Applying a Rational Systems Approach to the Analysis of Education Philanthropies' Grantmaking Practices

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Abstract

Since the 1990s, the role of private foundations in education policy and politics has expanded and deepened. While recent literature has examined the types of major policy reform efforts philanthropies have promulgated, little analysis has focused on how the grantmaking process influences which policies and organizations are selected to receive support and which do not. In particular, how foundations use vertical coordination, including the application of authority, rules and policies, and planning and control systems, to organize the work of grantees and achieve the over-arching objectives of the foundation deserves closer examination and explanation (Bolman & Deal, 2008). In this paper, I use a rational systems theoretical framework to analyze foundation grantmaking practices. Using publicly available grant materials, including proposal guidelines and reporting documents, from four major national education funders, I look at the bones of the grantmaking process to probe the underlying belief systems of these organizations. The documents suggest that the relationship between a foundation and its grantees might be seen as resembling that between an organization and the individuals within it, with the foundation exercising control as a means of channeling and coordinating the behavior of grantees in order to achieve its goals. This exploratory work is intended to contribute to a more expansive study developing and deploying an institutional theoretical approach to analyzing grantmaking practices of different foundations operating in education philanthropy.

Introduction

The role of private philanthropies in education policy and politics, while extensive, has largely been under scrutinized (Hess & Henig, 2015). Though foundation engagement in education policy is hardly new, their influence on the cultivation and implementation of major policy reform efforts in individual districts and across the nation appears to have expanded and deepened. Examples of foundation involvement over the past two decades include the implementation of value-added measures to teacher evaluation, whereby teacher quality is evaluated based on student test scores; the introduction of merit pay for teachers into the teacher union contract; the rollout of a longer instructional day and year with higher teacher compensation; the development and expansion of charter schools and other forms of privatization; and the commitment of governors to adopt a standardized curriculum and educational standard (Reckhow, 2013; Tompkins-Stange, 2016). Missing in the analysis of how these policy changes are achieved is an examination of the grantmaking processes through which

foundations leverage their resources to shape grantees, both their organizations and their work, in the service of policy goals. In particular, how foundations use vertical coordination, including the application of authority, rules and policies, and planning and control systems, to organize the work of grantees and achieve the over-arching objectives of the foundation deserves closer examination and explanation (Bolman & Deal, 2008).

In this paper, I use a rational systems theoretical framework to analyze foundation grantmaking practices. Given that it is the primary function of foundations to make grants that reflect the priorities of its founders, the process through which foundations go about making grants may seem perfunctory. However, when examined more closely, grantmaking might be seen as one mechanism through which foundations influence interactions among groups of institutions (i.e. between the foundation and the grantee, the grantee and other public sector institutions, etc.) and bound the rationality of grantees (Peters, 2011). The rational systems frame is well-suited to analyzing the complexity of grantmaking practices as it draws into focus the way in which organizations align themselves to the achievement of specific goals and implement formalized structures to attain them (W. R. Scott & Davis, 2007). This is accomplished through a high degree of goal specificity and role formalization, which come to act as a sort of blueprint for grantees, bounding their rationality by outlining what is expected of them, dictating what the organization will and will not accomplish, and shaping the exchanges among them, the foundation, and potentially other organizations operating in the sector (Bolman & Deal, 2008).

This paper proceeds as follows. I begin with a brief overview of the current contours of education philanthropy. This is followed by an outline of rational systems theory and the development of the theoretical framework that will guide my analysis. I then present my findings of a document review of publicly available grant materials, including proposal guidelines and reporting documents, from four major national education funders. These include the W.K. Kellogg Foundation and the Carnegie Corporation of New York, considered to be "traditional philanthropies" based on their early 20th century, industrialist roots, and the Bill and Melinda Gates Foundation and the Walton Family Foundation, which are categorized as "strategic philanthropies" given their emphasis on investing in disruptive change pursued by individuals and organizations who show the highest and most promising results (Russakoff, 2016; J. Scott, 2009). I next analyze my findings using the theoretical framework guided by rational systems constructs. The research undertaken here is intended to serve as an initial pilot, feeding into a more expansive study developing and deploying an institutional theoretical approach to analyzing grantmaking practices of different foundations operating in education philanthropy.

