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Whose Extension Counts? A Plurality of Extensions and Their Implications for Credible Evidence Debates

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The debate over what counts as credible evidence often occurs on a methodological level (i.e., about what technical applications of systematic inquiry provide believable, justifiable claims about a program). Less often, it occurs on an epistemological level (i.e., about what ways of knowing are appropriate for making claims about a program). Even less often, the debate touches on ontological concerns (i.e., about what conceptualizations of reality, in general or in relation to a specific program, are in play when we wish to make claims about that program). For example, whether we understand Extension to be a vehicle for the dissemination of scientific knowledge or a site of grassroots democracy matters when we seek to evaluate Extension with credibility. The purpose of this paper is to examine the credible evidence debates through an ontological lens, showing why and how different narratives (or different realities) of Extension must be considered when we seek credible evidence about Extension.

Keywords: credible evidence, randomized controlled trials, evaluation, ontological politics

“[T]he reality we live with is one performed in a variety of practices. The radical consequence of this is that reality itself is multiple. An implication of this might be that there are options between the various versions of an object: which one to perform? But if this were the case then we would need to ask where such options might be situated and what was at stake when a decision between alternative performances was made.”

—Annemarie Mol (1999, p. 74, emphasis in the original)

Introduction

For the past two decades, the question of what counts as credible evidence in program evaluation and applied social science research has fomented a considerable amount of debate. In particular, divergent perspectives on whether randomized controlled trials (RCTs) should be considered the “gold standard” for producing credible evidence have occupied a central position in the debate (Donaldson, Christie, & Mark, 2009). In more recent years, quasi-experimental designs such as regression discontinuity design have also been lauded for their ability to generate evidence of

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impact just as well as RCTs (Pohl, Steiner, Eisermann, Soellner, & Cook, 2009). Long before these recent methodological skirmishes (hundreds of years before), questions about how to generate valid knowledge of the world around us—and specifically about the role of experimentation in that process—animated the scientific and aristocratic classes alike. For instance, Shapin and Schaffer (1985) examined the dispute between Robert Boyle and Thomas Hobbes over Boyle's air pump experiments in the 1660s, exploring acceptable methods of knowledge production and the societal factors related to different knowledge systems.

These seemingly esoteric methodological debates about credible evidence—be they historical or contemporary—are in fact fundamentally important questions about life in general and professional practice more specifically. This point is summed up by Trochim, who said:

The gold standard debate is one of the most important controversies in contemporary evaluation and applied social sciences. It's at the heart of how we go about trying to understand the world around us. It is integrally related to what we think science is and how it relates to practice. There is a lot at stake. (W. Trochim, unpublished speech transcript, September 10, 2007)

Along those same lines, in equally emphatic terms, Scriven (2008) wrote, "This issue is not a mere academic dispute, and should be treated as one involving the welfare of very many people, not just the egos of a few" (p. 24).

In this paper, I endeavor to show why so much is at stake in these contentious exchanges about credible evidence. In particular, I wade into the debates as they pertain to the context of Cooperative Extension. However, eschewing a frequently traced line of reasoning focused on the apparent merits and superiority of particular methodologies and designs, such as the RCT, I instead suggest that the debate cannot possibly be resolved unless we reconsider the very nature of the evaluand or object of inquiry—in this case, "Cooperative Extension." In other words, I seek to recast the credible evidence debate as being just as much (if not more so) about *ontology*—the philosophical study of reality—as it is about epistemology and methodology. Going further, I suggest that the existence of multiple narratives about what Extension even *is*—the plurality of Extensions—precludes and prevents the possibility of any once-and-for-all summary statement about what counts as credible evidence in Extension evaluation.

