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WORKING *WITH*: EXPANDING AND INTEGRATING THE PRAGMATIC METHOD FOR A WICKED WORLD

By

Danielle Lake

A DISSERTATION

Submitted to Michigan State University In partial fulfillment of the requirements for the degree of

Philosophy—Doctor of Philosophy

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ABSTRACT

WORKING *WITH*: EXPANDING AND INTEGRATING THE PRAGMATIC METHOD FOR A WICKED WORLD

By

Danielle Lake

This dissertation argues the burgeoning scholarship on wicked problems is both highly compelling and applicable to many of the public problems we confront. It is compelling because it articulates strategies for realizing a more comprehensive understanding of many of the problems we face today as a public; it is highly applicable because it provides us with a fruitful means of addressing these problems. The scholarship – as it stands in 2014 however – needs to be *broadened* and *deepened*, especially given how many dangerous wicked problems we face. The wicked problems field can be deepened by reviewing and consolidating its recommendations and through this work delying more deeply into a methodology that best supports collaboratively meliorating such problems. For instance, the various processes most recommended for tackling these problems – processes like bottom-up participation, to trans-disciplinarity, to situational and experiential learning – not only descend from the Pragmatic Method, but could also currently prosper from a more systematic engagement with Pragmatism, especially as conceptualized through a feminist lens where problems of power are systematically addressed. In the end, I argue effective responses to wicked problems require context-sensitive, dialogue-driven, actionbased engagement models. Through a series of case studies the value of the recommendations within becomes apparent, suggesting there is a need to reimagine both the role of expertise and the boundary spaces between our institutions (as well as the structure of our institutions themselves). The potential for our collective future is quite exciting: potential to prepare future

world citizens for engaging one another across their differences as well as the potential to encourage the re-envisioning of our institutions (and the creation of new) so they are more intentionally aimed at bridging our current, isolating gaps and thus fostering collective creativity and ingenuity. Copyright by DANIELLE LAKE 2014

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INTRODUCTION: WICKED PROBLEMS AND THE NEED TO REIMAGINE INSTITUTIONAL BOUNDARIES

The Current Situation

Our techno-scientific, specialized, and fragmented world has exacerbated a long list of high-stakes public problems. We are, for instance, currently facing extreme levels of poverty and deprivation, polluted air, water and land, the rapid depletion of our natural resources, weapons capable of annihilating entire peoples and lands, among what in truth appears to be a seemingly endless list of other daunting social messes. Indeed, our current, dominant culture has led to massive, unsustainable systems of all kinds – from manufacturing, to transportation, to health care – which, though designed to fulfill a need, are also causing much harm. Given their own momentum and outdated policies, systems intended to promote public goods – like health care, public education, and others – often extend and exacerbate our problems while working against change. As we fail to systematically address these public messes they turn quickly from largescale, complex, high-stakes problems into crises. The housing crisis beginning in 2007 is a prime example. Because of a lack of preparedness and flexibility, for instance, the U.S. housing crisis turned from a difficult, complex problem into a social mess and then into a full-blown crisis (and a recession). I would characterize the above and other massive social crises as alarming, but the social response to such widespread problems can often be better characterized as apathetic, indifferent, or perhaps even catatonic. The relative lack of urgency felt around many of these crises, and the resulting sluggish, fragmented and incomplete responses, are confounding given our deep, global interdependencies -- from water and food, to energy, economic stability, medicine and telecommunications (among other various technologies).

On the other hand, the competitive and aggressive, interest-driven, zero-sum political climate creates and extends gridlock over these crises: serving most often only to prolong and intensify current and future suffering.¹ Returning to the U.S. housing crisis, Can Alpaslan and Ian Mitroff list the loosening of credit, the culture on Wall Street, the failure to understand systemic risks, a lack of transparency, the removal of regulations, the housing bubble, the undervaluing of risk management, a failure to learn from past crises, overconsumption, as well as business schools and climate change as key contributing factors (among many more) (30). While the list of contributing factors to the crisis is quite large and capable of almost infinite expansion, Alpaslan and Mitroff say that behind these we see some common human – and thus institutional - tendencies, including: the promotion of individual/institutional self-interest, the lack of oversight and of collaboration between agencies, a failure to focus on more than one issue at a time and an assumption that doing so "only dilutes our already limited resources and energy" (33). Under our current system, activists and lobbyists firmly ground themselves in one corner and pursue their goals with dogged, single-minded determination. "Experts" tend to work in general isolation, operating under a competitive – instead of a collaborative – paradigm. Gridlock is a common result and it not only prevents possible ameliorative changes, it also prevents us from *learning* from potential mistakes. These structural and institutional models and processes tend towards the prolongation of social injustice and suffering. The short-sighted stop-

^{1.} As a quick example of the aggressive, loyalty driven win-lose political climate (relevant in later chapters), we could also review the relatively long history of attempts at health care reforms and their untimely deaths given intense backlash towards reform efforts. Even though there has been general consensus that the system in place is not working well, implementing change has been extremely difficult and our failure to respond in a timely manner has left many U.S. residents to suffer the consequences of an unfair and unjust system (explored in chapter five).

gap solutions are not ultimately getting us – whether "us" is defined as U.S. residents or all global citizens – very far at all.²

Wicked Problems

Many of our public problems are also deeply intertwined with others. So much so that effecting change in one arena tends to tug on innumerable strands connected to many, many other problems, shifting and shuffling the situation in/for many others. This means effective action will require communication across many perspectives. It also means we will need to ensure we integrate the information we have with the values at play. With a globally interconnected world facing a myriad of high stakes and complex public problems, we need to reconsider our approach. The recent emergence of a relatively new field of interdisciplinary scholarship on "wicked problems" is primed to help us do just this. It has the potential to redirect our attention so we can better see these complex, high stakes crises in a more comprehensive light. This literature is, I contend, both highly compelling and applicable to the large-scale problems we continue to ignore at our own peril. It is compelling because it articulates what I will argue is an inclusive and holistic understanding of the many public problems we face today. It does this by painstakingly analyzing problems and the conditions under which problems become "wicked," contrasting these with complex and simple problems (Salwasser). While "tame" problems are easily defined and resolved with an appeal to some expert, wicked problems are not so clearly definable, nor amenable to expert intervention, nor even resolvable in the traditional sense (Rittel and Webber). When facing a wicked problem, that is, we are confronting extreme levels of complexity and uncertainty, a conflicting list of objectives under

^{2.} We can see the problems with a competitive, expert-driven model even when we examine slightly less complex problems. For instance, the rampant use of antibiotics in our current system and the resulting problems have led experts, working in relative isolation, to develop more and more "kinds" of antibiotics, instead of reconsidering our approach holistically.

situations where both action and in-action carry high stakes consequences (many of which are often unforeseeable).

The Wicked Problems scholarship is extremely applicable because it also provides us with a far better means of addressing these problems, pushing us to move beyond expert-driven, competitive, win-lose strategies. While multi-disciplinarity encourages us to acknowledge and appreciate one another's disciplines, and interdisciplinarity appreciates students' individual and team efforts to develop expertise in multiple fields and thus transcend disciplinary limitations (Repko), and cross-disciplinarity acknowledges the value of bringing together a range of experts to confront these problems (O'Rourke and Crowley), the WP field of scholarship pushes an explicit, intensive, iterative engagement with not just a wide-range of experts, but with the public as well. This field points us to the value of local knowledge, the need for public engagement and thus pushes scholars to reconsider their role.

The history of interdisciplinarity has largely focused on and been concerned with work within educational institutions. The current, most popular definition of interdisciplinarity comes from Boix Mansilla: "the capacity to integrate knowledge and modes of thinking in two or more disciplines to produce a cognitive advancement" (14). Julie Klein notes that interdisciplinarity requires not only disciplinary depth and breadth, but also synthesis (212). This is an enormous step in the right direction, but to more directly address the problems we are facing today we need to take another step *out of* the castle-like infrastructure of higher education, and step *into* our wider-communities.³

^{3.} Transdisciplinary sustainability science (TDSS) begins to do the work of moving out into our communities to solve our problems. TDSS recognizes the need for teamwork which includes a number of disciplines and communities. TDSS, then, begins to democratize science in critical ways, opening up new avenues for public engagement on real world, high stakes, complex problems (Hall and O'Rourke, 2013, 1).

Thus, in this study I argue the wicked problems scholarship can play a seminal role in systematically reconstituting our institutions and their practices in order to better promote and reward genuine and inclusive collaboration more likely to tackle the high stakes social problems we face. The following chapters demonstrate the vital role of this scholarship by analyzing the dimensions of various wicked problems and examining historical, current, and possible future examples of the kind of work we need for effective, ameliorative change.

The Pragmatic Method

Chapter one is thus devoted to analyzing this scholarship and its relevance. In the analysis of wicked problems (WP), however, it becomes clear that this field of scholarship generally fails to explicitly engage what I will argue is an essential underlying methodology: the pragmatic method. Pragmatism gives primacy to context and experimentalism; it calls for public engagement, aims for integration, and - recognizing the role of fallibilism - works toward nonideal progress. Hence, chapter two demonstrates that the pragmatic method, as a philosophy dedicated to addressing real problems, is uniquely placed to support on-the-ground ameliorative efforts. Given that the WP scholarship has yet to be applied to many problems outside of environmental concerns (and city planning), first steps on the road to transformation can be taken by making strides to both *broaden* and *deepen* the field. One important way to go about *broadening* the WP scholarship begins by applying this work to other relevant fields, by exposing various scholars and policy makers to these issues. For example, one could easily engage a wide range of people in this work, including but not limited to: community members, non-profit and business leaders, scientists, feminists, bioethicists, political scientists, sociologists as well as public policy scholars and advocates, and so on. Current and future efforts to

disseminate this work across disciplinary and institutional boundaries will take one more step in the right direction.

Chapter two also reveals that the WP field is profitably *deepened* by reviewing and consolidating its recommendations and (through this work) delving into a methodology that best supports collaboratively ameliorating these social messes. That is, the various processes most recommended for tackling these problems – processes like bottom-up participation, interdisciplinarity, to situational and experiential learning – not only descend from a Deweyan pragmatic method but could also currently prosper from a more systematic engagement with it. Since the pragmatic method endorses experiential learning, value pluralism and fallibilism, since it seeks to reconnect our values with our sciences (still a consistent and enduring failure on the part of many of our experts), and drives home the need for context, the role of doubt, and the value of public engagement, it is essential to collaboratively tackling wicked problems.

In addition, chapter two argues John Dewey's larger body of work gives clarity to our institutional troubles. Dewey, most often noted as one of the founders of American Philosophy, is also well known for his educational philosophy and psychology. He explicates why many of our institutions so often fail to 1) adapt to our current crises, 2) cope with change and 3) collaborate with either one another or with the public. On this note, he also detects the role underlying habits play in stymying our efforts at effective change. His method is, in fact, a counter-point to our current "technocracy," in that it argues "citizen participation" must be "the normative core of democracy" (Fischer 1). Right now opportunities for deep and genuine participation are few and far between. Further concerted effort to both engage one another across our differences and re-consider the role of expertise, then, are essential to moving collaborative projects on such problems forward.

Engaging With: Jane Addams

While both the pragmatic method and the WP scholarship demonstrate awareness of problems of power, neither delve deeply enough into this vital dimension of any attempt to collaborate. So, while chapter two outlines the pragmatic method and its part in addressing our high stakes, public problems, chapter three examines the life work of feminist pragmatist Jane Addams, illustrating the essential role of her approach for working among differences without suppressing them. For instance, her aim was always to work *with* and among others, never to work on them. Addams is most well-known for creating the first social settlement in the United States – Hull House – in the late 1800's. She is remembered as a sociologist (proto-social worker), public philosopher, philanthropist, and a women's suffrage leader. Reconfiguring the pragmatic method through Addams's work is valuable because she – as one of the first feminist pragmatists – directly and consistently engaged problems of power and oppression, both in her scholarly writings and in her on-the-ground activist work. In fact, Addams's consistent focus on - and use of - narrative to ground all of her work recalls a fundamental aspect of collective learning endeavors sorely missing in much scholarship and activism today: sympathetic understanding. In place of focusing on moving away from context under a pretense of neutrality and objectivity, she argues narratives tend towards the expansion of our ethical framework, providing us with opportunities for cultivating emotional intelligence and cultural awareness.

Her life work at Hull House highlights both the need for re-imagining institutional boundaries and provides us with a blueprint for doing so. Addams described Hull House as a means of 1) teaching "by example", 2) working in "cooperation" with others, and 3) practicing "social democracy" (Knight 182). Br responding to the needs of the neighborhood and working with local residents, Addams was able to directly address the needs of those around her in a

cooperative and creative manner. While the WP scholarship notes that there are few institutions whose design fosters collaborative endeavors across a wide-range of sectors, Addams's work at Hull House – and her detailed narratives on this work – provides us with a plethora of nuanced examples and illustrations that can be fruitfully re-appropriated for use today. For instance, while higher education and various non-profits are primed for bringing interested stakeholders together to tackle our problems, they often fail in practice to operate as effective *bridge institutions*.⁴ In contrast, I show Addams's work at Hull House is 1) global in reach and outlook, yet deeply local, 2) collaborative without being exclusive, and 3) stable, but flexible.

Extending the scholarship through a feminist pragmatist methodology while also working to widen its scope is an especially timely endeavor given the swift pace of our technological advancements and our high levels of specialization and isolation. Since our scientists/experts cannot on their own adequately address most of our high-stakes public problems, this new field of scholarship has a significant role to play in reframing our approach: a role that encompasses – but also stretches far beyond – environmental concerns. Turning our lens on higher education (as chapters two and three will), provides us with a long list of barriers towards doing the above work. Disciplinary silos, along with institutional policies and procedures, encourage an isolating expertise and rarely reward collaboration either across the university or within the community. Traditional course work occurs in isolation from work done in other courses and the students' larger lives; this means we forego key opportunities to help students *integrate* and *test* the knowledge and skills taught.⁵ As David Kolb notes, Such an approach to knowledge production

^{4.} Bridge institutions create the space, incentives, and thus opportunities for collaboration across sectors. They also create space to put knowledge into action.

^{5.} For instance, WP scholar David Freeman says it is rare that university curriculums covering water resource management asks students to study the "local water organizations that actually run agricultural water," let alone that they do so "in ways that are highly interdependent with

and dissemination encourages an ever narrowing of focus (i.e. specialization but not integration). It leaves us with a largely incomplete understanding of the complex situations we confront, and therefore a lot of unexamined assumptions (Alpaslan and Mitroff).

A Pedagogy of Engagement

WP scholarship, along with a feminist pragmatist methodology, can fruitfully inform the pedagogy of teaching and learning; that is, through the redesign of educational practices, instructors can better prepare the future public for collaboratively tackling wicked problems. Teaching effective democratic thinking *and* action for an engaged citizenry should necessitate instructors actively engage students in the *practice*; and this would seem to suggest an experiential learning model is valuable. Such a model encourages students to actively use, test, and transform not only the materials of the course, but also their own theories and experiences.

The philosophical methods suggested within the following pages and the insights garnered also suggest that there are some fruitful restructuring opportunities for the current dominant educational structures. For example, the tenure and publication process also tends to leave one with partial perspectives. It does this by narrowing the pool of others one is in dialogue with (most often sub-specialists). The current isolating policies and practices 1) discourage us from paying attention to one another and 2) foster misunderstanding if and when we do come together around a particular problem. Thus, controversy and gridlock over these issues – over how to define them, where to locate the problem, and what solutions are needed – should not be all that surprising. Such systematic processes also promote technical and obtuse language discouraging public involvement. Noting the problem of technical language and unexamined

central state legislatures and bureaucracies, municipal and industrial uses, and watersheds and riparian habitats" (487).

professional assumptions, for example, Michael O'Rourke and Stephen J. Crowley argue we face serious challenges to collaborative efforts towards 1) collectively deriving an integrated research question, 2) finding common ground, and 3) arriving at a "meaningful final product" (1940).

A Case Study

There is thus the need to address not only the theoretical, interdisciplinary dimensions of the scholarship, but to also apply this work to real world case studies. Chapter four seeks to do just this through the problem of health care rationing. By using our consolidated insights from the WP field, we will first see more clearly the complexity and tension within the problem of healthcare rationing. Next, applying the underlying methodologies – and positioning them in relationship to a modern deliberative process suggested by Leonard Fleck will serve both to underscore the need for broadening this field and illustrate the usefulness of these approaches. Fleck, as a professor of Philosophy and Medical Ethics at Michigan State University and author of *Just Caring: The Ethical Challenges in Health Care Rationing and Democratic Deliberation*, provides us with a model that can be vetted against the recommendations put forward in the first three chapters, thus illustrating their usefulness.

Chapter four begins by illustrating how the U.S. healthcare crisis can be characterized as a wicked problem. A lack of consensus over what the "problem" is, along with inherently conflicting healthcare objectives (like affordability, quality, and access), a long history of failed reform efforts, high levels of risk and uncertainty, a fear of systemic change along with opposition to change, entrenched interests, and perhaps a healthy dose of mega-denial about the extent of our current troubles will be shown as critical, contributing factors. The chapter highlights the inescapable need to ration our resources and the ethical challenges of doing so. Fleck's model for collectively and justly addressing this current situation – rational democratic

deliberation (RDD) – is then vetted against the suggestions of both our WP scholars and the feminist pragmatic method put forward in chapter three. I show Dewey's work on the role of habits and institutions in preventing effective changes is a critical addition to Fleck's. In addition, Addams's emphasis on fellowship and the need for sympathetic understanding are also key extensions to Fleck's RDD. The need for bridge institutions to create the space and infrastructure for such work will become quite clear.

Filling the Gap

In the end, this dissertation seeks to demonstrate that the WP scholarship is especially timely given the kinds of public problems we need to address today, but also far too narrow in its current scope. I show that a feminist pragmatic method provides the literature with a common philosophical grounding in addition to enhancing and extending the work WP scholars have done so far. This is especially so when we examine Dewey's work on habits and institutions and feminist pragmatists' work on power, oppression, integration and sympathetic understanding. The wicked problems involved in healthcare rationing serve as a current, focal case study, demonstrating the role the scholarship can and *should* play outside of environmental studies, while also pointing out some of its limitations as it is currently structured. It is my hope that this work will undergird the WP literature and, through dissemination and application, support its expansion into addressing real world wicked problems.

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CHAPTER ONE:

ANALYZING THE WICKED PROBLEMS LITERATURE

"... At any moment we are prisoners caught in the framework of our theories; our expectations; our past experiences; our language. But we are prisoners in a Pickwickian sense: if we try we can break out of our framework at any time. Admittedly, we shall find ourselves again in a framework, but it will be a better and roomier one; and we can at any moment break out of it again"

- "Normal Science and its Dangers," Lakatos and Musgrave, 1970

Defining Wicked Problems

"Wicked" problems were originally identified in contrast to "tame" problems, problems easily defined and solved one-dimensionally. The term was widely disseminated through a 1973 article on city planning by Horst Rittel and Melvin Webber, but has more recently taken root in a wider array of literature on the environment.⁶ Wicked problems are dynamically complex and ill-structured, with no straight-forward causal chains to help us gain a clear and simple picture of the issue. Instead, such problems are in some sense obstinate and indefinable, influenced by many dynamic and complex factors. Wicked problems are not "morally wicked, but diabolical in that they resist all the usual attempts to resolve them" (Brown 4). They consistently confront us with high levels of uncertainty in situations where both action and inaction carry high-stakes. WP scholar Tom Ritchey characterizes attempts to manage such problems as traditional no-win situations, acerbically noting that "... as a decision maker, whatever decision you make, a good portion of the stakeholders involved are going to want your head on a block!" (1). Such problems are thus not amenable to final resolutions but cannot successfully be ignored either. On the whole, the burgeoning literature on wicked problems makes fruitful distinctions between itself

^{6.} Earlier than 1973, however, C. West Churchman references the term in a 1967 *Management Science* editorial by noting he heard it in one of Professor Rittel's seminars. Chuchman notes that operations researchers have a responsibility to be honest about how their suggestions fail to address real, on the ground problems for managers.

and complex problems, highlighting more intense disagreement between fragmented stakeholders, multiple and often conflicting objectives, as well as higher levels of uncertainty, variability and risk (Salwasser 12).

In fact, Valerie A. Brown reminds us that supposedly "miracle solutions" to some of our most troubling environmental problems have instead consistently led to unintended consequences. We can, for instance, easily point to the dangerous problems we are now facing from intensive agriculture like soil erosion, desertification, and health problems related to pesticide use. In truth, the long-term outcomes of our short-sighted solutions "indicate the chronic inability of [our] narrow solutions to inform sustainable decisions" (3). Especially challenging, wicked problems "require solutions that challenge the current practices of the society that generated them" (6). Chiefly because such problems are intertwined with many others, work on them necessitates better communication across disciplines and between stakeholders.⁷ Effective responses to wicked problems, then, require the mobilization of people in their community, engaging in deep and sustained dialogue which seeks to integrate general scientific information with community values. Efforts to meliorate such problems which ignore the inherent wickedness of the situation are, in the end, inadequate since they fail to take a comprehensive, long-term view.

Adding to the difficulties here we also know that stakeholders involved in many of our wicked problems are separated from one another, have widely different interests and values, tolerate different levels of risk, and seek separate and sometimes conflicting end-goals (Salwasser 9). Such structural fragmentation makes comprehensive, collaborative long-term responses difficult. The wicked problems literature, then, has a seminal role to play in helping us

^{7.} Better communication is likely to occur if we start to recognize its necessity and thus incentivize it: revising our institutional practices and policies along with our individual habits.

shed light on why many of our current responses are inadequate. Delving a bit more deeply into how we currently tend to frame these problems and how we *should* be framing these problems will prove helpful.

The Problem with "Problems"

On first blush, framing wickedness within a "problems" framework does not seem to severely limit its scope or applicability. If we align ourselves with American philosopher Charles Sanders Peirce and define a 'problem' as a state of doubt or uncertainty, its scope is rather large. Similarly, if we take management scientist Peter Checkland up on his definition, a problem becomes "any mismatch between what is and what should be" (xii). Work, then, begins by inspiring doubt, by acknowledging discontinuities or tensions between life as it is and as one wants it to be. Instead, it is the antonym of problem, certitude, which is cause for concern. If a problem is defined by *a* question or statement seeking *a solution*, then it is yet too clean, too simple, too narrow to adequately describe wicked situations.

Given that we may commonly understand 'a problem' to be preformulated and that coming to define the parameters of wicked problems is crucial to the work involved, we run up against a serious concern (Alpaslan and Mitroff 19-20). Wicked problems are not well-defined and isolated exercises preformed and ready for computation. Instead, they are dynamic and thus cannot be limited to a single discipline or area of expertise. Controlling how such problems are defined, directs the actions we choose to take. The scope of inquiry here thus needs to be quite large. In fact, WP scholars Can M. Alpaslan and Ian I. Mitroff define wicked problems as "a system of wicked, fuzzy, messy, dynamically changing, and interdependent existential and ethical means and ends problems of society" (22). As this definition suggests, the idea of fluid, interacting systems will be crucial to effecting ameliorative change.

Hence, part of what also makes a problem wicked is the fact that it is intimately connected with other problems. Indeed, the term "social mess" is at times used interchangeably with the term "wicked problem". Since no singular interpretation accurately portrays the complexities involved, a multitude of limited perspectives must coalesce to provide us with a more accurate picture of what is a complex and dynamic whole. This means we best manage wicked problems by working at the same time on other connected problems (Alpaslan and Mitroff 25). Accordingly, to the extent that the singular descriptor 'problem' encourages a focus on one aspect of a wicked situation and thus emboldens isolated perspectives, it is unhelpful and misleading. For this reason, Checkland suggests we add the word 'situations' to the term (so that we end up with the descriptor "wicked problem situations"). For similar reasons, Alpaslan and Mitroff suggest we "expand every system of problems (mess) right up to and as far beyond" our "comfort zone" as we can tolerate. Such definitional expansion is, they argue, a "moral imperative" since it pushes us past our initial narrow definitions (16). In general, finding descriptors that push us towards a wider perspective of the wicked situations we confront will lead us to a more holistic view of the situation from which we are more likely to arrive at effective responses.

In confronting these problem situations, the goal is a better estimate that we are making good choices by "trying as well as possible to estimate the relevant system of opportunities" (Churchman 12). Checkland says, "for ill-structured problems involving a number of people the very idea of a 'problem' which can be 'solved' has to be replaced by the idea of dialectical debate, by the idea of problem-solving as a continuous, never-ending process" (18). We must realize we are not solving problems, we are alleviating conditions (155). Building on this work, Alpaslan and Mitroff suggest we may find ourselves *absolving* such problems by accepting that

they will never entirely disappear; indeed, we may need to acknowledge that these situations are likely to grow worse over time despite efforts to address them (global warming is a prime and current example). "At best," they say a wicked problem "waxes and wanes." We can, for example, consider environmental sustainability work and efforts to reduce terrorism as prime examples of situations which wax and wane (25).

If in response to our wicked problems, we aspire to a goal of certainty, to an ideal state, to full resolution, we dangerously miss the point. According to Rittel and Webber "it makes no sense to talk about 'optimal solutions' to these problems... Even worse, there are no solutions in the sense of definitive answers" (162). The drive for quick resolution, the temptation to resist the bother of doubt, leads us quickly down a dangerous path given a globally connected world with its fair share of not only wicked problems, but also dynamically complex ones. Thus, advocacy work on wicked problem situations needs to be pursued with an *open-mind*. For instance, Kristin Shrader-Frechette concludes that, "in a situation of uncertainty, open-minded advocacy often promotes a search for the facts, counterarguments, public discussion, and resolution of uncertainties" (195). Such collaboration is more likely to see both the long-term outcomes of our choices and the more immediate, local concerns since it involves a wide-array of perspectives; it is also more likely to generate fresh insights and creative solutions.⁸

^{8.} Such insights will lead me to argue in the next chapter that common educational goal of teaching "problem-solving skills," if such skills are not framed in a collaborative and ameliorative framework, can easily miss the mark given aspirations of preparing students for democratic citizenship in a wicked world. While it is certainly true that responsibility for many environmental injustices lies largely with our corporations and with our government, "in a democracy, the people are ultimately responsible" (Shrader-Frachette 19).

Divisions: Well-structured, Ill-Structured, Complex and Wicked Problems

There are further distinctions to be made in parsing out the type of problem situations being addressed here. For instance, wicked problems are inherently ill-structured. In contrast, well-structured problems are problems "... for which the means and the ends are both well known" (Alpaslan and Mitroff 21). If a problem is already well-structured there tends to be general agreement about it and an already widely-accepted ethical stance. In contrast, we are usually struggling to decipher either our end-goal or the means to our end when we face ill-structured problems (21). Thus, framing ill-structured problems becomes the first and one of the most difficult steps towards work on them. Under this structure, problems are upgraded to wicked when they are subject to contention on both fronts (ie. when both the means and the end-goals are unknown and/or hotly debated).

As I've briefly noted above, wicked problems are also characterized by high levels of uncertainty, while extremely complex problems may be subject to only certain kinds – or lower levels – of uncertainty. For instance, WP scholar Hal Salwasser divides uncertainty into two forms: (1) resolvable uncertainties based on observation/research and (2) uncertainties which cannot be alleviated until something akin to disaster strikes. This second form of uncertainty is characterized by an unexpected, but "discrete event," by "discontinuities in long-term trends," or by the "emergence of new factors." In turn, he provides his reader with the examples of a volcano eruption, the cooling of our climate, or an invasive new species as examples of uncertainties that cannot be entirely resolved before the event/discrepancy occurs (10). On Salwasser's scale, then, complex problems are those for which controlled research can yield answers whereas wicked problems are too fuzzy for such work alone. Alpaslan and Mitroff concur, using the phrase 'intelligible mess' to describe a complex problem that is capable of

being managed by a relevant group of experts and stakeholders. In contrast, a problem becomes wicked when it delves into unintelligibility, when "the gap between the skills and knowledge of those" working on the problem "widens over time" (50).

Similarly, Ritchey highlights conditions of *genuine* uncertainty. Problems are wicked according to Ritchey when "there is no way to calculate the probability of something happening, and for the most part we are not even sure what might happen" (1). This means attempts to simply quantify the risks we face are inherently limited and relatively unreliable measures. Since genuine uncertainty seriously hinders our ability to "solve" these problems, it encourages active and iterative, experimental management instead.

Paul Thompson and Kyle Whyte also focus on the wickedness of the "uncertainties inherent in scientific approaches." They note that such uncertainties tend to generate different and conflicting policy recommendations (4). Daniel Sarewitz echoes this concern, believing "uncertainty in environmental controversies is a manifestation of scientific disunity and political conflict" (392). Ellen Van Bueran et al. widen the scope by reminding us, "uncertainties [can] result not only from a lack of scientific knowledge, but also from strategic and institutional factors" (193). Van Bueran and her co-authors call our attention to different kinds of uncertainties including strategic uncertainty and institutional uncertainty. Strategic uncertainty most often arises because there are many different people involved and thus many different perspectives on the problem, while institutional uncertainty arises because we are working on the problem in/from different places. In either case, strategic and institutional uncertainty along with disunity in our scientific approaches escalate the scale of such problems into a wicked category.

Since wicked problems have high stakes, there is little opportunity for trial-and-error; dynamically complex problems, on the other hand, are more amenable to low-stakes attempts at

teasing out complexities. Complex problems need not necessarily suffer from periods of inaction either. In contrast, wicked problems are those for which both inaction and action, under high degrees of uncertainty, have serious consequences for a large number of people. When a problem is wicked and we face high levels of uncertainty, the scholarship suggests we still need to act, if only so that we can *begin* to learn something that will help us move away "... from an unsatisfying status quo" (Thompson and Whyte 4). At the same time, science alone cannot tell us how to act when confronting a wicked problem. That is, *scientific* progress on these problems does not automatically yield *social* progress. Checkland, for one, reminds us of the different angles from which various experts often work. "Where the scientists ask: 'have we learned anything?' the engineer and the technologist ask 'does it work'?" (Checkland 126). Acknowledging these different end-goals, Sandra Batie argues many scientific and technological breakthroughs have resulted in more – rather than less – risk (1180). The separation between – and general isolation of – our various experts from one another *and from the general public*, then, is a serious hindrance to comprehensive, ameliorative attempts to address these problems.

A final, important distinction between a truly wicked versus a dynamically complex problem results from the fact that no one is -- nor can become -- qualified to alone tackle a wicked problem. While dynamically complex problems are likely to require interdisciplinary collaboration, scholars writing on wicked problems argue they require more than the convening of various experts; these scholars go further to argue such problems require the involvement of a broad range of stakeholders, including the surrounding communities. Dynamically complex problems, on the other hand, may be amenable to resolution via a more direct and scientific route, albeit one that relies on numerous fields. Science cannot, however, yield *the* answer when we face a wicked problem. While we certainly need to look to the most current and respected

scientific studies to inform our discussions, it is a serious mistake to rely on science alone. Since our problem definitions (and attempts at resolution) are subject to high degrees of contention, a shift towards collaborative – versus authoritative or competitive – coping strategies is necessary (Salwasser).

Thus, fruitful work in tackling wicked problems cannot be about judging the most persuasive academic argument or new piece of technology, but must instead be about facilitating philosophical research through conducting collaborative learning processes (Thompson and Whyte). Dynamically complex problems, on the other hand, may not require community involvement nor a deliberative framework. Because wicked problems are intertwined with many others, work on them requires better communication across disciplines and between stakeholders (Hall and O'Rourke 2013), as well as the inclusion of particular local knowledges. For instance, David Freeman says work on such problems must involve the mobilization of people in their community, engaging in the deep dialogue necessary for integrating general science with local knowledge, ethics, and politics; in the end, putting them "to work" to make real effective differences (485). This aligns with Batie's point: action on such problems requires new policies that integrate "insights and knowledge to action" (1183).

In the end then, complex problems are separated from wicked ones by whether or not the means and ends are known and agreed upon, by the level and kinds of uncertainties involved, by the high stakes and degree of risk, as well as by the limitations of expert-knowledge, and thus by the need for collaboration and public participation.

Escalating the Matter: Social Messes and Mega-Crises

As noted, the term "social mess" is often used interchangeably with the wicked problems terminology. When our problems are bound up with other complex situations and systems undergoing change and influencing one another, we have what Russell Ackoff dubbed "a mess" (1974). According to Alpaslan and Mitroff, "a mess is the world's way of telling us that we have been defining our problems too narrowly" (15). It is "a system of ill-defined or wicked problems interacting dynamically such that no problem can be abstracted from and analyzed independently of all the other problems that constitute the mess."⁹ It's important to note that behind such a complex and interdependent system of problems lies our own "entangled web of stated and unstated, conscious and unconscious assumptions, beliefs, and values" (27). As will be argued in the next chapter, our traditional forms of education and our routine habits of thought consistently fail to capture the complexity of our reality. Alpaslan and Mitroff maintain that such consistent failures lead us ever closer to crises. That is, trying to strip away the mess, to simplify the problem, tends to make it worse, not better. Their research leads them to the well-supported conclusion that "a partial solution to a whole system of problems is better than whole solutions of each of its parts taken separately" (16). For instance, to highlight an example explored in detail later, pesticides as an isolated solution to crop damage have led to serious and far-reaching medical issues for the population across the world.

Relatively unstable and unintelligible social messes tend to turn quickly into crises (51). Crises are here described as unexpected events that cause the loss of many lives, severe injuries, and/or the catastrophic destruction of our surroundings. Crises are also likely to "exact serious financial costs." According to Alpaslan and Mitroff, a crisis is always also an "existential crisis

^{9.} Alpaslan and Mitroff go further to distinguish between stable and unstable. An unstable mess "is one in which things are changing more rapidly than the mess can be studied" (50).

of meaning" (3). When we research crises deeply enough we start to see that "any crisis is potentially an economic, an environmental, an international, a legal, a public health, a political, a psychological, and even a religious crisis, to mention only a few" (128). Since all crises are inherently messes and thus have wicked dimensions, they are not subject to a single or simple definition (4). Crises are traumatic in large part because they tend towards the destruction of a core set of our beliefs, making the "unthinkable" thinkable (6). Meeting all the above criteria, Alpaslan and Mitroff cite 9/11 as a prime example. There are, they say, a core set of assumptions crises tend to destroy, including: the assumption that one or one's group is somehow exempt from the crisis, the idea that "things will continue to behave as they always have," the belief that we can trust people, organizations or institutions to keep us safe, or the belief that others think and feel just as we do and therefore will act just as we do (8).¹⁰ The desire to avoid more carefully examining our own assumptions looks to stem from an avoidance of conflict and tension both within oneself and between one's perspective and others (55). In fact, widespread "mega-denial" about our own social messes should not be surprising since such messes tend to cause enormous anxiety and fear (82). For these reasons, Alpaslan and Mitroff suggest work on crisis management – and theories surrounding it – need to be based in a far better understanding of emotional intelligence (9).¹¹

^{10.} The set of assumptions lying behind a crisis will be highlighted as important and troubling tendencies we must confront in the next two chapters. John Dewey's methodology gives the role of unreflective habit its due weight and Jane Addams's lifelong efforts to work across our differences will be shown to be foundational and essential to work on wicked problem situations. 11. Explored in-depth later, Dewey scholar and experimental learning advocate, David Kolb, will highlight this theme in his own work as essential to genuine learning.

Recommendations from the WP Literature

Examining the wickedness found in forest planning Gerald M Allen and Ernest M. Gould Jr. (1986) say most simply that our attempts to address such problems "cannot be standardized" (23). While they warn against attempts to standardize a methodological response (ie. to reduce our efforts to techniques), they also provide their reader with a short list of characteristics common to groups who've navigated wicked problems. They suggest successful groups keep the problem small, plan incrementally to encourage consensus at each step, encouraged strategic *thinking* and put an emphasis on the *people* involved, not on the initial divisions (23). David M. Freeman, in "Wicked Water Problems," suggests that – at their core – wicked water problems require interdisciplinary work, better communication across disciplines and between all stakeholders as well as the input of local knowledge. Given the difficulties of working within and between a long list of scholars and stakeholders, he encourages the creation of something like advisory boards, of an organization that can empower the kind of interdisciplinary, collaborative work these problems call upon. Freeman also complains about how rare it is that university courses focusing on water resources actually engage students in the local water issues. Implicitly then, I see him arguing that experiential learning with hands-on case studies is critical to meliorating wicked problems. These general recommendations align with – and are critical to – both the list of suggestions made below *and* the arguments made in subsequent chapters.

Inter-/Multi-/Trans- Disciplinarity

WP scholars consistently remind their readers that perspectives on WP situations matter greatly. As a general rule, we can enter into or exit out of these situations from very different angles (Alpaslan and Mitroff 52). Engaging with a diverse group of others and thus with other perspectives encourages a variegated flow into and out of the situation that is essential to a more

nuanced and comprehensive understanding of the situation. It helps to bring otherwise unconscious assumptions to our awareness so we can confront them in conjunction with others. This means we need to move away from valuing expert-drive and (pure) theory-driven models into valuing multiple perspectives, ie. "multidisciplinary inquiry." Multidisciplinary inquiry encourages us to try out different ways of working on the issue so that we can "see explicitly the differences between various approaches" (Alpaslan and Mitroff 113). In fact, multidisciplinary inquiry is the foundation for the kind of work necessary to wicked problems and social messes not least because it acknowledges the values inherent in the various methods we use and perspectives we take; it grounds us in a variety of contexts from which we can fruitfully analyze the situation.

