects, "since pragmatists have been hard pressed to explain how a general predisposition to things public should translate into spatial and place-based projects."<sup>70</sup> More specifically, Ockman dislikes the linguistic turn in the neo-pragmatism of Rorty, which envisions "a philosophy of conversation among different, even incommensurable vocabularies with no other foundation than agreements reached through them."<sup>71</sup> She wants to reinstate Dewey's focus on the significance of experience, and follow the kind of pragmatist aesthetics Shusterman,<sup>72</sup> for example, offers.

These are, I suggest, limited readings of the potential of Rorty's approach to invigorate and inform scholarly design research. What new (critical) pragmatism offers is scope for the self-creative and public projects of individuals to be achieved through appropriations and transformation of the past in built and designed forms. Such an approach accepts the inherent wicked nature of design problems, and accepts the creative quality of the theory-practice inter-

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- 67 Tazim B. Jamal, Stanley M. Stein, and Thomas L. Harper, "Beyond Labels: Pragmatic Planning in Multistakeholder Tourism-Environmental Conflicts," *Journal of Planning Education and Research* 22: 2 (2002), 171.
- 68 Ibid., 391.
- 69 *The Pragmatist Imagination: Thinking about "Things in the Making,"* Joan Ockman, ed. (New York: Princeton Architectural Press, 2000).
- 70 Ibid., 267.
- 71 Ibid., 11.
- 72 Jerold Abrams, "Pragmatism, Artificial Intelligence, and Posthuman Bioethics: Shusterman, Rorty, Foucault," *Human Studies* 27:3 (2004): 241–258, claims Shusterman's approach is the best and most internally diverse in the literature incorporating self-fashioning on linguistic and somatic levels, feminism, African-American culture, Asian studies, American pragmatism, and cosmopolitan democracy. The fundamental split between Rorty and Shusterman is their position on Dewey's notion of experience. While Shusterman wants to revitalize this in relation to aesthetics, Rorty essentially shifts the focus to language and vocabularies. Shusterman has coined the phrase "somasthetics" to refer to subdisciplines around the body and its experience. For Shusterman's work see, for example, Richard Shusterman, *Analytic Aesthetics* (Oxford: Basil Blackwell, 1989); *Pragmatist Aesthetics: Living Beauty, Rethinking Art* (Oxford, UK and Cambridge, MA: Basil Blackwell, 1992); *Performing Live: Aesthetic Alternatives for the Ends of Art* (Ithaca, NY: Cornell University Press, 2000); and *Surface and Depth: Dialectics of Criticism and Culture* (Ithaca, NY: Cornell University Press, 2002).

action that Schön proposes as distinctive for design in general. It also sees neither the humanities nor the sciences or design as having special purchase on truth, but equally pursuing truths whose merits must be judged by their consequences.

Recent proposals about the form that design theories should take and how such theories differ from both art and science often make no mention of new pragmatism.<sup>73</sup> This is due, among other things, to the fact that new pragmatism deliberately resists pigeonholing through the kinds of rhetorical and stylistic ploys evident in Rorty's writing. In doing this, Rorty himself follows a tradition already evident in the later Wittgenstein's aphoristic approach to philosophy, and Derrida's deliberate avoidance of entrapment through playful toying with language. This paper suggests that neo-pragmatism; with its concerns for traditional Deweyan and Jamesian concerns, but also with strategies of reappropriation and the development of distinctive vocabularies in an atmosphere of cultural and ideological pluralism, should underpin design scholarship. Such a project will encourage methodological pluralism in approaches to the inherently wicked and indeterminate nature of design projects.<sup>74</sup> As Rorty suggests, projects of private self-creation evident in the work of Proust, Nabokov, and others emerges with new vocabularies—distinctive uses of language and rhetorical form whose aesthetic power strikes us as distinctive and potentially incorporable within our own self-description. This creative and aesthetic angle on the function of vocabularies in design allows for the creative individual dimension of design practice to show through in designed outcomes and forms. At different moments, when social and ethical public projects form part of our current desire for solidarity and community, we may appropriate distinctive texts and objects—even those whose stylistic innovation and creativity remain conservative—into our own socially and ethically sensitive design projects.

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73 Ken Friedman, "Theory Construction in Design Research: Criteria: Approaches, and Methods," *Design Studies* 24:6 (2003): 507–522.

74 Robert B. Johnson and Anthony J. Onwuegbuzie, "Mixed Methods Research: A Research Paradigm Whose Time Has Come," *Educational Researcher* 33:7 (2004): 14–26. For sustained treatments of the pragmatist rationale for mixed methods, see John W. Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 2nd ed. (Thousand Oaks, CA: Sage Publications, 2003); and Abbas Tashakkori and Charles Teddlie, *Mixed Methodology: Combining Qualitative and Quantitative Approaches* (Thousand Oaks, CA: Sage Publications, 1998).