In the remainder of this paper, I first briefly review the credible evidence debates in general, paying special attention to arguments that foreground ontological questions as an integral way of engaging with this topic. Then, I review a sampling of literature that opens up the possibility of seeing Extension as a pluralistic and shifting phenomenon or object rather than as a stable and agreed-upon one. Finally, I juxtapose these two bodies of literature to justify my central claim. The potential significance and practical applicability of this rather theoretical article are to help us better understand why it sometimes seems as though we are "talking past each other" when

debating what counts as credible evidence in Extension and related programmatic endeavors. As a result, I hope, we can reorient those debates to produce less heat and more light.

A Brief Review of the Credible Evidence Debates

A large volume of work has been published in the fields of education research and evaluation about what counts as “evidence,” and especially about the privileged place of experimental and quasi-experimental designs in the production of credible evidence (Donaldson et al., 2009; Morrison, 2009; Mosteller & Boruch, 2002; Nelson & Campbell, 2017; Scriven, 2008; U.S. Department of Education, 2003; Walters, Lareau, & Ranis, 2009)—for Extension practitioners and other readers who are new to this topic, these works can provide background information on this issue, which is beyond the scope of this paper. In the field of program evaluation, an acute moment of conflict about what counts as credible evidence occurred in 2003 when the U.S. Department of Education’s Institute of Education Sciences (IES) “declared a rather wholesale commitment to privileging experimental and some types of quasi-experimental designs over other methods in applied research and evaluation funding competitions” (Donaldson, 2009, p. 7). As described by Donaldson (2009), the American Evaluation Association (AEA) submitted a strongly-worded public statement criticizing the enshrinement of RCTs as the best methodology or design to provide evidence of program effectiveness; in turn, a smaller group of prominent AEA members published a public rebuttal and refutation of AEA’s statement, signaling support for the RCT as gold standard. In the fifteen years since, the debate has waxed and waned, while the preeminence of RCTs has been ensconced in some notable and prominent places.

For example, the What Works Clearinghouse (WWC), managed by the IES, is a repository of evidence-based programs¹ in education shown to be effective through one or more high-quality RCTs. The WWC is explicit about its hierarchical view of research and evaluation designs to address the question of program effectiveness: “In order for a study to be rated as meeting evidence standards . . . , it must employ one of the following types of research designs: a randomized controlled trial or a quasi-experiment (including quasi-experiments with equating, regression discontinuity designs, and single-case designs)” (WWC, 2008, p. 5). The Campbell Collaboration—an international network that supports the preparation and dissemination of systematic reviews of evidence on the effectiveness of social programs, policies, and practices—has also established methodological standards that prescribe what constitutes the best available evidence about the effects of focal interventions, placing a clear emphasis on RCTs:

The critical feature of the research methods in this regard is the ability of the basic design to yield an unbiased estimate of the effects on the target outcomes relative to a defined counterfactual condition, that is, the *internal validity* of the research design (Shadish, Cook, & Campbell, 2002). With rare exceptions, the best evidence by this standard is

¹ For more on the debates specifically about contentious terms such as “evidence-based” or “evidence-informed” programs and practice, see Archibald (2015) and Nelson and Campbell (2017), among others.

provided by randomized controlled trials (RCTs). (Campbell Collaboration, 2017, p. 9, emphasis in the original)

In the field of international development (which includes interventions designed to strengthen rural advisory and extension systems), the privileged place of the RCT design has been championed by both the International Initiative for Impact Evaluation (3ie) and the Abdul Latif Jameel Poverty Action Lab (J-PAL) at the Massachusetts Institute of Technology (MIT). J-PAL sees “rigorous research” as essential to finding solutions to the world’s greatest challenges. For J-PAL, rigorous research, also called “high-quality impact evaluation,” is that (and only that) which employs randomization. Foreshadowing the ontological confusion that I examine in greater detail later in this paper, J-PAL’s director wrote, “Just as randomized trials for pharmaceuticals revolutionized medicine in the 20th Century, randomized evaluations have the potential to revolutionize social policy during the 21st” (Duflo & Kremer, 2003, p. 32). This quotation is an example of ontological confusion because the reality of pharmaceuticals and other insentient, physical materials—how they act and interact—is obviously categorically different from the reality of humans, a point many critics of the RCT as gold standard frequently evoke (e.g., Biesta, 2010; Scriven, 2008).