Similarly, Brown argues responses to wicked problems require a greater openness to "different ways of thinking" along with, imagination and creativity, receptivity to novel ideas, and a willingness to pull on a wider range of "intellectual resources" (4-5). This leads Brown to call for transdisciplinarity. She defines transdisciplinarity as a "collective understanding" of an issue which is "created by including the personal, the local and the strategic, as well as specialized contributions to knowledge" (4). Alpaslan and Mitroff call their own version of this kind of work "messy inquiry" (127). They describe a Messy Inquiry System (MIS) as a process where we respect different perspectives, cultures, and professions, resist privileging one perspective above another, recognize the role of conflict, and aim to "integrate insights from different perspectives into a plausible explanation or narrative about" the situation we confront (129). Both methods promote collective, integrative understandings. Instead of rejecting the impersonal for the personal (or the personal for the impersonal), instead of rejecting the cultural for the scientific (or the scientific for the cultural), instead of rejecting the individual for the

group (or the group for the individual), we understand each of these perspectives has a vital role to play.

In general then, any attempt to co-create ameliorative change requires a serious commitment to deliberate effectively across not only disciplinary and institutional boundaries, but also boundaries of culture, class, race, and gender. This means collaboration also requires the ability to evaluate dispersed and often contradictory information as well as the strengths and blind-spots of each position, a set of skills instilled by work in interdisciplinary studies. Indeed, William H. Newell points out that interdisciplinary courses tend to motivate students to go beyond *tolerating* diversity, to *desiring* it in order to understand complexity more fully. According to Allen Repko, "the interdisciplinary enterprise is about building bridges that join together rather than erecting walls that divide" (325). In fact, interdisciplinary studies (IDS) puts forward valuable methods of its own for working towards common ground: methods like redefinition, extension, (re)organization, and transformation (Newell 257-260). While IDS proves valuable to work on wicked problems, not enough interdisciplinary scholars are widely aware of the scholarship on wicked problems at this time. As I argue elsewhere, a more rigorous dialogue between the two fields would prove fruitful for validating, grounding and extending the work of both.¹²

For instance, Allen Repko makes it a point to say, "*interdisciplinary study is not about who can win the argument, but about who can bring together the best ideas of all stakeholders to get the job done*" (332). He goes on to compare the interdisciplinary scholar to a marriage counselor, indicating interdisciplinary scholars and educators are primed to play the role of

^{12.} See Lake, Danielle. Confronting Wicked Problems. Integrative Pathways, March 2013.

recruiter, facilitator, or mediator in just such deliberations.¹³ IDS courses are a key component of this work since they initiate and promote essential critical thinking skills and democratic values (Newell 3). Failure to adequately respond to various wicked problems resides not simply in a failure to come to the table and collaborate, but also in a failure to understand one another when we do (see Norton or O'Rourke and Crowley). In reality, requiring students to acquire specialized knowledge and skills is not enough; we need to show our students how to move beyond specialization towards integration, as IDS courses do; work towards integration can make an enormous difference in preparing them to confront the wicked problem situations we now face.

Re-engaging our Values and Building Emotional Intelligence

A skepticism of neutrality, of experts proffering the final word, and of any claim that facts and values can be separated is also built into the scholarship on wicked problems. Our facts are instead always incomplete, always capable of multiple interpretations. Norton reminds us that our values and commitments shape not only what we see when we examine a problem, but also what we experience (ix). As noted above, similar insights lead Alpaslan and Mitroff to conclude that greater flexibility and preparation, as well as a better understanding of our own assumptions, values and emotions are key to work on wicked problems, social messes, and mega-crises. They in fact call intellectualization a defense mechanism (74), concluding that "a prime component in dealing with messes is the *psychological necessity of a high tolerance for ambiguity… for messiness*" (31, *emphasis mine*). Indeed, most WP scholars recognize the need for values to play a more central role, for ambiguity, and the uncovering of assumptions.

^{13.} Chapter three will detail just how scholars and the institute of higher education could today better collaboratively manage our current high-stakes wicked problems by reimagining their role.

Valerie A. Brown and Judith A. Lambert (WP scholars and Collaborative Action researchers), for instance, argue that the process of transformational change on a wicked problem requires that a diverse group be provided with the opportunity to *first share their values*. Beginning with our values as a group is essential not least because we tend to act from our values and they thus tend to drive on the ground transformation (18). Sharing in this way also tends to open the group up to the various perspectives present from the get-go, affirming the perspectives present as relevant and worthy of being a part of the discussion; in Brown and Lambert's words, starting with values tends to "energize" whereas beginning with facts tends to "freeze" the issue (50-51). They go on to emphasize the importance of shifting our focus away from debating the facts and discussing past conflicts towards "celebrating the possibilities of our future" (22). These intentional shifts in the group process are meant to encourage us to move away from a focus on either winning or on arriving at a singular "right" answer, towards valuing each contribution (24). Shifting perspectives towards an inclusive, collaborative framework is important because these groups often initially comes together under fraught conditions with very different objectives, understandings and goals in mind.

Opening space for our values encourages us to listen to individual stories, to examine the larger political and moral issues involved. Thus, the power and role of stories needs to be taken into account, though it is currently addressed only sparingly in the WP scholarship. For instance, there is a recognition that other forms of knowledge are valued more highly than individual, local, and community knowledge (often degraded as simple "story-telling"), but there is little else said about the issue. As chapter three will demonstrate, our social mores and values, our individual narratives on these issues matter. The failure to recognize our own interdependency is not simply unfortunate, it is dangerous. Embracing the importance of personal, experiential

knowledge and story-telling is in stark contrast to a long academic tradition of attempting to separate logic from emotion. It is also a skill-set and asset Jane Addams embodied throughout her work.

Along these same lines, the WP scholarship recognizes – but does not detail – how cultural immaturity and a lack of emotional intelligence exacerbate our current troubles. Through studying many of our mega-messes and crises over the past 20-30 years Alpaslan and Mitroff conclude that "overcoming fear, denial, and resistance is... key to managing messes and crises effectively" (85). A strong resistance to undertaking real work on these problems can be seen through the simplistic conclusions that the crisis or mess is "either one's fault or something to be blamed on someone else." I argue in chapter three that such simplistic exclusive disjunctions, while convenient, tend to result from defining our moral space too narrowly. We must, Alpaslan and Mitroff conclude, work to transform such "defense mechanisms" into "coping mechanisms" and, further yet, into "acceptance mechanisms" (95). Acceptance, they say, comes with the recognition that messes are inherently a part of life; it tends to open mental space from which we can more readily anticipate messes and respond more "altruistically" (96). Working from this standpoint means we must first acknowledge our fears and anxieties, then make conscious changes about how we inquire into these situations (100). Acceptance, that is, more readily provides us with opportunities for growth.

Reflect and Engage: A Context-Sensitive, Dialogue-Driven, Action-Based Model

The conclusion that we must make every effort to approach the issue from multiple angles (since wicked problems are essentially problems of "problem formulation" and defining the problem directs the solutions we seek), leads sustainability advocate and WP scholar Bryan Norton to the well-supported conclusion that such problems require "multiple and ongoing

iterations of model building, problem specification, and articulation of social values and priorities" (136). Supporting Norton's argument, Alpaslan and Mitroff conclude that relatively good definitions of our problems are more likely to come about by the end of extensive and collaborative inquiry, not at its beginning (20). Along these same lines Brown and Lambert argue that real and significant transformational change occurs through a "continuous learning spiral" where we engage in dialogue that values diversity and sets rules for an open and conductive learning space (x). These conclusions are in truth well supported throughout the WP literature.

And as we've seen, since wicked problems inherently involve many different values, they cannot be easily formalized (Norton 133). Norton thus calls on us to review case studies of various wicked problems, comparing relatively successful results to failures; though he goes on to point out that success/failure or good/bad interpretations are misleading since they tend to dichotomize the issue.¹⁴ "At best" we can only hope for an "acceptable balance among competing goods for a time" (137). He calls for the involvement of scientists, policy makers, but also the public. In the end, he proposes a two part [iterative] process. In the active phase we focus on what we know, what we need to know, and the means by which we can likely achieve our end. Phase two requires reflection: here, we choose our goals and decide on how we will measure our achievements (143). These phases will overlap with one another, but the distinction remains valuable as a reminder of the import of both. He argues for a "context-sensitive decision model" (246) where we engage in "procedures that encourage the articulation, criticism, and revision of the community's values" (158). Norton's work also nicely foreshadows the next chapter, arguing the pragmatic method is generally best for addressing wicked environmental

^{14.} Following this model, Brown and Lambert's 2013 book, Collective Learning for Transformational Change: A Guide to Collaborative Action, is filled with sixteen case studies from which to illustrate their method, its use in various contexts and thus its far-reaching value.

problems. Similar to Norton's suggested model, strategic doing – a relatively new model designed as a response to strategic planning's failure to act in a timely and iterative manner – works to consistently move the group from reflective planning to action – and back again – in a thirty, sixty or ninety day continuous process.

Likewise, Hal Salwasser calls for active adaptive management, a continuous process of "learning by doing" and "learning by using" (7). "To be successful in coping with a dynamic and largely unpredictable world... planning needs to be resilient to uncertainty and surprises" (10). In truth, Salwasser says we only have three choices: we can 1) do nothing, 2) have faith the "matter will resolve itself" or 3) "confront the uncertainty in a systematic way." He argues for action-based learning, for actions "bold enough to have the potential for errors, so that we can learn from those errors and make course corrections" (11). Inaction results in missing essential opportunities to learn. He goes on to provide us with some tools for navigating wicked problems. The first tool he highlights is science. Science, in conjunction with various stakeholders, can help us define the problem, build objectives, develop alternatives, consider risks, and design our research.

Sarewitz, on the other hand, is a bit more wary of the role science can play. Sarewitz points out that "nature itself – the reality out there – is sufficiently rich and complex to support a science enterprise of enormous methodological, disciplinary, and institutional diversity." This is why different disciplines *see* different facts in nature. Nature really can "legitimately support... a range of competing, value-based political positions" (386). Sarewitz, like the scholars discussed in depth above, gives primacy to uncovering our conflicting values and argues we need to focus more on making advances in our political processes, not our scientific methods. In the end, he – like Norton – concludes we need "… more modest, iterative, incremental approaches to

decision making that can facilitate consensus and action" (400). Highlighted above, strategic doing sets up just such an approach. Here, interested parties come together, put their assets on the line and work together to make incremental changes in an iterative process in the hopes that modest intentional changes and reflective, critical observation will snowball into large-scale effective changes over time.

Generally supporting such moves, Checkland argues we need to better manage these problems by making decisions "to do or not to do something," by "planning" and "considering alternatives, monitoring performance," and "collaborating with other people" (72). Expanding on these various recommendations Brown and Lambert's recently published guide (2013) aims to help other groups design a process from which to collaborate successfully on wicked problems. They suggest real change requires we first "recognize the need for a social learning that celebrates rather than impedes change," and that we secondly "recognize that major change necessarily generates complex social issues" (5). They thus call on us to be far more open to radical change. Genuinely transformational change, they say, must "always involve bringing diverse individuals together for whole-of-community change" (12). Just as our previous WP scholars have suggested, they argue that every such effective process *must* end with efforts to implement change on the ground. Implementing change is done by laying out "who wants to be involved in what action and how, with a timeline of when it will happen, and indicators of what happens" (63). Whatever plans are laid, they must also be nurtured effectively so that critical reflection on the outcomes of this change takes place (67).

Relying heavily on the Kolb's experiential learning research, Brown and Lambert employ a slightly modified version of his learning cycle to a wide variety of complex and wicked problems, presenting their readers with quite a few case studies to illustrate its usefulness and

far-reaching application. They suggest guiding groups through a four step process, asking them to address the following questions in relation to the mess they gathered to confront: "What should be? What is? What could be? What can be?" (15). These questions effectively move the group from sharing their core values, to deliberating on a broad spectrum of relevant facts/data, to considering a wide-range of possible responses, to making a decision about how they will move forward to act on the shared problem(s) they confront. Before the process begins, however, the core question going to be addressed must be formed. Coming to an agreement on the core question/issue to be addressed is far more difficult to do than our authors let on. This process relies on welcoming diversity, accepting the rules of dialogue and investing fully in both the process and outcome; issues addressed below.

As noted, a common and current approach to many of our social problems relies on an expert driven model in place of the above recommended approached; this is especially true in our applied sciences. According to W. Ulrich, this means we are inherently encouraging a monological approach when what we require is dialogue (326). Beyond the "expert-consensus" model, there is also in truth an "expert-disagreement" model, encouraging intense conflict under the assumption that it will bring out the truth. This model favors competition in place of collaboration. While expert-disagreement does help us "acknowledge and confront our deepest assumptions and beliefs" (Alpaslan and Mitroff 122), it is also problematic because intense conflict rarely yields collective and effective transformational change. In place of these common models, work on wicked problems consistently calls for public engagement efforts and more intense forms of collaboration across networks, disciplines and ideological divides.

Collaboration and Public Engagement

When dealing with problems that are especially complex or wicked it thus seems most fitting to ensure those most directly effected have an opportunity to weigh-in on the decision. As essentially collective problems, wicked problems require collective action, often including the very restructuring of our social systems. By calling on a wider array of perspectives, deliberation can engage the issue across institutional and disciplinary boundaries, helping decision makers gain a more accurate and complex picture of the issue. As we've seen, Brown and Lambert argue collective learning for transformational change must involve "mutual learning among all those with an interest in an issue." This means all knowledge cultures should be included in the process: individual, community, specialized, organizational, holistic, and collective knowledge cultures (22). To the extent that inclusive deliberations (1) open the decision making process to those interested, (2) encourage learning across perspectives, and (3) result in actions or policies more widely accepted and thought to be more effective, they can be characterized as a respectable response to wicked problems (Turnpenny 350). In general, WP scholars suggest we can come to a more legitimate, just-enough decision if we as citizens are given a direct chance to learn about the issue in its complexity and exchange reasons about how we should respond.

Public participation, because it puts experts and citizens on a more equal footing and makes expert testimony available for scrutiny, increases the chances of changing institutional structures which perpetuate and reinforce oppressive conditions. Public participation also tends to create community by nurturing opportunities for mutual understanding, developing relationships and making connections across various boundaries. Through this process, narrow individualist positions tend to expand into more inclusive meta-narratives. For instance, Frank Fischer argues citizen contributions are especially critical in resolving local, environmental

problems. Shrader-Frechette reinforces Fischer's point, noting citizen involvement is the major reason why various environmentally dangerous industries end up failing to build in certain locations. According to Fischer, citizen involvement gives meaning to democracy, legitimizes the development and implementation of policy, and adds something valuable to "professional inquiry" (2). In opposition to this approach, we too often tend to assess risk and build policy by using experts to estimate the harm and policymakers to regulate, tax, or prohibit the risk (Fischer 5). This one-way policy process is problematic because "scientific research follows the preferences of those with the power to set research agendas," and is thus likely to "incorporate the biases of gender, culture or nationality" (Jasanoff 160). Fischer – relying on John Dewey – argues experts should see themselves as facilitators, not set themselves apart. Deliberation with experts helps to shed light on the fact that expertise is not neutral, value free, or as fool-proof as we like to hope (41). This means we could greatly benefit from higher levels of transparency and deliberation.

Similarly, Shrader-Frechette argues the best way for scientists to work towards objectivity is through subjecting their work "... to review by scientists and by laypersons likely to be affected by them" (48). This drive towards objectivity *through* the inclusion of diverse others is critical to effective work on wicked problems.¹⁵ Attempting to restrain pluralism – through a veil of ignorance or through disciplinary towering – is a mistake, as Habermas and our other authors point out.¹⁶ Since "scientific technologies are themselves a cause of most of these modern risks" relying on science alone to fix our environmental problems is inherently problematic (Fischer 53). Democratic theory makes the case that "expertise has legitimacy only

^{15.} Seeking objectivity through rigorous inclusion is in opposition to Rawls' drive to ensure objectivity through ignorance in the original position.

^{16.} It is, Habermas says, a serious mistake to "... bracket the pluralism of convictions and worldviews from the outset" (118-9).

when it is exercised in ways that make clear its contingent, negotiated character and leave the door open to critical discussion" (Jasanoff 160). In the end, local deliberation helps to provide "localized resistance" to power that is spread throughout "infinitely complex networks" (Shrader-Frechette 27).

Salwasser, because he recognizes some of the same limits to science, ends up pointing to "coping strategies" as the second effective tool. Science, when put into operation under competitive or authoritative strategies alone, tends to cause problems in part because both strategies tend towards reducing difference rather than embracing it. Salwasser strongly promotes collaboration, noting that our current "laws, policies, and procedures do not enable collaboration because they do not vest shared power in the collaborators" (15).¹⁷ Ultimately, Salwasser, like our other WP scholars, asks us to define the problem as clearly as we can, consider a wide-range of objectives, weigh creative alternatives, ensure that the science, values, and uncertainties are clear to all stakeholders, and then make conscientious calls on when to temporarily halt planning so that we can start acting (19).

John Turnpenny, Irene Lorenzoni, and Mavis Jones argue we need what they call "consensual wisdom." In practice, consensual wisdom is made up of two familiar components: (1) it requires our policy-making be participatory and transparent, and (2) "more systematic and evidence-based" (348). Power, they argue, "plays a crucial role in framing issues and achieving balanced participation" (348). Calling on interdisciplinarity and participation cannot alone address the issue of power. Turnpenny, Lorenzoni, and Jones gives us a set of criteria for judging

^{17.} On this front, strategic doing seeks to circumvent some of the problems generated by power imbalances. It gathers interested parties who are ready to lay down some assets and willing to engage the matter-at-hand now. As one avenue fails, others are contemplated and implemented until progress is made or the group disbands. Behind this approach is the belief that we cannot continue to wait on those with power to take action.

the quality of responses to wicked problems, starting with the importance of issue framing. If there are conflicts in values, they need to be represented in the dialogue. Secondly, evidence must weigh in. Here, the types of evidence included or excluded from the process needs to be considered. We also need to consider what our response to uncertainty will be. Third, levels and kinds of participation need to be vetted. Are all stakeholders included in the process? Were all perspectives actually heard? Finally, the value of the process is vetted by considering how the process both influenced the perspectives of those involved and how it influenced future policy.

Like our previous scholars, Van Bueran et al. call for collective action, arguing a network perspective gives us important insight into the process of collectively addressing wicked problems (or failing to do so). Attempting to work across networks "makes blockages visible and thus areas for co-action visible" (211). Using networks to examine relatively successful collaboration, they've found (1) generating awareness of our interdependency caused more successful collaborations between stakeholders, (2) innovative ideas serve to foster successful outcomes, and (3) increasing interaction fosters opportunities for "joint research activities. This will be a particularly important conclusion when later chapters consider what is needed to foster effective collaborative efforts directed towards meliorating wicked problems. Encouraging the development of policy networks – a "collection of stable relations among mutually dependent actors" – nurtures opportunities for collaboration. Further, fostering "policy arenas" allows various groups from across different networks to gather in order to work on a complex problem.¹⁸

^{18.} Strategic doing similarly focuses on finding individuals from across networks who are willing to invest time and assets in a collaborative process.

Systematic Management

As our scholars have consistently noted, "messes need to be managed systematically" (Alpaslan and Mitroff 42). This is not least because a mess is literally defined as "a system of dynamically changing and interacting problems" (Ackoff 324). Thus, a number of WP scholars reference efforts to address such problems through a form of systems thinking. A system is here defined as a "network of information – transmitting pathways including some external to the actor" (Checkland 86). Central to systems thinking is the belief that "no science, no profession or field of knowledge" is "superior to any other" (Alpsalan and Mitroff 118). It is a "methodology for understanding and managing complex feedback systems" (Mathews and Jones 76). By attempting to map the relationships at play in complex systems, one can better understand and thus manage (and intervene to improve) the system. While systems thinking has been used to deal with different kinds of systems, including natural and designed, hard and soft, as well as open and closed systems, wicked problems work focuses on a branch of systems thinking aimed at engaging open human activity systems: *soft* systems thinking.¹⁹

In soft systems thinking there is an attempt to better understand the design of our various systems as well as how we should go about defining and implementing systematic change given conflicts in values (Checkland 17). In place of a push towards discovering universal answers, soft systems thinking seeks to help us better *manage* our messes through a more comprehensive vision. It works through promoting "interaction between theory and practice," arguing this is "the best recipe for intellectual progress" since it helps us to uncover assumptions and values

^{19.} In hard systems thinking actors seek to solve problems by defining and then selecting the best means of reducing the difference between what is and what should be (Checkland 138). The idea that we can so easily define and solve real-world problems is a defining characteristic of hard systems thinking and is contrary to the kind of work necessary for meliorating wicked problems.

(Checkland xi). Soft systems thinking is effective because it links science and values, works to more holistically approximate a complex and messy reality, and calls for iterative and ongoing change through action research. That is, as a "learning system," soft systems thinking more effectively addresses complex and ill-structured problems (Checkland 5). It requires we observe our environment more carefully, work to predict outcomes and compare our predictions to the reality on the ground so we can make decisions more comprehensively responsive to the actual conditions we face.

As a methodology, soft systems thinking is concerned with both the definition of the problem and with how we are going to solve it. It seeks to move us from an unstructured problem situation to a position from which we can express the issue and arrive at a "root definition" (167). The root definition aims to be a concise description in the form of a useful hypothesis containing six elements. The root definition must (1) define whose involved in the problem situation (the victims and/or beneficiaries), identify (2) those who can cause change as well as (3) those with ownership in the system (ie. with power), (4) ascertain the means by which change can occur, detect (5) the underlying framework/perspective that gives the definition meaning and (6) the environmental constraints under which work must be done (224-5). From this definition various conceptual models are built and compared to the problem situation in order to foster debate on the best possible approach (169-177). The ultimate decision should prove both "feasible and desirable" to those involved (163). The actions implemented may require changes in the structure of the system, in our procedures/processes, and/or in our underlying attitudes (180-181). Like the pragmatic method explored in the next chapter, this general approach intentionally lacks precision and specificity (ie. it is not a technique). Since there are unlikely to be specific techniques that work in all situations when we confront wicked

problem situations, a broad methodology is recommended. The assumption that past techniques can and will work is in fact one of the serious barriers we must confront when working to ameliorate these problems. For these reasons, Checkland strongly endorses such a methodology over a general philosophy or specific technique (162).

In support of the soft systems approach, Alpaslan and Mitroff criticize our current most common means of responding to our crises. They highlight and criticize crisis communications, emergency preparedness, and HRO's (high reliability organizations) as the most common means of coping. These current responses do not do enough both because they are largely reactive and because they primarily engage the physical aspects of the crisis (failing to look deeper). That is, these forms of coping, like traditional forms of inquiry, "... seek to eliminate a paradox by narrower definition of the issue, restating the problem or hoping it will go away" (Brown 63), in place of confronting it more holistically. In addition to such responses we need to focus more on changing the "mind-set and culture" in our organizations. We cannot, they say, simply change "external factors" and then expect to prevent future problems (Alpaslan and Mitroff 69). Essential to the value of soft systems thinking is the fact that it leaves room for "completely unexpected answers to emerge at later stages" (Checkland 191). Thus, systems thinking operates with the recognition that "scientifically acquired and tested knowledge is not knowledge of reality, it is knowledge of the best *description* of reality that we have at that moment in time" (Checkland 50). This more humble epistemological approach is foundational to iterative responses on wicked problems.

For example, in dissecting various aspects of the financial crisis, Alpaslan and Mitroff conclude that we need to take a more holistic view of the matter and work to change the system itself. They argue we must, "change (or 'dissolve') the entire system by which people are hired,

the day-to-day conditions under which they work, and how they are rewarded," if we "really want to prevent future financial crises." "Anything less just perpetuates and reinforces the current system" (36). Brown and Lambert generally agree, saying that tangible, long-term transformational change inherently requires we make changes to the existing system itself. They also warn, however, that the "the point is not that one needs to know everything before one can act, but, to the best of one's ability, one needs to appreciate and to tolerate conflict and complexity in order to avoid solving the wrong problems precisely" (133). By testing and debating the model developed with a diverse group of others, it is vetted thoroughly, providing opportunities for the uncovering of assumptions and the reconciliation of conflict. Soft systems thinking does this work since it seeks to confront real world problems and manage possible responses.²⁰

Extending this work, Ulrich's *Beyond Methodology Choice: Critical Systems Thinking as Critically Systemic Discourse* helpfully fleshes out issues with the deliberative portion of soft systems thinking. For instance, while Checkland acknowledges the great difficulties of working across difference, there is more to uncover here. On this front, Ulrich argues critical systems thinking, as a "form of critical discourse," is essential to the problems we now confront (326). It's important to note that he explicitly recognizes the problem of asymmetrical discourse situations (333); that is, he recognizes problems of power that help some to deceive and distort when we attempt to come together to address common problems. Indeed, he identifies situations of inequality as the norm, not the exception. This results in an "emancipation problem" where coercion is covered up through the process of collective discourse. We need to work against

^{20.} According to Checkland, soft systems thinking is "... concerned with deciding to do or not to do something, with planning, with considering alternatives, with monitoring performance, with collaborating with other people..." (72).

these problems and better manage diversity through "a sustained effort to examine the systematic, normative and empirical underpinnings" of our particular epistemological and ethical assumptions (327). We also, he says, need to foster situations of structural equality here (329). These insights are critical for the work ahead and deserve more attention from WP scholars.

Problems for the Current Scholarship

Genuine Collaboration and Power

While broad collaboration and public engagement is touted as essential to work on wicked problems, such processes are riddled with procedural and ethical problems. "Democratic" deliberations often end up suppressing important differences and encouraging group think. Studies have shown that power dynamics within these groups have the potential to create a "cascade effect" whereby the group ends up in an extreme position that was already supported by its most dominant members prior to the deliberative process (Sunstein 192). We further know biases inherent in the wider society are often a part of the deliberative group dynamics. For instance, when women are a minority in such groups, they tend to contribute far less than men. In general, socially disadvantaged groups – whether disadvantaged by race, class, sex, sexual orientation, or ability – tend to participate far less than their privileged counterparts (Young). So, even when disadvantaged groups are *explicitly* included in this process, they are often *implicitly* excluded.²¹ On the other hand, various forms of citizen deliberation provide us with a powerful opportunity to challenge the limits of our own narrow perspectives, to co-create novel and transformational solutions or policy recommendations to the very serious and complex issues we face today.

^{21.} Iris Marion Young, in *Inclusion and Democracy* uses the terms external exclusion and internal exclusion to point to these same, general concerns. Groups externally included may find the group does not consider their points of view worthy of consideration (Young 55).

On top of this, conscientious design efforts towards creating an effective and fair deliberative process can be stymied because the literature on the efficacy of various forms of deliberation is still a bit sparse. As Julia Abelson and her co-authors warn, there are few studies evaluating the efficacy of the deliberative process where the method used is described along with the results obtained and the lessons learned.²² Archon Fung, in *Empowered Participation*, reiterates this concern: he says we need to pay better attention to our designing of the process since it "determines the quality and integrity of the results" and helps us build a "richer menu of options for different designs and assessments on their strengths and limitations" (232). A second and pressing problem in process design comes from the inherent tension between different goals like representation of a diverse community and the desire to keep a deliberative group small enough to ensure effective dialogue and subsequent action. Some deliberative goals are even in direct conflict with one another. This means process designers need to be more cognizant of the trade-offs inherent in any process design. Moral challenges filter into all designs and require a willingness to hold various deliberative values in tension. More recent and continued effort to publish a diverse array of case studies evaluating the design and process outcomes are essential to the expansion of just and equitable deliberative efforts.

On this front, Brown and Lambert's recent work carefully lays out their process design, the theory behind it, along with a series of case studies illustrating how their process works in action. Their research confirms that effective and lasting structural changes need to include "key individuals, affected communities, specialist advisors, influential organizations, and holistic

 ^{22.} See Abelson, Julia et al. Deliberations about Deliberative Methods: Issues in the Design and Evaluation of Public Participation Processes. *Social Science and Medicine* 57 (2003): 239-251. Print.

thinkers" in the planning and active phases (40). Since each of these groups tends to have different interests, sets of knowledge, and goals, bringing them together provides a more comprehensive view of the issue undertaken. Once at the table, the group is expected to listen openly and accept a wide-array of epistemic and moral positions. In the end, Brown and Lambert decide to privilege diversity, even if doing so prevents consensus or compromise, though they do aim for inclusiveness and integration.²³

Compromise or Consensus?

This leads us to another problematic criticism of various forms of democratic decisionmaking: the need for compromise and the drive towards consensus. While many scholars of democratic deliberation do not find this inherently problematic, others do; and, in reality, compromise is far more difficult to accomplish and genuine consensus far trickier to achieve than some deliberative theorists let on. For instance, research confirms that diverse groups, when left to their own devices at a meeting, will form cliques rather than collaborate across differences (Brown and Lambert 42).²⁴ In fact, it is rare that deliberation actually ends in genuine consensus (Levine et al. 274). On the other hand, research also shows those involved in the deliberative process are more likely to be satisfied with the decision, even if it is in opposition to their original desire, than they would have been if they were not a part of the decision making process. The role of habit in the literature on democratic deliberation is not really addressed; taking it into

^{23.} For initial buy in, Brown and Lambert argue participants need only agree that there is an issue worth collaborating on (39). They also suggest that facilitators may want to begin with a pilot group which helps to shape inclusive language (44).

^{24.} The design of the process needs to take tendencies towards rejecting difference into account and work to foster mutual understanding and diversity. For instance, the Brown and Lambert note that "each knowledge culture has a habit of rejecting the others' forms of knowledge. Individual knowledge is called anecdote, community knowledge just a story, expert knowledge fragmented jargon, organizational knowledge self-serving and holistic knowledge too airy-fairy" (42).

consideration (as chapter two does) when judging the merits of various deliberative designs can prove fruitful.²⁵

Traditionally, the goal of deliberation is to reach a level of consensus. Such a goal, however, often leads to decisions which are not in fact fairly representative of all group members. Just as bad, driving towards consensus can, according to Cass Sunstein, lead deliberative groups to "converge on falsehood." Sunstein's underlying point – that groups tend to ignore individual information in order to focus on shared knowledge – is a serious concern. Even when explicitly told group consensus is not desired or expected, research shows groups still tend to converge on shared information. This tendency "toward uniformity and censorship" means we likely often fail "to combine information and enlarge the range of arguments" (Sunstein 192). That is, individuals may withhold information because they are either afraid of "reputational sanctions" or, more generally, of the group's disapproval (192). Bowing to the pressure to withhold individual knowledge is extremely troubling since combining information and enlarging perspectives is the aim of such collaborative efforts. On the other hand, by factoring these insights into the deliberative design process, as Brown and Lambert try to do, some of these serious concerns can be avoided or ameliorated. There are also in truth a plethora of support materials and facilitation tools that should be reviewed and deployed in direct proportion to such concerns. Measurements assessing the amount of disagreement verbalized, the giving of reasons, and the relative levels of participant engagement also help track for false consensus.²⁶

 ^{25.} See Lake, Danielle "Engaging Deweyan Ethics in Healthcare: Leonard Fleck's Rational Democratic Deliberation." *Education and Culture* 29.2 (2013): 99-119.

^{26.} However, an intense focus on -- and call for -- group unity still easily suppresses. As Alan Irwin remarks, we need to consider in every situation whether consensus is "1) desirable or 2) achievable within the complex and shifting conditions of contemporary life" (315). Young

This leads us to the related critique that supposedly inclusive and democratic policy work is often used as a cover for reinforcing inequitable distributions of power by placating a public one never really intended to seriously engage. Brian Wynne, for instance, argues our participatory practices often occur too far downstream (106). For example, Michigan State University's deliberative juries conducted on the Michigan BioTrust for Health in November 2011 were not designed to either create support or foster dissent for the BioTrust, let alone create policies – since polices were already in place – but to come to understand how residents from various communities in Michigan *felt* about the issue and to report their conclusions back to the Community Advisory Board in the *hope* that their insights would inform future policy. Wynne is concerned that such processes work to simply bolster acceptance of *what already is*.²⁷ He suggests we need to broaden our scope and consider the value of "uninvited publics." He writes,

Deliberately or not, *invited* public involvement nearly always imposes a frame which already implicitly imposes normative commitments – an implicit politics – as to what is salient and what is not salient, and thus what kinds of knowledge are salient and not salient (107).

suggests a more genuine consensus comes out of expressing rather than submerging "particularities." This means we need to "promote the ideal of a heterogeneous public, in which persons stand forth with their differences acknowledged and respected, though perhaps not completely understood, by others" (119). Expressions of disagreement, in fact, are also used as a measure of a 'good' deliberative process (ie. one that genuinely considers a wide-array of possibilities) (Stromer-Galley). Young goes on to warn us that no deliberative practices can guarantee some participants won't be silenced. The best we can do here is, she says, to "… be alert to the possibility" (37).

^{27.} MSU Project leaders did in fact worry that the relative lack of opposition to the BioTrust found in the deliberations was partially a result of the fact that Michigan had already decided to use de-identified left-over dried blood spots in research without having gained consent. On the other hand, the outcomes of these processes did impact a couple of policies and practices of the community advisory board.

On top of these serious concerns, deliberative groups are rarely granted much official power.

On this point, Sherry Arnstein, in "A Ladder of Citizen Participation," does not find much value in the deliberative process when it is not accompanied by a "redistribution of power;" She concludes such processes end up being "empty and frustrating." As Wynne worries, deliberations allow those with power to affirm that those without were heard and thus *technically* involved in the decision-making process (Arnstein 216). On Arnstein's participatory rubric we move from entirely manipulative processes to full citizen control through a scaling of citizen power. Slightly better than an attempt to manipulate participants, processes which seek to inform and consult them have some value, but when deliberators lack power they simply have no "muscle" to ensure their concerns are "heeded" (217). For instance, "informing citizens of their rights, responsibilities, and options" is an "important first step" but "too frequently the emphasis is placed on a one-way flow of information – from officials to citizens – with no channel provided for feedback and no power for negotiation" (219). Consultations can thus be "a sham" when they are not "combined with other modes of participation" since they then fail to guarantee the group's conclusions "will be taken into account" (219). One level above the consultation phase Arnstein gives us placation. At this level, those without power get to *advise* those with power. Arnstein, along with Wynne, warns us that, "in most cases where power has come to be shared it was *taken by the citizens*, not given" (222).²⁸ But when voices are legitimately heard and recommendations taken into account, participants' often do end up having power to make a

^{28.} Concerns like Arnstein's have led to the development of processes like strategic doing which seeks to circumvent problems of power by trying to gather interested and vested parties, recruit assets and shift dynamics in a more timely and responsive process than one sees from traditional strategic planning by those with power.

difference.²⁹ Echoing this conclusion, Brown and Lambert argue that our collaborative processes need not be "catch-alls," but should instead be understood as a means of bringing together "diverse interests... on a shared concern" with the goal of co-creating "transformational change" (47).

Time, Money, and Representation

Deliberative collaboration also takes far more time and tends to cost far more money than authoritarian/expert-driven decision making, requiring a lot of careful organizing as well as structured facilitation. However, as we've already seen, authoritative strategies assume experts (or those with power) can provide us with answers when it is in fact often the case that such unilateral attempts at resolving complex and wicked problems end up causing greater problems.¹ The introduction of pesticides, for instance, originally highly successful in reducing the loss of crops to pest damage, have created serious health risks for humans. Relying on experts to modify the formula, reducing the risk to consumers, has simply heightened the risk for farmers. Many pesticides known to be especially dangerous have in fact been banned in the United States, but then simply shipped abroad. "According to the World Health Organization, the chemicals contribute to approximately 40,000 pesticide-related deaths annually in the developing world" (Shrader-Frechette 10). This problem is global, involving the world's food sources and economies, saving and endangering the lives of hundreds of thousands. Our attempts to tackle this problem via authoritarian and competitive strategies alone have, on a humanitarian scale, failed miserably.

^{29.} Archon Fung argues more broadly for "top-down legitimation of their [deliberators'] involvement," advocating for a position between Arnstein and others through a partially decentralized processes (Fung 210).

Examining the long history of National Issues Forums, town hall meetings, and councils reinforces the conclusion that overrepresenting the civically inclined is all too common in deliberative processes (Melville et al. 54). Indeed, Dutch consensus conferences have relied exclusively on volunteer participants.³⁰ In reality, many processes operate by invitation only. Working to randomly recruit a larger, more diverse and representative sample is far more likely to occur when the process design is conducive to large groups; for instance when money is plentiful and time commitments are relatively short (rare conditions indeed). Amy Gutmann and Dennis Thompson (2004) argue nonpolarizing deliberative groups must be "large enough to represent random samples rather than skewed samples of opinion" (54), and yet effective collaborative efforts are often limited to six-to-ten members. Beyond issues with general recruitment, Young warns the location and timing of meetings can be a significant obstacle to recruitment. Attempts to adequately address these concerns need to be made when considering both when and where to hold deliberations as well as who to include in the process. Research confirms aggressive recruitment is often necessary in order to have a broad representation of underprivileged and oppressed groups (Fung). On Fung's rubric, for instance, active mobilization of marginalized groups is key.