In my findings, I focus on how the rational systems lens suggests that foundations, like many organizations oriented around top-down management approaches, believe that 1) they can increase efficiency and enhance performance through specialization and suitable division of labor, 2) the best work can be done when personal agendas and extraneous pressures are secondary to rationality, and 3) different means of coordination and control promote the integration of diverse efforts individuals and units (Bolman & Deal, 2008). Indeed, the relationship between a foundation and its grantees might be seen as resembling that between an organization and the individuals within it, with the foundation exercising control as a means of channeling and coordinating the behavior of grantees in order to achieve its goals. The evidence from document analysis further suggests that contrary to most recent literature, extensive similarities exist between traditional and strategic philanthropies when it comes to designing and executing grantmaking practices that push grantees towards high goal specialization and role formalization. The implications of this are manifold, as it could highly restrict what policies and

solutions grantees deem as valuable to pursue based on how they relate to foundation goals and the formal role grantees believe they can play vis-à-vis other organizations involved in public education writ large.

Education Philanthropy: A Bird's Eye View

When assessing foundation grantmaking practices, it is useful to start with a brief overview of the current foundation landscape before sketching out an overview of how foundations approach grantmaking. Generally speaking, the foundation sector, particularly those active in education philanthropy, can be split into two categories: traditional foundations and venture, or "strategic" philanthropy. Traditional philanthropies were founded in the early 20th century by wealthy industrialists and their families as a means of pursuing their version of the public good (J. Scott, 2009). These foundations were typically seen as aligning themselves with traditional institutions, including school districts, research institutions, and traditional universitybased teacher and administrator training programs (Reckhow & Snyder, 2014; Snyder, 2015). Foundations associated with this model are those like the Ford Foundation, the W.K. Kellogg Foundation, and the Carnegie Corporation of New York. Undergirding this model are "fieldoriented" approaches to grant-making, which can be defined as "efforts to build, support, or transform existing or new organizational fields through investing in organizations' capacities to pursue social change over a long period of time" (Tompkins-Stange, 2016, p. 55). The use of field-oriented approaches in managing grantees, selecting partners, framing problems, and evaluating results is believed to lead traditional philanthropies to 1) decentralize control of grantees, allowing them greater control of the initiative and selection and execution of activities; 2) pursue more complex and multifaceted problems with more ambiguous solutions; and 3) use both qualitative and quantitative metrics to demonstrate plausibility of approaches as opposed to proof (Tompkins-Stange, 2016). Ultimately, foundations practicing a more field-oriented approach are thought to place a higher emphasis on support than control, acting more as conveners and facilitators that provide those working in the field space to collaborate amongst each other, versus exercising extensive hands-on management and monitoring.

In most recent literature, traditional philanthropies are contrasted with a new breed of philanthropy known as venture, or "strategic" philanthropy, which emerged in the 1990s and has become the predominant model in recent years (Snyder, 2015). Leveraging the vast fortunes of its typically living benefactors, venture philanthropy is characterized by its emphasis on investing in disruptive change and building momentum around those change-makers who show the highest, most promising results, ultimately aiming to set up proof points of what works with the goal of scaling those models beyond the initial investment to achieve even higher outcomes (Russakoff, 2016; Snyder, 2015). Underpinning this model are "results-driven" or "outcomeoriented" approaches to grant-making, which can be defined as "efforts to achieve goals that are determined at the outset of an initiative and measured by indicators that grantees are held accountable to" (Tompkins-Stange, 2016, p. 55). The use of outcome-oriented approaches in managing grantees, selecting partners, framing problems, and evaluating results is believed to lead strategic philanthropies to 1) centralize control of grantees, with the foundation maintaining greater control of initiatives; 2) pursue problems for which there exist technical solutions and a clear line of causality; and 3) preference metrics that are quantitative and prove impact (Tompkins-Stange, 2016). As such, strategic philanthropies tend to eschew democratic governance and participatory structures in their grantmaking, in favor of managing their grants and initiatives via elite, expert-driven agendas (Tompkins-Stange, 2016).