Randomized controlled trials did indeed revolutionize medicine (Baron, 2018). They had the same transformative effects in agricultural research, where much of the statistical analyses behind the RCT were originally developed (Box, 1978). The underlying principles of the RCT design are relatively straightforward; the design was created to increase the internal validity of study conclusions, to reduce the threat of bias in estimating the average effect of a specific treatment on a quantitative variable of interest. In its simplest form, the design is implemented by randomly allocating individual units of analysis (i.e., plants, people, schools, villages) to a treatment condition or to a control or comparison condition, absent the treatment being studied. As described by Scriven (2008), the RCT

is an experimental design involving at least two groups of subjects, the control group and the experimental group (a.k.a. study group, or treatment group), between which the subjects are distributed by a strictly random process (i.e., one with no exceptions), and which are not further identified or distinguished by any common factor besides the application of the experimental treatment to the experimental group. (p. 11)

The power of randomization is ascribed to its ability to methodologically address the “counterfactual question: how would individuals who participated in the program have fared in the absence of the program? How would those who were not exposed to the program have fared in the presence of the program?” (Duflo & Kremer, 2003, p. 3). Addressing the counterfactual question this way can be useful, in some cases, to answer some evaluation questions. Yet the RCT has been at the center of so much controversy over the past 20 years because there is a tendency—like in IES and J-PAL—to constitute it as “the best” and most credible type of evaluation, earning it the “gold standard” moniker.

Why the RCT is Not the Gold Standard

It is not clear who first referred to the RCT as the gold standard, yet many prominent proponents of experimental designs (e.g., IES and J-PAL) reinforce this hegemonic superiority of the RCT atop the methodological hierarchy through rhetorical devices like, “often considered the gold standard” (e.g., Akobeng, 2005; Coalition for Evidence-Based Policy, 2003; Pillemer, 2011). What is clear is why many other prominent methodologists and academics—including those who promote RCTs—resist and reject the notion that the RCT is the gold standard. A brief overview of why the RCT ought not to be called the gold standard will help lay the foundation for my claim about the primacy of ontological questions when seeking credible evidence in Extension.

Howard White, founding director of 3ie and current Chief Executive Officer of the Campbell Collaboration (and thus a prominent proponent of RCTs), argues against the existence of a hierarchy of methods; evaluations should be led by the issues at hand, not by methods, and “having determined the evaluation questions, the best available method should then be used to answer them” (White, 2010, p. 162). In addition, White (2010) foreshadows a major claim in this article, that “there is no point in methodological debates unless they agree [on] a common starting point” (p. 153). The evaluation community is working from different assumptions about and definitions of “impact.” For some, impact refers to the final or most distal level of the program’s theory of change. In these cases, there is no way to say a priori which evaluation design or method is most appropriate. For others, impact

is defined as the difference in the indicator of interest (Y) with the intervention (Y_1) and without the intervention (Y_0). . . . An impact evaluation is a study which tackles the issue of attribution by identifying the counterfactual value of Y (Y_0) in a rigorous manner. (White, 2010, p. 154)

Using this definition of impact, the RCT is arguably the best or most appropriate method, though what is meant by “in a rigorous manner” is still open to debate. White himself suggests that rigorous RCTs should include a qualitative component to help elucidate not just *whether* a program or policy works, but also *how* it works. While White stops short of considering the plurality of evaluands and how that might matter for the question of what counts as credible evidence (i.e., of impact), he does foreground the importance of getting clear on the purposes of the inquiry and of letting that drive methodological decisions.