More rigorous dialogue on the issue of oppression within deliberative bodies could reinforce a more conscious awareness and elicit practical suggestions on how best to prevent and cope with likely imbalances of power, uneven contributions by deliberators, and the potential for conflict. Fung, for instance, argues successful deliberations are in large part dependent on "neutral facilitation, fair and open discursive procedures, [and] training to develop the skills of

See Sclove, Richard E. "Town Meetings on Technology." Science, Technology, and Democracy. Ed. Daniel Lee Kleinman. NY: Albany State University Press, 2000: 33-47. Print.

participants" (210). To this end, there is a fair amount of evidence from various past deliberative processes that facilitators can counteract biases stemming from social inequities (Fischer, 2000). At the very least, this means facilitators need to be aware of the potential for bias, power imbalances and inequities beforehand. A very simple and fairly obvious first step is to ensure everyone has a chance to express themselves. Second, concerted effort needs to be made to ensure all views are heard and respected. The fashioning of ground rules helps to set the tone and create community, but such rules *should themselves* be subject to discussion by the group. Cocreating deliberative ground rules is likely to elicit a more serious dialogue on and awareness of fair and equitable deliberative practices.

While we currently lack training and educational background for this kind of engagement, efforts here have tended towards the creation of effective networks, of community, and served to inspire interests and build skill-sets. Such efforts tend to foster a "public" along with a more keen interest in the issues under examination (Melville et al. 42, 49).

Conclusion

According to the scholarship, then, wicked problems are problems with ill-defined means and ends, higher levels of uncertainty and high stakes. Since such problems cannot be fruitfully isolated from interconnected problems, they require collaboration across networks as well as across ideological and disciplinary boundaries, public involvement and local knowledge (ie. better communication). Since there can be no definitive answers, we should be seeking to *manage* these problems more effectively; that is to say, attempts to resolve the matter indefinitely are counter-productive, directing us towards narrow definitions and singular solutions. Effective management of these problems also requires a commitment to uncovering

our unconscious assumptions and biases, to broadening our perspectives and co-developing more comprehensive perspectives on the issue-at-hand.

Ultimately, the scholarship on wicked problems propitiously lays out how and why many of our social problems are wicked and helpfully suggests a number of effective techniques for work on these issues. This field redirects scholars, suggesting we more intentionally ground ourselves in the real-world problems our disciplines should be confronting. Indeed, the outreach of this scholarship today is especially important because "the number and frequency of crises has been increasing exponentially in the past several decades" (Alpaslan and Mitroff 83). The long list of recommendations WP scholars provide us with are also fairly comprehensive. From systems thinking, to strategic doing, and action-based research, scholars consistently argue for a context-sensitive, dialogic, incremental, iterative, and action-based model which encourages creativity and public engagement. They emphasize the need not simply for interdisciplinarity, but for a more inclusive, transparent and participatory model: one that includes all stakeholders (anyone with a vested interested, including: citizens, contributing disciplines, and policy makers). Yet other WP scholars, examining the issue from a meta-perspective, persuasively argue that we need advisory boards, networks or arenas to create interaction on a large-scale and thus foster genuine opportunities for collaboration. They recognize, that is, the need to build boundary organizations and institutions from which we can more easily and fluidly bridge the various dimensions of wicked problems (addressed in detail in chapter three).

While very much aware of the problems of power, WP scholars do not dig as deeply into the difficult issues surrounding engagement and deliberation as they should. Anyone seeking to deliberate across epistemological, political, and ethical divides in order to collaboratively address such a problem is going to face enormous challenges and barriers: from very practical barriers

surrounding time commitments, increased costs, and communal representation to serious concerns about the efficacy of process design and the legitimacy of deliberative outcomes. These challenges can be addressed more holistically by expanding on the current scholarship and grounding it in a general methodology and in procedures built to confront, meliorate, and – at times – reflectively balance these challenges.

Thus I move in the next chapter to ground this scholarship in a method from which WP tenets can be most soundly supported. By reviewing and consolidating WP recommendations – as I have done here – I argue a foundational methodology is uncovered. More systematic engagement with this foundational method can, I suggest next, best ground the various techniques highlighted here as effective for work on wicked problems. Deepening the scholarship in this way is especially timely today give the swift pace of our technological advancements, our high levels of specialization, and our general failure to recognize science/experts alone cannot address our high-stakes problems.

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CHAPTER TWO:

CONTRIBUTIONS FROM THE PRAGMATIC METHOD

"For the difference pragmatism makes is always the difference people make with it." - Cornel West

Why the Pragmatic Method?

According to one of its founders, William James, pragmatism is first and foremost a *method* best understood as a tool for addressing social, political and personal problems. And according to John J. Stuhr, in an address on "The Status of American Philosophy in U.S. Colleges and Universities," the "way to foster and expand the study of American philosophy is to constantly reconstruct American philosophy so that it fosters and expands the lives of those who study it" (4). Thus, in the spirit of creating anew, I intend to explicate, employ and fine-tune certain aspects of American philosophy not in order to regurgitate the past, but to put the pragmatic method into play with the scholarship on wicked problems. Drawing out the methodology inherent to American philosophy in this way can effectively buttress efforts to meliorate real, pressing problems.

While the wicked problems scholarship is relatively unaware of Pragmatism, I demonstrate in this chapter that the pragmatic method – especially as described by John Dewey – is the primary, though implicit method being suggested by WP scholars; given this method's value to work on wicked problems, I argue it should be fruitfully extended and explicitly integrated into the WP scholarship.³¹ This work is fruitful not least because Dewey, as one of the most important philosophers of the twentieth century, offers a strong theoretical grounding for the WP scholarship; pragmatism can thus center future efforts to address real world wicked

^{31.} On the flip side, traditional pragmatist scholars could also benefit from engaging in this scholarship and applying themselves more intentionally to the kind of collaborative community work recommended by WP scholars.

problems, like our healthcare crisis (examined in chapter four). It is not my goal to necessarily add something novel to the literature on Dewey's thought, but instead to draw upon those aspects of his methodology central to work on wicked problems. Pragmatism is in fact uniquely placed as a philosophical method because of its focus on the problems of life. For instance, one of the key insights of pragmatism is that attempts to address our collective problems must be contextbound; what we need in each situation is going to depend a great deal on what that problem *is*. In fact, the implications and recommendations following from wicked problems as we have examined them in the previous chapter clearly align with a pragmatic focus on context, experimentalism, doubt, public engagement, a refusal to maintain the fact/value divide, a call for integration, and a constant focus on melioration.

Dewey's insights on the role of habit and institutional lag also offer valuable additional insights into the difficulties we confront when attempting to tackle wicked problems. His educational philosophy and focus on the vital role of inquiry can bolster effective work on complex, public problems in extremely useful ways. In the end, quick and stark contrasts with other theories demonstrate this method could and should be an integral, *explicit* part of the call to action in public life. For these reasons, one is left to wonder why this methodology has not caught on more in the last one hundred years.

The Essentials

The pragmatic method gives primacy to experience – to experiential learning – and thus to context; it values pluralism and creativity and highlights the role of fallibilism. This method is committed to non-ideal progress and aims for inclusivity. Gregory Pappas, writing on the value of Dewey's ethics, warns that our problems are exacerbated precisely because "moral values and concerns are not organically integrated in the decisions and operations of our business

transactions and institutions." For Pappas and for Dewey, the problem is that "we still suffer from the same dualisms that lead to extremism and polarization" (10). This critique of modern society resonates strongly with the concerns raised by WP scholars. Writing on the wickedness of sustainability, Bryan Norton also gives the pragmatic method a sobering endorsement, saying, "the pragmatic method of experience, though slow, messy and usually unsatisfying, *works*!" (113). Echoing Dewey, he warns that a society which cannot learn from its mistakes, will not survive. Pragmatists' resistance to a priori reasons, fixed principles, closed systems and absolutes will prove to be essential to work on wicked problems. Here, via warranted assertability,³² the quality of knowledge is judged in relation to how our actions – based on this knowledge – help to improve upon our problems (or make any other practical difference).

Experience

One of the most important features of the pragmatic method is its insistence that we begin in and with experience. In fact, one of philosophy's greatest failures comes from ignoring experience as a site of meaning (Pappas 12). For Dewey, experience tells us not only when we have a problem, but also when that problem has been resolved satisfactorily. Given the weight accorded to experience within pragmatism, it is no surprise that this method is at its core experimental. For Dewey, this means the decisions we come to should be "subject to constant and well-equipped observation of the consequences they entail when acted upon, and subject to ready and flexible revision in the light of observed consequences" (LW 2: 362). As Pappas says, we have no choice but to "start where we are, in the midst of our pre-reflective and immediate qualitative experience" (23). Through inquiry we can transform our experiences, but we must not forget to "return to them as our guide" (23). That is, an experimental method does not assure

^{32.} This is generally the idea that truth claims come about through ongoing inquiry into a situation and that any claim is subject to further inquiry in the future.

success, but it does turn our failures into grounds for learning and growth (MW 14: 11).³³ In line with Dewey's insights, the WP scholarship argued that since all attempts to resolve wicked problems generate further complications, solutions cannot be true or false; instead our attempts to address wicked problems can optimally be described as the best that can be done at any one time (Brown 4). Dewey argued for such a perspective by saying, "every measure of policy put into operation is, *logically*, and *should* be actually, of the nature of an experiment" (LW 12: 502).

What we need, then, is experimental intelligence: "the power of using past experience to shape and transform future experience." For Dewey, experimental intelligence is "constructive and creative" (MW 11: 346). Agreeing with Charles Sanders Peirce's arguments from "The Fixation of Belief," Dewey argues experimental intelligence is the means by which we test our hypotheses and adjust old habits to new circumstances. According to Peirce, the primary point of inquiry is not in fact truth; it is to arrive at a belief that *works*. For Peirce the entire intent of inquiry is the cessation of the irritation doubt has caused.³⁴ One of the most important consequences of this stance is the conclusion that there is no privileged point-of-view. Experimentalism is not "an insurance device nor a mechanical antiseptic" (LW 1: 4). "Dewey was concerned that the quest for certainty, in the midst of a precarious world, had led many to adopt habits of thought that, though comforting, oversimplify the problems they encountered" (Pappas 167). In contrast, WP scholars tend to argue we are most likely to make progress on dynamic and interconnecting social problems through taking "incremental actions that are bold enough to have the potential for errors, so that we can learn from those errors and make course

^{33.} Promoting the value of failure and its potential, the Failure Lab – a speaker series about sharing and valuing the role of failure in our lives – was created in Grand Rapids Michigan (see http://failure-lab.com/ for further information.

^{34.} As Peirce says, "with the doubt, therefore, the struggle begins, and with the cessation of doubt it ends. Hence, the sole object of inquiry is the settlement of opinion" (Peirce 71).

corrections" (Salwasser 11). Thus, experimentalism– action-based learning a la Salwsser – is Dewey's answer to how we should respond to uncertainty, contingency, high stakes, and pluralism.

David Kolb, using the work of John Dewey and others to research and advance experiential education today, takes up this call, arguing persuasively for experiential learning. "Learning," for Kolb, "is the process whereby knowledge is created through the transformation of experience" (38).³⁵ He interprets Dewey as advancing the idea that learning is a continuous process grounded in experience, citing Dewey's work on learning as a spiral, not a circle (27, 132). In line with Dewey, Kolb argues learning involves "creativity, problem solving, decision making, and attitude change;" it is, at its core, about "adaptation" (33). This means genuine learning should be "assertive, forward moving, and proactive," "... driven by curiosity about the here-and-now and anticipation of the future." It has the power to move us "from blind impulse to a life of choice and purpose" (132). Kolb's focus, then, is on the real power of transformational learning. As Dewey said, experiential learning has the power to "... inspire the mind with courage and vitality to create new ideals and values in the face of the perplexities of a new world" (MW 14: 163). Kolb's research confirms and extends Dewey's insights, leading him to the conclusion that genuine learning occurs in a cycle where feelings about what is happening generate observations on the matter at-hand, as well as reflection about the possible consequences of various options, and a choice to follow through on one of our options.

Refusing to maintain an unnatural divide, Kolb, like Dewey, chooses an "interactionist position," acknowledging the value of moving between experience and concepts, of process and praxis (Kolb 101). As interactionists, both scholars reject the exclusivity of strict empiricism and

^{35.} As Dewey says, "intelligence develops within the sphere of action" (MW 10: 14). It thus makes sense to create environments where students can learn-by-doing.

strict rationalism. That is, they believe we must focus on how abstract concepts impact our concrete experiences as well as on how our experiences come to shape the positions we take. Ignoring the lessons derived from employing our theories on the ground is a dangerous mistake just as failing to reflect on how our theories tend to shape our reality is also often a dangerous mistake. In moving between theory and action on the world, there is more opportunity for flexible responses to changing conditions and thus more opportunity for fruitful growth and transformation.

In fact, this interactionist position is essential if we hope to improve upon wicked problem situations. Wicked problems -- as problems with high stakes and high levels of uncertainty, problems with "incomplete, contradictory, or changing requirements" - cannot be redressed through the simple appeal to old theories (Turnpenny 347). This challenges the notion that scientific inquiry should proceed in isolation. Science, for Dewey, is a planned, structured *learning process* and therefore a remedy to the problem of the fixation of our beliefs. Dewey finds common ground with Peirce's insight that it is far easier to continue with questionable views that are held tightly and left unexamined than it is to put oneself in the position of examining and doubting ill-supported beliefs.³⁶ Such beliefs resolve into habits of thinking, rules for acting on the world that tend to be "perfectly self-satisfied" (109). As much as the settling of belief is a stopping point in the process of inquiry, the state of the world and the necessity for satisfactory action should force belief back into a tentative and questionable starting point when it no longer "works" well enough. Thus, Dewey and Kolb's use of scientific inquiry here levies the basic methods of science/inquiry as a means for reminding us to both *begin* in and with the situation at hand and to *turn back* to that situation to judge the value of the conclusions

^{36.} Peirce argues that it is both "immoral" and "disadvantageous" to cling so tightly to our own views out of fear that they may "turn out rotten" (76).

generated. Separating science from the social milieu "encourages irresponsibility" and a disregard of the social consequences (LW 12: 483).

Kolb in fact argues that the type of challenges experimentalism is designed to cope with have today "increased dramatically" (5). With a globally interconnected world facing a myriad of wicked environmental, health, economic and policy problems, it is no stretch to see why he raises this concern. According to Kolb, this means we need "a spirit of cooperative innovation" along with "an attitude of provisionalism" (5, 28). He thus reaches the same conclusion as our WP scholars did, effective work on wicked problems require we pursue collaboration. Given these same insights, Kolb's experimentalism advises we intentionally engage in new and different experiences, reflect from perspectives beyond our own, work to integrate these into testable theories, and then use our theories to inform our future endeavors, all in a continual process (30). Various methods put forward by WP scholars support just such a process.³⁷

In fact, chapter four illustrates how a learning process like this might work in action to inform policy on wicked problem situations. In line with the case study examined in chapter four, Kolb concludes experiential learning is especially critical when trying to confront and redesign outmoded social policies. For example, the current food system has created food deserts that disproportionately affect low-income and minority communities, making access to local and healthy, affordable foods impossible for residents in this area. Urban gardeners and food justice educators, following an experiential learning model, seek to work with these communities to effect change: both through advocacy work and through how-to workshops on producing, preparing, and preserving healthy food. Experiential learning can thus be "the basis for constructive efforts to promote access to and influence on the dominant technological/symbolic

^{37.} See Bryan Norton's Sustainability and Brown's Tackling Wicked Problems.

culture for those who have previously been excluded: minorities, the poor, workers, women, people in developing countries, and those in the arts" (18). This leads us back to inclusive participatory efforts which we will examine in more detail later.

Recognizing the value of this work for collective learning and transformational change, WP scholars Brown and Lambert's new book is grounded heavily in Kolb's work. *Collective Learning for Transformational Change: A Guide to Collaborative Action* generally fails to acknowledge Dewey's key influence on Kolb,³⁸ but its reliance on and extension of Kolb's work for addressing collective wicked problems demonstrates again both the essential value of the pragmatic method and how it is very much hidden behind the scenes. Brown and Lambert reference and build on Kolb's insights about the importance of value/emotion for initiating inquiry and driving change as well as his commitment to the role of both facts and values as critical to communal efforts to effect change.³⁹

In general, by relying on the work of Dewey, Kolb offers us two further insights I find critical to collaborative endeavors meant to address wicked problems: (1) a lack of integration is one of the key reasons why wicked problems remain unaddressed (examined below) and (2) our resistance to change stems from a reluctance to release old beliefs and must be addressed by bringing these longstanding beliefs out into the open, so they can be examined and "tested," and then released, adjusted or integrated (28). Kolb's research reinforces this second point, leading him to the conclusion that our development tends to proceed "from a state of embeddedness, defensiveness, dependence, and reaction to a state of self-actualization, independence, proaction

^{38.} They site Piaget, Freire, Lewn, and Jung as seminal influences on Kolb, failing to mention Dewey even though Kolb himself sites Dewey as a primary figure in his thinking (7). Later, however, do give Dewey a single, brief reference.

^{39.} Brown and Lambert also argue Kolb's work has needed some extensions in order to work effectively for "multiple interests" and "complex problem-solving" (12).

and self-direction" (140). He acknowledges the tension and conflict inherent in this process and by engaging it directly is able to better facilitate real transformation (30). Through both reflecting back on Dewey's work and his own research, Kolb concludes moving from unreflective, embedded habits to self-direction requires we develop and refine four abilities: first, we must be willing to fully engage in new experiences "without bias"; second, we need to "reflect on and observe experiences from many perspectives;" third, develop ideas that "integrate" what we observe into "logically sound theories;" and, finally, we need to use our theories to try to solve real problems (30).

These four abilities are critical to effective work on wicked problems in a number of ways. First, a willingness to work across disciplines, departments and networks is a consistent theme in the WP literature and this theme is reinforced by Kolb's first, second and third recommendations.⁴⁰ Kolb's fourth recommendation, that we use our theories to address real problems, is precisely what WP scholars Salwasser and Brown recommend: a continuous process of "learning by doing" and "learning by using" (7). Also consistently recommended by WP scholars is the use of an iterative process since initial efforts are likely to yield unforeseen consequences. Iteration also valuably opens opportunities for integration that may be foreclosed when we assume our first efforts are enough to "solve" the problem.

In general, a failure to more seriously engage wicked problems can often be attributed to a failure to integrate. Kolb divides the developmental process into (1) the acquisition of knowledge, followed by (2) specialization, and (3) integration (145). Integration occurs when "two or more elementary forms of learning combine to produce a higher-order" understanding.

^{40.} See Brown's *Tackling Wicked Problems: Through the Transdisciplinary Imagination*, Freeman's "Wicked Water Problems," Batie's "Wicked Problems in Applied Economics" for a few examples of this theme.

These more "elementary forms" of learning are defined by acquisition or specialization of skills and knowledge. Learning at this level requires our attention and some reflection, but not integration (which can take years or decades to achieve). In its fullest form, integration is "the active commitment to responsible action in a world that can never be fully known because it is continually being created" (160). Experiential learning aspires to integration. Dewey pursues the need for integration by arguing for the reworking of a "total attitude." "The demand for a 'total' attitude arises because there is the need of integration in action of the conflicting various interests in life." This is true whether these conflicts arise between science and religion, economics and philosophy, or conservative and progressive ideals. These conflicts can spark a "stimulus to discover some more comprehensive point of view from which the divergences may be brought together" (MW 9: 336). Specialization isolates while integration provides opportunities to synthesize and transcend.

Our techno-scientific culture today is certainly specialized, but too rarely do we see integration. Specialization alone has led to the technology giving us "polluted air and water, the threat of instant nuclear annihilation, the creation of a permanent underclass, and other such harmful side effects" (227). Fixating on one way of life, failing to integrate, is dangerous. In contrast, integration brings us closer and closer to a world in which "what 'is" and what "ought' to be" are more in line with one another (148). The highest level of integration "allows great flexibility in the integration and organization of experience, making it possible to cope with change and environmental uncertainty by developing complex alternative constructions of reality" (136). And flexibility is precisely what we are missing in many of our institutional structures today. However, achieving real integration is a serious challenge and is best facilitated

through dialectic engagement. I will return to this challenge in examining the role of public participation.

Context

Given Dewey's focus on experiential learning, context is essential. For Dewey, every action is "absolutely individualized... there is no such thing as conduct in general; conduct is what and where and when and how to the last inch" (EW 3: 98). Abstracting, generalizing, and then universalizing our ideas for application in other complex circumstances is a dangerous, often high-stakes game. In contrast, Dewey "advocated a contextual approach... that may be termed situational." This approach "affirms that reasonable moral judgments come from intelligently exploring and assessing the situation in its qualitative uniqueness" (Pappas 46). Melvin Rogers confirms this reading, saying that for Dewey, "inquiry is unintelligible (and will often be unsuccessful) unless it proceeds via sensitivity to particulars" (102). In order to judge actions we must then be "sensitive *to* and perceptive *of* the particularity of the situation" (Rogers 92). For many, engaging in the uniqueness of each situation is overwhelming and thus unappealing because it prevents us from relying on standardized procedures or universal principles. It consequently makes education a more difficult endeavor.

A non-contextualist approach to learning would, for example, encourage educators to ignore the needs, perspectives, and learning styles/strengths of the people present. From decades of research we now know people tend to have very different learning styles, styles which emphasize some learning abilities over others.⁴¹ In opposition to these very real differences in learning styles, a non-contextualist approach would encourage educators to use one rote method,

^{41.} Kolb concludes that these various learning styles are most likely this is a result of "hereditary equipment, our particular life experience, and the demands of our present environment" (Kolb 76).

and by doing so it seriously hinders the learning of many of those present. Such an approach is also likely to ignore the very different life circumstances of the people in the room and, again, by doing so encourage a dogmatic and often alienating environment. Paulo Freire's seminal work in fact argues that a failure to recognize others in their qualitative uniqueness encourages their alienation, a subject-object relationship, where the flow of knowledge is uni-directional and absolute. To our own continual disadvantage, the focus is entirely on *what* is being learned in place of *how* it is being learned. According to Kolb, this approach fails because it misunderstands the nature of intelligence; intelligence, he concludes, is developed through the *interactions* between ourselves and our environment (12). While the demands of contextualism may be daunting, it is essential to addressing wicked problems.

Here, knowledge is only usable through its application to some particular situation. This means the knowledge and desires of those directly involved in the problem must be engaged. People with a direct stake in the matter also often have knowledge incoming experts do not (Fischer 44). For instance, residents in neighborhood with limited (or no) access to healthy local foods should be engaged before creating or implementing a plan-of-action to redress this injustice. Their values, needs, desires and general knowledge of the area, its history, culture and politics are essential to genuinely collaborative and ameliorative efforts to affect change. The next chapter highlights the serious problems that arise when we seek to instead "do good" *onto* others. Similar insights lead Norton to conclude we desperately need a "context-sensitive decision model" (246).

Likewise, Alpaslan and Mitroff – referencing mega-messes and mega-crises – highlight the grave problems arising from the failure to pay attention to context. Like Dewey, they highlight the dynamism and messiness of our social problems and – citing extensive research on

organizational responses to mega-crises – note that in place of paying attention to context and responding flexibly, American organizations have in the recent past tended to "become more controlling," increased "pressure toward uniformity," and behaved even more "rigidly" (83). We've already considered the problems that arose in the United States' slow response to the recent housing and financial crisis. Chapter four will again illustrate this problem through the U.S. healthcare crisis. While statistical research and population data provide us with key insights into these various messes, they do not alone provide us with a comprehensive view. A consistent mistake comes from an assumption that numbers can *alone* provide us with sufficient and objective insights on the mess we are confronting. Alpaslan and Mitroff – along with a host of others -- speculate that this is why economists have so often failed to accurately predict our crises. Even the physical and mathematical sciences must be placed "in human context" so they can "guide the activities of men" (MW 14: 146). Context is essential to our understanding.⁴²

The problem, as Dewey defines it, is that context is so much a part of "every utterance" we make; it, in fact, "forms the significance of what we say and hear" (LW 6: 4). As background, context rarely forms "a portion of the subject matter which is consciously attended to, thought of, examined, inspected, turned over" (LW 6: 11). Putting a stop to this neglect of context is significant to any attempt to prevent ill-structured problems from turning into mega-crises. This is because crises tend to develop through a collapsing of unexamined assumptions about the matter-at-hand (Alpaslan and Mitroff, 10). According to Alpaslan and Mitroff, "examining the broadest possible set of 'unthinkables' is, in fact key to managing mega-crises and mega-messes" (13). From this, we see more clearly that there is no one purely objective point-of-view from

^{42.} Expanding on this notion of context, chapter three will argue relationship and narrative are also essential to our understanding of the mega-messes we face.

above;⁴³ instead, our best bet is to invite in and carefully engage multiple perspectives. Dewey's insights about the central role of context lead him to conclude we must supplement our inherent "limitations" and work to correct our "biases through acquaintance with the experience of others" (LW 6: 21).

Removing the Fact/Value Divide

Following from this emphasis on context, all inquiry for Dewey is also inherently and unavoidably value-laden. Any work pursued by ignoring the inherent values involved is problematic. Since crises always tend to involve a collapsing of assumptions, and since these assumptions often turn out to revolve around our values and emotions (Alpaslan and Mitroff 27), tendencies towards ignoring the role of value in inquiry are of serious concern. Dewey goes to great pains to draw the links clearly.

Physics, chemistry, history, statistics, engineering science, are a part of disciplined moral knowledge so far as they enable us to understand the conditions and agencies through which man lives, and on account of which he forms and executes his plans. Moral science is not something with a separate province. It is physical, biological and historic knowledge placed in a human context where it will illuminate and guide the activities of men (MW 14: 204).

Because "all inquiry is infused with values" -- and thus culture – it *cannot* be entirely isolated from nature, nor science from ethics (Garrison et al. x). This tenet aligns with work on real ill-structured problems since they encourage a more integrated approach. As Fischer says, "in the 'real world' of public policy there is no such thing as a purely technical decision" (43). Salwasser concurs, arguing unnecessary pain is caused by attempts to add more and more

^{43.} Dewey says, "One can only see from a certain standpoint... A standpoint which is nowhere in particular and from which things are not seen at a special angle is an absurdity" (LW 6: 15).

science because the level and kind of complexities involved are misunderstood or underrated (12). Instead of moving from the math to the science to the politics and ethics, we should be bringing each of these disciplinary perspectives to bear on whatever issue is under examination.

Pappas in fact argues one of the main reasons Dewey's work is still extremely relevant and significant to our times is precisely because of our continuing failure to break down the fact/value divide. He says,

Today, morality is still conceived and practiced as an area of our experience that is somewhat remote or separated from our daily affairs. Moral values and concerns are not organically integrated in the decisions and operations of our business transactions and institutions (10).

In other words, we still lack moral intelligence, which is indispensable when trying to tackle wicked problem situations. As noted, one of the main reasons economists have failed to predict major crises in the past is because their methodologies fail to take into account the emotions of those involved (Alpaslan and Mitroff 8). When we seek to confront a social mess, (1) a lack of interdisciplinary competency along with (2) a lack of humility about the role of our own expertise, and (3) a general failure to interact with diverse others, leads us to dangerously insular conclusions. Ultimate truth and power should not lie within any one discipline. In our past, for instance, doctors have injected unknowing patients with various diseases and scientists with dangerous substances, assuming their own agenda to be above scrutiny by those they harm. Still today, biotechnologists alter our food and risk assessors tell us when we are safe, all without seeking the public's input. These and similar practices have led to a lack of trust and respect for our various experts (Fischer 30). Developing insular, supposedly "value-free" theories is dangerous because it sets us up with a set of *incomplete* data and encourages us to leave various

assumptions unexamined. Fischer calls this "the tyranny of expertise" and suggests it perpetuates, instead of ameliorates, social injustice (31). Building on Dewey's work, he argues we need to radically reconstruct our "professional practice" so that it promotes "critical discourse among competing knowledges, both theoretical and local, formal and informal" (27).

One of our first mistakes, then, comes from our failure to examine which values are present and which *should* be present in any given situation. Through such examinations we may discover we can avoid some values, but in order to do so we need to first be critically aware of them. For instance, Kristin Shrader-Frachette, an environmental philosopher, distinguishes between bias values, contextual values, and constitutive values. With awareness we can, for example, work to avoid bias values, characterized as misinterpretations or omissions of data. With careful scrutiny, contextual values – defined as "personal, social, cultural, or philosophical" assumptions and judgments we have about the situation as a whole – can be thoroughly scrutinized and refined (40). Their inclusion, often unconscious and hidden, direct the agenda we have and the questions we ask. Too many experts seem to forget that perception is not somehow pure and objective, but is instead shaped by the "knowledge, beliefs, values, and theories we already hold." Research is also always restricted by some kind of incomplete information; through deciding on what to inquire into and how to go about it, we choose to use one methodological rule over another and by doing so lay stake to certain values (41). Thus, even when deciding on what data to use and what to ignore, value is present.⁴⁴ As we saw in the

^{44.} Shrader-Frechette concludes "the most *objective* thing to do, in the presence of questionable methodological assumptions or constitutive values, is to be *critical* of them and not to remain neutral" (45). Awareness is the first step towards a more careful and nuanced theory. All values are not inherently dangerous to science. Instead, the supposed separation of the two has proven to be far more dangerous.

previous chapter, WP scholar Frank Fischer echoes these same concerns. Like Dewey before him, he diagnoses the problem as one stemming from an increasingly technocratic society. Fischer notes that "without interpretation, the data carried by the increasing flows of information are as meaningless as they are overwhelming" (13). While we now face a constant influx of "expert" information, we also see few citizens directly involved in the complex social problems we face. As we've seen, this is extremely problematic for Dewey and for WP scholars, not least because isolated, supposedly "value-free" expert solutions cannot fully address/redress the social messes we face.

Fallibilism, Meliorism, and Iteration

A recognition of our own fallibilism is also crucial to this methodology. Fallibilism implies our decisions must be flexible because enacting them may bring about consequences we did not originally foresee, and unforeseen consequences often call for an adjustment to our original decisions (MW 9: 252). In an "indeterminate" world the consequences of our actions cannot be fully foreseen (MW 9: 158). Given that our "knowledge claims are experimental at their core," they must also be "fallible and revisable in the context of experience" (Rogers 92). Embracing fallibilism leads us to a greater level of humility and thus opens us more fully to change and to growth. In Dewey's words, it "opens the mind to observation of the merging edges, the fluidity of all things" (LW 6: 276). Fallibilism also allows us to set aside the "quest for certainty" while giving us the means to reject a relativism that comes from the push and pull of various dogmatic doctrines. That is, it prevents a dogmatic commitment to relativism, preventing the notion that collaborative progress and experiential learning are always simply relative. James Campbell, writing on Dewey, describes fallibilism by saying, "we should never assume that particular questions are unanswerable, nor that proffered answers are absolutely true, nor that

some formulations are final, nor that some level of examination is ultimate, and so on" (3). Since wicked problems and social messes cannot, by their very definition, come to ultimate and final resolution, this position of openness and humility is foundational.

A commitment to openness requires we meet three objectives. It requires we (1) willingly and critically consider aspects of the problem that may link back to values and institutions we originally supported, (2) relax loyalties and traditions so that we can open up possibilities for a more effective means of being with one another in the world, and (3) direct our inquiry towards more intelligent actions. A commitment to openness "sets up an attitude of criticism, of inquiry, and makes men sensitive to the brutalities and extravagancies of customs" (MW 14: 55). The resultant sensitivity of this method provides a precaution against the escalation of our problems; whereas a strong desire to maintain traditional standards/values leads to both (1) inattentiveness to changing conditions and (2) resistance when confronted with the possibility of change. Accordingly, fallibilism proves to be vital to decreasing human suffering in a world full of wicked problems.

This method – based in effectiveness – does not, of course, ensure that things will necessarily get better, but it does not so stridently resist change. Dewey writes,

Such a morals would not automatically solve more problems, nor resolve perplexities. But it would enable us to state problems in such forms that action could be courageously and intelligently directed to their solution. It would not assure us against failure, but it would render failure a source of instruction (MW 14: 11).

The focus is on the situation at-hand and on our own ability to more accurately reflect the needs of the public. As such the possibilities for instruction and improvement in failure only grow

more likely. We no longer necessarily try to solve our problems by endeavoring to more closely mirror some original intent. Fallibilism wards against the likelihood of forcing a community to endure institutions that hinder their progress and neglect their needs by encouraging a more consistent examination of the effects of institutional rules and policies on the community.

In line with Dewey, Paul Thompson and Kyle Whyte argue work on wicked problems requires an epistemology that "emphasizes the fallibility of any given judgment or perspective, including one's own" (5). Recognizing our own fallibility, WP scholars tend to recommend "more modest, iterative, incremental approaches to decision making that can facilitate consensus and action" (Sarewitz 400). Indeed, seeming to predict the direction of the WP scholarship today, Dewey says

if reasonableness is a matter of adaptation of means to consequences, time and distance are things to be given great weight; for they effect both consequences and the ability to foresee them and to act upon them. Indeed, we might select statutes of limitation as excellent examples of the kind of rationality the law contains (LW 2: 271).

Under a fallibilistic mindset, practical wisdom is about developing "a capacity to act" under difficult and confusing circumstances while also recognizing the likely limitations of those actions. Wisdom requires "the ability to understand, discern, appraise, and manage the complexities of specific situations" (Rogers 92). Generating theory, that is, does not generate wisdom.

Thus we see that a commitment to a world always-in-process and to our own fallibilism leads not to an inevitable progression, nor regression, nor dogmatic relativism, but to meliorism. Work on our social problems is pursued in the hopes of making the situation incrementally better, but also with an awareness of the possibility of undesirable consequences. As Dewey

says, "the end is no longer a terminus or limit to be reached. It is the active process of transforming the existent situation. Not perfection as a final goal, but the ever-enduring process of perfecting, maturing, refining is the aim in living" (MW 12: 181). Since we no longer aspire to "ultimate" end-goals, temporary ends become at best "compass bearings in the current that serve to direct conduct" (Uffelman 332).

Pluralism and Creativity

A focus on context and fallibilism help to point us to the importance of pluralism. According to Dewey, pluralism is present because of change, novelty, and uncertainty (MW 2: 204) and, of course, because society "is many associations not a single organization" (LW 15: 197). Pluralism demands "a modification of hierarchical and monistic theory" (LW 15: 196). Dewey's insights align with chapter one's conclusion: experts rarely provide us with clear and perfect solutions to the high-stakes and complex social issues we confront. If we take this plurality as a point of departure, we can situate ourselves to develop and test ideas that more fully promote human goods. Given pluralism, we begin with a *reflective* morality, moving away from adherence to ossified costume. As Rogers says, under this model it becomes necessary to consider "*how* and *if*" various values – values often in conflict – "can be successfully incorporated into the larger moral and political economy of society" (97). Kolb endorses the possibilities in such conflict as well, arguing "complexity and integration of dialectic conflicts" can spur genuine "creativity and growth" (141).

American Philosopher David Hildebrand describes Dewey's pluralism as a means to best seek out and "embrace a diverse range of goals, methods, theories, and practices" (225). By doing so, we strive to understand the other's point of view. Through our efforts to imaginatively understand a view beyond our own we tend "to enlarge inherited and parochial worldviews"

(228). In contrast, isolation and exclusion tend to breed an "anti-social spirit" where our ultimate goal becomes the protection of our own point of view at the expense of "progress through wider relationships." Such isolation encourages rigidity and breeds fear of interacting with those who are different. The fear is that open interaction with diverse others might shake-up, might "reconstruct" our own habits of thought (MW 9: 91-2). Pluralism commits us to take seriously the experiences of those often excluded and oppressed. Indeed, one of the essential values of democracy is its inherent pluralism and the creativity this can spur.

Walter Feinberg, writing on Dewey, highlights the creative forces found in a plural, democratic public, saying, "it is here in the engagement of collective reflection... that the creative normative work of a public is performed and where the public actually creates and endorses new norms, moral inventions if you will, to address new facts and new situations" (15). Recognizing the value of pluralism and the creative possibilities of collaborating across our differences was another essential recommendation in the WP literature. In confronting wicked problems what we need is what Dewey advocates for: "a means of stimulating original thought, and of evoking actions deliberately adjusted in advance to cope with new forces" (MW 14: 48). Thus, Dewey, like Brown, suggests we need to pull from a wider range of "intellectual resources" (4-5).

Kolb's extension of Dewey's work and his concerns about specialization also help to demonstrate why originality, creativity, and pluralism often fail to flourish. For one, the very "process of socialization into a profession" tends to instill not simply "knowledge and skills but also a fundamental reorientation of one's identity." This reorientation is "pervasive," leading to a certain "standard and ethics," a clear-cut way to "think and behave." It helps one develop "the criteria by which one judges values, what is good or bad" (182). Given a world constantly in

flux, such rigid standards are problematic. Kolb goes on to say "professional education is almost totally geared to producing autonomous specialists and provides neither training nor experience in how to work as a member of a team, how to collaborate with clients in identifying needs and possible solutions, and how to collaborate with other professionals on complex projects" (184). Instead, we need to develop the "whole person," encouraging "creativity, wisdom, and integrity" (162). That is, what we truly need is adaptive flexibility: "the means by which people transcend the fixity of their specialized orientation" (213). Kolb concludes we can counteract this tendency towards isolated professionalism by emphasizing real, concrete experiences and by together acting on our insights and reflecting on the consequences of those actions (197).