While the majority of recent literature has placed emphasis on these differences, there is reason to believe that some traditional and strategic foundations are more similar than different when it comes to approaches to grantmaking. For example, Scott, in her examination of strategic philanthropies and their impact on charter school movement, notes that the distinction frequently drawn between traditional and strategic philanthropies, while important, is misleading as while there are new foundations pursuing more aggressive funding programs than traditional foundations, these funding strategies are largely adopted from politically conservative foundations that have been using them for years and generally also stem from traditional foundations who initially pursued specific ideological and social policies aligned to their founders (2009). Reckhow, in her work on tracing the influence of foundation dollars on education policy, also identifies contributing factors that have enabled all major education grant makers to court a more public role and yield greater policy influence, including that major foundations have tried to emulate business practices and develop more selective targeted grantmaking strategies (2013).

The mimicking of business practices and its impact on grantmaking strategies is crucial to this analysis, particularly the adoption of strategies pertaining to the determination of "purposes," defined by Simon as objectives and the alignment "processes," or activities, to be carried out in order to achieve such purposes (1947, p. 30). The application of these business practices, which lay at the heart of rational systems theory, would suggest that major funders are thinking about how to be more effective in the ways they distribute money in the service and advancement of their ideas (Reckhow, 2013). Major philanthropists have become increasingly focused on evaluating the effectiveness of their grants, describing themselves as "investors in social change" (Reckow, 2013, p. 30). While Reckhow acknowledges that the move to "resultsoriented giving" is largely associated with strategic philanthropies like Broad, Gates, and Walton, it has come to serve as a common framework among foundations generally. This subsequently signals that foundation leaders across the board have developed new and elevated expectations for the output of their grantmaking, including major policy change and measurable outcomes. The outcome of this shift might be seen in the growing convergence of foundations around the funding of non-traditional actors, such as charter management organizations and alternative teacher preparation providers, which, as non-profit organizations, function outside democratic controls and often employ a outcomes-driven business models in their own operations (Reckhow & Snyder, 2014). Finally, running parallel to this is the expanded use of management consultants across the foundation sector, not only further demonstrating the preoccupation with using business strategies and proving effectiveness of grantmaking, but also the spread of these beliefs across different types of foundations (Reckhow, 2013). In light of that, this study suggests that a rational systems theory has the potential to explain current grantmaking practices, serving as a means to elucidate how foundations across the sector function.

Rational Systems Theory: Introduction and Theoretical Framework

While institutional theory in political science, particularly rational choice theory, has been used to explain a number of phenomena, including the behavior of Congress, decision-making by bureaucratic leaders, and the problem of compliance between actors (such as that between legislators and bureaucrats) (Peters, 2011), it has not to my knowledge been applied to examining foundations as institutions and their actions as political actors. The utilization of a theoretical framework rooted in institutional theory enables us to examine foundations as political institutions and explain the practices of major education philanthropies that determine

how they shape political environments and policies, namely the application of business strategies and convergence around a discrete set of grantees reflecting specific priorities and goals. For this analysis, rational systems theory is particularly well suited.

Rational systems theory views organizations as instruments intended to attain specific goals (W. R. Scott & Davis, 2007). Also known as the "structural perspective" (Bolman & Deal, 2008, p. 47), rational systems theory centers two main features: goal specificity and formalization. Goal specificity is central to the organizational enterprise, providing clear criteria for selecting the activities most fit for purpose amongst an array of alternatives (W. R. Scott & Davis, 2007). Goal specificity is particularly important as it dictates the structure of the organization itself. This includes determining what tasks are to be carried out, what roles should be hired, what skills, mindsets, and competencies should be identified in potential hires, and how resources are to be allocated across the organization's individuals and activities (W. R. Scott & Davis, 2007). Meanwhile, formalization is the attempt to direct behavior, making it more predictable through standardization and regulation. In the case of education philanthropy, goal specificity would be critical in determining which organizations and programs should receive grants, while formalization would determine how the grantees should act, or what they should be doing to achieve the goals.