Angus Deaton (2010), winner of the 2015 Nobel Prize in Economics, argues that “experiments have no special ability to produce more credible knowledge than other methods, and that actual experiments are frequently subject to practical problems that undermine any claims to statistical or epistemic superiority” (p. 424). Scriven (2008) reiterates this second point, claiming the RCT has “essentially zero practical application to the field of human affairs” (p. 12) due to such implementation problems as being zero-blind rather than double-blind, among other limitations. Deaton (2010) claims evidence from randomized controlled trials can have no special priority:

Randomization is not a gold standard because “there is no gold standard” [citing contemporary philosopher Nancy Cartwright]. . . . Randomized controlled trials cannot automatically trump other evidence, they do not occupy any special place in some hierarchy of evidence, nor does it make sense to refer to them as “hard” while other methods are “soft.” These rhetorical devices are just that; metaphor is not argument, nor does endless repetition make it so. (p. 426)

Touching, at least tangentially, on the ontological faces of the debate about credible evidence, Deaton also points out the important distinction between macro- and microeconomic development interventions, and the difficult (if not impossible) task of parsing out the endogeneity or independence of the variables being studied. In other words, to make a reasonable claim that “RCTs are the best for generating credible evidence of impact,” one first must know if the evaluand consists of macro- or micro-processes, and if there is any way to know if randomization can really isolate operationalized variables. These conclusions apply, more generally, to the questions I present in the next section on the plurality of Extensions.

One additional noteworthy critic of the standard notions of RCTs as the best (or sole) fount of credible evidence is Gert Biesta, a policy-oriented philosopher of education based at Brunel University London. Biesta (2010) explicated the epistemological, ontological, and praxeological assumptions that inhere “evidence-based education.” The fundamental problem he identifies in the ontological domain is that “talk about ‘what works’ . . . operates on the assumption of a mechanistic ontology that is actually the exception, not the norm in the domain of human interaction” (Biesta, 2010, p. 497). A mechanistic ontology, on which the technological view of education (and Extension) is based,

relies on the idea that education can in some sense be conceived as a machinery where there are inputs, mediating variables and outcomes. The technological ambition, as mentioned, is to make the connection between inputs and outputs as secure as possible so that education can begin to operate as a deterministic machine. (Biesta, 2015, p. 16)

At the level of epistemology, this mechanistic ontology is associated with positivist technical-rationalistic assumptions about knowledge and about its role in guiding professional practice, whereby “professional activity consists in instrumental problem solving made rigorous by the application of scientific theory and technique” (Schön, 1983, p. 21).

Contrary to this mechanistic ontology, drawing from systems thinking and complexity theory, we see that educational systems (such as Cooperative Extension) are perhaps better characterized as open, semiotic, recursive systems. As described by Biesta (2015):

Education is an open system because it is in interaction with its environment rather than being completely disconnected from it. Education is a semiotic system because the interactions within the system are not interactions of physical push and pull, but of

communication, meaning making and interpretation. In addition, education is a recursive system because of the way in which the system evolves and feeds back into the further operation of the system—which, in more everyday terms, has to do with the fact that the “elements” in the system, teachers and students, are thinking beings with agency, that is, beings who can draw conclusions and can act upon those conclusions. (p. 16)

In the above quotation, replace “education” with “Extension,” replace “teacher” with “agent” or “educator,” and replace “students” with “program participants” and the underlying logic holds, suggesting that the ontology of Extension is more open, semiotic, and recursive rather than closed, deterministic, and mechanistic. Given these descriptions of what it means to be an open, semiotic, recursive system, the claim that the mechanistic ontology of “evidence-based education” is the exception rather than the rule seems warranted. Doing greenhouse trials, or maybe even field trials, on the best way to control mildew in potatoes is mechanistic; yet the social processes through which the Extension professional interacts with the potato producer to communicate about the knowledge derived from those trials are not. Rather, such processes have to do with relationships, meaning-making, and dynamic context-content interactions in a complex socio-political-economic system.