Public Engagement

Dewey's *The Public and its Problems* advocates for collaborative inquiry among citizens along with institutions which foster this engagement. This means we must first recognize the need for "amicable cooperation," since it is essential for moving us beyond *divisive* differences (LW 14: 228). Truly democratic communities foster an awareness of our interdependence and our shared interests; they foster collaborative learning. Brown, in *Tackling Wicked Problems*, calls for precisely this: a cessation of the competition between disciplines and stakeholders and the beginnings of collaboration and integration of all knowledge structures. The fact that our experts often fail to engage these issues normatively, that their analyses are more flimsy and less certain than they let on and thus that their "solutions" often cause a host of further complications, lead us to Dewey's footsteps, Norton reminds us that our values and commitments shape not only what we see when we examine a problem, but also what we experience (ix). Given these limited and fragmented perspectives and given that wicked problems inherently span across

many disciplines and institutions, no one point of reference or area of expertise can adequately tackle them. Thus, what we need "is coherence, shared understanding, and shared commitment, shared meaning for terms and concepts, shared commitment for solutions that are good enough to get on with the real business of learning through action." This, Salwasser says, is the "antidote" (21).

Aaron Schutz – writing on Dewey's work to "foster effective action" within our communities – says "'we' and 'our,' exist only when the consequences of combined action are perceived and become an object of desire and effort" (LW 2: 331). WP scholars find further common ground with Dewey in arguing citizens do not need to become experts per se, but instead need a *willingness* to deliberate.⁴⁵ "What is required," Dewey writes, "is that they have the ability to judge of the bearing of the knowledge supplied by others upon common concerns" (LW 2: 366). Kolb extends this point, arguing our own "interpretative consciousness" so often fails to lead us to integration because, on its own, it tends to exclude "contradictions that would challenge" it (157). WP scholars support this concern; when working in isolation, we are likely to try to "absolve" an issue by grasping onto some previous ideal and then "work backward from our pet solution(s) to the definition(s) of a problem compatible with our preferred solution" (Alpaslan and Mitroff 26). Accordingly, we are alone "ensared by our own particular specialized interpretative consciousness" (Kolb 158). Isolation and expertise, without integration and communication, lead us to the convenient, but dangerous conclusion that experts can alone best

^{45.} Willingness to participate is certainly critical and looks to be in short supply. While research clearly shows a lack of knowledge and interest, it does not prove the cause is a lack of ability to engage. Low levels of interest and knowledge could instead reflect the very few opportunities available to citizens for participation as well as apathy. As Fischer goes on to say, what we are missing in the United States is "… multiple and varied participatory opportunities to deliberate basic political issues" (Fischer 35).

address our shared problems. Instead, we should be aiming for cooperation and can best accomplish this through sympathy. It is "sympathy which carries thought out beyond the self and extends its scope;" It renders "vivid the interests of others" and urges "us to give them weight" (LW 7: 270).

Public engagement is also essential because, as Kolb's extensive research points out, we all tend to favor certain learning styles over others. His research indicates there are four major learning styles: diverging, assimilating, converging and accommodating. In order, these various styles focus on either observation and feeling, observation and reflection, reflection and action, or feeling and acting. For example, scholars and scientists tend towards favoring careful observation and reflection while more skill-oriented professions focus on learning-by-doing. It would be advantageous to intentionally put these learning styles into action to more holistically address various aspects of the shared problems we confront. Extending Kolb's work, Brown and Lambert argue collective, transformational social learning works best when it accounts for and includes these various styles around a focus question that guides the learning process (12). They argue "working with a diverse range of interests... can provide a rich pool of ideas from which everyone gains" (29). Since we all tend to start from a particular frame of reference, Brown extends Kolb's work again by intentionally inviting individuals who represent different types of knowledge into the deliberative process; she calls for the inclusion of individual, community, indigenous, organizational and holistic knowledge (69-73). When respect for each perspective is given, the goal is to work "synergistically" to create a more comprehensive response to the issueat-hand (75). Engaging the public on these issues, then, fosters opportunities for genuinely collaborative actions born out of collective learning.

Along these lines, Fischer (like Dewey) argues "citizen participation, defined as deliberation on issues affecting one's own life, is the normative core of democracy" (2000, 1). Fischer rests his assertion on the basic idea that – in a democracy – we would normally want citizens to be included in the decisions we make (x). Citizen engagement gives "meaning to democracy," while also giving legitimacy to our policy decisions (2). In promoting a more participatory democracy, he argues we can "bring forth new knowledge and ideas" and thus legitimize "new interests." We can also reshape our interests and influence "political pathways along which power and interests travel" (xii). According to Fischer, "Dewey identified a paradox." While the importance of citizen participation grew, so too did our institutions and the call to direct them through "managerial and technical expertise." This growth made citizen engagement more difficult to accomplish and, through our own isolation from one another, encouraged us to hold firm to our own "simplistic and false ideas" (6). It also encouraged a politics where expert knowledge became a source of contention and struggle, the means by which we justify decisions without democratic input (23). Instead of becoming "public intellectuals," experts have set themselves apart. This has not and cannot lead us to "consensual wisdom," the co-development of policies that are "participatory and transparent" nor "more systematic and evidence-based" (Turnpenny 348). Gathering these voices together and facilitating deliberation makes far more sense than deciding unilaterally on a path forward through a top-down model. These conclusions lead Fischer to argue for a particular form of public participation: advocacy research. Here we follow Dewey and "transcend the 'valueneutral' ideology of expertise by explicitly anchoring research to the interests of particular interest groups and to the processes of political and policy argumentation in society." By doing

so we call out implicit assumptions, help to uncover hidden practices, and encourage those involved to "speak for themselves" (38).

However, public engagement may be more difficult and tricky than some supporters let on. For instance, one response to wicked environmental and energy problems has been "Transition Management." Developed by the Dutch, transition management "attempts to facilitate the long-term reform of large socio-technical systems by encouraging actors to innovate and experiment with new institutions and practices" (Hendricks 151). WP scholar Carolyn M. Hendricks' shows that while this method effectively moved the Dutch from a top-down model for their energy policies and created a "networked and cross-institutionalized mode of governance," it had not effectively moved the Dutch away from an elite, expert-driven model at the time of her research in 2006 (153). That is, this model was effective on one scale – vastly increasing collaboration across networks – but was not effective on other public engagement recommendations. Hendricks was forced to conclude there had ultimately been little-to-no attempt to "inject the perspectives of everyday citizens or unrepresented groups such as women, ethnic minorities or children into energy transitions" (155). Echoing her conclusion, Fischer notes that engaging citizens in these problems never just happens; it requires a lot of organization, nurturing and facilitation (xi). By continuing to rely on experts and isolating specialists from public input, this instantiation of Transition Management also failed to push experts and specialists to move far beyond their own interpretative framework. By ignoring the wider democratic context within which energy issues occur, they missed out on opportunities for further creative and novel policy outcomes (156). Like Dewey, Hendricks advises we do more to "ensure adequate representation of affected groups," and "broaden public debate," while also working to "ensure that policy outcomes reflect [the] needs of affected publics" (150). Shifting

institutional momentum is a challenging, but necessary step towards inclusive engagement. On this front, Dewey offers additional guidance.

A Further Grounding for Wickedness

Habits and Institutional Lag

Dewey's insights on the power of unreflective habits and rigid institutions provide essential insight into the difficulties we face in promptly and fully addressing wicked problems. His work on institutional lag, for instance, can inform much of the WP scholarship. Clearly, the degree and speed with which our institutions adjust is dependent on the fixity with which old institutions have been embedded and maintained. As Benjamin Barber pointed out, "with one starting point and one model of reasoning, there can only be one true (logically consequential) outcome and thus only one true notion of politics, rights, obligation, and so forth" (Barber 31). In contrast to this model, the smooth and fluid functioning of our various institutions is important not least because they help us to "transform the fleeting advances of human insights into sustained practices" (Campbell 43). But assumptions of the universal applicability of their mission, values or operations by institutional founders serve to render the future of the institution more secure at the expense of a changing public (and thus changing public needs). This leaves much of the public without the means to organize efficiently because they "cannot use inherited political agencies." The very agencies meant to serve our needs can instead easily "obstruct the organization of a new public" (LW 2: 254). In fact, the more our institutions and our policies serve "a local pragmatic need," the less likely they are "to meet more enduring and more extensive needs." For instance, according to Fischer, our social institutions should most importantly be working to "remove the barriers that hinder or impede the shift of information from institutions to individual citizens," (11) not so narrowly fostering their own original intent.

While institutional lag can never be totally eradicated, it can be reduced. As Campbell notes, "when an institution is functioning properly in a society, its presence is hardly noticed; and, when it is reasonably flexible, its presence will continue to go unnoticed" (45). Alpsalan and Mitroff concur, arguing distinctions between natural and social disasters are often collapsible in part because we can trace them back to more or less prepared, more or less flexible institutional responses (10). While many examples can be used to demonstrate the appalling conditions that arise when our institutions are ill-equipped, ineffective and disinclined to deal with social, political or environmental changes, a quick example suffices. The housing and financial crisis in the United States – discussed in the introduction – is a particularly apt illustration, one which turned from a more manageable complex problem into a social mess and then into a full-blown crisis because of our lack of preparedness and flexibility, as well as a willingness to pursue one's own interests in relative isolation. As we saw, the list of contributing factors to this financial crisis is quite large and capable of almost infinite expansion (as we break those factors into their component parts and continue to look towards more distant factors). Behind these factors, though, we saw some common institutional tendencies.⁴⁶ The promotion of individual/institutional self-interest, the lack of oversight and of collaboration between agencies was a consistent problem. The failure to focus on more than one issue at a time and an assumption that doing so wastes energy also showed up consistently. A separate, but also troubling false assumption recognized the interconnectedness of these issues, but promoted selfinterest through the idea that we can all simply address only our own piece of the problem situation. We can get away with addressing our problems in isolation because doing so will

^{46.} Alpaslan and Mitroff list the loosening of credit, the culture on Wall Street, the failure to understand systemic risks, a lack of transparency, the removal of regulations, the housing bubble the undervaluing of risk management, our failure to learn from our past crises, overconsumption, as well as business schools and climate change (and many more factors) (30).

supposedly "additively" make things better (Alpaslan and Mitroff 33). In actuality, though, unreflective adherence to our institutions *cannot* work when "politics is archetypically experiential and thus experimental in Dewey's sense" (Barber 53). These isolating and simplistic tendencies align with Dewey's concerns about our unreflective habitudes.

While the WP literature focuses on the issues of separation and isolation of our acting institutions, it does not currently focus enough on institutional lag. When, for instance, our policies are implemented not as "hypotheses with which to direct social experimentation but as final truths, dogmas" they literally hold us back (LW 2: 326). That is, assumptions that our endeavors are fool proof or universal prevent reevaluation. Given that our institutions are developed within and for our various communities, there is no need for such rigidity to reign supreme. At times bold actions are needed if only to help us learn something about the mess we confront and thus move us away from an unsatisfying status quo; at these times, rigid institutions and conservative, unreflective habits of thought work against efforts to move forward. For instance, according to Salwasser, "harm from inaction" can sometimes "be greater than harm from proposed action." This is because "inaction creates 'opportunity benefits,"" that is, benefits foregone when action is not taken (18).

Indeed, institutional lag, given our swift technological progress, is highly dangerous. We currently live in a high risk society; that is, given current "mega-technological dangers" our problems are now "unprecedented in terms of both visibility and scale" (Fischer 48-49). Public risks have accumulated in "intensity and complexity" over generations, moving us toward "the self-endangering, devastating industrial destruction of nature." We are all, for instance, threatened by nuclear radiation, biotechnology and global warming (49-50). Our institutional resistance to change and our subsequent plodding efforts – efforts better adapted to coping with

less complex problems – tend to increase public risks and the chance of an impending crisis. In assuming wicked problems can be solved "by simply doing more of what has always been done or just doing it better" we dangerously misdiagnose the problem (Salwasser 2). If we left more room for flexibility within our regulations we could more easily address problems as they arose and incorporate new policies. Thus, acknowledging and implementing Campbell's (and Dewey's) conclusion – that the "existence, evolution, and demise" of our social institutions must be directly "related to the social problems we face" – is essential to more quickly and directly addressing our social ills (45). As we will see in the next chapter, the settlement Hull House did just this, operating effectively as a flexible "bridge" institution for many years.

On a social level, customs – as social habits formed prior to the individual – also tend to stymie flexibility, preventing individuality and creativity. As Dewey says, "the inert, stupid quality of current customs perverts learning into a willingness to follow where others point the way, into conformity, constriction, surrender of skepticism and experiment" (MW 14: 47); too often our institutions serve only to "deify" customs, turning them into "eternal, immutable" truths that rest "outside of criticism and revision." This proves to be "especially harmful in times of social flux" (MW 14: 58). Novel attempts to address our collective problems are restricted by not only the daunting amount of work such moves require (made more difficult by a resistant system), but also by the difficult task of releasing old habits in order to generate new, more useful ones. As Dewey says, "habit, apart from knowledge, does not make allowance for change of conditions, for novelty" (MW 9: 349). This is particularly troubling given recommendations that we tackle wicked problems by creating and implementing "innovative alternatives," alternatives we must be willing to quickly abandon if they fail to work (Salwasser 19). Along these same lines, Alpaslan and Mitroff suggest we most need greater flexibility in our responses,

as well as a conscious awareness of our own assumptions, values, and emotions. In Dewey's terms, we need reflective habitudes (LW 2: 341).

While in general habits are inevitable and even beneficial, unreflective habits impede creativity and timely novel responses to changing conditions. As an "active tendency," "it [habit] is a propensity to act in a certain way whenever opportunity presents." In reality, failing to respond as a particular habit prompts us to sets up feelings of discomfort or irritation (MW 5: 309-10). Accordingly, the problem is that "habit and custom tend rapidly to fixate beliefs and thereby to bring about an arrest of intellectual life" (MW 6: 453-454). Unreflective habits work to prevent greater reflexivity whereby we are more aware of – and thus capable of being more responsive to – changes in our environment. In place of unreflective and rigid habits, we need to develop habits more open and responsive to change. According to Dewey scholars Garrison, Neubert, and Reich, flexible habits stay connected with imagination and novelty while also having a foundation in our traditions and customs (6). Dewey's extensive scholarship on the problems of unreflective habit helpfully expands and deepens insights only briefly and intermittently acknowledged by WP scholars. Norton, for instance, does highlight Dewey's work on habit and language as the keystone for the method he proposes.⁴⁷

Both Dewey and WP scholars come to the same conclusion: collectively addressing our shared problems as a public requires we educate our citizens for this type of work. The WP scholarship does not so extensively flesh out problems with unreflective habits and institutional

^{47.} Norton is focused on consciously reshaping language so it better serves our purposes. He says, "Perhaps we can develop a language that encourages experimentation and careful observation of outcomes." He references Dewey's work as a means of more fruitfully reframing our experiences. "In the process of developing more functional concepts, Dewey and the pragmatists would say, we are simultaneously reshaping our world and reinterpreting the problems we face in terms of new experiences" (82).

lag, nor does it consistently delve into the complexities of integrative collaborative endeavors. However, Kolb's research can be used to effectively bridge the gap between Dewey's analysis and our current efforts to address wicked problems. For example, Kolb's research led him to conclude our mutual success "is highly dependent on the proper attitude – an attitude of partial skepticism requiring that each act of knowing be steadily steered between... appreciative apprehension and... critical comprehension" (131). Kolb is highlighting the necessary roles of values and observation, reflection and criticism. Implementing his recommendations in order to confront our shared problems demonstrates its value for collaborative endeavors (Brown and Lambert, 2013). Dewey recognized this long ago, saying public engagement is valuable not least because it "sets up a heightened emotional appreciation and provides a new motive for fidelities previously blind. It sets up an attitude of criticism, of inquiry, and makes men sensitive to the brutalities and extravagancies of customs" (MW 14: 55). It also leads us into the very real problems with our current educational system.

A Case Study: K-12 Education and the Value of Inquiry

Our K-12 education system places a heavy focus on fixed answers, memorization, and "exercises" in place of work on real ill-structured problems and this is of serious concern to the scholars these chapters engage. In many ways we are preparing students for a world they will not confront ahead: a world with well-defined, pre-formed problem-statements with definite, often universal and absolute answers capable of being derived in "isolation" from other issues and other people (Alpaslan and Mitroff 23). In opposition to this form of education, we've seen that deciding on *how* to form the problem is crucial to any attempt to adequately tackle it; yet students get relatively little practice at problem-*formulation* when the K-12 focus is on isolated problem-*solving*. In contrast to this focus on pre-formulated "exercises", real-world problem

definitions are actually often derived at the *end* of extensive inquiry, not at its beginning (Alpaslan and Mitroff 20). Given that the conclusions derived can only be as good as the questions asked, spending relatively little time on problem formulation is particularly troubling. Dewey's educational philosophy directly addressed these concerns over a hundred years ago. For instance, according to Dewey learning could not be successfully removed from the conditions which surround it. As has been shown, it's counterproductive and dangerous to address any one aspect of a wicked problem in isolation from the mess which surrounds it. In reality, we "are not confronted with problems that are independent of each other, but with dynamic situations that consist of complex systems of changing problems that interact with each other" (Alpaslan and Mitroff 16). Noticing this very issue, Dewey compares education in isolation to learning how to swim "by going through motions outside of the water" (MW 4: 272); It does not get us far.

Dewey concludes, "it is an absolute impossibility to educate the child for any fixed station in life." Doing so ends up "fitting the future citizen for *no* station in life" (MW 4: 271, *emphasis mine*). Given swift social, economic, political and environmental changes, rote training alone is unlikely to prepare citizens for the world they face ahead. While we do have "general" education, many of today's educational methods build in habits of thinking which are counter-productive to effective and collaborative work on real ill-structured messes. Indeed, what does this focus on a pedagogy of standardized rules and regulations actually get us? It seems to serve only an (often failed) attempt to boost standardized test scores. As we've seen, Dewey's experimental education educates instead for the real world. According to Garrison, Neubert and Reich, Dewey's educational philosophy tries to "save us from such catastrophic reductionism and inhumanity" (x). Under a Deweyan system, education helps the student "adapt himself to the

changes that are [actually] going on" while cultivating in him the "power to shape and direct" these social activities (MW 4: 271).

Important for my work here, Dewey's educational philosophy is also grounded in reallife problems and centered around the learner. According to Dewey, "the only way to [really] prepare for social life is to engage in social life" (MW 4: 272). On this interpretation, one of the biggest educational mistakes we continue to make is to separate intellectual from moral training. According to Dewey, this separation results from a "failure to conceive and construct the school as a social institution, having social life and value within itself' (MW 4: 273). Instead, the point of education must be to respond more *intelligently* to our environment, "thereby transforming the world as we transform ourselves" (Garrison xiii). Cultivating "intelligence will widen, not narrow" a "life of strong impulses while aiming at their happy coincidence in operation" (MW 14: 137). Intelligence, for Dewey, is instrumental; it is developed by cultivating our "imagination, impulse, and emotion" as well as engaging in "joint activities" (Garrison xiv, xv). This means we best cultivate intelligence by using our faculties to help us cope with the illstructured problems of daily living. That is, intelligence is best developed through "*reflective*, strategic, real-world problem-solving action and experience" (Benson et al. 25). Inquiry cannot occur in isolation.

For instance, in *The School and Society* Dewey applauds the integrated approach to education and its practical orientation in pre-industrial times. He highlights pre-industrial educational practices because they focused on "training in habits of order and industry, and in the idea of responsibility, of obligation to do something, to produce something in the world" (MW 1: 7). While we can certainly levy charges against various aspects of pre-industrial education, children were being prepared for life by engaging in the activities of life directly. This was a

form of action-based learning that we have largely moved away from. In contrast, Benson et al. call our fairly passive educational practices today a "daily exercise in learned helplessness" (28). Dewey goes on to say,

we cannot overlook the importance for educational purposes of the close and immediate acquaintance got with nature at first hand, with real things and materials, with the actual processes of their manipulation, and the knowledge of their social necessities and uses. In all this there was continual training of observation, of ingenuity, constructive imagination, of logical thought, and of the sense of reality acquired through first-hand contact with actualities (MW 1: 8).

To this end, Dewey developed an experimental elementary school in Chicago: The Laboratory School. However, this very hands-on example fails to live up to Dewey's suggestions in that it focuses on learning various modes of living (most often past modes of living) through "pretending" or "reanimating" them in isolation. The Laboratory School was not fully integrated into its community, nor the community's problems. Thus, I do not delve deeply into this example in order to extend the arguments given here.

While Dewey's general educational philosophy proves helpful in considering why our current educational system gets it wrong and while it provides us with guidance in how we might begin to reconstruct this system to better address the problems we face, it does not always offer very practical or tangible ways forward. In "The School as Social Centre" Dewey argues our schools could do far more; they could, for instance, operate as a gathering center for the community, educate adults as well as children, and be involved in addressing community problems. Finding Deweyan examples of how this would look in action is fairly difficult however. Leaving Chicago and giving up hands-on management of his laboratory school meant

others were left attempting to interpret and put into practice Dewey's educational philosophy. For these reasons we turn, in the next chapter to Jane Addams and the settlement movement to find more concrete examples of effective, collaborative experiential learning within the community.

Nevertheless, Dewey's educational philosophy still remains quite relevant to wicked problems work and the subsequent methods evolving from it. For instance, work on wicked problems requires an effective public sphere and an effective public sphere requires citizens and experts who are willing and able to engage one another across their differences. In the end, developing critical discursive competency in both our experts and our citizenry is facilitated by Dewey's educational philosophy. The value of Dewey's philosophy is further elucidated by soft systems thinking, examined next.

Soft Systems Thinking

As we've seen, the various methods recommended for tackling wicked problems have roots in the pragmatic method. One of the most well-known methods suggested – soft systems thinking –has particularly strong, historical roots in pragmatism. The founder, C. West Churchman, was a student of E. A. Singer, who was a student of William James (one of the founders of pragmatism). Like pragmatism before it, soft systems thinking is fundamentally committed to rejecting the notion that science and values can be separated, committed to the idea that we can only approximate reality, and committed to the idea that all inquiry in a changing world must be continuous. Soft systems thinking is also, like the pragmatic method, focused on tackling real world problems "on the ground"; it recognizes the ongoing nature of work on complex and ill-structured problems.

As a "learning system," systems thinking promotes a practice of inquiry that is open, critical, iterative and grounded in experience (Checkland 5). Checkland says, "regarded as whole, the soft systems methodology is a learning system which uses systems ideas to formulate basic mental acts of four kinds: *perceiving* (stages 1 and 2), *predicting* (stages 3 and 4), comparing (stage 5), and deciding on action (stage 6)" (17). It is, in effect, an instantiation of the experimental method promoted by Dewey. It is designed to help us create a more holistic and complex picture of the situations we confront. Indeed, Churchman argued there were two sciences: the collection of disciplines we currently have and the systems approach (14-15). The acronym used to help those employing this methodology, CATWOE, also helps to ground users in the wider-context of the issue they face. For instance, the acronym asks users to consider the customers or victims involved in the situation (i.e., the stakeholders), as well as the relevant actors, the transformative process itself, the weltanschauung (the larger framework), the owners (i.e., those with the power to act in the matter), and the environmental constraints (18). Without delving deeply into each aspect of this acronym, it is quite clear that it grounds the learner in the *context* of the mess she faces. It does this by encouraging (1) a broad-range of considerations and (2) engagement with others as well as (3) an examination of not just the "facts," but also the values; that is, it relies on the very same tenets of the pragmatic method.

The goal for soft systems thinking is not certitude, but a better estimate that we are making good choices by "trying as well as possible to estimate the relevant system of opportunities" (Churchman 12). Checkland says we must stop attempting to solve problems and begin to value "dialectical debate" as well as "the idea of problem-solving as a continuous, never-ending process" aided by soft systems work (18). It is clear that soft systems thinking is an

iterative process focused on tackling social problems in collaboration; and so, it is an instantiation of Dewey's methodology in action.

While the above clearly demonstrates there is much value in grounding work on wicked problems more explicitly in the pragmatic method, there are yet a number of consistent criticisms of this method that must be considered before concluding this chapter.

Common Criticisms

Dewey's pragmatism is consistently critiqued for being far too naïvely optimistic. For example, Reinhold Neibuhr – a strong critic of Dewey and one of his contemporaries – argues Dewey fails to adequately account for the limits of human nature in his vision of melioration and growth. Neibuhr says, "man will always be imaginative enough to enlarge his needs beyond minimum requirements and selfish enough to feel the pressure of his needs more than the need of others" (196). He suggests humans are simply far too selfish, too conservative, too enamored of their own epistemic and moral assumptions to be capable of any significant change. While "the development of rational and moral resources may indeed qualify the social and ethical outlook... it cannot," Neibuhr says, "destroy the selfishness of classes" (116). He raises valid concerns about whether we can get past our own biases and loyalties in order to co-create and implement innovative ideas which satisfactorily address the various dimensions of a wicked problem.⁴⁸ On the other hand, Neibuhr does believe we can make *some incremental progress* through Dewey's method.

A more nuanced reading of Dewey's work on the nature of habits and institutions demonstrates that Neibuhr's concerns are based on a misreading of Dewey. In addition to his misinterpretation, I also suggest his conclusions lead us into an unhelpful and unnecessary

^{48.} Pragmatists, like Jane Addams, will argue that it is not that we need to get past our loyalties, but instead that we need to *expand* our loyalties.

cynicism. In place of the claim that Dewey was far too naive, it is more accurate to say he was *cautiously* optimistic. Dewey directly says, "Progress is not steady and continuous. Retrogression is as periodic as advance." He illustrates his point by referencing industrial and technological advances as examples of how the conditions of social life can be radically altered in ways that have "indirect consequences" (LW 2: 254). The above, along with similar passages, indicate a keen awareness of – without using the terminology – the conditions which make issues messy and wicked. Progress for Dewey is better described as a *possibility* we can strive toward. In his words, "the specific conditions which exist at one moment, be they comparatively bad or comparatively good, in any event *may* be bettered" (MW 12:181–82, *emphasis mine*). Further supporting Dewey's optimism, research shows citizens are more capable of grappling with complex social messes than many believe (Fischer, Fung).

Dewey's emphasis on an experimental method also clearly indicates a strong awareness of the possibility for regress and decline. It is through acting that "we put the world in peril" and thus cannot ever "wholly predict what will emerge" (LW 1: 172). Defending Dewey on this point, Rogers says that "contrary to his critics, he [Dewey] seeks to make us attuned to the world's inescapable, and sometimes, tragic complexity" (90). Beyond the extensive work Dewey invests in pointing out the serious problems we face and the work ahead, it is also simply true that the pessimistic cynic is unlikely to begin the work necessary for tackling our most pressing problems. One mired in the tragedy of our times, thoroughly beaten by the burden of our overwhelming problems and utterly pessimistic about our ability to intelligently change the path we are on, wouldn't bother trying. To cave entirely to the tragic does not serve us in our attempts to address the social messes we now face. In the end, Dewey's cautious optimism and critical awareness sets us up to be more attuned to the outcomes of our actions. Under this methodology,

we are more likely to consistently "survey conditions" in our attempts to "make the wisest choice we can" (LW 4: 6).

A separate, common critique of early pragmatism focuses on its failure to adequately engage problems of power and oppression. Dewey's work on the power of unreflective habit and institutional lag certainly begins to confront problems of power, but there is more yet to uncover. Systems of power too often work to limit whose voice can be effectively heard. If we place value in experience and commit to the import of context, as this method does, then the experience of others matters greatly. Valuing pluralism and emphasizing the importance of sympathy also means the pragmatic method is inherently inclusive, encouraging us to engage the perspective of others.

In general, philosophical analyses which ignore or fail to adequately confront relations of power are part of our current troubles. This holds true for WP scholars as well. While they certainly confront problems of power, the analysis across both fields can be characterized as relatively shallow. How can we successfully work between and among our various stakeholders? While Dewey's methods and general philosophy provide us with some grounding ideas for confronting problems of power, his blueprint is not fully explicated. Charlene Haddock Seigfried, for example, characterizes Dewey's awareness of feminist issues as "fleeting" and reminds us of passages which portray a traditionally sexist understanding of women's roles (27). For feminist-pragmatists, the central problem of social relations is *power* and this focal point can be found in how they sought to tackle real world wicked problems; as the next chapter will detail, they've more consistently moved beyond articulating a method towards implementing it in dialogue with others.

Thus far we've seen how this method helpfully supports and extends the WP scholarship and that it generally withstands the most common critiques levied against it. Juxtaposing it against other common philosophical methods, as the next section does, serves to reinforce its crucial place.

Brief Comparisons

If Dewey's methodology did not best support work on wicked problems and social messes, what other philosophical methods might we turn to? That is, if this chapter did not so strongly endorse the pragmatic method, how else might we approach wicked problem situations? The most well-established philosophical methods come from deontology and utilitarianism. Briefly contrasting Dewey's suggestions with these other methods will reinforce its value. Given the above objective as well as time and space, however, I admittedly provide only quick caricatures of these other possible approaches.

Deontology, as described by Kant, seeks to develop rules for action. As a rule-based ethic, it obligates one to following a set of rules. A first concern about such a method is that it fails to privilege the role of experience, context and faillibalism. It too easily encourages a mechanistic rule-following when we must be ever-aware of the context of each situation, changing circumstances, as well as our own fallibilistic nature and the possibilities for creativity more likely to be found by working outside of set rules. While intentions certainly matter, so too do the consequences of our choices. In general, deontology is more likely to fail to take into account the role of complex social messes and can at times limit our perspective or preclude attempts to reevaluate. Following a maxim to act from duty –when our duties have been so divided and isolated – further perpetuate divides, conflicts, and, as a result, our problems. A reliance on supposedly universal rules tends to forestall doubt and prevent critical reflection and

hence eliminates the need for dialogue and debate instead of engaging it; the assumption that we can generate rules that never fail to operate successfully under very different circumstances is in fact quite dangerous; it forecloses opportunity for growth. Under this framework, deontology encourages too narrow a form of inquiry from which to approach wicked problems. It also too often promotes an excessive rationalism where ethics are again too rigidly separated from science and where knowledge can be derived before or without experience; it thus endorses a firm separation between the knower and the known. In contrast, a Deweyan pragmatism focuses on the consequences of our actions, on the unforeseen and problematic with a goal of meliorating the situation we confront.

Utilitarianism, to the extent that it focuses on the real-world consequences of the choices we make, is more in line with a pragmatic ethic. Its focus on pleasures and pains, on happiness and well-being, directs attention to the troubles we collectively face on the ground. However, like deontology, it too narrowly limits efforts to comprehensively address social messes. To a great extent, utilitarianism relies on calculating the greatest good for the greatest number, of maximizing utility. In attempting to reduce matters to calculable outcomes it too easily ignores more complex, ambiguous factors as well as important protections for those most threatened or at risk by any social mess. It fails to account for legitimate, but more nebulous factors. That is, utilitarianism tends to favor a certain style of learning, a type of knowledge, over others. It can also too easily dismiss the values and emotions behind perspectives. For instance, Kristin Shrader-Frechette warns us that calculating risk is not so simply a matter of math. What level of risk and uncertainty we are willing to undertake inherently involves our values as well. Maximizing utility can "hide the very problems that most need addressing, the problems of discrimination and inequality" (113). Maximizing utility is *one* perspective among many that we

would want to consider in confronting a social mess; it is not, however, the position from which to broach the issue. To the extent, however, that it grounds us in the very real consequences of the actions we take (ie. is a form of naturalism), utilitarianism moves us in a fruitful direction.

In general, the complex moral and epistemological issues surrounding wicked problems cannot be sufficiently addressed through the more narrow models of a rule based deontology and a calculating utilitarianism. Wicked problems call on us to transcend our ideological commitments. Neither deonotology nor utilitarianism are up to the task of confronting the heterogeneity of factors surrounding the social messes our society now faces. In contrast, the pragmatic method provides us with an iterative approach grounded in experience and committed to pluralism and fallibilism; it is thus far more sensitive to the nuances and complexities involved.

Conclusion

The recommendations from the wicked problems literature clearly align with a pragmatic focus on context, experimentalism, doubt, a refusal to maintain the fact/value divide, a constant focus on amelioration and public engagement even though relatively little of the general WP scholarship fails to directly engage or acknowledge this method. This clear reliance on the constitutive components of the pragmatic method reinforces Campbell's point about the continuing value of Dewey's work. He says, "the ongoing importance of Dewey's contributions is to be found... in his adumbration of a social method for developing, publicizing, and evaluating suggested modes of action. His goal here is the creation of a vibrant democratic society that addresses its ills through cooperative inquiry" (8). The need for "nontraditional solutions" is supported and undergirded by the work of the pragmatic method.

As Brown said, since all attempts to resolve wicked problems generate further complications, solutions cannot be true or false (4). Dewey saw this long ago, arguing our policies in truth are – and should be thought of – as experiments put into practice (LW 12: 502). His focus on experimental inquiry opens us up to new approaches, encouraging creativity and the pursuit of the novel. His work also helpfully reanimates the role of values in all inquiry. As Shane Ralston says, "What Dewey offers in his theory of moral deliberation is a way of intelligently coordinating individual actions, forging shared moral values, and solving common problems" (30). According to Dewey and our WP scholars, this means we need to work through an incremental, continuous, and collaborative process that is at its core widely inclusive. As we've seen, this is a method very much in line with Salwasser's action-based learning and it is far more likely to result in what Turnpenny et al. called "consensual wisdom."

Pragmatists suggest we need to address our public problems through a communal discourse that seeks working solutions through "practical agreement." Salwasser makes it plain that – in the end – we have three options: we can (1) do nothing, (2) grasp at faith, hoping the issue will resolve itself, or (3) choose to confront the problem in a systematic way (11). In fact, Dewey warned us, "those who wish a monopoly of social power find desirable the separation of habit and thought, action and soul... For the dualism enables them to do the thinking and planning, while others remain the docile, even if awkward instruments of execution" (MW 14: 52). The separation of habit and thought allow authoritative or competitive strategies to thrive, but cooperation requires a more careful and reflective citizenry. Accordingly, Dewey's educational philosophy encourages the expansion of the kind of collaborative inquiry necessary for addressing the social messes we face ahead. In contrast, we've seen that K-12 education's focus on pre-formulated and isolated exercises with fixed answers builds in habits of thought that

are counter-productive to the kind of creative and collaborative inquiry necessary for addressing complex and wicked problems. This work illuminates why various wicked problems are not more frequently, systematically, and inclusively addressed; it also adds something new to the WP scholarship, providing avenues for deepening work in the field.

The pragmatic method looks to be an umbrella under which WP scholars' recommendations fall. It provides the literature with a consistent set of tools, a named methodology, and thus a more coherent approach to tackling these problems without prescribing standardized solutions. Dewey's philosophy on the power of unreflective habits and rigid institutions also provides essential insight into the difficulties we face ahead and begins to highlight issues of power and oppression that must be more fully addressed. The WP literature does not currently delve into the difficulties our habits cause, nor does it go far enough in critiquing institutional rigidity. On the other hand, Dewey does not provide us with many examples of how to employ this method on the ground. Instead, we most often get broad brush-strokes. For these reasons we turn in the next chapter to Jane Addams's lifelong work and her commitment to the social settlement in order to clearly illustrate the ultimate value of this methodology in operation.

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CHAPTER THREE:

THE PRAGMATIC METHOD ENGAGED:

JANE ADDAMS AND WICKED PROBLEMS

"To attain individual morality in an age demanding social morality, to pride oneself on the results of personal effort when the time demands social adjustment, is utterly to fail to apprehend the situation."

Jane Addams

In the Feminist Pragmatist tradition "knowledge is developed interactively among communities of inquirers and given conditions" (Seigfried 4). That is, knowledge is coconstructed in a particular context and social milieu. Knowledge is understood as a tool for meliorating our most pressing problems; values are those which serve us, solve our problems, and are, thus, deemed worthy of holding on to; truth is fallible and contingent, always subject to change (7). Especially relevant to this project, early feminist-pragmatist Jane Addams illustrates how the pragmatic method is applicable to wicked problems by employing this methodology on the ground in confronting the wicked problems of her time. She provides us with valuable insights on how to go about tackling these problems. That is, I argue she 1) lived the pragmatic method, and 2) by doing so, worked in and with her various communities to collaboratively engage complex and wicked problems. In fact, Marilyn Fischer opens her book on Addams by noting "life and thought" were for Addams "intimately intertwined." The activities of life were "the testing grounds for her thinking" (1). Her life's work, then, is a case study where the pragmatic method previously described is put to work. Given her experience, she has valuable insights to offer us today, insights left undeveloped and underdeveloped in the wicked problems literature.

