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Logic models: A useful way to study theories of evaluation practice?

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ABSTRACT

This paper comments on the papers in the special volume on logic modeling and evaluation theory. Logic modeling offers a potentially useful approach to learning about the assumptions, activities, and consequences described in an evaluation theory and may facilitate comparative analysis of evaluation theories. However, logic models are imperfect vehicles for depicting the contingent and dynamic nature of evaluation theories. Alternative approaches to studying theories are necessary to capture the essence of theories as they may work in actual practice.

1. Introduction

The papers in the current special volume of *Evaluation and Program Planning* reflect an exciting development for evaluation theory. In this essay, I will examine what these papers contribute to the larger aim of teaching, constructing, and studying evaluation theories. I will also highlight the gaps, problems and dilemmas these papers bring to light about using logic models as the approach to examining evaluation theories. The essay will conclude by identifying directions for theoretical development and critical examination of evaluation theory.

Eleven years ago I took a sabbatical leave and spent it studying system dynamics with an expert modeler. Through that experience, I came to view models and the exercise of their construction as principally about attaining insight in to problems rather than as creating an accurate and complete small scale representation of what is being modeled (Box & Draper, 1987). For me, the objective of modeling is to explore a problem, generate hypotheses about problems, and attain better grasp of the factors that give rise to it (Hirsch, Levine, & Miller, 2007; Sterman, 2000). The task, done well, benefits the modeler and those who model with her. In taking on the task of examining what logic models of evaluation theory may offer the field, my perspective is therefore not driven by the expectation that these models should represent these theories perfectly. Instead, I read these papers with an eye toward how the work that these students did had the potential to spark insights about evaluation theory and its potential relationship to practice, as well as provide a springboard for research on evaluation.

Before I proceed, an important caveat is in order. These logic models were developed in a fashion that departs from the conventional approach to developing a logic model (see, for example, W.K. Kellogg Foundation, 2001). The students selected a recently developed theory from each of the branches of Alkin's and Christie's theory tree (Alkin & Christie, 2003; Christie & Alkin, 2008). They used online searches to create a list of publications describing each theory and, after consulting the theorists for additional writing to include in the study, analyzed five to seven texts that they believed provided the best treatments of the theorists' ideas. The students then coded the texts for 61 concepts (see Hansen, Alkin, & Wallace, 2013). Coded text was sorted into five categories mirroring the sequence of a logic model: assumptions, context, activities, consequences, external factors. Because the models were not developed in collaboration with the theorists and evolved without the ongoing feedback an evaluator would ordinarily obtain from those whose work they were modeling, the students imposed order and sequence when relationships among elements in each theory could not be determined with certainty. Because the ordinary process of collaborative model development between evaluator and stakeholder (theorists, in this case) did not occur, it is not clear that the theorists have put their seal of approval on these models. Indeed, each of the theorists note that the models did not capture their ideas completely or perfectly (see Cousins, 2013; Greene, 2013; Mark & Henry, 2013). As a consequence, I approach this discussion on the assumption that these logic models are reasonable though not perfect draft summaries of the basic logic in each approach. I refer readers to the papers contributed by each of the theorists for critique of the adequacy of logic models and to gain understanding of how the models might be modified to better capture each of the theorist's ideas.

2. Modeling as learning

As a learning exercise, the development of these logic models offered the graduate students who conducted the work described

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in these papers the opportunity to develop multiple skills that will assist them in their future evaluation practice and scholarship. Skills the students refined through their work include coding and categorizing textual data, comparative analysis, and logic model development. They also honed their skills in working as a team. All of these skills could, of course, be refined by having them code and develop logic models based on documents pertaining to an actual program. However, by developing these skills through an attempt to understand the logical arguments underpinning distinct approaches to evaluation, the students had the opportunity to reflect closely on the common and unique assumptions, practices, and consequences these three evaluation approaches prescribe. To develop their logic models, the students had to disentangle and make discrete the theorists' visions for evaluation practice and its purposes from the theorists' ideal set of actions to bring their visions to life. These papers suggest that using logic models to study evaluation theory may be a fruitful teaching approach in large part because developing a logic model facilitates the model developers' understanding of the ideas they are attempting to represent visually.