However, rhetorical efforts to equate research in medicine or agronomy to research in non-formal education and community development—efforts like those represented by the quotation from Duflo and Kremer (2003) shared above—apparently overlook the ways in which “the dynamics of education are fundamentally different from the dynamics of, say, potato growing or chemistry” (Biesta, 2010, p. 497). Biesta (2010) calls this the “efficacy deficit” of the evidence-based movement, “indicating that in the social domain interventions do not generate effects in a mechanistic or deterministic way, but through processes that . . . are open so that the connections between intervention and effect are non-linear” (p. 497).

A Plurality of Extensions

If RCTs are not the gold standard, and if what counts as credible evidence depends not just on methodological norms and precepts, but also on the ontological characteristics of the object of inquiry, then what are the implications for our quest for credible evidence in Cooperative Extension? In this section, I review a small sample of literature that, from various perspectives, can help us rethink the seemingly settled fundamental notion of what Extension even *is*. Also, this literature helps us grapple with the question of whether there exists one solitary version of Extension, or whether we might be better served by recognizing and allowing for a plurality of Extensions.

For instance, although he was not directly addressing the uniquely American institution of Cooperative Extension, renowned educator Paulo Freire (1973) weighed in on the ontological foundations of extension by engaging in a rhetorical critique (via semantic analysis) of the very term “extension.” Through that analysis, Freire noted that often, “the role of extension agents is

to extend, not their hands, but their knowledge and their technical capacities” (p. 94). From a relational perspective, “the concept of extension which is characterized by the transference of techniques and knowledge is in direct contradiction to a truly humanist outlook” (Freire, 1973, p. 94), since it tends to be overly mechanistic (and messianic), reifying people as objects and negating the reflection and action that characterizes authentic educative encounters. The “field of association” (i.e., the discursive construction) of the term “extension” evokes a one-way directional transmission from one in a privileged position as the knower of that which is better to those that are inferior and passive. This is why Freire preferred the term “communication” over “extension.” The ontological nature of communication is more relational and dialogic, which is why Freire favored it.

The same dynamic tension is present in some of the earliest histories of Cooperative Extension in the United States. For instance, in *The People’s Colleges: A History of the New York State Extension Service in Cornell University and the State, 1876-1948*, Ruby Green Smith (1949/2013) foreshadowed this line of analysis that we find in Freire’s writing. As Peters (2017) points out, the dominant conceptualization of Cooperative Extension “is that extension was and still is a one-way conduit for transferring technology and information” (p. 73). This overly simplified storying of Extension is manifest in the literature spanning decades (e.g., Campbell, 1995; Eddy, 1957; Edmond, 1978; Mumford, 1940; National Research Council, 1996; Nevins, 1962; Rasmussen, 1989; Ross, 1942), and is implied by some of the slogans or taglines of Cooperative Extension systems (e.g., “Extending knowledge, changing lives;” “Putting knowledge to work;” “Taking the university to the people”).

Complicating this version of Extension, Ruby Green Smith emphasizes, like Freire, the more relational and dialogic elements of Cooperative Extension:

There is vigorous reciprocity in the Extension Service because it is with the people, as well as “of the people, by the people, and for the people.” It not only carries knowledge from the State Colleges to the people, but it also works in reverse: it carries from the people to their State Colleges practical knowledge whose workability has been tested on farms, in industry, in homes, and in communities. In ideal extension work, science and art meet life and practice. Mutual benefits result for the people and for the educational institutions they support. Thus the Extension Service develops not only better agriculture, industries, homes, and communities, but better colleges. (Smith, 1949/2013, p. ix)

Already, we see an ontological divide, in practice, as to whether Extension is about disseminating scientific knowledge or rather is about reciprocity (or both, or something in-between). What counts as credible evidence of Extension’s impacts cannot be established if we ignore this ontological uncertainty (or plurality).