Reanimating Addams as one of the earliest to collaboratively address wicked problems through the pragmatic method is valuable not least because she has largely been remembered as The proto-social worker and/or as an inspirational philanthropist. Both of these characterizations are at best partial and at worst misleading. Addams consistently disdains the uninformed and high-handed charity worker, arguing instead for co-action, for working *with* others. Beyond these characterizations, there have been further efforts to recall Addams as an American Philosopher. In this light, her writings have frequently been dismissed as "derivative" of the founding pragmatists and thus not significant (Elshtain xxviii). If she is an American philosopher, the argument goes, she is not particularly note-worthy, offering us nothing new, nothing original. I will argue the exact opposite. Addams has been alternatively mischaracterized and discounted because she does not "fit" perfectly into any of the above categories. This chapter proves any characterization of Addams as derivative is not only mistaken, but also extremely unfortunate. Through lived experience Addams consistently confronted complex problems that inspired and refined her feminist pragmatist method. This methodology, while partially implicit in the WP scholarship, also adds important dimensions to the field, expanding on aspects currently undeveloped and/or underdeveloped by WP scholars.

Indeed, Addams demonstrated that critique and revision must be intimately tied to action in the world. Jean Bethke Elshtain introduces *The Jane Addams Reader* by saying Addams's

... writing retains a remarkable freshness after all these years, in part because we are still struggling with so many of the problems she and her generation confronted, in part because we have not yet figured out how to deal with stubborn poverty or how to strike the right balance between diversity and commonality or how to be fair to the one and respond to the needs of the many (xxxviii).

Because work on tackling poverty and on balancing diversity and commonality are ill-structured, complex and dynamic issues with multiple and interacting players and systems (ie. because they

have wicked dimensions), there can be no final or ultimate solution. However, responses to these issues over the years have been more and less aware of these dynamics and consequently more and less comprehensive. I argue Addams's on-the-ground methodology for addressing such issues will prove to be valuable to work on wicked problems today.

While recent work resurrecting her importance as a Feminist American Philosopher has already been done, the arguments I make here add new dimensions to the conversation. In particular, her insights on the need for cooperative action, her advocacy for the expansion of our ethical framework, and her work about the role perplexity must play in creating effective collaboration will be shown to be foundational to work on wicked problems. Spanning numerous boundaries, her role as a public philosopher, social reformer, and facilitator are far more in line with both the recommendations following from the pragmatic method and the WP scholarship than is the work of most current philosophers today. Along these lines, I will demonstrate her life's greatest work, Hull House, was a highly effective bridge institution, providing a key, relatively stable, yet flexible space from which she was able to bridge institutional, political and moral divides. This space has since largely disappeared and our lack of bridge institutions has made effective co-action that much more difficult. In addition, her work fruitfully expands the current WP scholarship through her nuanced understanding of the need for fellowship, sympathetic understanding, and reciprocity – all key insights developed through her work *with* others, in place of *for* or *on* them.

Social Ethics

Addams's life exemplifies the pragmatic method and provides us with a long list of onthe-ground efforts to cope with wicked problem situations. She very quickly realized preempting problems with either the status quo or with her own, initial ideal solutions would not get

her far. For instance, she noted early on that her own Hull House efforts – when they began without much community support or initial involvement – tended to fail quickly.⁴⁹ From these failures Addams quickly learned to operate through *cooperative action*. She, for example, begins her chapter on "Industrial Amelioration" by noting "the great difficulty we experience in reducing to action our imperfect code of social ethics arises from the fact that we have not yet learned to act together." She goes on to compare these attempts to act together to the "wavering motions of a baby's arm before he has learned to coordinate his muscles." This is especially problematic because the needs of her time – and ours -- *demand* "associated effort," not simply individual effort. While attempts at collaboration consistently appear to be slow and "ineffective," collaboration has greater social value than "effective individual action" ("Democracy and Social" 63). Addams illustrates this argument throughout her work, but analyzes here the relationship between the factory owner and his employees as a prime illustration of her point. As we will see, her description of this situation aligns in many ways with the description of wicked problems today.

The Pullman strike by non-unionized workers was caused in no small measure because of reduced wages as well as discontent with management and with the town laws built and enforced by the employer. According to Addams, underlying this problem was the rigidity with which an individual ethic was applied to a social situation. For instance, the president was convinced he only needed "to test the righteousness of the process by his own feelings" (66). Neither side was willing to see the other's point of view. Addams notes that this problem got its start because of

^{49.} As an example, she cites initial efforts to introduce "health foods" in Hull House's Diet Kitchens, because it was disconnected from residents eating habits, cultures and desires, as a resounding failure. This failure was, however, a source of instruction for Addams and Hull House residents, leading them to engage from the beginning with their various stakeholders, reshaping their methods and philosophy. This is precisely what WP scholars recommend we do: collaboratively pursue an iterative process of reflective engagement.

individual management organizing not only the working conditions, but also the living conditions of a vast number of people without ever consulting those same people, applying an authoritative strategy when collaboration would have been more effective. Pullman, for instance, "believed that he knew better than they what was for their good" ("Democracy and Social" 65). Absorbed in his own grand ideas, he fails to "measure the usefulness of the town by the standard of the men's needs" ("Democracy and Social" 66).

As occurred in the Pullman strike, high levels of disagreement between stakeholders is one of the characteristics of a wicked problem. Similarly, like many social issues, this situation involved factors beyond any one person's control. In the Pullman strike, for instance, the various parties could not agree on what *the problem was* and thus could not find common ground for meliorating the problem. Also relevant to this strike is the WP criterion that both action and inaction carry high-stakes consequences. Pullman's ethic is in direct contrast to Allen and Gould's recommendation that emphasis be placed on the people involved, not on the initial divisions at play (23) as well as the consistent WP recommendation that local knowledge is essential to any attempt to meliorate shared problems. Addams's analysis highlights just these deficits, pointing to the need for social ethics and collective action.

For Addams, it is a mistake to narrow our frame of reference in order to pretend towards neutrality. Instead, she advocates for expanding our ethics ever outward so that we can "supplement" a "family conscience" with a "social and an industrial conscience" ("Settlement as a Factor" 48-9). It is through the expansion of our ethical framework that we can overcome enormous, initial differences and begin to search for common ground. In another illustration, Addams highlights the possibilities of expansion by referencing the collaborative efforts engaged after the initial downfall of Chicago's unionized and highly trained Russian-Jewish cloakmakers

by untrained American-Irish young women willing to work for far less wages. She tells her reader, "these two sets of people were held together only by the pressure upon their trade. They were separated by strong racial differences, by language, by nationality, by religion, by mode of life, by every possible social distinction" ("Settlement as a Factor" 51). On top of these divisions also lay the opposing commitments to individualism and socialism. When Addams provides them with a space to meet, she describes the interpreter – and in no small measure Hull House itself – as standing *helplessly* between the two. While the interpreter recognized the groups' "mutual interdependence," the enormous gulf seemed at first to be quite insurmountable. In confronting wicked problem situations we are most likely to encounter similar gulfs. But Addams saw – through "the pressure of the economic situation" – the opportunity for education and a broadening of perspectives ("Settlement as a factor" 51). It was up to Hull House to mediate between the two positions, to find "the moral question involved" ("Settlement as a Factor" 53). In these efforts, she concludes we must relinquish the idea that we can ever truly "settle our perplexities by mere good fighting." Indeed, this competitive drive is denounced as a "childish conception of life" ("Settlement as a Factor" 57). The drive towards rampant competition is also listed as a consistent reason why we fail to more comprehensively address our wicked problems.

Supplanting initial divisive certainties with "perplexities" is the first step and key to Addams' methodology. Her work on perplexities also sheds helpful light on how we can begin to open others up to the various and conflicting dimensions of the problems we confront. For instance, writing again about the push and pull of "industrial stress and strain" Addams says "the community is confronted by a moral perplexity." According to Addams, this perplexity provides the community with the opportunity to realize what at first appeared to be "a choice between

virtue and vice" may really be a "choice between virtue and virtue" ("Democracy and Social" 77). Key to Hull-House was its commitment to engage in these perplexities. Avoiding perplexity encourages one to remain committed to individualized ideals at the expense of community growth and inquiry. Addams's use of perplexity thus supports Brown's conclusions: our efforts towards tackling wicked problems consistently yield complications. According to Brown, this means our collective efforts should be characterized simply as the best we could do at the time (4). More than this, though, Addams's emphasis on perplexity encourages "non-habitual" actions and collaboration (Schneiderhan 596). Across the board, our analyses of wicked problems will reveal a long list of perplexities. This list leads us away from initial commitments to individualized, ideal solutions and moves us towards the consideration of ameliorative actions under an experimental and iterative methodology. It leads us to flexibility (Schneiderhan 597). Perplexity opens the door for new understandings, genuine collaboration, and therefore to mutual, creative and ameliorative transformation of seriously troubling social messes. Seigfried says "Addams's use of perplexities" highlights "the limitations of human understanding and moral intuitions." Perplexity is a means by which we can "overcome the inertia of tradition and convention only by learning from experience" (xxx-xxxi). It was the "pivot around which her analyses of social issues" were "developed" (xxx). It will also be one of the key pivotal forces to the work required of us ahead.

Collective Action and Addams's Fellowship

Addams suggested the expansion of our ethical framework could be aided through the growth of fellowship. She was particularly concerned that people were more and more often living side-by-side, but "without fellowship" ("Subjective Necessity" 16). For Addams, fellowship creates caring and mutual understanding. She argued success depends on consulting

"all of humanity" to figure out "what the people want and how they want it" ("Subjective Necessity" 22). This again aligns with WP scholars Allen and Gould's point: we must put emphasis on the *people* involved in the issue, not our initial divisions. Addams notes that consistently emphasizing one's own point of view over time reduces the likelihood that one will build "a simple human relationship" with those others involved in the problem. In our original example, for instance, Pullman built "sanitary houses and beautiful parks," indeed, he built an entire town for his employees ("Democracy and Social" 68). However, his drive to be "good 'to' people rather than 'with' them" separated him from the "moral life" of those he judged. A lack of fellowship leaves us with no opportunity for "sensitiveness or gratitude;" it drives a "divergence between ourselves and others" as well as "cruel misunderstandings" ("Democracy and Social" 70).

Norton, for instance, tells his reader the divide and isolation between environmental economists and ethicists today has led not only to two very different understandings of our environmental problems, but also to large misunderstandings when the two paths do cross. This divides and limits perspectives, stymieing more comprehensive efforts to meliorate these problems. A willingness to act *with* others is essential to developing fellowship and this is essential to recognizing our interdependency, our connectivity. In general, WP scholars consistently point to the serious problems which arise out of our isolation, though they do not point so deliberately to Addams's fellowship. Through expanding on his initial example, Norton more generally illustrates the problems resulting from "the ivory tower" and the need to build bridges not just through institutions but through our terminology. As chapter one briefly outlined, Batie sees work intentionally building boundary organizations as key to bringing people together to work with one another on our various wicked problems. Similarly, Van

Bueran et al. approaching the matter from a large-scale view, convincingly argue for the necessity of policy arenas to foster collaboration across diverse networks. None of these scholars place as much emphasis on the root of the matter: fellowship. As we will see, Hull House was a prime example of the kind of organizations described above, bringing a wide array of stakeholders together to address shared problems collaboratively.

Along these lines, feminist pragmatists consistently argue it is far more valuable for us to gather our facts cooperatively. When we separately gather our facts, "there is a tendency for each to stick rigidly to its own particular facts" (Follett 15). When facts are gathered cooperatively they can be used in "conference," instead of being used to "bolster up partisanship" (16). These concerns highlight the need for stakeholder involvement *from the beginning*. "Shared truth" comes about by listening to others. Judy Whipps, for instance, points out Addams's consistent drive to build community "with" others. Addams's lifelong work can be seen as an effort to build and foster "joint associations" where co-action was more likely to work effectively (Whipps 122).Writing on Addams, Seigfried concludes "social morality... requires collective efforts rather than private and parochial ones" (Seigfried xv). Collective efforts, though, are fostered by fellowship building and Addams work brings this component to the forefront.

Van Bueran et al. hint at this by arguing collective action is most likely to occur when we recognize our interdependency, when we are willing to innovate, and when we are ready to interact with others (210). For Addams, "There is nothing more devastating to the inventive faculty, nor fatal to a flow of mind and spirit, than the constant feeling of loneliness and the absence of fellowship" ("Democracy and Social" 54). In fact, Whipps calls our attention to Addams's particular brand of communitarianism, requiring we do precisely what Van Bueran et

al. suggest: "seek out diverse voices." Addams recognized a need for such work on a global scale and in such a way that our work here actually "informs the power and authority of political decision-making" (118, 119). In the end, Addams was striving to "open up a public space for community engagement," focusing on our "inherent interdependence and diversity" (120, 122).

Collective action, however, is unlikely to occur when we fail to interact with various stakeholders, when our strategies are inconsistent with one another, when we operate under the belief that everyone else is working only in their own self-interest, and when we deeply distrust one another (Van Bueran et al. 207). Van Bueran et al. talk about "dialogues of the deaf," where we talk *at* and not *with* one another. Addams was also quite aware of this; she consistently warns her reader about how difficult and slow this process can be. On top of these difficulties, resistant institutions make co-action even more unlikely. Network management, to the extent it improves cooperation between actors, encourages facilitation and engages in mediation, can facilitate interaction between different groups (Van Bueran et al. 207). According to Whipps, co-action and integration demand "a high order of thinking skills, a rich imagination, and freedom from manipulations of those who may be in positions of domination" (119).

Thus, Addams warns that too many *individual* "good deeds" encourages us to see only our own "personal plan of improvement" until our point of view is "beyond reproach."⁵⁰ Harkening to Dewey, Addams concludes here that habit – disconnected from the varying perspectives of diverse others – captivates people, encouraging resistance no matter the "changing conditions" of the times ("Democracy and Social" 68). The moral, civic and mental perspectives unreflective habits cultivate lead to the failure to comprehend "the great moral lesson which our times offer" ("Democracy and Social" 66). This means, as Brown warns, we are less likely to 1) grasp

^{50.} Large gifts to the community tend to obscure the matter further, making it difficult for the community to see and honestly assess earlier "wrongs committed against it" (72).

"different ways of thinking," 2) pursue our problems with imagination or creativity, or 3) pull on a wide range of "intellectual resources" (4-5). The problem is not that we praise individual creativity and ingenuity, but that we regard individual achievements "as complete in a social sense when..." such achievements have yet to move beyond individual actions ("Democracy and Social" 72). Instead, individual efforts should work to "procure other results by the community as well as for the community" ("Democracy and Social" 73). Genuine social progress require social initiatives take hold. It is not that individual experimentation is bad, but rather that it cannot be understood as the end-goal. Addams does argue that experimental actions, "... undertaken with vigor and boldness" are necessary; they are simply not sufficient ("Democracy and Social" 73). She further notes such actions have "didactic value in failure as well as in success" ("Democracy and Social" 73-4), highlighting another key theme from the WP scholarship: wicked problems require action if only so we can learn from our mistakes and begin to make progress.

While arguing for collaboration, Addams does see the immediate "cash value" of individual action. She writes, "there is no doubt that the decisive and effective action the individual still has the best of it. He will secure efficient results while committees are still deliberating upon the best method of making a beginning ("Democracy and Social" 63). On top of the lengthy time and increased effort needed for collaboration, concerns are often raised both about the fairness of the process and the legitimacy of the group's conclusions. Power can easily be misused in these processes for the appearance of consensus. Feminist pragmatist Charlene Seigfried says she is herself consistently "surprised that feminists often conflate consensus with coercion" (274-5). In fact, by its very definition consensus cannot be achieved through coercion. Consensus is achieved through an inherently consensual, "freely offered participatory

agreement." In truth, "consensus can only come from the bottom up and not from the top down" (275).⁵¹ While genuine collaborative efforts are difficult, timely, and messy, they are yet possible and they have the potential to yield more comprehensive, widely accepted results.

Sympathetic Understanding

Addams consistently highlights the importance of sympathetic understanding in moving us towards collaboration. As noted, she illustrates the move towards sympathetic understanding in part by arguing for the expansion of familial ethics. She writes, "the family in its entirety must be carried out into the larger life. Its various members together must recognize and acknowledge the validity of the social obligation" ("Democracy and Social" 38). Addams is working to expand our notion of the familiar through the metaphor of family here, encouraging a larger move into non-familiar social relations. Sympathetic understanding is the means by which we make this move; it requires us to get outside ourselves, to see our experiences as another would, to try to explain ourselves so another can understand (Seigfried 93). Addams notes that we all know of people, on the other hand, "... who are often insensible to their own mistakes and harsh in their judgments of other people because they are so confident of their own inner integrity" (48). In "Household Adjustment," she illustrates this insight by pointing out the narrow and misguided ethic of many of the well-off women of her time, who -- so confident in their own moral code -- fail to see the social dimensions of the household worker's life. Indeed, As Addams explores the plight of household workers, she does so with careful attention to the economic, social and ethical dimensions of the problem, always careful as well to illustrate the issue through personal narratives. By carefully fleshing out the various dimensions of this issue,

^{51.} Problems arise over consensus because of attempts to derive false consensus through coercion. Without careful attention to the deliberative process, it can be hard to distinguish the appearance of consensus from the real thing.

she demonstrates the complexities involved. This aligns with Valerie Brown's suggestions that we value other ways of constructing knowledge. Brown argues we pay particular attention to not simply individual knowledge, but also community knowledge, indigenous knowledge, organizational and holistic knowledge (69-73). In fleshing out these dimensions of household labor Addams teases out these various knowledge structures.

In general, Addams's emphasis on sympathetic understanding can be traced through her writings, through "her immersion in the particular." She believed we could better "articulate wider meaning through powerful depictions of individual suffering, joy, hope, and despair" (Elshtain xxxi). Abstract philosophizing cannot adequately address the wicked problems we must confront in their complexity. For instance, she argued the ideal of the self-supporting family cannot be ethically wielded to encourage the young to work before their time. Such theories, uninformed by experience and a plethora of perspectives, fail to see the larger picture: the continuous lowering of wages, the untenable conditions for the child laborer, increasing illiteracy, the arresting of moral and intellectual development ("Subjective Necessity" 22-3). Again, expansion of our ethical framework ever outward is essential.

As we've seen, Allen and Gould hint at this when they say work on these problems needs to focus more *on the people involved*, but they do not expand on this initial recommendation. Brown likewise moves in this direction by arguing we need to be more receptive to the novel ideas of others, but she does not go so far as to endorse empathic knowing. In contrast, Norton's WP scholarship focuses more on conceptual and definitional barriers to collaboration than on sympathetic understanding. And again Sarewitz and Turnpenny et al. in arguing that we need to work more on understanding our diverse and conflicting values, point to – but do not elaborate on – the need for Addams's sympathetic understanding. Others more generally point to a

problem of plural and conflicting values. But none of these WP scholars go far enough in explicating what Addams sees as an essential feature of successful collaboration under complex and wicked conditions.

Sympathetic understanding requires more than the *tolerating* of difference. "It seeks to gain insight into the individuated worlds of experience of others and the values they hold that make these worlds cohere. This insight is only available from a perspective of caring" (Seigfried 222). Sympathetic understanding is thus a keystone towards effective collaboration; as Addams noted long ago, "the mass of men seldom move together without an emotional incentive" ("Democracy and Social" 119). Addams's careful articulation of sympathetic understanding separates it from a more common and simplistic understanding of charity. She was, for instance, committed to being with others, not in doing for them. Lisa Yun Lee argues Addams's commitment to reciprocity forecloses any idea of a simple giving-to others. Instead, "Addams's understanding of universality" is "one that eschews a patronizing and imperialistic insistence on western values and beliefs... while embracing transformative mutual generosity of spirit" (67). In truth, sympathetic understanding directly challenges "the authority of mere expertise by deliberately seeking to involve those for whom the situation was problematic or disadvantageous in the first place" (Seigfried 182). In this reciprocity there is also a call for diversity. There is an emphasis on "... the need for diversity and thus dialogue among differently situated social groups"; and this emphasis properly positions the individual for more thoroughly addressing wicked problem situations (Jones and Hamington 4). In line with Jones and Hamington, Fischer drives the point home, saying Addams "found herself caught up in her neighbors' worlds, sharing their cares and joys, desires and frustrations, needs and generosities. From such neighborly fellowship, personalities were transformed, and joint activity was a natural outgrowth" (492). Under this methodology, we are doing *with*, not doing *for*.

Hull House: Bridging the Gaps

As noted, Addams's life work is intimately tied to her dedication to Hull House. Indeed, Elshtain characterizes Hull House as "the living embodiment of Jane Addams's social philosophy" (xxxiv). While its complex and multi-various roles prevent any quick or easy definition, I argue it created a space for -- and played an essential role in -- addressing wicked problems. Hull House, the first social settlement in Chicago (opening in September of 1889), was in fact a key boundary institution, fulfilling an essential role necessary for the kinds of collaborative efforts needed to tackle wicked problems. For instance, Mattias Gross in "Collaborative experiments: Jane Addams, Hull House and experimental social work," highlights Addams's dismissal of the idea that experiments are *best* conducted in an "isolated laboratory." He argues, "Addams and her co-workers perceived the laboratory experiment as an inferior variation of the experiment in society, and not vice versa." Instead, her work advocated for a more consistent and explicit link between "knowledge production and knowledge application" (81).

Indeed, Hull House played a fundamental role in linking suppliers to users of knowledge, in no small part by operating as a boundary institution for local immigrants, connecting them to various institutions, disseminating important knowledge and facilitating transitional efforts. Literally existing in the space between two worlds, Addams describes the "interpretation bureau" as one of Hull House's most important functions. In truth, *Twenty Years at Hull House* is full of examples of collaborative efforts between Hull House, its surrounding residents, various groups/organizations and surrounding institutions. The settlement, in simply offering the space for groups to meet, was an essential bridge towards effective co-action in many cases. For instance, women "sweaters" in Addams neighborhood literally had no appropriate space

available for meeting to discuss their collective problems; Hull House provided this essential space as well as an interpreter/moderator to facilitate collective and ameliorative action ("Settlement as a Factor" 50). For Addams, "the sociological production of knowledge and the relevance of social reform" needed to go "hand in hand" (Gross 84-5).

From its beginning, Hull House was an intentional response to the increasing segregation between various classes of people. Addams reports that many of those with the monetary and political means and time to make a difference were instead fleeing the district, moving to more prosperous and homogenous parts of the city. In contrast, "The Subjective Necessity for Social Settlements," highlights how Hull House provided an essential opportunity for those with the financial means and the desire to make a difference with various opportunities to do so. In this way, Hull House fostered a fuller understanding of life by working to remove barriers that isolated various classes of people. The fostering of such networks was also always emphasized as a means of working with others, not on or for them. Indeed, the site for Hull House was literally chosen in part because it was between four or five very different districts of the city: to one side were the various Italian immigrants, on another Germans, and yet another side Polish and Russian immigrants, along with Bohemian people and Canadian-French, as well as Irish immigrants.⁵² In her own words, Addams says situating the settlement between such isolated diversity provided Hull House with the opportunity to "respond to all sides of the neighborhood life" ("Objective Value" 32).

^{52.} She describes her neighborhood as horribly dirty and crowded, with few and poor schools, a place where laws are often unenforced, lighting is poor, and labor cheap (2002b, 30). Beyond the flight of the well-off, other public goods like libraries and public venues moved out of this area of the city.

In a number of different ways wicked problem scholars highlight the essential nature of *bridge* institutions for the kind of collaboration across institutional boundaries that is necessary for adequately addressing wicked problems. For example, Norton highlights the problems with towering and the need to overcome isolation, Batie references boundary organizations, Van Bueren et al. argue for policy arenas. Norton, in pointing out the problems resulting from our specialization and isolation, suggests experts need to instead "learn from the public discourse" and to guide their "research toward questions that really matter in policy choices" (34). This is precisely what boundary organizations are intended to do. Van Bueren et al. note that our failure to act together has consistent cognitive, social, and institutional causes. For instance, a lack of social interaction facilitates cognitive barriers like a commitment to rampant self-interest and vastly different perceptual understandings of the issue. Likewise, with no supporting or mediating institutions, there are few-to-no incentives to foster interaction nor to break down cognitive barriers.

Batie, in explicating the value of boundary organizations, reminds us that there is a problematic divide between those who *do* the science and those who *use* the science. This separation between research and application is inherently troubling.⁵³ Expert ideas and "solutions," when separated from very real, "on the ground" problems and the people intimately involved, can too easily cause greater problems. Instead, we should be pushing to restructure the relationship between citizen and expert. In Batie's words, a boundary organization "links

^{53.} On top of the problems caused by the divide between those who do the science and those who use it, we also face intense pressure from a heavy focus on knowledge-ownership as a primary means of profit-production. This additional layer adds yet another dimension of complexity that must be confronted. Frank Fischer, extending the work of Dewey in arguing for an engaged public, reminds us that we are today often "socialized into the role of consumer rather than citizen." We also tend to heavily mix "the selling of products with the task of informing the populace" (35, 36).Fischer concludes that this "standard practioner-client model must give way to a more democratic relationship between them" (39-40).

suppliers and users of knowledge" while recognizing "the importance of location-specific contexts" (1182). Addams's work far more intimately intertwines knowledge production with its use. As a boundary organization, Hull House fulfilled an invaluable niche, in many ways reconnecting the divide between education/research and application.

In general, boundary organizations also (1) invite different perspectives into the dialogue, (2) are accountable to other organizations involved in the issue, (3) work to generate new knowledge on the matter and (4) communicate the knowledge to all stakeholders while actively seeking alternatives (Batie 1182). It takes no great leap to see that Hull House operated in these capacities. For example, Hull House intentionally situated itself between different perspectives, cultures, and groups within Chicago through its connections to the university, the local schools, the various institutions and its surrounding residents. Key to the work of boundary organizations, Addams describes Hull House as "accountable to all sides" ("Objective Value" 32, emphasis mine). Along these lines, wicked problems scholar, David Freeman says work on local wicked problems requires the mobilization of people in their community, engaging in the deep dialogue necessary for integrating general science with local knowledge, ethics, and politics; in the end, putting them "to work" to make real effective differences (485).⁵⁴ And this is precisely what Hull House did so successfully. In fact, what Hull House did so much better than do many current institutions was to link values and knowledge to action in an inclusive manner. Addams's descriptions of Hull House and its purpose give us the key ingredients for real work on wicked problems. She says the settlement was "an experimental effort to aid in the solution of the social and industrial problems which are engendered by the modern conditions of life in a great city."

^{54.} Water policy problems are one example of a wicked problem requiring intense interaction between general scientific knowledges and local knowledge. When confronting water problems there is "biotic complexity across multiple levels" (Freeman 487).

This experimental effort was inherently driven by the voices of their neighbors with the goal of creating a "chorus" out of "isolated voices," and thus giving them "volume and strength" ("Subjective Necessity" 25).

Current advocacy for boundary organizations comes out of an understanding that boundary work bridges the gap between science and policy, between knowledge and its use. Instead of defining these collaborative efforts as dangerous, as a blurring of boundaries, such efforts are understood as helping to form vital connections for ameliorative action (Guston 399). In fact, boundary organizations tend to operate as flexible, yet stabilizing forces that bridge the gap between our various institutions, between theory and application, science and policy, the experts and the people. Along these lines, Addams said those who work through Hull House must strive to see the neighborhood "as a whole," to use their knowledge and "influence to secure" ("Subjective Necessity" 26). She was committed to putting theories into action, but to do so in a way that sought to be as comprehensive as possible. She goes on to say, "life is manifold and Hull House attempts to respond to as many sides as possible" ("Subjective Necessity" 27). Such work gets to Brown's most foundational rules for work on wicked problems: they require far more openness to different ways of thinking (4). "Viewed [in] this way," we can reappropriate Addams work, understanding it as "a new field of research and application that integrated different forms of knowledge production, observation or implementation" ("Democracy and Social" 91-92, emphasis mine). Wicked problem scholars today, like Frank Fischer unknowingly harken back to the work of the settlement. Fischer, for instance, concludes we really require localized resistance and local knowledge in tackling wicked problems (27). The work of the boundary organization is primed to do just this.

David H. Guston drives this argument home by arguing boundary organizations consistently address real problems by living up to three separate criteria: (1) by providing the space, "the opportunity" and often necessary "incentives" for the work to be done, (2) by engaging stakeholders from various sides of the issue and employing moderators or facilitators in doing so, and (3) by existing"... at the frontier of the two relatively different social worlds of politics and science" (401). As we've seen, Hull House intentionally worked to share in the life of its neighbors and thus to better see and understand that life. In "The Objective Necessity for Social Settlements" Addams describes Hull House as performing four essential activities: a social, educational, humanitarian and civic function. Though I should note she also says these descriptions are inherently artificial and partial, limited guides only useful in helping the reader to better understand the complex roles Hull House played ("Objective Value" 44). In explicating these roles, Addams quickly illustrates how the settlement fulfilled Guston's above criteria. She reports that over one thousand people visited Hull House each week for a wide-range of reasons.⁵⁵ At various points in its history, over thirty-five classes were being offered a week ("Subjective Necessity" 26). Hull House also had a dedicated reading room, collaborating with Chicago library to provide neighborhood residents with magazines, newspapers, and books. Responding to the needs of the surrounding community, Hull House even had public bathrooms, a nursery and kindergarten.

We can also see -- through the careful thought and attention that went into placing Hull House in the center of great diversity -- that the physical space boundary institutions take up can be more or less effective. Another institution pointed to today as a possible effective boundary between policy and science – the university – often instead looks like and operates along the

^{55.} At various points in its history upwards of 7,000 people would come to Hull House in any given week (Fischer).

lines of a compound, more effectively keeping people out, rather than inviting them in. To the extent that the university fails to begin in and with the community, it also gets it wrong. Addams consistently urged that successful social experiments needed to have their beginning with the community members intimately involved in the issue.

It's thus fairly clear that the settlement's functions were developed in response to the various needs of the community. With space and willingness Hull House encouraged "the power to combine" ("Settlement as a Factor" 47). When "we do not work together," Addams warns, we are "scattered and feeble" ("Settlement as a Factor" 49). Segregation and isolation, still a problem today, leads to difficult and consistent misunderstandings ("Subjective Necessity" 16). In fact, separation and fragmentation between stakeholders is one key feature of a wicked problem. As Addams noted long ago, this tends to foster narrow solutions which ultimately fail. Gross writes that Addams "... points to a special contract between science and society, which calls for making science more public and the public more ready to engage in knowledge production relevant to shaping their lives, communities and urban environments" (87). Hull House's maps and papers are a keen example of just such a contract between science and society, resulting from residents' investigations of neighborhood conditions and inspiring new ameliorative efforts in the neighborhood.

In the end, boundary organizations can, "by combining tacit and explicit knowledge," "co-create new, transformational knowledge and shared understanding which may be critical to innovation in the policy process" (Batie 1183). In working between and amongst various forces, the "successful" boundary organization provides a relatively *stable* balancing point for

stakeholders.⁵⁶ Guston says "boundary organizations suggest that the old idea that politics and science should be neatly cleaved should be abandoned in favor of the newer attempt to mix the interests of both" (403). Yet the attempt to "mix the interests of both" is not so new. Addams's life work at Hull House in an exemplary counter-example to the problematic drive to keep the two separate. This settlement, as a frequently successful boundary organization, was an effective force working against this separation, not un-like participatory and action research efforts today. Unfortunately, more integrated approaches were and often still are criticized as unscientific or biased and thus as unreliable and dangerous. In fact, A falling away from the social settlements can be blamed in part on our belief that a more pure --ie. isolated science--will better solve our problems. The settlement movement was replaced by the welfare state, by "mandated charity," by what was felt to be a more rigorous science. Providing for citizens through more official, government sanctioned programs was promoted as a better means of addressing these problems (Elshtain xxiv). A more "rigorous" social science as well as the development of social workers began to take shape. Through the development of new fields of study, expertise was promoted and divisions created. Settlements were seen by many as unnecessary relics of the past.

Wicked problems scholarship today heavily criticizes the general ideas underlying this falling away from the Social Settlement. For instance, Fischer argues we need participatory research to best meliorate our wicked environmental problems. For him, "... participatory research is an effort to carry through on the earlier action research commitment to authentic democratic participation" (Fischer 182). In line with Fischer, Addams consistently argued social experiments be carried out by groups of people, that the results be widely shared and publicized,

^{56.} Guston references the Office of Technology Assessment as a fairly successful boundary organization because it "internalized partisan differences, negotiated them for each study, and produced in its studies... a standardized package that either party (or any of several congressional committees) could use for its own purposes" (403).

that deliberation on its merits be weighed carefully before any decision is made or policy enacted ("Democracy and Social" 74). Gross argues, "The set of projects at Hull House – including goals, funding, etc. – are embedded in wider social relations, like national political debates or legal regulations." This meant ameliorative efforts were negotiated with community members, "policy-makers and other interest groups, as well as academic social workers, sociologists and outside experts. This required a research strategy that was open to changes in attitudes and open in outlook toward cooperation and negotiation" (92). Addams consistent work towards "… collaborative experiments with the social environment of Hull House thus appears to be *well* ahead if its time" (93, *emphasis mine*).⁵⁷

Addams: the Facilitator

Key to the literature of wicked problems is the idea that meliorating our most troubling communal problems requires "bottom up (participatory) tactics and interdisciplinary collaboration" (Thompson and Whyte 2). This framework is precisely the one employed by Addams, and it opened up a wide array of new avenues. For instance, Elshtain tells her reader

nearly every piece of major reform in the years from 1895-1930 comes with Jane Addams's name attached in one way or another, including labor and housing regulations, employment regulations for women and children, the eight-hour workday, old-age and unemployment insurance, as well as measures against prostitution, corrupt politicking... public schools, public playgrounds, and the creation of juvenile and domestic court systems (xxv).

In contrast, philosophical inquiry has historically been concerned with the formal argument and counter-argument. We've already seen that Addams's resistance to this traditional, western orientation is one reason her work has historically failed to gain traction within philosophical

^{57.} This is in contrast to accusations that Hull House was primarily a charitable institution. While this accusation may be true in some circumstances, Fischer reminds her reader, "settlement workers themselves viewed their activities first of all as manifestations of neighborhood citizenship, and the settlement itself as primarily a way of living" (492).

circles. The traditional take on philosophy, however, too often fails us when we confront a situation "with many decision makers, many opportunities for confusion, miscommunication and misunderstanding." Putting it lightly, Thompson and Whyte say this traditional "model of persuading a judge or administrator about a well-defined decision may not be helpful" (12, *emphasis mine*). In truth, this has *long* been recognized by feminist pragmatists. Hull House and its administrators, for instance, quickly learned to respond to the shifting needs of the community in which it was embedded. This work required Addams be quite flexible and this flexibility led Addams to develop the skill sets our WP scholars promote as essential to the work ahead: a capable organizer, a fair facilitator and negotiator, a public and engaged scholar, a critical interpreter, and a tireless fund-raiser (among other essential skills). Instead, today more and more information is constantly generated, yet not articulated or disseminated in a far-reaching format. As noted in the introduction, too often the audience for published scholarly work are other specialists or even sub-specialists in the field. In place of rewarding this hyper-specialization and the resulting isolation, Norton suggests experts pay attention to the public discourse and thus guide their work towards issues that really matter (34). Similarly, Fischer argues the real task is to "assist citizens in their efforts to examine their own interests and to make their own decisions" "rather than providing technical answers designed to bring political discussions to an end." That is, he concludes our expert should work as "facilitators of public learning and empowerment" (40). This is precisely what Addams aimed to do.

Working in this capacity, Lisa Yun Lee, in "Hungry for Peace: Jane Addams and the Hull-House Museum's Contemporary Struggle for Food Justice," reappropriates Addams's work

on peace and food justice for the problems we confront today.⁵⁸ She argues Addams's work "at Hull-House around food can inform, educate, and expand the horizon of our imaginations on critical contemporary issues of social justice" (62). For example, through her extensive work on food justice and peace Addams came to recognize the inherent wickedness of these problems, acknowledging that the "collective, political struggle" "... crossed gender, class, and national boundaries" (63). Food, at Hull House, became a means by which to gather with diverse neighbors, come to better understand differences and thus begin to bridge these divisions; it was a consistent and deliberate opening for fellowship and collaboration. Yun Lee writes,

This conviviality, which emerges from the practical experiences of mixing and mingling, can at times seem frivolous, but it is, in fact, part of the epic struggle of recognizing the humanity of others who are different and the process of ameliorating these differences without colonizing or homogenizing them. This breaking bread with strangers and discovering similarities and differences in taste and preference is the process for the materialization of the ideal of the common life Jane Addams extolled (68).

Food became one of the primary means by which "bottom up participation" and collaboration began. It was and often is a bridging force. This example alone demonstrates Elshtain's claim that Addams was "one of the first" and still "one of the most important, among a group of social thinkers committed to communicating to a general audience" (xxv).