Nick Smith (2010) suggests that all evaluation theories are part ideology, part intervention and part operational strategy. Logic models provide a unique means to represent each theory's relative emphasis on its ideological, operational, and intervention components. Through the logic modeling analyses presented in these papers we see clearly how each of these evaluation approaches conforms to one or more of these theoretical aspects. For example, Hansen et al. (2013) illustrate that practical participatory evaluation places great emphasis on evaluation as an intervention in the setting in which an evaluation is carried out. The evaluator intentionally and actively builds skills, develops knowledge, and attempts to change beliefs about evaluation in an effort to leave behind an organization that has improved capacity to evaluate and learn from evaluation. Democratic ideals are threaded through the model of the values-engaged approach, emphasizing its ideological logic. The model of emergent realism depicts a heavily operational approach to evaluation. The logic models provide a simple, easily digested picture of how each theory combines its ideological, operational, and intervention elements and how the importance of these elements is weighed in each approach. Although, as Greene (2013) notes, the models may need revision to get the relative emphases on internal facets right, these logic models generally reflect the placement on the branch of the theory tree to which each approach has been assigned.

Logic modeling provides a helpful window through which to engage in comparative analyses. Patterns across the theoretical logics are readily apparent when examining their visual representations. For instance, in comparing these logic models, we see that distinct justifications are provided across the theories in support of similar activities and evaluator roles. We also see that similar activities and roles are theorized to lead to different consequences. Each approach assigns importance to some form of stakeholder inclusion and participation, but tracing the paths from inclusion to actions to consequences suggests that the interaction and developing relationship between evaluator and stakeholders is theorized to have more downstream significance in the participatory and values-engaged approaches when compared with the emergent realist approach. In examining the models for each values-engaged evaluation and emergent realist evaluation, we observe different pathways leading to and from improved public conversation, as well as different conceptualizations of what would characterize improved public conversation. Dillman's representation of the activity detail in each theory exposes important variation in the depth, breadth, and diversity of the stakeholders that each theory considers essential to a successful evaluation (Dillman, 2013). The logic models and the coding that went into their development offer a succinct way to communicate important differences among the theories. Comparing the evaluation approaches in the form of logic models lends itself to developing research questions and testable hypotheses about the approaches (see Luskin & Ho, 2013), just as logic models aid evaluators to focus an evaluation on a set of key questions and explore the linkages between particular activities and their consequences.

Finally, the logic models expose training needs for evaluators. For instance, in the model of emergent realist evaluation, the intended consequences of the approach suggests that emergent realist evaluators ought to possess refined political skills and savvy so that their evaluations have the best chance of being used to create improved decision-making institutions. The values-engaged approach may require expertise in methods for facilitating a very particular form of constructive dialogue in the context of diverse values and interests; the model implies that dialogue is aimed at recognition of and appreciation for plurality, rather than building consensus or resolving conflict. The model also suggests developing knowledge of how to engage those who may not have traditionally had a seat at the table. The participatory approach requires evaluators to develop expertise as trainers so that the technical skills necessary to conduct an evaluation are effectively taught to participant stakeholders. Though these competencies are reflected in existing taxonomies (see, Stevahn, King, Ghere, & Minnema, 2005), they attain specificity and relevance when viewed in the context of models that identify a particular rationale for possessing those skills.

Gaps, problems, and paradoxes in each theory are also revealed via the logic models. As noted by the theorists, these gaps may reflect the limitations of using a logic model approach to represent these evaluation approaches visually as much as they may reflect areas for which improved theorizing is needed.

Whereas the models indicate that each approach has specified what the theorist would argue are the major explanatory factors that influence increased program effectiveness (PPE), sustained program changes and improvements (VEE), and social betterment (ERE), the conditions under which the relationships in the models do and do not hold are less clear. For example, the students note that one gap that is evident in these theories is minimal attention to dissemination processes and how choices regarding dissemination may impact on achieving intended consequences. The models identify optimal environments for employing each approach. For instance, the practical participatory model requires decision-making stakeholders who are willing and committed to learning and have clear informational needs. The values-engaged approach specifies a situation in which there is diversity in values and experiences among stakeholders and a commitment to learning from evaluation. The emergent realist model adds to these values-engaged requirements that these stakeholders are naturally engaged in sense making about prospective evaluands. Having identified initial conditions such as these, the models are constructed as if it is inevitable that the ideal consequences will occur. What happens when conditions become less than ideal?

Another gap that I observed is that the models of the three theories specify minimal, if any, role for intended beneficiaries in the evaluation process. The model of values-engaged evaluation notes that those with diverse experiences of a program are among the stakeholders of interest and the model of emergent-realist evaluation indicates that the public is an audience for the evaluation findings. Although the absence of further and more specific attention to beneficiaries may again reflect the fact that the theories are being represented through simple logic models, these models, by the minimal attention paid to intended beneficiaries, indicate that these stakeholders are at the mercy of the benevolence of the other actors assuming prominent roles in