While science-based technical facts and skills have been and will doubtlessly remain an important part of Cooperative Extension's reality, Smith impels us to think more broadly about purposes and thus about the core ontological foundations of Cooperative Extension, touching on the importance of practical wisdom and democratic living:

Extension workers need to have faith in spiritual values and to recognize the human relationships that contribute to what the ancient Greeks called "the good life." They should believe that in the kind of homes, farms, and industries which are the goals of Extension service "man [sic] cannot live by bread alone;" that it is not enough for people to have food, shelter, and clothing—that they aspire also to find appreciation, respect for individuality and human dignity, affection, ideals, and opportunities. These are the satisfactions that belong to democratic living. (Smith, 1949/2013, p. 544)

Smith is getting at the virtues of Aristotelian *phronesis*, described by Flyvbjerg (2002) as an intellectual virtue of reasoned action that "concerns values, and goes beyond analytical, scientific knowledge (*episteme*) and technical knowledge or know-how (*techne*). It involves judgments and decisions made in the manner of a virtuoso social actor" (p. 26).

Smith's historical account, written in 1949, provides evidence that thinking of Extension as a relational, dialogic space for the exchange of knowledge in the pursuit of community development is not some new fad or some contemporary reimagining of what Extension is "really supposed to be." Another such historical backing is provided by Shaffer (2017), who presents the important role of discussion groups and deliberative democracy in the earlier years of Cooperative Extension. Drawing on the *Report of the Commission on Country Life* (1911), texts from M. L. Wilson (assistant secretary of the USDA), and other extensive archival research, Shaffer (2017) shows how Extension has long "put into practice the role of supporting and catalyzing change in communities as facilitators of citizens' own agency in response to public issues" (para. 1) while also acknowledging that "There has always been a tension between a technocratic mindset and an approach that is more democratic, relational, and engaging" (para. 2). According to Shaffer, Wilson "championed efforts to approach Extension's work through a democratic lens, building on a belief that "free and full discussion [was] the archstone of democracy" (Wilson, 1939, p. 145) and that Extension agents could play a critical role in facilitating citizen discussion about a range of public issues" (2007, para. 4).

Contrast these historical, foundational descriptions of Extension with a contemporary perspective on an idealized notion of the role of research evidence in Extension—a perspective that, in light of these historical texts, seems rather shortsighted and misguided: Research Use by Cooperative Extension Educators in New York State (Hamilton, Chen, Pillemer, & Meador, 2013). The entire first paragraph of that article suggests that the authors have not read Smith or Wilson, or, if they have, that they have discounted those fundamental writings on the ontological reality of Extension as a relational and dialogic setting for deliberative democracy on public issues:

The Extension system exists to disseminate the findings of research beyond the academic community to practitioners, policy makers, and the general public. Extension educators thus serve as a bridge between scholars and the wider community. For example, scientists may find a way to apply pesticides more precisely or discover the benefits of serving low-fat milk to children. Extension staff then educate farmers or parents, respectively, about the new findings. These examples illustrate what Nutley, Walter, & Davies (2007) called the “knowledge-driven model” of research utilization in policy and practice. (Hamilton et al., 2013)

Empirical studies of the use of research knowledge in Extension education are indeed a welcome addition to the literature, but as the above paragraph suggests, Hamilton and his co-authors espouse a mechanistic ontology of Extension that harkens back to that which Freire, Biesta, Smith, and others have roundly rejected. Is Extension really knowledge-driven, or is it relationship-driven, or is it both? In any case, there are implications for what counts as credible evidence of successful Extension impacts, and for how we imagine research evidence to inform Extension practice.