In line with Addams's goal to communicate with "a general audience" was her work as a critical interpreter. Fischer brings our attention to Addams's consistent use of interpretation,

^{58.} This recent reappropriation of Addams's work took the form of "community conversations on contemporary issues about food" as well as efforts to raise our collective "historical consciousness about food as a social issue." Their work links "food issues to women's rights, labor, poverty, and other social causes. Every Tuesday at noon, an average of 75–100 people gather" (75).

especially as a means of resisting initial public polarizations. Replacing "fear" and "hostility" with interpretation has the power to open us to our initial mistaken assumptions (485). In Fact, Addams describes one of the settlements essential functions as one of interpreting "opposing forces to each other," a "difficult" and sometimes "unsatisfactory," but essential communal role (99). Fischer argues Addams use of interpretation demonstrates how "her activism, her style of writing, and her philosophy of social change" come together and function to unify her work (483). As an interpreter embedded in her community, Addams often faced "obligations to act" under "morally ambiguous" situations (489). As we've seen, acting in uncertain and "morally ambiguous" situations is key towards efforts to get a grip on, to learn from, and thus to meliorate tricky social problems where we face high levels of uncertainty. For instance, in "The Chicago Settlements and Social Unrest," Addams notes that "the underdog" is not in fact "always right," but often at least partially wrong (166). On top of this and in line with her pragmatism, interpretation is not understood as a neutral task; instead, Fischer describes Addams's interpretative work as "mediation-advocacy" not least because she recognized long ago that we must often "choose in the face of uneliminable risk and uncertainty" (490). Such interpretative work, meant to engage the community it interprets, opens opportunities for "reconstruction" (494). This work, though, is not in isolation.

Thompson and Whyte tell us that in truth *no one* has the "proper disciplinary training to undertake" problems which require interdisciplinary work alone (2). "Philosophically, this becomes possible if one defends a moral epistemology that both recognizes value judgments as claiming intersubjective validity *and* emphasizes the fallibility of any given judgment or perspective, including one's own" (Thompson and Whyte 5). Addams thought close attention to life's lessons would teach us this fact. She says, "life... teaches us nothing more inevitable than

that right and wrong are most confusedly mixed... that right does not dazzle our eyes with its radiant shining, but has to be found by exerting patience, discrimination, and impartiality" ("The Settlement as a Factor" 57). A lot of Addams's work accordingly redefines the relationship between the public and the expert; and re-envisioning this relationship is a key theme in the literature on wicked problems and participatory democracy. For example, Fischer asserts Norton's concern that "technical languages provide an intimidating barrier for lay citizens" (23). As we've seen, this work requires someone willing and ready to recruit citizens, hold meetings, and work towards developing "possible ameliorative or adaptive responses" to the wicked problem (Thompson and Whyte 7).

Thompson and Whyte conclude by suggesting the traditional philosopher's task of creating and judging the most persuasive arguments can be expanded into initiating and facilitating philosophical research through conducting what they call collaborative learning processes (Thompson and Whyte 1). They argue anyone who grasps the need for "team-conducted inquiry" on wicked problems can be a "convener of teams and develop a unique specialization" (7). Similarly, Fischer argues "the standard practitioner-client model must give way to a more democratic relationship" (39-40). This is clearly what Addams did throughout most of her adult life. According to Fischer, "Addams's immersion in multiple, interacting streams of local activity, her keen ear for the variegated voices in these streams, and her reflections on all she experienced, bore fruit in her distinctively located theorizing" (483). Research on our shared problems needs to be situated within a host of perspectives and this is most likely to be accomplished by inviting a wide-range of stakeholders to the table, by "forming a community... of people around which to develop possible ameliorative or adaptive responses" (Thompson and Whyte 7). The work by Yun Lee cited above is doing just this.

Hence, describing Addams as a public philosopher, social reformer and facilitator are more accurate labels of her life-long efforts than previous and prominent descriptions; this is especially so given her own reluctance to embrace titles relating simply to philanthropy or social work. Her efforts toward reform were less about charity than about co-education and transformation. As discussed, she saw her endeavors as fundamentally tied to collaboration and reciprocity. And as we will see, her focus on equality and inclusion reveal consistent efforts to develop power *with* others, in place of power *over* others.

Power

Equitable and inclusive work on wicked problems requires a greater awareness of power and oppression, both within the wider society and in any particular collaborative group. To this end, Seigfried also argues philosophers need to reconceptualize their role as facilitators, *not experts* (12). There is no claim to objective neutrality here, no clean or removed realm from which one works. We need to remember that, "without interpretation, the data carried by the increasing flows of information are as meaningless as they are overwhelming" (Fischer 13). Instead, we always face a plurality. Seigfried writes,

Pragmatism and feminism reject philosophizing as an intellectual game that takes purely logical analysis as its special task. For both, philosophical techniques are means, not ends. The specific, practical ends are set by various communities of interest, the members of which are best situated to name, resist, and overcome the oppressions of class, sex, race, and gender (37).

In fact, feminist pragmatist standards for rich understanding are quite rigorous. Seigfried says, "Until each person's perspective on a situation that includes her or him is heard and acknowledged, the complexity of the situation cannot be grasped, and possibly relevant insights

may be lost" (79). Addams consistent focus on narrative, on context and interpretation helps to move us in this direction.

To the extent "the activities of life are," in fact, "the testing grounds for her thinking," Addams's work is grounded in feminist epistemology (Fischer 1). Seigfried argues feminists tend to emphasize the importance of living and working in one's greater communities, "plagued by the problems their theories are supposed to solve," rather than philosophizing in isolation (58). To this point, Addams was a part of the "first wave" of feminists fighting for women's suffrage.⁵⁹ Her work in Chicago with Hull House, community organizing, and her international work to promote peace helped to redefine women's roles at a time when few to no public offices were open to women. Addams is, in effect, an exemplary example of engaged philosophy. "We are learning," Addams says, "that a standard of social ethics is not attained by traveling a sequestered byway, but by mixing on the thronged common road where all must turn out for one another, and at least see the size of one another's burdens" ("Democracy and Social" 7). Addams's engaged methodology, by facilitating dialogue and working in collaboration with various others to restructure inequities and shift imbalances of power, can be upheld as a model for feminist scholars and activists today.⁶⁰

And today feminist-Pragmatists are very concerned with "hierarchical systems of power." Such systems often work to limit whose voice is effectively heard (Whipps 122). For example, Addams's nuanced portrayal of household labor from "Household Adjustments" in *Democracy*

^{59.} Addams served as the Vice-President of the National American Woman's Suffrage Association from 1911-1914, campaigning across the nation, and writing copiously on women's right to vote (Fischer 61).

^{60.} For instance, Addams saw enormous concerns with the structure of our industries. Writing on the structure of our industrial system, she says, "the employer is too often cut off from social ethics... when he is good 'to' people rather than 'with' them, when he decides what is best for them instead of consulting them" ("Democracy and Social" 70).

and Social Ethics takes great care to point out the power of place and economics as well as the power of certainty and righteousness which contributed to the isolated position of the household worker in her day. The employers' justifications for this antiquated way-of-life rang hallow. This situation, as illustrated by Addams, gives life to Dewey's concern about the role outmoded institutions and habits – here economic, cultural and social – play when they fail to adjust to changing times. In order for reform to be a possibility here, employers must expand upon their "narrow code of ethics" breaking through the old code of "mistress and servant" ("Democracy and Social" 58).

Also illustrating her concerns most aptly, the Pullman strike demonstrated a failure on the part of the employer to recognize how power plays a significant role. The power Pullman exerted over his employees and the pressure to acquiesce to his demands accounted in large part for early compliance, but this initial buy-in was bought with resentment and discontent. There was here an "assumption that they [the employees] should be taken care of" along with no effort to "to find out their desires" and no process by which they could express themselves ("Democracy and Social" 66). Power was additionally wielded quite firmly by Pullman in a refusal to arbitrate, to listen and adjust. Addams notes that while individual power exerts the means by which to quickly accomplish its goals, power created with others is far less "prone to failure" ("Democracy and Social" 68). Instead, Addams argues "associated efforts afford" greater chances for long-term success ("Democracy and Social" 69). It seems obvious that the inclusion of all perspectives facilitates a view of the situation more accurately encompassing the complexity and nuances involved. Scholarship on public participation corroborates the claim that

involving citizens in the decision-making process makes dissent and opposition far less likely.⁶¹ Central to the WP scholarship is the core value that all stakeholders be involved in shared problems. Addams advises us to "move with the people," by doing so we tend to "... consult the 'feasible right'" in place of focusing on "the absolute right" ("Democracy and Social" 69). This provides a person with the opportunity to first "discover what people really want" and "move along with those whom he leads toward a goal that neither he nor they see very clearly till they come to it" ("Democracy and Social" 69). Here Addams highlights both how our conception of the problem comes about *through* collaborative inquiry and how genuine creativity can be generated from an open and collaborative process. She is calling for what Turnpenny labels "consensual wisdom." Consensual wisdom requires transparency and participation, but also a more careful and cooperative process of issue framing.

Power is best understood as a *relation*; we are working to develop "power-with" others in place of a "power-over" others (Follett). In my analysis, the WP literature certainly engages issues of power, but does not generally dig deeply enough into issues of power and oppression. For instance, Brian Wynne points out the essential role of uninvited publics. This is because an invited public – a group officially invited into the policy making process – "nearly always imposes a frame which already implicitly imposes normative commitments – an implicit politics – as to what is salient and what is not salient, and thus what kinds of knowledge are salient and not salient" (107). Uninvited publics challenge these implicit claims. Addams's interpretative work often sought to bring these perspectives back into the conversation. Through much of her writing she sought to "present socially despised and marginalized groups in a way that fully reveal[ed] their humanity" (Fischer 485). Through narrative she recounts and reconnects

^{61.} See Fischer, Frank. *Citizens, Experts and the Environment: The Politics of Local Knowledge* (2000). and Fung, Archon. *Empowered Participation: Reinventing Urban Democracy* (2006).

polarized publics, encouraging essential first steps. In general, this work also requires a restructuring of the relationship between citizen and expert, but also the involvement of the public far earlier in the decision-making process so they can help determine how the problem itself is framed.

Over-all, the WP literature provides its reader with an important and sobering reality check about the problem of power, but does not delve deeply enough into issues of disempowerment and oppression. In contrast, Addams very much worked within "asymmetrical power relations" where attempts towards neutrality would result in continued power imbalances. Thus, Addams interpretative work "included advocacy for the less powerful" (Fischer 489). Because Addams more consistently confronted such problems on-the-ground and because feminist pragmatism today works more rigorously on problems of power than does a classical pragmatism or WP scholarship, it has a more serious grasp on problems of power and is consequently another vital addition to the scholarship.

Limitations

Given a vastly changed world from the one in which Addams resided, we may be concerned that more work in revisioning parts of her philosophy needs to be done.⁶² However, Addams scholar Yun Lee, argued "the complex range of issues that Addams grappled with" were not far removed from the issues we currently face." For example, we still confront a range of "opportunities and challenges to democracy that a growing immigration population represents, economic instability that makes the unsustainable aspects of the capitalist project even more obvious, and a passion for progressive change alongside anxiety about global security" (75).

^{62.} See Bard-well Jones, Celia and Maurice Hamington. *Contemporary Feminist Pragmatism*. NY: Routledge, 2013: 1-16. Print.

That is, we continue to face similar and, at times, more daunting problem situations on a local and global scale. In any case, specific strategies deployed in response to wicked problems are not supposed to be fully replicable. Part of what makes a problem wicked is its very unique and high stakes circumstances, conditions which make it resistant to resolution based on the precise strategies applied to some similar problem. Thus, it should not be very troubling to reference Addams work from a time past, especially given how the general methodologies she employed align with and extend the methodologies recommended by current WP scholars.

However, Addams's life work at Hull House is sometimes scrutinized, in conjunction with settlements more generally, as "assimilationist." While such accusations may be fair in some circumstances and align with characterizations of settlements as doing traditional philanthropic and charitable work, this is simply not an accurate characterization of Addams's lifework nor of Hull House. According to Fischer, Addams's "vision of America" was of "an international, multi-ethnic tapestry" (497). The numerous examples illustrated above already document how her efforts towards diversity cannot be fairly characterized in this vein.

Still, translating Addams's work into such a large and complex scale – across great distances and spans of time as well as within different mediums with technology – is a challenge. "Re-Thinking Soup," an initiative started in 2008 by the Jane Addams Hull-House Museum (JAHHM),was designed and implemented to do just this work: to re-examine Hull House's efforts in relation to food and food justice and to cultivate what was still of value in these efforts for our times. Essential here was Addams's own acknowledgement that our most successful endeavors must be ones created and engaged cooperatively. Working for "integration" and "coaction," resisting the forces of "power-over" between nation-states was and still proves to be incredibly difficult. Nevertheless, cooperative inquiry, as framed within a feminist pragmatist

framework, can be a means towards even radical institutional change. The list of reforms Addams helped to make possible proves these methods to be quite effective. It is the beginning of sympathetic understanding, a moving beyond one's own narrow interests.

However, Addams is also at times subject to genuine criticism from feminists. Her commentary on prostitution, for instance, relies on a traditional sense of sexual purity and thus fails to seriously examine underlying political and economic realities (Brown 137). Nevertheless, Addams harshly criticizes a society in which the laws and the "ethical code" endorse "hostility" and "ignorance" towards women "beaten and starved by the dissolute men whom they support" ("The Sheltered Woman" 265). It has also been argued her awareness of her own privilege – not in relation to wealth or race, but in relation to her United States citizenship – is lacking (Whipps).⁶³ And, in the end, it is true that Addams does not provide her reader with a systematic critique of power. She may have been too eager to bind communities together through a strong commitment to communitarianism. Feminists today are rightly concerned by the systems of power which operate within these communal spheres, working to oppress.

Another analogous concern often raised references her commitment to working *within* our current framework to make change. For instance, Addams often argued for *expanding* women's roles, not for necessarily radically altering their place in the home. These and similar lapses are certainly worth acknowledging, but comprise a relatively small portion of her body of work. Given the overwhelming evidence of early feminist principles in her writings, community organizing, and political activism, Addams's feminist short-comings should not seriously detract from the value of her work. This is especially true given that we are no longer searching for the

^{63.} She was, for instance, highly aware of socioeconomic disparities, writing on the discord and misunderstanding between well-off women and those in their employ as well as the need to move past such antiquated ideas.

guru, the expert, who will alone resolve our most troubling problems. The philosophies advocated within these pages do not expect nor require our experts to proffer final or complete answers; instead, work on wicked problems seeks recommendations, suggestions, and methods which subject to testing and democratic deliberation. Indeed, as a proto-feminist living and working in the early twentieth century, Addams is one of the first to successfully bring women's experiences into the foreground and thereby illustrate the problems she is addressing through the concrete experiences of others.

Conclusion

While the scholarship on wicked problems may be new to most philosophical disciplines, this work and much of its methodology can be traced back to Addams's work at Hull House, with its local roots and global reach. The writings of Jane Addams demonstrate not simply a recognition of communal problems we would now categorize as wicked, but also provide the reader with insights into *how* we should go about addressing such tricky and malicious communal problems. Addams' focus on the importance of perplexity, of genuine cooperation, and the need to expand our loyalties gives us strategies for moving forward in a political, socio-economic, medical and environmental climate rampant with wicked problems. For instance, she argues fora *social* ethics, for the expansion of our ethical framework. This call is still extremely relevant, for in many ways we seem to be as – or even more – committed to individual ethics as we were in the early twentieth century.

Her work can be fruitfully read as a series of case studies illuminating various strategies for addressing wicked problems, strategies often left either undeveloped or underdeveloped in the WP literature. While Addams calls for cooperative action is not in itself an addition to the recommendations made by WP scholars, her on-the-ground collaborative work provides us with

grounded and guiding insights. For one, Addams calls on us to more consciously develop "fellowship." Such a call aligns with recommendations made by WP scholars, but delves far more deeply into the need for relationship and narrative. Her writings provide additional helpful insights by in part focusing on the need for sympathetic understanding. Effective collaborations require a getting-beyond-oneself, a recognition of the inherent perplexity of the situations we face; this means collaborative endeavors should in fact begin with sympathetic understanding. According to Addams, this type of understanding requires not the simple tolerating of difference, but a deeper commitment to difference and reciprocity.

In addition to the above valuable contributions to the WP scholarship, the development of Hull House and its many subsequent endeavors can serve as a seminal study of what boundary organizations – bridge institutions – can do for us today. Hull House demonstrates that the potential for co-creating far more useful and wide-ranging policies through such cooperative efforts is strong. As the introduction detailed, our collective moving away from such organizations and increasing isolation has not led to promising outcomes. The current focus on community engagement activities within many institutions of higher education, examined in the concluding chapter, can be seen as a drive to return to such work.

Addams, as a public philosopher, reminds us of a need for intimate on-the-ground engagement efforts. She operates as a key facilitator in a long list of social movements and policy reforms. As such, she is driven to argue for the power found in operating *with* others in place of *for* or *on* them. Seigfried, like Elshtain, tells us Addams is primarily understood as a sociologist or activist. We know she was far more than this. "She is," Seigfried says, "an exemplary case of how pragmatism, like feminism, internally disrupts artificial and counterproductive disciplinary boundaries" (45). She is also, in truth, an "exemplary case" of

how we should be attempting to tackle the wicked problems we face today. The implications and recommendations following from wicked problems as we have examined them call for a recognition of perplexity and thus attention to context, experimentalism, and collaboration (public engagement), an insistence upon integration, and a constant focus on ameliorative action. The process described in the next chapter is one possible instantiation of just such a method meant to address the wicked problem of health care rationing. Inclusive, deliberative processes open critical spaces necessary for participatory reform; they can even inspire radical, systematic change (precisely what is needed in response to our healthcare crises). As we have seen, Addams created spaces for real and at times "radical" social change by defining the problem in relation with a diverse group of others, openly discussing possible actions, and then following through on the plan of action (59).

Through explicating Addams's lifework, we see that a feminist pragmatist focus on philosophy as a cooperative and transformative endeavor is admirably suited for tackling wicked problems. And as we will see next, her work can helpfully shape and expand on suggested deliberative processes for our public problems today. What makes Addams's work still so relevant to our wicked problems is her strong commitment to making the world better through a more robust methodology whose test is always in answering the question – asked of everyone involved – "does this *really* work?".

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CHAPTER FOUR:

A CASE STUDY:

THE PROBLEM OF HEALTHCARE RATIONING AND DEMOCRATIC DELIBERATION

"In the deliberative process we are not seeking truth; we are seeking to construct a resolution to a public problem."

Leonard Fleck

The controversial need for healthcare rationing and the participatory methods recommended for justly addressing the issue prove themselves to be apt illustrations of the usefulness of the WP scholarship, while also highlighting an important role for a pragmatic method informed by feminist leanings (via Addams's lifework). In reality, there have been consistent complaints for quite a while now that the United States' healthcare system is failing its residents. On the other hand, there is nothing like agreement among U.S. residents about what is wrong with our current system, nor on what steps are necessary in order to begin to address its failings. There are, though, hopeful recommendations for how we might begin to make progress on this front. Leonard Fleck, professor of Philosophy and Medical Ethics at Michigan State University, attempts to confront this highly complex and controversial issue in *Just Caring: The* Ethical Challenges in Health Care Rationing and Democratic Deliberation. Attuned to our polarized political rhetoric, Just Caring focuses first on raising awareness about the serious problem of healthcare rationing, and secondly, proposes that public deliberation can and should lead us to communal decisions about *how* we should ration our healthcare resources more justly.⁶⁴

^{64.} The argument that we do not need to ration such resources is quickly proved to be unsound. No matter how frugal we are and no matter how much "waste" we minimize in allocating our resources, we will never eliminate the need to ration because we are not dealing with unlimited

Framing the Issue

Healthcare: a Mega-mess

Alpaslan and Mitroff refer to the United States' health care situation as a "mega-mess" (40). They in fact cite it as one of the best examples for illustrating how a mess, when not addressed systemically, turns into a "mega-crisis: a complex system of multiple, interacting, and interdependent crises" (48). One of the ethical divides at work in this mess is the distinction between healthcare as a *right* and healthcare as a *business*. This overly simplistic version of the situation encourages us to ask the following questions: "Does society have a moral responsibility to provide health care for everyone no matter what the cost? Or do individuals have a moral responsibility to take good care of themselves?" (41). However, framing the problem in this way sets us up for a false and dangerous dichotomy, grossly oversimplifying the mess we confront. Underlying this frame is the "fear of changing the health care system as a whole" as well as the fear of making any sort of change without first confirming it with "hard data" (39). These same fears tend to underlay many of the wicked problems/social messes we should be confronting more openly and systematically today. Our healthcare "mess" is not *a problem* to be *solved*; it is - like other wicked problems - a series of changing and interrelated messes in need of collaborative management.

With a wide-range of stakeholders invested in the matter, there are widely divergent definitions of the problem, as well conflicting goals and agendas; that is, the situation is ill-structured, the means/ends are currently contested, and the stakes are high. For one, we have very different definitions of health. Is it, for instance, a "lack of illness" or the "presence of well-

resources.

ness"? (43) And what do we mean by illness and wellness anyway?⁶⁵ It is important to note here that any answer we give to such questions is dependent upon our values; that is, science alone does not automatically yield conclusive and final answers to these questions. In confronting our health care problems there are "multiple and often conflicting but equally valid goals such as affordability, high quality, long-term sustainability, and accessibility" (43). "We cannot," Alpaslan and Mitroff say, "make a proper response to the health care mess without acknowledging and confronting fundamental social, moral, and political decisions that influence it and, even more to the point, in which it is embedded" (41). In the end, "the true costs of health care are systemic" (40).⁶⁶Accordingly, isolated efforts to address these issues will not work. As we will see, the current mess is also confounded by mega-denial about the need for rationing along with a failure to systematically engage our beliefs and their consequences. Our reluctance to come together to systematically confront uncomfortable questions about rationing justly allows the situation to continue. Coming to see this mess as a series of collective problems allows us to recognize that a collective, public and transparent process is most appropriate.

Fleck suggests this mess can be more openly framed by attempting to answer the following question: How might a society meet its population's health care needs fairly under

^{65.} Bryan Norton points out the complications that arise from the very different definitions we give to the various terms we use. These different implicit definitions make collaborating even more difficult since the chances of talking past one another become even more likely. 66. In order to give the reader a first look into the messes we must confront in coping with our health care crises, Alpaslan and Mitroff develop a table which lays out an initial (and admittedly partial), traditional listing of the overt and interrelated issues surrounding the health care coverage mess. Their initial list includes: our failure to provide good preventative care, the incentives in place to deny coverage, the false assumption that people with insurance consume more health care resources than those without coverage, our fee for service system, resistance to universal coverage, the denial of coverage for those with pre-existing conditions, providing "sick care" in place of health care, a rise in premiums, lack of real competition, rising administrative costs, the high number of uninsured, strong emphasis on expensive technology, lack of political will, inefficiency, strong power of lobbies, the government's solvency issues, budget deficits, push-back against Medicaid, cost-cutting, and so on (44).

resource limitations?⁶⁷ Experts studying problems of healthcare justice widely agree there is truly no question on the matter of resource limitations. We currently do – and will continue to – face resource limitations. It seems to follow that we must, therefore, set limits on the care we provide. But how should we come to decide on the limits we do set? As we've seen, any attempt to modify the current system faces especially strong barriers in a partially for-profit healthcare system where those in power have a vested interest in maintaining a profitable status quo. Pharmaceutical companies, rehabilitation centers, insurance companies and other facilities are, for instance, most often owned by the private sector in the United States. Many citizens under 65 receive health insurance through a private company chosen by their employer, not through the government. Most often, the ultimate goal of such institutions is to make money. These providers are leery of a system overhaul to the extent that the current system is profitable, even if such a system is inefficient and unjust. Yet a focus on *working* solutions is especially critical in bioethics where our beliefs, practices, and institutions have life and death consequences. Fleck directly addresses these concerns by highlighting the current, hidden, and unjust form of rationing occurring in the United States and then defending the need for a consistent and more just form of healthcare rationing via rational democratic deliberation.⁶⁸

^{67.} There are, underlying this question, also a number of assumptions that we could examine. Fleck notes, for instance, that the question rests on the inescapability of rationing as well as the idea that healthcare is a public good.

^{68.} In 2002 the Institute of Medicine concluded that approximately 20,000 uninsured Americans die every year because of complications leading straight back to a lack of insurance (Fleck vii). Alpaslan and Mitroff estimate 35,000 die from causes related to a lack of coverage (45).

The Inescapability of Rationing

While politicians may be fond of arguing we can meet health care needs by cutting waste, abuse and inefficiency, those who study the state of healthcare today recognize the truth: rationing is an "inescapable (and painful)" reality (Fleck 73). While cutting waste and developing more efficient methods of care are admirable, worth-while goals, identifying (1) precisely what is and is not waste as well as (2) how to responsibly cut waste is incredibly difficult. In any case, efficiency and waste-cutting cannot get us out of the need for rationing. When these tactics are suggested as the solution to our crisis, they dangerously miss the mark. There are, in fact, a number of fairly clear explanations for the need to ration.

One lies in making a distinction between the "natural" and the "social". The natural is here defined as not only that which is given, but more importantly, as "... that which must be accepted as beyond human control." This definition is key in bioethics; for most human ailments just one hundred years ago were beyond human control and, today, many diseases and much suffering is, to a large extent, within some measure of our control (Buchanan 83). This leads us to the conclusion that once we can intelligently control the situation, we must *take responsibility for choosing to do so or not*. For example, Fleck notes that when we did not have dialysis, kidney failure was *unfortunate*. Now that we have the means to prolong the life of those in kidney failure, we decided the wholesale denial of dialysis for those who cannot pay is no longer merely unfortunate, but a matter of justice. Denial of care because of an inability to pay for dialysis is considered unjust precisely because we now have the means to control such a situation. However, there is also a strong level of inconsistency in the United States over the decisions to cover some medical ailments and not others. For instance, while we have agreed as a country to cover the cost of renal failure (through Medicare), we have failed to cover the costs

for comparable care which would extend the lives of patients in need of other major organ transplants (Fleck).

If we had more openly set limits to our original decision, if we had together compared policies, we would not need to commit ourselves to such openly inconsistent policies. As it stands now, we cannot afford *consistent* care. In 2011 we spent \$2.7 trillion dollars. And spending through 2021 is expected to grow at a faster rate than our gross domestic product (Keehan et al.). As we've seen, there are a lot of contributing factors. One is the current and upcoming increase in our elderly population. According to the U.S. Census Bureau, there will be approximately 80 million Americans who are 65 years of age and older by 2030. The question, put most bluntly, becomes: who *should* we deny care to? It is no longer *simply unfortunate* for someone to suffer or die prematurely when we as a society have the means to prevent such an end and choose not to.

It is also clearly true that the increased extent to which we can not only save life, but prolong it – often seemingly indefinitely – leads to increased costs. The longer we live, the more care we are likely to need. And while we are living longer, we are living with the "burden of chronic illness – more cancer, more (non-fatal) strokes, more arthritis, more sensory deficits and more cases of dementia" ("Just' Care: Who Decides?" 42). Along these same lines, there has been and will continue to be a rapid development of fairly expensive technology which prolongs life, though not always the quality of that life. All of these increased costs spiral out of control when we do not set limits. Marginally beneficial and highly costly care can and is being given to individuals. This situation is not sustainable and hard choices need to be made. Put into today's context (2014), Fleck suggests we ask ourselves "how high a priority ought a just and caring society accord long-term care," "given limited resources and a commitment by the Obama

Administration to reform our health care system"? ("'Just' Care: Who Decides?" 41). We can attempt to honestly and openly set these limits fairly and therefore take responsibility as a society, or quietly continue to ration, often unfairly, behind the scenes.⁶⁹ The above description provides the reader with a fairly brief, but comprehensive picture of what Fleck calls "the just, caring problem" ("'Just' Care: Who Decides?" 41). As the need for rationing fairly becomes visible, figuring out *how we should decide* on a *just enough* rationing system is yet another challenge we need to consciously confront.

All of this leads us inevitably to the conclusion that we must "be willing to accept limits on access to needed health care. "Doing so requires "our making trade-offs and setting priorities among a large and diverse range of health care needs." There are, Fleck reminds us, "other legitimate compelling social needs that command resources." It is also quite clear that we, as a taxpaying population, are generally "... very unwilling to spend much more money on health care" (5). Thus, the above frames lead us to the inevitable conclusion that "the challenge of health care rationing" is inherently an "ethical challenge" which forces us to weigh our decisions carefully ("'Just' Care: Who Decides?" 44); that is to say, it should now be fairly clear that we are dealing with a *wicked* problem.

Its Wicked Dimensions:

In response to this mega-mess, Fleck calls for a *fair enough*, a *just enough*, limit-setting process. As we've seen, this is in part because the problems we confront when trying to set health care limits are "... too complex, involve too much factual uncertainty, [and] are open to reasonable (but conflicting) conceptual characterizations..." (102). In other words, the problem

^{69.} Fleck makes the distinction, also made in the literature, between visible and invisible forms of rationing, noting that most rationing occurs invisibly. This "… means the decisions themselves are effectively hidden from public scrutiny, and that the political actors who enact these decisions do not see themselves as being morally accountable for any of the bad health outcomes for individuals affected by these decisions" (9).

of rationing healthcare resources is *wicked*. It involves intense levels of disagreement between fragmented stakeholders, multiple and often conflicting objectives, as well as high levels of uncertainty⁷⁰, variability and risk; attempts to meliorate the situation also require the restructuring of our current system. Agreeing on how to define and frame the problem is itself contentious.⁷¹ Both in-action and action have serious, fatal consequences for significant portions of the population. There is also strong denial about the need to ration and thus strong resistance towards confronting the morally unavoidable challenges of rationing openly and consistently.⁷² Furthermore, the medical field is constantly undergoing change and any adjustments we seek to make are unlikely to remain fruitfully static. Additionally, the issue of healthcare rationing is intertwined with many other social and political issues (like our food system, social class inequality, trade policies, etc.). Thus, our best hope is found not in any ideal resolution of "the problem," but in something akin to what Fleck calls a *just enough* process; or, as Norton has said, our best hope is for "an acceptable balance among competing goods *for a time*" (137, *emphasis mine*).

Fleck labels the issues surrounding the distribution of our health care needs as a "'just caring' problem." Without using the term, he clearly recognizes its wicked dimensions,

^{70.} For instance, our ability to reasonably predict how we would feel in some distant future, facing some unknown illness is highly suspect.

^{71.} Indeed, Fleck's critics worry such a process – since it makes our rationing decisions transparent and public – will only serve to mobilize interest groups from various parties, heightening conflict and discord (Calabresi and Bobbitt).

^{72.} A common form of denial about the need to ration comes from the assumption that human life is priceless. Fleck's analysis of this assumption shows (1) that life is not "literally priceless in any morally significant sense," (2) that the assumption is not only misguided but also incoherent, and (3) that the most "typical consequence [of this assumption] will be that the rationing decision will be driven underground, rendered invisible, and therefore hidden from critical moral scrutiny" (73). These insights point us back to the WP scholarship in that they highlight the need to more honestly and critically inspect our assumptions and consider carefully the consequences of our beliefs.

concluding there can be "no economic formulas, no practice guidelines, no evidence based medical protocols, no moral theory, no managerial rule books, no legal understandings, and no prescient experts that can yield fair, reasonable, and legitimate resolutions" *for us*. This is because we cannot escape the "extraordinarily complex" [ie. wicked] dimensions of the issue: "the heterogeneity of health care needs," "clinical uncertainty," "great variation in the effectiveness of different health care interventions," varying "styles of medical practice," the "uncertain criteria for judging the cost-worthiness of various interventions," and "conflicting understanding[s] of what should count as a *just* distribution of health care resources" (xi). Any approach we take to addressing the situation must – if it is to be fair – also be public, "self-imposed," and "justified by public reasons" (x). And this leads us to the analysis of the process by which he proposes we more effectively cope: rational democratic deliberation (RDD).

Parsing the Process: Rational Democratic Deliberation

Aligning RDD with WP Recommendations

Since the problem of healthcare rationing is a clear example of a wicked problem, Fleck's recommendations for how to pursue melioration of the problem can be weighed against the general recommendations put forward by WP scholars and compared to guidelines suggested by a feminist pragmatic method. Fleck, for example, recommends relying on a process called rational democratic deliberation and – from the beginning – requires that all those who could be affected by our decisions be included in the process (120). He points out that "in the deliberative process we are not seeking truth; we are seeking to construct a resolution to a public problem" (56). To the extent that through this process we are seeking solutions that *work*, solutions that meliorate the very serious healthcare problems we are facing, Fleck's model shows initial promise. The issue of healthcare rationing, as a public problem, is also inherently a collective

problem requiring *collective action*. According to Fleck, "the minimal requirements for a fair rationing process are that it be visible and that rationing decisions be self-imposed. A broad public deliberative process will meet those conditions" ("Leonard M. Fleck Replies" 7). In contrast, an "expert-dominated" process cannot give us anything like "authentic... self-imposed rationing" and thus sacrifices "both moral and political legitimacy" ("Just' Care: Who Decides?" 8). Given the role of values and the need for a wide-range of perspectives, Fleck notes that experts should only hope to contribute to the conversation, not dominate it. Accordingly, open transparency and public participation are key components of the kind of collaborative work WP scholars recommend we pursue.

More specifically, Fleck's version of RDD requires we form deliberative committees whose work meets a number of criteria he puts forward. First, the deliberative process must be open to the public and transparent. Second, participants in the process must not feel coerced and must understand themselves to be equal to their fellow deliberators. Third, participants should in some sense be impartial, at least in so far as they are ignorant of their own future health care needs and not there simply to support some interest group.⁷³ These first three criteria are – to the extent that they seek transparency and a balance of power – in alignment with recommendations put forward by WP scholars. For instance, RDD provides democratic resistance to more centralized power schemes. Instead of rationing behind closed doors, this model puts the matter directly in front of the people. Responding to the expert-driven model, Fleck advises us that we need to use "available scientific knowledge honestly" while also recognizing such knowledge is

^{73.} To this extent, he is not proposing we somehow develop a point-of-view from nowhere, but a point-of-view free from unfair coercion. While Critics of deliberation argue, with good reason, that it is impossible for deliberators to be completely impartial, it is also true that -- in relation to our own health care interests -- many of us do not know what future ailments we will suffer from ("Just' Care: Who Decides?" 44).

limited and fallible (195). Carefully repositioning the role for science and expertise is a critical component to effective work on WP's. The attempt to create an open space free from undue coercion is also reinforced by further benchmarks. In a few words, Fleck says dialogue must be fair and impartial, we must address our co-deliberators as equals, and we must show respect for one another.

As I briefly highlighted above, Fleck suggests participants should present only public reasons to one another. It is also critical that participants realize any decisions they make have the possibility of impacting their "future possible selves" (116). Both criteria discourage us from taking an isolated, narrow stance. For instance, when examining any possible rationing decision, Fleck does not want deliberators to consider the issue only as a tax payer might, but also as a future possible patient might or as a family member of a future patient. Fleck's insistence on the use of public reasons is further supported by his suggestion that we work to detect values we share in relation to the problem-at-hand and identify "public interests" we can use as reference points for judging potential policies. In asking us to identify shared values and reasons we are encouraged to find some level of mutual understanding (common ground). Just such an expansion of perspective (collective and transformational learning) is endorsed by experiential learning advocates and WP scholars as necessary for collaboration. Brown, for example, implores us to be open to different ways of thinking, while Van Bueran et al. cite the ultimate need for trust – something that arises out of a serious commitment to collaboration (Salwasser). Public reasons are also – since they avoid particular philosophic doctrines – *fallible* and capable of undergoing revision based on new information. Moreover, they are context-bound (128). The recognition of both of these dimensions to reason-giving are recognized as essential to effective, collaborative work on wicked problems. Through the use of public reasons, then, rational

democratic deliberation "... is about mutual education, mutual persuasion, and shared social problem-solving," all phrases found in the WP scholarship (163).⁷⁴

Since RDD is responsive to changing circumstances, new technologies and further deliberation, our collective decisions are *provisional*. We never claim we have made ideal or fool-proof policy choices. While to some the fact that our decisions are always provisional might seem disadvantageous, given the rapid development of new technologies, the new results found in medical studies and the changing economic and social conditions we face, an ongoing process of dialogue and reevaluation is essential. We are not, however, starting from scratch every time we consider a new rationing scenario. "What will happen in practice is that our earlier collective deliberative judgments will be further refined and specified by what we learn in later deliberative efforts" (94). Given the provisional nature of our decisions, this deliberative process is also iterative; as we've seen, the ongoing nature of work on wicked problems has been consistently highlighted as essential to any productive work on wicked problems. Fleck's proposed deliberative process thus appears to be a *context-sensitive, dialogue-driven, actionbased model*.

For instance, Fleck requires citizens weigh choices through a "comprehensive relational perspective" where every choice fits "somewhere on an overall prioritizing scheme" (16). By structuring the process in this way, he is attempting to make deliberators aware of the overall structure of the system, pushing them away from making isolated decisions that ultimately fail to consider the whole. As such, his process aligns with – but could also benefit from – soft systems thinking since this method is designed to help us define the parameters of the issue under deliberation and assess possible systematic changes under conditions where our values are in

^{74.} From here it is no surprise that Fleck's model also emphasizes that our scientific technologies cannot alone resolve our current problems.

conflict (Checkland 17). For instance, Fleck also raises concerns about problem formulation. How we frame the "problem/decisions sphere" is critical. He suggests we limit our sphere to what is manageable given our own "political, economic, organizational, normative, and technological constraints" (118). Focusing on our own contextual limitations for the purposes of arriving at an action plan that incrementally improves the situation-at-hand is admirable, but problem formulation is a precarious process and over-simplifying the mess we confront is a consistent reason why we keep acting in ways that fail to meliorate the situation. Interestingly, soft systems also recognizes that changes are reliant on our willingness to dig into the epistemological and normative assumptions behind the various positions we hold.