Bolman and Deal (2008) identify a list of assumptions that lie at the heart of rational systems frames. In addition to specifying that organizations exist to achieve specific goals and objectives, these assumptions include 1) the belief that organizations can increase efficiency and enhance performance through specialization and suitable division of labor, 2) the best work can be done when personal agendas and extraneous pressures are secondary to rationality, and 3) different means of coordination and control can be leveraged to promote the integration of diverse efforts by individuals and units¹. These organizing principles lay at the heart of education philanthropy as foundations exercise their rationality and seek to replicate similar decisionmaking processes within grantee organizations. Defining rationality is critical here; for this analysis, I borrow Simon's definition of rationality. For Simon, rationality is centered on "the selection of preferred behavior alternatives in terms of some system of values whereby the consequences of behavior can be evaluated" (1947, p. 75). Simon takes care to outline different kinds and levels of rationality, including "organizationally rational", whereby a decision is oriented to the organization's goals and "personally rational," whereby a decision is oriented to the person's goals. In this analysis, rationality is taken to mean organizationally rational, as it is assumed that program officers at foundations and leaders at grantee organizations are making decisions in line with the preferences of the organization, appreciating that there is often exchange between personal and organizational values, with one influencing the other on any given decision in such a way that in most cases, distinguishing between the two might be difficult at best. With that definition of rationality in mind, education funders, by funding

¹ It is necessary to mention that these assumptions are identified as undergirding what Bolman & Deal (2008) refer to as the "structural frame." I merge them into the heading of rational systems theory as by Bolman and Deal's own description, the structural frame is near identical to rational systems theory in its assertion that organizations are intended to achieve goals and objectives, and thus, must organize themselves in order to attain said goals, including staffing the right people in the right roles to do so. With a theoretical base drawing from Taylor, Weber, and Simon, there appears in practice to be little difference between the structural frame and rational systems theory and so I treat them as one and the same here.

specific organizations at much larger dollar amounts and holding those organizations accountable to the implementation of specific actions, and attainment of measurable and aligned goals, can be seen as seeking to impose their rationality on the decision-making of grantees.

At the same time that there is this emphasis on the specification and pursuit of goals, foundations also seem to be assessing the strengths of those grantees, their utility in the attainment of foundation goals, and to what extent grantees might be moved to structure their activities to center the preferences of the foundation in their efforts as opposed to those of other stakeholders (i.e. students, parents, and teachers). In that sense, foundations might be seen as working on the presumption that both they and their grantees are most effective when "rationality prevails over personal agendas and extraneous pressures" (Bolman & Deal, 2008, p. 47). Coordination and control play a key role in the imposition of this rationality as foundations use their formal authority to enforce rules and policies in the form of grant conditions on grantees, and to ensure that grantees select and reach concrete outcomes and objectives, or "performance control measures," that can be attained through grant activities and grant terms, or "action plans" (Bolman & Deal, 2008, p. 56). In short, foundations might be seen as invoking rational systems through ordering the work of grantees to ensure that appropriate means are undertaken to reach the desired objectives.

To this end, Simon's theory of administrative behavior is particularly instructive. First, the construction of "means-ends chains" (1947) is fundamental to the tight coupling (Weick, 1976) of foundation goals and the measurable outcomes of grantees. By tight coupling, I mean that foundation goals and the measurable outcomes of grants are responsive to each other, so that one informs the other, and, as such, their identities are intertwined; there is little to no logical separateness between them. This stands in contrast to loose coupling, where two events or variables are responsive to each other, but each maintains its own identity and there is some indication of their physical or logical separateness (Weick, 1976). Means-ends chains involve the invocation of a process wherein initial goals – the ends – dictate a set of means, the means then become the "subgoals," and these subgoals are used to then clarify a more detailed set of means for achieving them. In this way, each level in the means-end chain is considered an end to the levels below it and a means to the level above it, thereby providing a hierarchical structure of ends through which behavior can be integrated and consistency across units and individuals attained (Simon, 1947). In the case of education funders, this manifests through the grant proposal process, as foundations require grantees to order their plans by first identifying the appropriate foundation objective to which their work aligns, delineating the goals of the grant itself, identifying correct measurable outcomes aligned to the goal, and attaching a corresponding activity and output to each outcome, thereby creating a chain of work in the proposal of the grant.