Hamilton and his colleagues focus their article on the (general lack of) use of evidence-based programs (EBPs), that they describe as “becoming increasingly prominent to bridge the gap between research and practice . . . programs or curricula that have been *rigorously tested* to validate their effectiveness” (Hamilton et al., 2013, emphasis added). This sentiment evokes a notion I encountered as part of a qualitative study of efforts to make Cooperative Extension more “evidence-based” (see Archibald, 2015); in that study, one Extension administrator suggested to me during an interview that 4-H (the youth development component of Cooperative Extension) should perhaps no longer be allowed (i.e., funded) to implement programs (like livestock judging at the county fair), unless those programs could become more evidence-based, meaning that they had undergone at least one RCT that showed positive impact on the primary quantitative variable of interest. The understanding of Extension and the role of credible evidence in Extension manifest in that administrator’s suggestion throws the plurality of Extensions—and the stark ontological and epistemological politics and their consequences—into sharp relief. In similar ways, in other areas of Extension such as agriculture and natural resource programs, many practitioners focus on technical recommendations about a given content area; many times, such recommendations are predicated on experiments that do indeed operationalize a mechanistic ontology. However, the social side of Extension in such areas requires a different type of practice (see Peters, 2006), and thus a different type of evidence.

In other words, these debates raise the question: Should Extension be perceived and performed as an “infrastructure for the dissemination of scientific information or as a site of grassroots knowledge sharing” (Archibald, 2015, p. 145)? How we “see” Extension has stark consequences for the professional trajectories of Extension educators and also has real material implications for the lives and livelihoods of the community members Extension purports to serve. This is a

question about participation in the processes of inquiry and action that affect people's lives, echoing the title of Robert Chambers' (1997) book, *Whose Reality Counts?* This is fundamentally a question of ontological politics (Mol, 1999); it has to do with how "the real" is implicated in the "political" and vice versa, where "political" refers not to electoral or partisan politics but to the mundane, minute, active everyday processes of shaping and shifting contested options between varying versions of an object (such as Cooperative Extension).

Conclusion

To sum up the arguments presented above, how we "see" Extension is a methodological and epistemological question about what counts as credible evidence to best know, to best render legible all that complexity that inheres Cooperative Extension programming. Yet "seeing" in one way (i.e., via an RCT) does political work of an ontological kind—it makes Extension to be more one way (i.e., technical-rationalistic, expert-driven, one-way dissemination of scientific knowledge) rather than some other way (i.e., relational, dialogic engagement in deliberative democracy to collaboratively address community issues). Instead of fixating on these apparent dichotomies, I suggest it may be more helpful to see the *plurality* of Extensions at play, rather than seeing Extension as one ontological way or another. We may better understand the reality of Extension as more of an ontological spectrum along which all activities and programs exist and move. It is clear that the RCT is not the gold standard, since there is no gold standard. The RCT is an inquiry tool which is well-suited for serving some purposes and achieving some ends, just as qualitative case studies are equally appropriate and rigorous inquiry tools if the purposes call for such a tool. It depends on the context and the purpose of the inquiry. In addition, methodological choices cannot be made (well) devoid of critical engagement with the philosophical assumptions about the evaluand or object of inquiry.

Where does this leave us, then, in the quest for credible evidence on Cooperative Extension programs? At the very least, I hope, this paper helps us open up new conversations about what Extension is and about the possibility of an ontological plurality of Extensions. If we build upon that premise, then we can turn—equipped with the other insights presented on credible evidence elsewhere in this volume—towards the generative effort of innovating or adapting methods and approaches that are well-aligned with the "real" core of Extension as is manifest in any particular context and with any specific evaluative end in mind. For instance, as stated by Peters:

Organizing opportunities for people to come together to address public problems and express and pursue their hopes and ideals has been a central part of what Extension has done throughout its first century. As it begins its second century, we should take time to work through different views about how this legacy can best be carried forward.
(Imagining America, 2014)

In those contexts where Extension is serving the organizing role, an RCT is not likely the best evaluation design. We must explore other, better-suited designs to gather credible evidence of program impacts as we accompany Extension—with its ontology of open, recursive, dynamic, non-linear, values-laden practices, processes, and phenomena—into its next century.

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