Additional insights from the WP scholarship could further inform Fleck's model in the decisions about how we structure these deliberative committees. For instance, a number of WP scholars point to the need for advisory boards, networks, and arenas as essential to creating collaborative and systematic change. Bridge institutions like the above could be critical for getting such a large-scale deliberative project off-the-ground. Brown and Lambert's research could also helpfully inform Fleck's deliberative model. Their work demonstrates the importance of representing all knowledge structures within the deliberative body (this included individual, community, specialized, organizational, holistic and collective knowledge cultures) (Brown 22).Given the scarcity of research here, their long-standing work on-the-ground with deliberative groups suggests their process design and the learning theory behind it would be strong additions to Fleck's model. On top of these concerns about inclusive and representative deliberative bodies, RDD confronts criticisms about the legitimacy of group decisions and the readiness of the public to be so engaged.

There is, however, a scattering of evidence to support the claim that public deliberations

around rationing are possible and even fruitful. In truth, though, relatively little engagement with the public has occurred. The evidence we have so far, however, does suggest that much of "the public is both able and willing to engage questions about what types of services and what populations should be given priority for insurance coverage." This evidence also suggests that posing "high-stakes questions to a diverse group that is publicly accountable for the outcomes of their decisions motivates effective deliberative processes on the part of citizens" (Gold 1402-3). By moving forward, by trial-and-error, some of the above concerns and questions will find appropriate answers. The risk we take in beginning this process and failing seems negligible in comparison to continuing to put up with the injustices found in the current system.⁷⁵

Comparing Fleck's model to the WP scholarship leads me to conclude implementing Fleck's democratic process, or something akin to it, is sorely needed in a political and cultural climate rampant with adversarial debate and discord. This is especially critical, as Van Bueran et al. noted, because we currently have few institutions with designs that foster collaboration across differences. In fact, Fleck says deliberative committees on the right track will recognize that a timely response on their part is essential since allowing the situation to continue to "simmer unaddressed" is inadvisable. Over time, this process encourages the development of Turnpenny's "consensual wisdom."

^{75.} At this point, further concerns about public deliberation – the time and money involved, the overrepresentation of those already civically inclined, the need for aggressive recruitment efforts, and so on – are slightly beyond the scope of this work. Attempts to adequately address these concerns, however, can be made when in the process design phase. As we will see, reestablishing bridge institutions could be a first step along these lines. Addams's deliberative engagement efforts can also be used as a model for more active inclusivity.

RDD as Experiential Learning: Employing the Pragmatic Method

At first glance it may seem strange to refer back to Dewey's philosophical writings in order to parse out a means of meliorating our healthcare crises. Obviously, Dewey's writings do not and could not discuss these current concerns since our medical science and institutions have changed drastically since the early twentieth century; and yet Dewey's writings largely support and further illuminate the direction in which Fleck suggests we move. Dewey's philosophy also highlights a few concerns with Fleck's argument that must be addressed before this project moves forward. As we've seen, we face very serious healthcare rationing problems that often cannot justly be solved individually; and, as we've also seen, pragmatists suggest we need to address these problems through a communal discourse that seeks working solutions through practical agreement. In practice this means that we need to look at the specific cases that make up the larger problems; we need to discuss possible solutions and weigh their consequences; we need to make decisions and yet still be amenable to revising those decisions; that is, in practice this means we need to engage in collaborative, experiential learning.

In alignment with the pragmatic method and with the recommendations that follow from experiential learning advocates, Fleck argues in order to deliberate successfully we need a sufficient level of open-mindedness, mutual respect, honesty, transparency and the willingness to listen to all various and relevant positions. As Dewey argued, we *need* to recognize that "amicable cooperation" really can get us beyond *divisive* differences (LW 14: 228). It is through such "experimental and personal participation in the conduct of common affairs" that we come to see our "social responsibilities" (MW 11: 57). "Amicable cooperation" is often the first step towards opening the door to experimental learning.

Upon review, one can quickly see that Fleck's deliberative process is an instantiation of experiential learning in that it asks citizens (1) to engage in new and different experiences, (2) to reflect on complex and high stakes health care issues from vantage points other than their own, and (3) to attempt to integrate across these differences in such a way that (4) their conclusions can be put into practice and thus put to the test.⁷⁶ In this way, it follows the essential four-step process advocated by David Kolb (examined in detail in chapter two). For Fleck, Dewey, and Kolb (and our WP scholars), it is not that citizens need to become experts in order to engage in these high stakes, complex issues, but that they need a *willingness* to deliberate. "What is required," Dewey writes, "is that they have the ability to judge of the bearing of the knowledge supplied by others upon common concerns" (LW 2: 366). And, noted earlier, current research on citizen engagement in complex social problems shows they are capable of understanding complex material and arriving at collective decisions (Gold et al.).

Fleck's reliance on public reasons – as a key feature of his deliberative process – also tends to align with the process of experiential learning as described by Dewey and Kolb. In fact, many of Fleck's benchmarks for success point us back to the use of public reasons. He, in brief, suggests we try to decipher "value judgments that belong in the domain of public reason," figure out which values matter for the issue under examination, detect values we *share* in relation to the problem-at-hand, and, finally, identify "public interests" we can use as reference points for judging potential public policies. Under this model, intelligence becomes experimental; it is, in Dewey's words, inherently "constructive and creative" (MW 11: 346). Dewey, in fact, refers to

^{76.} In Kolb's words we need to engage in new experiences "without bias," "reflect on and observe experiences from many perspectives," develop ideas that "integrate" what we observe into theories that can then be used to try to solve our problems (30).

reason as "observation of an adaptation of acts to valuable results." Such reasons, he says, provide "a new motive for fidelities previously blind;" They set up "an attitude of criticism, of inquiry," and make us "sensitive to the brutalities and extravagancies of customs" (MW 14: 55). And this is precisely what Fleck is working to do – generate sensitivity to the complex, ethical challenges involved in health care rationing.

Further, experiential learning not only supports the above measures, it also employs Fleck's final four conditions. For instance, Fleck asks us to identify the assumptions behind and consequences of the conclusions we are deriving through our deliberative efforts (2009, 198). Such a condition requires us to be "sensitive to the brutalities and extravagancies" of any potential policy we endorse (MW 14: 55). Further benchmarks ask us to produce some evidence that we have both learned something of importance about the issue, and, secondly, that we have a better understanding of the complexity and "inherent uncertainty that must characterize such conversations" (198). The last benchmark asks us to measure whether we now have a greater tolerance for choices we may not make for ourselves (199). Such benchmarks align directly with the efforts of experiential learning. Kolb's research led him to the conclusion that genuine learning occurs in a cycle where feelings about what is happening generate observations, as well as reflection about the possible consequences of various options and a choice to follow through on one of our options. As Kolb concludes, such processes are about real, transformational learning.

Fleck also relies on experiential learning processes in his recommendations for creating a collaborative atmosphere when initial differences encourage divisiveness. In fact, scholarship on wicked problems could benefit from Dewey, Kolb, and Fleck's work here. Fleck suggests we inspire a willingness to listen through causing "puzzlement." Dewey agrees, arguing we need to

make others aware of what he calls the "indeterminate situation" (LW 12: 109). Kolb notes that we must begin in and with our feelings since they tend to shape what follows (feelings generate observation). It is the indeterminate situation that causes puzzlement. There is no possibility of effectively engaging an individual who has already delineated the problem and the necessary solution. Dewey says the predetermined state of mind is "... the chief obstacle to the kind of thinking which is the indispensable prerequisite of steady, secure and intelligent social reforms" (MW 15: 76). In general, the wickedness of many bioethical challenges lend them to case studies for inciting puzzlement.

Building on the work of John Dewey and generally supporting an experiential learning process of political engagement, modern political philosopher Benjamin Barber advocates for a general deliberative model that helpfully illuminates the role of dialogue. Barber's "Talk" gives ineffective, questionable or contradictory beliefs and policies the opportunity to undergo communal analysis that may prevent the obstinate continuation of unjust and inconsistent practices. "What is crucial," Barber writes, "is not consent pure and simple but the active consent of participating citizens who have imaginatively reconstructed their own values as public norms through the process of identifying and empathizing with the values of others" (137). As Fleck argues, this is essential if we are going to come together to find workable solutions not only for ourselves as individuals, but for our greater society. As we will see, however, these analyses could further benefit from Addams's emphasis on sympathetic understanding and fellowship (both effective avenues towards opening us to perspectives beyond our own).

Problems with RDD

Two of Fleck's measures – that participants should be impartial and hold their future selves to the decisions they make – may be cause for concern. This is because there is (1) an

inherent skepticism about our ability to be impartial and (2) an emphasis on our own fallibility within the pragmatic method. Dewey notes that "no shrewdness, no store of information will make it [the future] ours." On the other hand, Dewey's point here supports Fleck's recommendations. This is because it is often true that we are ignorant of our own future possible healthcare needs. Experiential learning advocates argue that it is "by constant watchfulness concerning the tendency of acts, by noting disparities between former judgments and actual outcomes, and tracing that part of the disparity that was due to deficiency and excess in disposition, [that] we come to know the meaning of present acts, and to guide them into the light of that meaning" (MW 14: 144). In the end, Fleck's deliberative model can still operate within this framework since any committee deliberating over these issues must always be willing to reexamine their decisions in light of the consequences. Reevaluation is essential since, at times, we may find ourselves endorsing future rationing decisions we later realize we were entirely mistaken about. On the other hand, in order to promote consistency and fairness we will at times be temporarily stuck with our mistake unless and until the committee sees the error of its decision (5). In the long run it is Fleck's hope that the outcomes of our deliberative efforts be subject to new information and changing conditions. So there is perhaps some opportunity to share one's story of woe given the fallible nature of the decisions our present selves make for our future selves; that is, we *can* and should try to make changes via ongoing deliberative efforts. In reality, there are no decision procedures which yield perfectly just outcomes every time they are applied (Fleck 116). This is also in part why the process must be iterative.

So far, then, RDD looks to more justly address complex and controversial social problems by involving those affected by the problem in an experiential, decision-making process. However, Fleck's rational democratic deliberation relies heavily on traditional

deliberative theorists like John Rawls. For instance, Fleck concludes that the deliberative process can lead to the "fundamental moral virtue of impartiality" Rawls' develops through his disembodied spirits (17). Endorsing a removed position of impartiality is antithetical to both the pragmatic method and the recommendations put forward by WP scholars. However, Fleck does in part define his goal of impartiality as a practical matter of dissociating ourselves from various institutional bodies and thus from simply trying to move those institutional agendas forward, stalling all cooperative efforts.

On the other hand, by endorsing our deliberative efforts as impartial we are forgetting to remain diligent to the potential for fallibility, forgetting to attend to our own context, and thus moving away from the possibility of reexamining together the position at hand. Eric Weber, writing on Rawls and Dewey, comments on this same problem, noting that one of Rawls's mistakes comes from his reliance on the fully rational adult, a person who is somehow "untarnished by the hands of cultural influence" (2). Rawls's theory, in the end, relies upon an "untestable and unempirical" foundation whereas Dewey begins by situating himself within experience.

Fleck informs his reader that *his* use of the word "rational" is meant to contrast with the kind of deliberation that is driven by power differentials, seeks only to maintain surface level appearances and plays on the ignorance of the community (9). That is, deliberation is rational to the extent that deliberators give reasons to one another for the positions they endorse (196). Dewey says deliberation is rational to the degree that "forethought flexibly remakes old aims and habits, institutes perception and love of new ends and acts" (MW 14: 138). Fleck's deliberative model certainly looks like a model aiming to do just this in response to our ongoing healthcare crisis. Under a process of experiential and transformational learning, we must recognize in our

health, our own potential and future fragility and in our own moments of need we must also come to recognize the needs of others. Without the capacity to see beyond ourselves, we are unlikely to make relatively just communal decisions. This, I have noted, is precisely what Fleck hopes to accomplish through his goal of self-imposed rationing. As I will show in the next section, Addams's work can be used to fruitfully expand on this goal.

Another potentially troublesome recommendation Fleck puts forward comes from his constitutional principles of healthcare justice. With these principles we can support or reject some policies without relying on deliberation from the public. They give boundaries to the deliberative process just as the U.S. constitution frames the interpretation of laws today. Fleck's constitutional principles come from scholars Norman Daniels, John Rawls, and from his own past work. They include: Equality, Liberty, Fair Equality of Opportunity,⁷⁷ Publicity, Respect for Persons, Liberal Neutrality,⁷⁸ and Reciprocity. Fleck does not claim this is a complete list of principles, but rather that they "... seem necessary to sustain the effort to articulate a fully adequate pluralistic conception of health care justice" (185). Such constitutional principles are potentially problematic because they are not fully open to critique by the deliberators. Instead, they are imposed on deliberators from "outside" the process.⁷⁹ Morality, as constructed by pragmatic WP scholars is something we *do together*; as a social practice we engage in, it cannot

^{77.} Fleck distinguishes the Equality Principle from the Fair Equality of Opportunity Principle. While equality refers to the complex task of attempting to treat sufficiently alike cases alike, fair equality of opportunity is derived from Norman Daniels' work. This principle tells us that the health needs we should be concerned with are connected to "protecting fair and effective equality of opportunity." Opportunity is broadly construed to encompass a wide spectrum of experiences "that make life interesting and meaningful and fulfilling" for different people (191).

^{78.} The Liberal Neutrality principle simply refers back to the necessity for justifying our decisions with public reasons. The strengths and weaknesses of this approach are discussed further in the chapter.

^{79.} On the other hand, Fleck notes that the specific details of these principles would change through practices as time moves forward.

be understood from above or outside of our community. Inherent to the process of experiential learning we must work from the premise that "every measure of policy put into operation is, *logically*, and *should* be actually, of the nature of an experiment" (LW 12: 502). It is problematic to enforce constitutional principles on a deliberative body when they do not have the means to accept, modify or reject them (to weigh in on their value). Campbell, writing on Dewey, says constitutional principles leading to social actions need to "go through a process of cooperative examination and social evaluation *before* their enactment" (42, *emphasis mine*).

Thus, Fleck's belief that the principles can yield at least some answers prior to and without the need for deliberation looks to be problematic. He suggests it is only when such principles fail that RDD is required, saying:

Some moral problems are too complex, involve too much factual uncertainty, are open to reasonable (but conflicting) conceptual characterizations, or call into play conflicting moral judgments rooted in distinct analogies that seem relevant to the issue at hand, and consequently, our theories cannot yield an objectively dominant reasonable moral judgment in such matters that all reasonable moral agents in that specific moral conflict rationally ought to accept (102).

In this morally complex and ambiguous space he finds a need for deliberation. In reality, he notes there is often more than one just-enough solution to our communal problems.⁸⁰ On the other hand, like the U.S. constitution, Fleck's constitutional principles are appealed to as

^{80.} Collective decisions are "just-enough" when they cannot be reasonably rejected by anyone involved. Here, context plays a critical role. For instance, Fleck says "strong egalitarians" cannot reasonably reject a decision that the majority of deliberators within their group make just because that decision is more in line with a utilitarian point-of-view under those particular conditions.

foundational, as so reliable that any potential decision violating them would not be taken under consideration by a deliberative body. Over time, as deliberative decisions are made, and conflicts come to light, as critics protest and circumstances change, these principles would be subject to some re-interpretation, and re-visioning; that is, they should slowly evolve. Like the U.S. constitution, however, Fleck's principles are too far removed from the necessity of more open and continuous inquiry, inquiry that should be "connected as well as persistent..." so as to "provide the material of enduring opinion about public matters" (LW 2: 346).

The principles end up defining the appropriate space for deliberation so that, for instance, an individual trying to argue that AIDS patients should receive no health care cannot hijack the deliberative committee's time and resources. According to Fleck, rejecting such a proposal "out of hand is the only reasonable and liberally appropriate response" (184). It is important to note that appealing to one or more of the above constitutional principles when a violation of them is clear and blatant gives us the means to justify our refusal to waste time and resources on considering such a measure. These principles can work to restrict majority rule that is discriminatory. In some sense we are granting authority to the principles and the deliberative committee so that we can more adequately restrain political power dynamics. For example, when examining President Obama's attempts to engage various local communities in town-hall meetings in relation to our healthcare crises we see that many of these meetings were in fact hijacked by those wishing only to disrupt any attempt at genuine dialogue. Setting forth criteria to shape the dialogue is going to be key to our chances at gaining ground on these matters.

Perhaps Fleck's granting of authority to such principles can be better understood as an act of trust. Such trust, though, seems to rely upon either our experience of the principles as reliable and competent or our belief in the principle-creators as truth-worthy experts. While Fleck views

the principles in such a way based on his own experience with them, the general public obviously currently lacks experience. Chapter one also suggests we should reconsider the role of expertise, re-interpreting scholars as facilitators and disseminators of knowledge, not isolated decision-makers. While these principles are in theory subject to critique and redefinition, this necessitates we hold to them cautiously and tentatively.

Another potential problem comes from the implication that these principles are already well-formed and universally applicable prior to public discussion on them.⁸¹ For Dewey, principles must be contextualized; they are contingent. In one sense, Fleck sees the need for localized principles since his deliberative model is meant to apply to the community thinking the issue through, although the community in this model has the potential to be represented by a state or the entire nation. He also recognizes the tension and discord between such principles and our very real, complex problems. When we apply these principles in complex situations we will quickly see that some principles conflict and we may have to choose how/when to give primacy to one, compromising the other. For instance, we've at times decided the principle to privacy should be trumped by other principles (safety).

Fleck goes on from here strikes out at those who want to stick to abstract or universal principles. Individuals unwilling to engage at a communal level, criticizing experimentation and compromise, are, he says, simply attempting to keep "... a clean conscious by failing to engage in the difficult... moral compromises required by the problems of our complex social life and a complex health care system" (134). Dewey echoes this concern by noting that while we have become accustomed to the "experimental method in physical and technical matters," we are yet "afraid of it in human concerns. [This] fear is the more efficacious because like all deep-lying

^{81.} Universally applicable constitutional principles applied prior to public engagement and endorsement would also be problematic for WP scholars.

fears it is covered up and disguised by all kinds of rationalizations" (LW 2: 341). So, again, RDD appears to be essentially grounded in experiential learning.

In the end we see that our principles are understood to be only *partially* helpful. This is at least in part because Fleck recognizes the two main naturalizing criticisms of such constitutional principles: principles are often going to be too abstract to be easily applicable in particular cases and they fail to offer guidance when there is a conflict between them. He, in fact, goes on to say in a pluralistic society "there remains reasonable disagreement about what guidance they give for real-world decision-making." At this point he emphasizes that -- to some degree -- we *only have each other*. Given this, we must grapple with these issues as a community in order to find caring, just-enough models for dealing with our limitless healthcare needs. The community at-large must have this opportunity partially because, in a pluralistic society, we cannot presume those left out of the process will have come to a similar conclusion on their own, nor can we assume we have thoroughly covered all the bases without first openly listening to others.

We see Fleck's rational democratic deliberation works to make us conscious of our biases when it seeks to detach itself from particular institutions and other various bodies with their own interests to consider. There is more opportunity here for these individuals to be fair-minded and uncorrupted not only because they are officially unattached in this environment, but also because they are in dialogue with diverse groups of people. Such dialogue has the chance, Dewey says, to interrupt unreflective emotional and intellectual "habitudes" as well as address any underlying fear of "an experimental method" that goes beyond "physical and technical matters" to address human concerns; it thus has the chance to prevent or resist any attempts on the part of "exploiters" from taking advantage of unreflective "sentiment and opinion" (LW 2: 341).

In fact, Dewey's work on our habits has the potential to fruitfully inform Fleck's model, especially since it is rare that deliberation actually ends in genuine consensus (Levine et al. 274). While the role of habit is not central to Fleck's overall mission in *Just Caring*, taking it into consideration when judging the merits of RDD is valuable. Dewey says habits "constitute the self" and are "essentially demands for certain kinds of activity." "In any intelligible sense of the word will, they are *will*" (MW 14: 21). He goes on to note that "habits of opinion are the toughest of all habits." Mental and moral habits have such power over us precisely because they are so much a part of who we are. We tend to value the habits we have if only because such habits literally limit our imagination. When such habits are "... supposedly thrown out the door, they creep in again as stealthily and surely as does first nature" (LW 2: 336). So while habits of opinion may prevent one from seeing the need to engage in dialogue or while they may shut such dialogue down, they may also creep back in after seemingly productive dialogue has taken place. The very "nature of habit is to be assertive, insistent, and self-perpetuating." Dialogue may often fail to eradicate the habit itself. At the very least, we do not want to underestimate the power of habit.

Dewey warns us that "interference with a well-established habit is followed by uneasiness and antipathy." Beyond the uneasiness generated by puzzlement in those who were before relatively sure of their stance, we also find that we generally have "an emotional tendency to get rid of bother" (MW 14: 43). Yet there is still hope for dialogue here, for RDD. Dewey finds this hope in "intermediate acts." We need to take "intermediate acts seriously enough to treat them as ends" (MW 14: 18). Once we find ourselves puzzled we need to generate possible solutions, consider their consequences, make choices, pay close attention to the actual consequences of our decisions and modify our polices accordingly; *we need to follow through*.

This is precisely what the various models discussed in chapter one on wicked problems are designed to do (strategic doing, soft systems thinking, etc.): to iteratively move us to act, reflect and adjust. A more reflective process of engagement means that we become more careful about which habits we adopt and more flexible when they fail to lead us in the direction we want to go (Schutz 291). According to Feinberg this means that we need to promote "habits of deliberation that accept the burden of judgment" (17). Such actions are also built into Fleck's rational democratic deliberation.⁸² He suggests that we form committees which posit potential policy changes which are then *enacted*. These committees continue to meet and consider these problems over a period of years, giving them the potential to consider the situation after their policies have been implemented and to thus suggest further modifications. Having the ability and the desire to return to the problem and reconsider the implemented solution is foundational to experiential learning processes: "The work of intelligence in observing consequences and in revising and readjusting habits, even the best of good habits, can never be foregone (MW 14: 38). Fleck leaves room to do just this.

RDD and Feminist Pragmatism

Not surprisingly, Addams's conclusions also consistently align with Fleck's engagement model. Her focus on reciprocity, cooperative action, and on the role of public scholars all align with the goals of RDD. Addams focus on cooperative action, for instance, fruitfully supports the collaborative and iterative nature of his deliberative model. Fleck himself says the value of his "… model needs to be proven by its practical ability to address a range of health care rationing and priority-setting problems" (20). Both argue the true test of our theories lies in putting them

^{82.} By saying that these procedures are only theoretically built into Fleck's deliberative process, I only mean to highlight that this particular process has yet to be enacted or tested on any large scale. Thus, the intermediate acts laid out should occur if the deliberative process and the bureaucracy required to enact the committee's decisions proceeds as it is intended.

into action and both engaged in many efforts to do so. The nature of our collaborations, for Fleck and Addams, lies in working openly and fairly *with* others.

Consequently, reciprocity was foundational to Addams work. Also essential to RDD, Fleck's eighth constitutional principle is Reciprocity.⁸³ His insistence that our rationing choices be self-imposed comes out of an understanding that justice necessitates fairness and thus reciprocity. This insight is well-supported by the role of reciprocity in Addams's philosophy. At one point Fleck in fact says self-imposed rationing is about "reciprocal justice." Our collective decisions meet this criteria when we each come to understand that if we are unwilling to spend money for a particular life-saving intervention for our fellow citizens, then they too have a right to deny us the same care under similar circumstances. Reciprocity, for Addams, prevents a drive for doing good *onto* others, challenges authoritarian and adversarial efforts, and encourages more open and diverse dialogue. Thus, Addams' emphasis on reciprocity undergirds the work Fleck is seeking to do, justifying these efforts as critical to deliberation on wicked problems.

Fleck and Addams also both consistently invoke narratives to ground their insights and draw the reader into the very real issues they are asking us to confront. In fact, through the last nine chapters of his book Fleck goes on to ground his method in contextual problems, noting that – in the real world – these problems would themselves be defined by the deliberative process. Though he still does see a vital role for philosophers here. In general, various experts can and should weigh in on the process. We need capable organizers, fair facilitators, and critical interpreters. Just as Addams effectively filled a number of spaces within her community – public philosopher, social reformer, and facilitator – so too is there a more public and active role for

^{83.} Reciprocity, for Fleck's work, means "that the same comprehensive package of health care benefits will be guaranteed to all in our society, and that the same set of rational protocols and the same priority scheme will establish just limits with respect to that health care benefit package" (194).

scholars to play today. Addams's collaborative endeavors are a model for the kind of work essential to deliberative reform efforts.

While her work generally supports RDD, it also extends and subtly reshapes a number of its components. We can garner further insight into RDD through her emphasis on fellowship and sympathetic understanding as well as through her life-long work at Hull House. Addams's use of perplexity, for instance, expands on Fleck and Dewey's suggestions because it grounds itself even more in the importance of sympathetic understanding. She sheds more light on how we can begin to open others up to the various and conflicting dimensions of the problems we confront. Sympathetic understanding requires us to get outside ourselves through connecting with others, a recommendation far removed from a reliance on Rawls and impartiality. Fleck does nod towards this by noting that evidence of "mutual understanding" along with attempts "to identify and express some shared values" should be found within a relatively successful and fair deliberative process (197); nonetheless, Addams work delves more fully into the value of *sympathetic* understanding whereas Fleck emphasizes the role of internal conflict.⁸⁴ In either case, immersing ourselves in the particular ensures we are fully aware of the very real consequences of the collective decisions we are making; it also ensures we give a voice to those we are affecting. In fact, the constant use of narrative in Fleck's work makes it hard for the reader/deliberator to avoid engaging sympathetically, though he doesn't analyze and harness this method in the same way Addams does. Sympathetic understanding opens the door for perplexity and new understandings, thereby fostering more genuinely collaborative endeavors.

^{84.} Fleck rightfully notes that "internalizing" the complexities inherent to these wicked problems shifts the conflict so that it is no longer focused on how others are wrong; instead, we end up with "internal conflict" (ie. puzzlement) and this opens the door to active listening.

I suggest perplexity without fellowship is unlikely to foster collaboration. Indeed, fellowship with diverse others fosters a certain *kind* of perplexity, encouraging us to see beyond our current selves. Perplexity in isolation may lead to over-intellectualization of the problem, continuing divisive and limited positions. According to Fleck, the failure to reform healthcare during the Clinton administration resulted from the attempt to impose sacrifices "on 'others'" (2009, 380). These reform efforts were not fully collaborative. The separation of various groups from one another prevented fellowship and any sense of reciprocity, encouraging competition and distrust. Addams conclusion that we must move away from being good *to* people so we can instead focus on being good *with* them is precisely what is needed when making collective decisions (ie. decisions which are self-imposed). In truth, groups are not effective without trust; and trust tends to be dependent upon open, frank communication that emphasizes listening, not just talking.

Along these lines Addams's focus on sympathetic understanding makes important adjustments to Fleck's focus on rationality. To the extent that the "rational" in Fleck's RDD is meant to direct readers to the importance of giving a broad range of reasons for the public decisions we endorse, it directs us to an essential dimension of deliberation. On the other hand, feminist pragmatists are critical of work placing too much emphasis on formal argumentation and rationalization. Fleck, as I noted earlier, dismisses critics who complain about this dimension of his model. He argues rational reason-giving practices do not demonstrate an academic bias by highlighting the ordinary role of reason-giving in our daily lives as residents in our pluralist communities (196). He even goes on to say that what is "critical" to the process of reason giving is "that it permits us to *relate* to one another in a distinctively human way" (196, *emphasis mine*). However, the use of narrative as a form of reason giving does this quite effectively. He also

notes that the practice of reason-giving can be "manifold and complex," but suggests we limit reasons to those that have a role in the public domain (noted above). This leaves the reader to wonder a bit more about what reason-giving practices fall within the domain of public deliberation. All this is to say that I believe Fleck's emphasis is strongly on humans as *rational*, when perhaps a bit more emphasis on humans as *relational* would be valuable. Research on collaborative endeavors confirms that it is valuable to focus on the people involved, instead of the ideas in conflict. Addams gives us an important avenue for reframing this focus so it is more inclusive.

Addams also provides us with an avenue for recreating the kind of bridge organizations that are necessary for fostering the collaborative, deliberative work of RDD. Hull House, chapter three argued, is a prime example of the kind of institutions we need today. Our lack of bridge institutions – of stabilizing, flexible boundary spaces for collaboration – perpetuates a fragmented and discordant environment. This is especially true in relation to our healthcare crisis, where the institutional, political, educational and moral divides are fairly pronounced and ubiquitous. Bridge institutions motivate the kind of experiential hypothesis testing collaborations necessary for testing out the possibilities and limitations of Fleck's deliberative model. As the conclusion will highlight, a lack of such spaces makes collaborative efforts incredibly difficult. Bridge institutions not only help to implement projects like Fleck's, they also help to sustain them.

Further RDD Concerns: A Brief Note

While scholars and researchers of modern democratic deliberation consistently indicate we face real barriers to legitimate collaborative decision-making – noting serious problems with power, polarizing group think, cascade effects, and the undue influence of facilitators, among other concerning factors – Addams and Fleck both note that without these discussions, one is more likely to see only her own perspective. Being blind to the plight of others obviously makes it highly easy to be indifferent to their plight. She noted long ago that fostering genuine cooperation (ie. cooperation that leads to the implementation of working solutions) is one of the most difficult, but important tasks we face. Along these lines, Fleck says, this work is about "cooperative social problem-solving." "The tone and nature of the deliberative process is markedly different when a range of options are being cooperatively assessed for their strengths and weaknesses in addressing a social problem." Aligning himself with experiential learning advocates, Fleck says his process is about "mutual education" (195). For Addams and for Kolb, this work is fundamentally about the expansion of our ethical framework, a moving beyond individualized ethics. This expansion can be fostered in part by the model Fleck has built.

For instance, the drive towards integration can and often does lead to the suppression of ideas. In theory, this is exactly what we need to do when we come together to address these problems, *but it is also what we often do so poorly*. As noted in chapter two, a failure to more seriously engage wicked problems can in large part be attributed to a failure to move beyond isolated specialization and integrate. Whereas striving towards specialization tends to isolate us, integration offers us opportunities to synthesize and thus to transcend the lens of narrow expertise. And today we too rarely seek to integrate across various knowledge systems (Kolb 145). This means that when we do seek integration across our differences, we often fail; as we

will see in the conclusion, because we are so unused to working in this way and because it is a difficult and timely process, we often end up silencing dissent and ignoring difference, instead of acknowledging and integrating difference. And as we will also see next, valuing and incentivizing integration is the likely first step towards shifting this current trend towards isolated specialization.

On the tenuous issue of integration, Fleck asks only that our deliberative process end in "greater toleration for the choices others might make" (199). The drive towards integration must be fortified with an awareness of power and an openness to difference if we are to avoid consensus that is bought at the expense of genuine collaboration. *The Deliberative Democracy Handbook* provides us with a sobering illustration. The authors describe a set of community deliberations which had supposedly ended in "consensus," but really led to picketing by former-participants, letters to the editor, and angry, aggressive ranting at later town hall meetings. Upon later assessment, it became clear that the voices of dissent in these original meetings were silenced in a drive towards a speedy and supposedly unified decision. In contrast, integration is *supposed* to work towards changing our reality so that "what 'is' and what 'ought' to be" are more in alignment (Kolb 148).

The above example illustrates a source of contention within the scholarship. What should we be aiming for when we come together to address a wicked problem? Compromise? Consensus? Common ground? Our various scholars offer us different answers. For instance, compromise is highly unappealing to many, but is a valuable goal for deliberative theorists like Gutmann and Thompson and WP scholars Ferkany, Whyte, Salwasser, and Norton as well as for Fleck's RDD. Fleck, in fact, references Martin Benjamin's work and suggests we consider "integrity-preserving compromise" as a worthy goal. Compromise is understood as essential

because we live in a pluralistic society where there is no one ultimate value ordering all others under all the various conditions we face (112-3). Integration, that is, must be tempered by recognition of the value of pluralism.

Similarly, the WP literature seems to suggest there is little opportunity for idealistic consensus when there is *no ideal solution*. For others, consensus is in fact a worthy goal. In place of compromise, some deliberative theorists argue our aim should be common ground, a space between agreement and disagreement. Idealistically, true consensus comes through transcending individual interests and integrating our aims so that winning and losing become irrelevant. Integration is certainly a worthy goal and – when balanced with openness to diversity – can foster a space for the creative co-generation of action plans. For instance, Kolb suggests integration leads to flexibility; it provides us with the opportunity to more flexibly cope with and respond to a world constantly undergoing change (136). For now, I will simply suggest the process by which we approach something more like genuine integration is a delicate one which can be better approximated when informed by insights from experiential researchers, feminist pragmatist scholars, and critics of deliberation since they focus more intentionally on both subtle and overt forms of disenfranchisement.

Conclusion

When more than forty-seven million Americans have been without health insurance, and when the number one cause of bankruptcy in this country is unpaid medical bills and when far less rich countries are able to provide better care to all their citizens for far less, we certainly have a "mega-mess". Our fear of systematic change, our desire to oversimplify and reluctance to examine our own assumptions – along with a culture encouraging an individualist ethos and rampant competition – all conspire to operate against collaborative reform efforts. Yet, as a

public and wicked problem, competitive and authoritative strategies have not *and cannot* comprehensively and fairly address our healthcare crisis. As an experiential process that implements transparency and collective, provisional decision making, RDD has a far greater chance of managing the situation. As we've seen, RDD – at its core and at its best – relies upon the essential aspects of both the pragmatic method (and thus of experiential learning) as well as the general recommendations put forward by WP scholars.

For instance, RDD endorses the use of public reasons and to the extent that these reasons are meant to move us beyond divisive and exclusive doctrinal commitments and foster shared understanding, they do a lot of important work. In fact, by focusing on the 'democratic' portion of Fleck's rational democratic deliberation, we see the requirement for reflective action, observation, and revision. Democracy, as Dewey and Addams conceived of it, is "a means of stimulating original thought, and of evoking actions deliberately adjusted in advance to cope with new forces" (MW 14: 48). While democracy in their time did not get to this point and -I would argue – still has not, Fleck's deliberation aims to do this, to wisely adjust our actions to better cope with the situations we face.

The scholarship addressed in the previous chapters aims to do this through an educative process that works to engage diverse groups of people so that our own inherently limited context is broadened and we can uncover the conflict in its *full-scope*. Likewise, Fleck's work on puzzlement, call for cooperative action, and endorsement of reciprocity all align with Dewey's and Addams's insights. This scholarship concludes progress on such problems is far more likely when we engage in an experimental process that focuses on the need for amicable cooperation. We are searching for *shared* ends, common values, and practical, though provisional, agreement

subject to future deliberative efforts. In the end, we are working to create a *public*.⁸⁵ This is precisely what we need when facing such complex and changing circumstances in the medical field.

On top of these shared core commitments, this chapter argued Fleck's RDD can benefits from a number of insights offered by our various scholars. For instance, the type of procedures laid out by soft-systems thinking specify how our deliberations might comprehensively frame the rationing problems they confront. Fleck's work on impartiality and on the fully rational adult are *partially* endorsed by our scholars, but also reframed in important ways, reminding us of the fallible and limited nature of our perspectives. The collaborative learning processes supported by Dewey, Kolb, and Addams also suggest his constitutional principle be understood more experimentally, reviewed, and either explicitly endorsed or modified by deliberators. Additionally, Kolb's insights on the need and use for integration can fruitfully shape the tenor of deliberations. And Dewey's work on the nature of habits of opinion - as assertive, insistent, and self-perpetuating – can be used to extend Fleck's insights on how best to proceed. Similarly, Addams's emphasis on fellowship and sympathetic understanding realign the role for – and value of – the rational in Fleck's work. Finally, her life-long commitment to building bridges for collaboration (ie. to Hull-House and its mission) points us to the need for such organizations in creating and sustaining the work of RDD.

Thus, Fleck's analysis of our health care rationing problem illustrates its wicked dimensions; and the use of his deliberative model as a case study for the methods endorsed in

^{85.} To this end, Walter Feinberg's article, "The Idea of a Public Education," reawakens Dewey's work on the creation of publics. Feinberg defines a public as "a group of strangers tied together by consciousness of a common fate" who are also in "communication with one another about the viability of commonly held values." Such individuals will certainly have different identities and values, but will care about the interests of others and demonstrate "a willingness to seek common principles."

previous chapters both demonstrates the usefulness of these methods and where it deviates from the previous scholarship, highlights essential dimensions for minor revisions and expansions of RDD. In general, deliberative processes aim to move us to collective action on these matters, but they do so by moving us to be more widely reflective about the actions we take. James Campbell sums up these two steps when he writes that while "it is necessary for us to step back to understand; it is also necessary for us to move forward to live" (xii). This process of stepping back and moving forward becomes a constant dance of readjustment to changing circumstances, but it is through such a process that we are more likely to derive plans-of-action that work for the *wicked* circumstances we currently face.

And on this front, we move in the conclusion to put these recommendations to the test by detailing how they have been put into action. Through the development of a new upper-division university course, the core methods suggested within the previous pages are engaged. This course, entitled "Wicked Problems of Sustainability," puts many of these recommendations to the test by requiring students to move beyond acquiring knowledge; by *using* these methods, by working *with* others in their community to affect change, the recommendations made within these pages find solid purchase in the "real" world.

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CONCLUSION:

PUTTING IT ALL TO USE: COLLABORATION, INTEGRATION, AND ACTION IN "WICKED PROBLEMS OF SUSTAINABILITY"

"For too long we have been training leaders who only know how to keep the routine going. Who can answer questions, but don't know how to ask them. Who can fulfill goals, but don't know how to set them. Who think about *how* to get things done, but not whether they are worth doing in the first place. What we have now are the greatest technocrats the world has ever seen, people who have been trained to be incredibly good at one specific thing, but who have no interest in anything beyond their area of expertise. What we *don't* have are leaders... What we don't have, in other words, are *thinkers*"

- William Deresewiecz

Collaborative and Experiential Education

All of the methods recommended in the previous chapters for tackling wicked problems – from systems thinking, to the Messy Inquiry System (MIS), to transformational learning for collaborative change, to democratic deliberation – are, at their core, collaborative and experiential educational processes. On top of the long list of reasons for collaborative and experimental learning processes given in our previous chapters, general research on learning verifies that learning *in cooperation with others* leads to higher levels of achievement than do competitive or isolating educational endeavors. In fact, David Johnson and Roger Johnson analyzed over 100 studies verifying these results in 1995 (Johnson and Johnson); expanding the net, further research in 2003 analyzing over 300 diverse studies verified this same conclusion: cooperative learning is more effective. This research has also demonstrated that cooperative learning fosters "shared mental models" and a flexibility that facilitates shared problem solving (Wlodkowski 142). Hence, the research confirms the value of the recommendations from the WP scholarship. Clearly, then, our public educational institutions could have a key role to play in preparing the public and our various experts to engage in this way; that is, to engage one another collaboratively and experimentally.

And yet, as chapter two pointed out, our K-12 educational system most often provides students with artificially framed problems to "solve," usually in isolation from other problems and other students. A lack of context and integration is a serious problem. In large measure, our current education system exacerbates a misunderstanding about many of the public problem situations we face ahead (ie. complex, high stakes, interconnected wicked problems like healthcare rationing or global warming) since it (1) forestalls more open-ended analysis and deliberation about the situation, (2) encourages students to focus on one dimension of the issue in isolation, and thus (3) embeds siloed habits of thinking. Given that our wicked problems can only – at best – be managed collaboratively and in relation to our other problems, we are fostering the type of thinking that makes future collaborative endeavors across networks even more difficult. As Checkland pointed out, we need to replace these habits of thinking with habits of dialectical debate and a commitment to problem-solving as "a continuous, never-ending process" (18). In truth, higher education doesn't always fare much better through this lens; by preparing students for a particular vocation, it often also encourages a set-way of thinking, failing to intentionally nurture the development of originality, creativity, and pluralism (Kolb). As Kolb recommends, higher education should do more to prepare students to work in teams, to collaborate with clients (stakeholders), and to work on "complex projects" (184). On this front, some progress has been made.

AACU Recommendations

Higher education, via the Association of American Colleges and Universities (AACU), has responded to the need for collaborative and experiential learning by carefully considering the

role and design of general education. The AACU now suggests courses should intentionally encourage not just *problem-solving*, but problem-solving via *collaboration* that pushes for the *integration* of perspectives, disciplines, and differences. The suggestions by the AACU are valuable in the development of course plans because they generally encourage the type of thinking necessary for effective work on wicked problems. Their Integrative Learning Rubric, for example, says "fostering students' abilities to integrate learning across courses, over time, and between campus and community life is one of the most important goals and challenges for higher education." This same rubric emphasizes not only making connections to disciplines, but also to experience. It asks students to "transfer" skills and theories from one method or theory to a new situation in order to "solve difficult problems or explore complex issues in original ways."⁸⁶

Collaboration requires students work together equitably in creating and implementing codeveloped team objectives. Genuine co-action necessitates individuals within a group be accountable to one another, recognize their interdependency, and reflect on perspectives beyond their own. For example, the AACU's Teamwork Value Rubric suggests team members not only "constructively" build on one another's ideas and synthesize insights, but also suggests individuals within a team articulate alternative ideas to help move the group forward as well as consciously contribute to a fruitful team climate. All of these recommendations are essential to working across ethical and epistemological differences in a way that seeks to integrate – in place of ignoring or suppressing – those differences. That is, these teamwork suggestions are at the

^{86.} The Integrataive Learning Value Rubric also asks students to imagine a future self "across" different contexts, to self-reflect on their past experiences in order to prepare for the possible challenges ahead. For further details see:

http://www.aacu.org/value/rubrics/pdf/integrativelearning.pdf

very least a good start to building the requisite skill sets our scholars have recommended for work on wicked problems.

Also of value for wicked problem work, the AACU defines problem solving as "the process of designing, evaluating and implementing a strategy to answer an open-ended question or achieve a desired goal." They fittingly acknowledge that problem solving involves different criteria depending on both the disciplinary lens being used and the issue-at-hand. This means evaluation must focus on the process of problem-solving and not so narrowly on the "endproduct." To this end, their value rubric emphasizes the ability to (1) clearly define the problem and its "contextual factors," as well as (2) the importance of identifying relevant, possible approaches for working on the problem, (3) the proposal of solutions or hypotheses that indicate an awareness of the factors at play, followed by (4) a thorough evaluation of the plan and (5) its implementation, in addition to (6) an evaluation of the outcomes that considers what work may be necessary in the future.⁸⁷ The focus on context, critique, as well as implementation and reflection are all essential features to comprehensive work on wicked problems. Along these lines, L.W. Anderson and D. R. Krathwohl, in redesigning Bloom's taxonomy to take into account actual brain processes, suggest the stages of learning move from remembering, to understanding, to applying, analyzing, evaluating, and finally, *creating*. Creating, then, becomes the most challenging and valuable learning process we can ask our students to engage in.

In response to these AACU recommendations, Grand Valley State University (GVSU) has recently redesigned its general education program, requiring that upper-division issues courses ask students to collaborate, integrate, and problem solve (beginning in the fall of 2013). Such courses must focus around an issue – like human rights, sustainability, or globalization –

^{87.} See http://www.aacu.org/value/rubrics/pdf/ProblemSolving.pdf for further details.

and then require that students bring a variety of disciplinary backgrounds/perspectives to bear on the issue.⁸⁸ Thus, instead of moving from the study of ethics, to biology, to history, for example, students are required to bring these disciplinary insights to bear on the real-life complex and high stakes issue at play within the course.⁸⁹

With this opportunity before me and the previous chapters' scholarship in mind, I decided to put these theories to the test by designing and implementing a new issues course entitled: "Wicked Problems of Sustainability." This course was from the first intended to put our authors' arguments to work on real, local problems and thus to put their various recommendations and methods into practice. That is, as Thompson and Whyte recommend, this course intentionally requires extensive "team-conducted inquiry" into wicked problems (7). And following in Addams's footsteps, it is, in essence, a "testing ground" for the ideas explored in the previous chapters (Fisher 1). In the fall of 2013, the Wicked Problems of Sustainability course was implemented for the first time. What follows is a description of the course design, reflections on the value and difficulties inherent to community engagement efforts on wicked problems, along with the initial results of students' first semester efforts, and recommendations for the future.

^{88.} The full set of GVSU issues are Health, Human Rights, Globalization, Sustainability, Identity, Study Abroad Issues, and Information, Innovation, and Technology.
89. On the other hand, the new upper-level general education courses do not require students directly work on "real" problems nor that they engage individuals outside the class. These courses do not ask instructors to consider how various learning styles can be incorporated into the course, nor how they can foster different kinds of intelligences (though the work involved in these courses certainly benefits from both). Failing to consider different learning styles and kinds of intelligence is problematic for work on wicked problems in part because such work requires recognizing and integrating beyond disciplinary boundaries by including local knowledge and emotional intelligence. Addams, as an exemplar of this kind of work, noted long ago that we must focus on the specifics of each case, involve those effected, include the relevant narratives, and consciously engage in sympathetic understanding in order to expand our ethical framework and inspire action.

Course Design and Pedagogy

The course was designed with the intent of providing upper-division undergraduate students with a hands-on, collaborative experience at working on a local wicked problem of sustainability with community partners. The content and skill objectives for the course ask students to:

- 1. Identify and apply the literature on "wicked problems" to environmental issues;
- 2. Research and analyze current and/or historical, local and/or global case studies via two or more different disciplinary lenses with a goal towards integration;
- 3. In collaboration, present findings and facilitate deliberation on possible action plans;
- Analyze deliberative conclusions and propose solution or action effort (promote cause/engage in local solution), communicating the results of the project to the class, GVSU community, and/or local partners.

Admittedly, such objectives do not necessitate students move to action within one semester, though they encourage it (see objective four). Given these objectives, course readings this first semester covered issues in environmental philosophy, systems thinking, wicked problems, transdisciplinarity, sustainability, applied economics and politics, team processes, democratic deliberation, water policy, food justice, science and technology, and citizen-scientists, among others. Students read the work of scholars like Valerie Brown, Frank Fischer, Sandra Batie, David Freeman, Kristin Shrader-Frechette, Daniel Kleinman, and Bryan Norton, among others. And, as Norton suggests, students in this class engaged in a series of case studies surrounding work on various wicked sustainability problems: from water, to trash and recycling, to local and healthy foods, to energy. The *breadth* of issues covered, however, must be balanced by *depth* if students are to uncover the wickedness inherent to a local sustainability problem.

As an interdisciplinary, upper-division, general education course focusing on collaboration, integration, and problem-solving, there is the hope that a diverse group of majors enroll in order to foster cross-disciplinary work. At this point, it should be no surprise to the reader that such a goal aligns with the best practices for transdisciplinary sustainability science (TDSS). The research shows that TDSS work requires the integration of knowledge and skills from a wide array of disciplines and communities (Spangenberg). This first course generally succeeded on this front. For example, students came from a variety of majors, including Environmental Studies, Natural Resource Management, Psychology, Journalism, Education, Legal Studies, as well as a number from Liberal Studies (a student-designed interdisciplinary major encouraging unique specializations), and one with an emphasis in business. Examined in detail later, the course also engaged a wide-range of stakeholders representing different knowledge-structures.

Disciplinary Research and Presentation

To build recognition of their own disciplinary contributions (and encourage future collaborative efforts that account for these various perspectives), students were asked to research and present on how their discipline (major) approaches the issue of sustainability at the beginning of the semester. This initial assignment gathers together a diverse range of theories for students to consider and thus encourages a pragmatic pluralism. Beyond encouraging students to recognize the value of a wide-array of knowledges, this initial presentation fostered inclusion by giving every student the opportunity to express how their own expertise is relevant within the class. These presentations also worked to showcase students' potential contributions as group members in a semester-long collaborative project designed to propose and vet action-plans with community partners, experts, and stakeholders. In this way, students were able to assess and

express how their own field was relevant to the issue the class would be tackling, validating their prior knowledge and work, while also giving them an opportunity to consider how best to form an interdisciplinary team around tackling that issue. This initial assignment, effective on a number of fronts, is also generally supported by research on student learning. Indeed, this research shows that respect from – and connection to – one's peers is essential for not only collaboration, but also for effective, transformational learning (Wlodkowski 391). Such an exercise also successfully scaffolds the course, starting the students out on ground that is a bit more familiar before they extend themselves into less familiar research territory.

Community Engagement Team Project

After presenting on their disciplinary knowledge, students self-select interdisciplinary teams of three-to-five and begin the difficult, semester-long collaborative process of (1) defining (and redefining) the wicked issue they are tasked with,⁹⁰ (2) creating, (3) vetting and (4) revising action plans and then (4) presenting their work to the stakeholders involved. They begin this work by creating a team charter, assigning roles to each team member, and developing a task schedule and time log.⁹¹ They are also asked to build and consistently update a group google document detailing the research, collected data, and summarizing interviews with relevant

^{90.} The particular wicked problem students are tasked with can vary from semester-to-semester and instructor-to-instructor depending on local concerns, instructor expertise, and community partnerships. While the instructor may initially frame an issue for students to address, it must be framed broadly, allowing student-teams and community partners to direct action-efforts as they see fit. For instance, detailed later, students this first semester engaged issues surrounding local school-age children and food. Student team proposals ranged from after-school clubs, to community events engaging children, to the design and implementation of an interactive website aimed at empowering kids to eat healthy and local foods.

^{91.} These initial exercises are meant to encourage clear and explicit team member expectations and foster genuinely collaborative efforts within the team. Upon reflection more work needs to be invested in order to help students successfully collaborate on such large-scale and semester-long projects. Thus, future sections of this course will intentionally scaffold team exercises, require explicit reflection on the collaborative process throughout the semester, and ask students to complete a series of team and self-evaluations.

stakeholders. From here students create action-plans that are vetted by (1) a series of experts brought into the class, (2) their fellow students, (3) the instructors of the course and (4) various stakeholders from across the campus and community (stakeholders they are required to seek out and interview). These efforts are meant to help democratize the proposal process. Towards the end of the semester, abstracts and an event program are created to facilitate the presentation of student proposals at a community-dialogue event where more formal feedback is solicited and then integrated into students' final set of recommendations. These proposals are then published through GVSU's ScholarWorks website so they can be made available not only to future students in the course, but also a wider array of potential interested parties.

Iteration

Unlike similar courses asking students to create and implement community-action plans, this course encourages current students of the course to read, critique, revise and implement aspects of previous students' work. The potential to build on earlier work in subsequent semesters counter-acts potential problems arising from artificial timelines and semesterly attrition. Scaffolding student-efforts so they stretch beyond fifteen week projects is imperative when trying to create and implement action-plans on wicked local problems that engage a wide-array of stakeholders from the community. This model also reflects the recommendations of our experts: that our efforts are iterative, ongoing. Following Dewey and Addams, then, inquiry in this class is in many ways a joint endeavor, seeking to cross barriers of space and time. The value of building on previous student-work is especially critical when getting a "handle" on the problem itself requires quite a lot of work and time on the students' part.

Issue-Framing

In contrast to the current most popular educational model where problems are pre-formed and students are simply asked to "solve" them, students – in conjunction with instructors and stakeholders – spend much of the semester framing the problem-issue they are addressing. In this way, the course promotes Dewey's *instrumental* intelligence, putting students' faculties to use to address real-world problems in their community. This constructivist approach to problem-building is – as we've seen in previous chapters – quite difficult, time-consuming, and unavoidably messy. As we will see, it requires much from the students. While the individual issue students are addressing may be different from semester-to-semester and class-to-class,⁹² this first course asked students to engage the wicked problems literature and some of its methodology in order to frame the ill-structured problem of access to local and healthy foods for school-age children.⁹³

Food quickly and decidedly qualifies as a wicked issue worth tackling. The way we eat, for instance, has serious consequences for our health and thus for many of the problems we currently face within our healthcare system. Much of our current health troubles, like type 2 diabetes and cancer, stem from our current diet. The way we produce, preserve, and prepare our food has also been clearly linked to current environmental and climate change troubles as well as our energy problems. In addition, wide-spread global interdependencies (and thus power struggles) can be seen through examining the food systems in operation today. Food is thus

^{92.} For instance, one instructor is interested in having students address food justice issues on campus, another in the problems of local, renewable energy and energy reduction, and yet another in local difficulties surrounding waste reduction. The potential sustainability issues this course could address is fairly limitless.

^{93.} While the initial frame focused on school lunch programs, students this semester ran into serious barriers and chose to redirect and expand the narrow focus of school lunches (detailed later).

definitely a complex and high stakes issue. As Michael Pollan noted in his 2008 New York Times article, "there are no alternatives to food." Pollan, in fact, makes it quickly apparent that the history of U.S. policy has drastically shaped and reshaped the landscape of our food system. Important for the work of this course, he argues we need a willingness to learn-by-doing in order to foster wide-spread change. And, with this in mind, it seems appropriate to examine the results of the course's first-run.

Reflections on the Process In-Action

Given that the food system itself engages a number of high-stakes interlocking systems (economic, ecological, political, energy, etc), it definitely presented a series of robust challenges for students. For instance, engaging a food service director for a local, public school system helped students frame the complexities and challenges within the current school food systems; the director told students there are pressures (1) to make a profit from the food program, (2) to meet changing federal and state standards, (3) to provide food appealing and yet healthy to the students while also (4) working to reduce childhood obesity and (5) food waste all with (6) less staff. Thus, framing – as a collective and iterative process – necessitated a time-consuming working and re-working of the problem definition. On this front, various stakeholders and experts were invited to share their insights, including the afore mentioned food service director for a local, public school system, the director of the GVSU's Charter Schools' Office, GVSU's sustainable agriculture project manager, the sustainability community liaison for West Michigan Strategic Alliance (a "Creativity Consultant" and "Environmental Advocate"), as well as the Co-Founder and Managing *Partner* at *Sustainable Energy Financing*, LLC, among a long list of others. Including as wide an array of stakeholders as possible discourages the temptation towards unproductive finger-pointing and thus helps to reroute the framing of problems so that initially

competitive and authoritative problem-definitions become more inclusive and holistic. And cooperative problem framing also obviously encourages cooperative planning and action.

On Brown and Lambert's engagement rubric, students were asked to engage key individuals, specialist advisors, influential organizations, holistic thinkers and affected communities. Students found it quite hard to engage key individuals (school age kids in our area) and affected communities, noting barriers from a lack-of-response to initial requests. In general, engaging with a diverse group of interested stakeholders definitely encouraged perspectivetaking beyond their own, leading to a more comprehensive understanding of the situation they were confronting. For instance, student final proposals consistently noted how various stakeholders and experts influenced their project plan recommendations (detailed below). These experts and stakeholders definitely tended to make "blockages visible and thus areas for coaction visible" (Van Bueran et al. 211). As Kolb says, this engagement process made an enormous difference in pushing students beyond the snare of their own interpretive consciousness (157).

On the other hand, the feedback loop process also led to stress and anxiety over how to address the situation. Continuously returning to project plans and redirecting them was a source of frustration for students; it is incredibly hard to get work done, to begin to address the situation, when project plans are undergoing a long process of critique and revision. Students were engaged in truly "messy inquiry," and, quite unused to working in this way, they found it exceedingly challenging. Based on student commentary and written feedback, it seems doubtful they found many opportunities to *appreciate* conflict and complexity while in the process, though – with consistent encouragement -- they certainly worked to *tolerate* and *engage* this conflict and complexity (Brown and Lambert 133). As Brian McCormack makes plain in "The

Problem with Problem Solving," the constructivist approach to problem formulation forces students to confront their own relationship to the issue and thus some of the here-to-fore unconscious complexities and ambiguities inherent in their own identities. Thus, as Norton suggests, students moved from the reflective to the active phase and back-again in a frustration-inducing, iterative semester-long process: a process which did ultimately lead to project proposals.

Project Proposals

The three Team Project Proposals required students first provide the relevant background information about the particular wicked problem they confronted and thereby orient future readers to the issue. Each student team was thereby given some power and freedom to collaboratively direct their efforts in a direction they found to be fruitful. The Project Proposals also asked students to clearly articulate their research question along with its components, justify the research fields used to work on the problem, and integrate the perspectives/disciplines engaged. In the end, the plans also had to describe the methods used, generate a timeline for action, and consider a list of future collaborators. In order to provide the reader with a general idea of the insights and outcomes generated from these requirements, the team project proposals are sketched in brief below.

The Food Mavericks

The "Food Maverick" student team, after confronting consistent barriers in their attempts to reach out to local stakeholders about their current school lunch program – including principals, teachers, and administrators about school lunches – quickly recognized the role and value of localized resistance (Shrader-Frachette). In fact, hoping to inspire this resistance, they ultimately decided to create FoodMavericks.org, a website designed to speak to and with school

age children. In their words, this site is intended "to reach children where they already are... on the web" (Karnatz et al. 1). Considering their ultimate goal, their values, and their skill sets, they noted that their focus was on "giving kids a voice, spreading good ideas, and having fun!" Their aim, just as their name suggests, was to encourage adolescents to think for themselves.

Given the above, it is no surprise that this group focused on issues of power in relation to food justice, asking how they can "empower children to make choices which best promote a long and healthy life" (Karnatz et al. 3). In their frustration over failed efforts to reach out to various organizations, they decided to try to create a movement from the bottom-up by empowering kids to see through the thousands of food advertisements they see on television every day. In considering how to empower school-age children to take more ownership over their food choices they moved from ideas over creating gorilla advertising opportunities in schools, to field trips to farmer markets, to food tastings, to large-scale events, to the creation of a website targeted toward adolescents (Karnatz et al. 5). Their final plan was to "create an edgy, viral campaign to promote healthy foods" by "utilizing a combination of blogging, videos, recipes, and guerilla marketing stunts." This led to the creation of their website encouraging healthy eating and a more critical eye towards advertising in general (Karnatz et al. 6). Given the numerous websites in existence already, this group decided their own site, foodmaverick.org, would seek to aggregate material from other sites, more intentionally entertain through education, and create an avenue for kids to have a voice (Karnatz et al.).⁹⁴ The site is linked to Facebook, Twitter, and YouTube.

^{94.} The site will "include videos and content created by Foodmaverick.org," "aggregate videos, news and information from across the web", "share recipes that are fun and healthy", "include coverage of guerilla marketing stunts", allow kids to submit content of their own, generally "serve as a hub-point for social media," include a parent resource tab, and help to brand Food Maverick (Karnatz et al. 7).

While the group successfully implemented a significant portion of their action-plan by creating the website, they also highlighted (1) serious concerns about the sustainability of their plan and (2) the difficulties of this kind of work. Given the workload commitment necessary for maintaining a website and successfully marketing it, they were uncertain about its future viability (this work often requires a dedicated team). For example, marketing the site is likely to require concerted efforts towards partnering with schools, businesses and organizations, as well as creating a presence at local events. On this front, the group had already received approval to market their site in one local school district by the end of the semester. Noting other special challenges in their proposal process, they wrote that they struggled with (1) the reality that a wicked problem cannot be quickly or easily resolved, (2) the need to continuously collaborate and (3) keeping the big picture in mind (8). Concerns about how one might measure the success of their movement were also highlighted (Does success equal website hits? Attendance at local events? The selling of merchandise?). In considering the work necessary for the future the group suggested it would be helpful to (1) collaborate with other majors in the creation of content for the site, (2) partner with other agencies in order to defray the cost of marketing and branding the site, (3) include local school districts in vetting and implementing the site, and (4) connect with and advertise at local events, businesses, and organizations (9-10).

The Fresh Start Day Club

The "Fresh Start Day Club" group began by considering their values and goals as a team, and after engaging some of the research as well as their own assets and networks, proposed implementing an after school club focused on teaching local children how to produce, preserve, and prepare food to be hosted at Grand Valley's Sustainable Agriculture Project (SAP). Particularly interesting about this student group proposal is its local appeal. They decided to route this program through their own community, concerned about putting their theories into action in a way that was directly connected to their own experiences (as feminist pragmatists recommend). Moreover, by beginning their work with the integration of group interests and values, they hit upon one of the most highly valued aspects of WP scholars Brown and Lambert's suggested process for collaboration on wicked problems.

Fittingly, then, the Fresh Start Day Club's foci were children, nutrition, education, and sustainability (Bell et al 3). The club they envisioned was designed to meet the group's core goals: "to educate, inspire, promote, and excite children... towards healthier and sustainable lifestyles" (Bell et al. 4). Students posited school-age children would learn about organic farming, greenhouses, and hoop houses. Children could, for instance, tour the SAP, engage in taste tests of fresh versus processed foods, prepare simple meals, create and take home recipe cards with local chefs, put the soil under a microscope and discuss the problems with fertilizers and pesticides, plant seeds with recycled materials (that they build themselves), and help create how-to pamphlets. Behind the suggestions given in their final proposal, they note two central goals: (1) to give children a sense of ownership over the program and (2) to get children to learn-by-doing (Bell et al. 10). Seeing the value of celebration and community, the proposal suggests

the club culminate in a Community Day at the Farmer's Market where friends and family come to see their children lead various activities and receive a certificate of achievement.

This group posited that work towards these goals could begin by reaching out to interested students and professors on campus. For instance, GVSU Environmental Studies, Natural Resource Management and Education majors could get credit for creating and facilitating various aspects of the club. Like the Food Mavericks, this group began their work by seeking advice from local school administrators; they emailed teachers, administrators, and lunch staff, but also received a lack luster response. By regrouping and considering their own networks, they successfully sought out a local nutritionist and dietician, the executive Director of Sustainable Community Development Initiative at GVSU, as well as GVSU's Sustainable Agriculture Project manager for advice and received both strong support and a healthy list of suggestions. Feedback from these stakeholders included the recommendation that such a club should be formed through strong collaboration with partners and must educate through hands-on learning and interactive stations (where, for instance, children learn to grow food by doing it). Other experts offered further critical suggestions including the idea to move the original idea of an event to a club, to incentivize and celebrate the children's work in the club (commencement and certificate), and to collaborate with community partners in developing and running it (suggestions included the Master Gardner and 4H programs; West Michigan's Refugee, Education, and Cultural Center; the Blandford Nature Center; the YMCA; and Michigan Waldorf Schools). Clearly, then, students' attempts to collaborate with interested parties was in the end critical to the quality, creativity, and viability of their final proposal.

C.A.R.R.O.T / G.A.R.D.E.N.S

The C.A.R.R.O.T/G.A.R.D.E.N.S student group focused on the role parents' play in shaping their children's food preferences and for this reason chose to focus on the family and community as a whole. Considering their own interests and values, they created their team name which stands for Communities About Resource Responsibility Of Tomorrow, Growing A Resource Dense Environment In Schools. They argued reaching out to current and future parents could help prevent unhealthy eating habits from developing by fostering healthier home environments. Noting the prevalence of school and community gardens, they decided to create blue prints for a larger community event by creating mini-travel booths focused on educating farmer's market attendees on how to grow a garden, save seeds, harvest, can and juice. They argued these travel booths would also help to gather data on what kind of activities people would enjoy at a large-scale event.

Recognizing that one of the biggest challenges for event-planning would be permissions and publicity, they decided that partnering with already-established events, workshops, and markets would be a good use of resources. Other stakeholders suggested this group consider further who would staff the booths, who the target audience is, how often the booths would circulate along with suggestions that such travel booths could effectively use games to encourage participation as well as parent-and-child activities and food competitions. The creation of a "blanket association" was also suggested as a means of (1) connecting isolated community gardens and local farm organizations as well as (2) advertising for local events across West Michigan. Given time constraints and stakeholder feedback, their group proposal suggested

future students consider "building surveys and gathering data" as well as begin to contact and partner with other organizations (Campbell et al. 6).⁹⁵

Final Dialogue Event

The final dialogue event, entitled "Tackling Wicked Food Issues," sought to bring together as many interested stakeholders from across West Michigan as it could with the intent of exposing individuals and organizations to students' work, eliciting feedback, and creating networking opportunities. Given the structure of the course, this first dialogue event began by introducing attendees to the issue of wicked problems broadly, then briefly explained how food issues are wicked, gave each student-team thirty minutes to present their proposals and elicit feedback, and, finally, provided ample time at the end for one-on-one discussions and networking. In line with Addams's recommendations about creating atmospheres conducive to collective work on wicked problems, local and healthy beverages and food were provided.⁹⁶

The final event was, in truth, intentionally designed with – and widely supported by – the scholarship detailed in the previous chapters. For instance, the WP scholarship consistently recommends working across networks. Believing that creating opportunities for this to happen is crucial to the success of future collaborative endeavors, students were asked to recruit attendees from a wide-array of backgrounds. Supporting the conclusion that providing the space and opportunity for cross-network collaboration is critical to building opportunities, event attendees consistently volunteered to help move project proposals forward. For example, a professor in attendance offered to let current and/or future students pitch project proposals to his students

^{95.} In the end, given team struggles to define the target group and frame the issue, this project proposal is not as detailed and directive as the first two (leaving more room for future students to shape the direction of these initial suggestions).

^{96.} The strategic use of food and hospitality, she realized, is extremely helpful in creating the type of fellowship necessary for fostering dialogue across differences.

(with the intent that his students may want to implement various aspects of the plan as a part of their own course work). The president of GVSU's Student Environmental Coalition offered to help drive volunteer efforts and GVSU's Sustainable Agriculture Project manager agreed to help design and educate future K-12 student clubs about healthy and local foods.

Event evaluations were also designed and distributed in order to collect feedback on the quality and value of the event, student presentations, and the subsequent dialogue. Evaluations, then, asked attendees' questions like, "What insights do you want to contribute towards the revisioning of project plans?" Aware of the limits of deliberation both within large groups and under time constraints, the event evaluations provided attendees with a space to indicate how they might want to get involved with these project-proposals and what they (or we) may need in order to move the action-plans towards implementation. Survey evaluations also asked attendees to weigh whether the wickedness of the issue was made clear, whether the action-plans had merit, and whether they felt they had ample opportunity to engage the issue. Responses were overwhelmingly positive.

In the end, students came away from this event with a strong sense of accomplishment. In general, the event was seen as a success by the students, instructors, and attendees. Serious outreach efforts resulted in a breadth of diverse stakeholders. Approximately thirty-five people attended the event, including GVSU's director for Community Engagement and Sustainable Agriculture Project Manager, Grand Valley students, an associate dean, a handful of professors, family members, local non-profit leaders, and a local middle school student. Building on this first outreach effort will help to ensure a greater diversity of attendees in future deliberative events. For example, some stakeholders – like a local charity house and GVSU's food pantry –

previously not consulted wanted to be in the future. The event demonstrated that generating perplexity in order to foster cooperation, as Addams and Fleck note, is indeed quite valuable.

In general, the final dialogue event also led to a number of further recommendations for future student-efforts. For instance, while there is often a lot of buzz around initiating change, the difficulty comes in sustaining real, long-term change. On this front, teams should intentionally seek out those who have done this work for an extended time and ask for advice. The depth of knowledge local farmers, food procurers, cold storage experts (among a long list of others) have would add a richness to any of the proposal projects. The addition of such experts is also likely to encourage more realistic and helpful outcomes of student action-efforts. Along these lines, attendees also suggested teams do more to seek out those with assets to contribute beyond expertise (including those who need volunteer hours, who have resources to donate or communities of interested people).

As the literature suggests, engagement models can and often do encourage creativity. The breadth of student project-plans demonstrates that such engagement models can certainly lead to more viable and creative action-plans. Critical to this process was stakeholder engagement which moved students from states of certainty back into states of perplexity (as Dewey, Addams, and Fleck suggest). Stakeholder engagement thus encouraged an iterative creative process and hence also encouraged flexibility. Given that wicked problem scholars highlight the need for flexibility – for resiliency – in the face of our current and future crises, fostering these skills now should prove valuable to students' future work. Completely unplanned, the three student groups ended-up developing projects focused (1) in the school, (2) on the web, and (3) in the community. Intentionally pursuing these different venues with an eye towards how they can reinforce one another in future courses should further drive effective change.

Lessons Learned

Engaging with

Serious attempts to co-create ameliorative changes when confronting wicked problem situations require we not only engage a wide-range of stakeholders, but also intentionally reach across boundaries put in place by culture, class, race, and gender. In considering the depth and breadth of participation across sectors (Turnpenny et al.), that is, students could have and will need to do more to invite a wider-range of perspectives into framing the issue and vetting the project-plan. As Addams noted long ago, work on public problems needs to be done *with* those affected, not *to* them. In failing to more systematically engage K-12 students, these proposals cannot engage their concerns, nor "move along with" school-age children (Addams, "Democracy and Social" 69). Reciprocity, then, mostly occurred on a student-to-student level in this first semester.⁹⁷ Many students, for instance, went beyond the boundaries of completing their separate tasks in order to help their team complete course requirements. Reciprocity between students and stakeholders within the community appeared to be stymied by time constraints (explored in detail below). As team projects undergo future revision and implementation within the community, there will be a more intentional focus on this element of the course.⁹⁸

Also as feminist pragmatists recommend, more work explicitly reflecting on the dynamics of power within the system students are studying would go a long way towards recognition of system dynamics and thus towards effective student work. As our WP scholars recommend, stakeholders need to be involved from the beginning. Highlighted briefly above, the

^{97.} Reciprocity was necessary for building trust within student groups and critical to effective team collaboration within the class, but reciprocity across a wide-array of networks is a future goal.

^{98.} While reciprocity between outside stakeholders and students was not very apparent, some stakeholders did note the value they received from engaging students on their work and their interest in staying involved in future student efforts.

Food Mavericks group did recognize this problem from the beginning; they were, that is, concerned that efforts to force "healthy foods" into school lunches had resulted in a large amount of food-waste. While their project proposal – their website and future action plan – was built on the foundational principle of engaging children directly, they didn't systematically pursue this objective before the end of the semester.

On this front, future students should do more to engage local children in the revisioning of plan proposals. Despite the obviousness of working to engage children directly, student teams appeared to make only rudimentary efforts to do so. Their initial research efforts at first seemed to inspire the idea that they knew what was better for the children. As Addams's warns, this type of thinking and action is ill-advised ("Democracy and Social" 65). Students' interpretive work here must include more "advocacy for the less powerful" (Fischer 489). Future students will thus be required to explicitly engage *with* their targeted communities before implementing any action-plan.

On the other hand, one semester of this work illustrated just how hard getting stakeholders to the table really is (as all the students noted). Trying to work *across* power differentials and networks in our current system, given the dominance of a competitive and authoritative model, is incredibly challenging and time-consuming. On top of this, various stakeholders admitted they were worried about how they would be portrayed if they agreed to openly share their internal processes with us; for example, a food service company for one of our local schools was quite reluctant to be involved, concerned that their involvement would lead to a public bashing. WP scholars clearly note these types of problems: stakeholders seeking to advance only their own self-interest and deeply distrustful of others make collaborative

engagement efforts exceedingly difficult (Van Bueran et al. 207). Thus, tenacity and flexibility are necessary.

Working within Time Constraints

The iterative process of defining the problem and arriving at a plan-of-action makes moving students to action in one semester incredibly difficult.⁹⁹ Balancing a comprehensive systems approach, where most relevant disciplines and stakeholder perspectives are included in the planning process, with the need to – at some point – stop planning and start doing is a challenging and nuanced endeavor. It thus proved to be a bit too ambitious to expect the creation, revisioning, and implementation of project plans in one fifteen-week semester. Supporting this conclusion, systems thinking research demonstrates that acquiring the skills of this kind of work usually requires more than a fifteen-week commitment (Mathews and Jones 82). As the pragmatic method and the wicked problems scholarship make plain, the need to shift our thinking towards collaboration, iteration, and fallibilism – to foster these skills sets and develop these habits – is more critical for our students today than is the need to memorize particular content within an artificial timeframe. Aware of this long ago, Addams also warns her readers about the sluggish pace of this work and its difficulties. Other courses which ask students to both create and implement action-plans with community partners also certainly suffer from the artificial time limitations of a fifteen-week semester and thus from student turn-over. What is particularly valuable about the design of this course, though, is its potential to let future students review, revise and implement plans begun by previous students.

^{99.} Indeed, one student reflecting at the end of the semester, wrote that this type of collaboration, when "trying to come up with something effective, all while under a deadline, is a terrifying and brutal experience." Following this assertion up by noting this type of work is also "extraordinarily effective at educating us on just how complicated and difficult Wicked Problems are."

And in truth, mastering thinking and working in this way cannot happen in one semester, especially given how counter-intuitive it is for students who have been trained in the current U.S. educational system. Students' final reflections verified this over and over. For example, one student commented that even "knowing the philosophy behind collaborative thinking, we still [at first] attempted to solve the problem ourselves. We couldn't." Noting this tendency, McCormack writes that "creative problem solving, very roughly speaking, is less the point than is creative problem thinking" if only because we are often too "tempted to overlook the *problem* with problem solving" (McCormack 19, emphasis mine). The mindset that follows from this tendency towards abbreviated and isolated problem solving perfectly aligns with Addams's criticism from so long ago: "we have not yet learned to act together." We tend to find collaborative endeavors incredibly difficult, slow, and unsatisfying. However, given that the needs of our time require "associated efforts," we cannot afford to continue to avoid collaboration ("Democracy and Social" 63). On this front, the development of fellowship between students was at times stymied by the pressures of collaborating across full schedules on tight deadlines. And fellowship, according to Addams, is a very important lubricant to these endeavors, its lack – along with a lack of sympathetic understanding – tends to reinforce authoritative thinking, rigid boundaries, and competitive strategies.¹⁰⁰ Thus, building in more low-stakes, experiential learning opportunities for students to practice collaboration (and integration) with one another and to reflect on the fruits of those efforts should encourage more "working with."¹⁰¹

^{100.} Under time constraints, students would compromise instead of collaborate (integrate ideas); they would "take-over," instead of working with one another.

^{101.} See Kurylo, Anastacia. "Teaching the Difference between Compromise and Collaboration through Trial and Error." *Communication Teacher* 24.1 (2010): 25-29. Print.