Second, Simon's concept of "bounded rationality" is also crucial to the analysis. In Simon's bounded rationality, decision-making for organizations is a search process guided by "aspiration levels," which might be defined as "a value of a goal variable that must be reached or surpassed by a satisfactory decision alternative" (Selten, 2001). In the case of foundations, goal variables might be seen as the outcomes they would like to see as a result of their grantmaking. To find possible decisions that could meet their goals, organizations have to engage in a search process until they find an alternative that reaches or exceeds the aspirational level of their goal (Selten, 2001). Crucial to the idea of bounded rationality is that full rationality on the part of individuals, and ergo, organizations, is impossible as cognitive capabilities and availability of information are limited compared to what is needed to solve complex problems. Thus, bounded

rationality necessarily engages nonoptimizing procedures as organizations adjust their expectations to changes in their goals, seek out satisfactory alternatives based on the situation in which they find themselves, and choose a path amongst multiple decision alternatives based on their understanding of goals and circumstances. For grantee organizations, an evaluation of behavior alternatives invariably involves deciding on a course of action, or strategies, that considers the preferred actions, consequences, and outcomes of foundations. Foundations provide a number of "givens" to their grantees, in addition to funding to carry out the actions dictated in the grant. The provision of "integrated subgoals, stable expectations,..., and, in general, a set of constraints within which required decisions can be made" bounds the limits in which grantees can operate and as such, ties together the key elements of the theory – goal specificity and role formalization (W. R. Scott & Davis, 2007, p. 56).

Methods

For this study, I rely upon two main qualitative research methods: document review and qualitative meta-synthesis. Document review consists of the "systematic collection, documentation, analysis and interpretation, and organization of data" (Bretschneider, Cirilli, Jones, Lynch, & Wilson, 2017). In this case, I curated a set of documents available on foundation websites that would allow for identification of what foundations targeted in their grant proposals from prospective grantees, including long- and short-term goals, activities, measurable outcomes, and outputs. Documents were also selected based on ability to discern how foundations in their grantmaking strategies establish alignment between foundation objectives and their individual grants. Generally, these documents include grant proposal and application forms, interim and final report forms, and instructions on how to complete grant proposals, including guidance and definitions of terms. Additional documents, such as articles written by foundation officers about their grantmaking practices and podcasts discussing similar subjects, were reviewed where they were available. These documents, created by the foundations on which this study focuses, serve as the primary source evidence for this project as they represent the voice of these organizations, while serving as a means through which to begin generating a framework

The goal of my document analysis was, first, to understand to what extent foundations' practices reflect the themes of rational systems theory, including goal specificity, role formalization, and coordination and control through mechanisms such as means-end chains and bounded rationality, and second, to determine the degree to which foundations overlapped in this approach. Rational systems theory would expect to see foundations start to groom grantees in their form of rational-thinking from the outset, with questions and content that facilitate the identification and tight coupling of components necessary to form the means-end chain, while also setting up the processes to coordinate and control grantee actions and set expectations regarding performance evaluation (Bolman & Deal, 2008). To explore this phenomenon and further explicate the theory, a process of document analysis that lends itself to theory building was critical. To support this, my method for document analysis is derived largely from Bowen (2009). In his discussion of document analysis as a research method, Bowen details a process that begins with "skimming", or a superficial examination of the documents, to get a sense of high level of the document and to identify "meaningful and relevant passages of text" (2009, p. 32). It then moves to the reading stage, during which a thorough examination of the selected data is conducted and coding and category construction unfolds. In this stage, thematic analysis enables the researcher to recognize patterns in the data, with emerging themes evolving into the codes and categories for analysis. Finally, the process moves into the interpretation stage, during

which the data is synthesized and contextualized; in short, meaning making occurs (Bowen, 2009; Merriam & Tisdell, 2015). The process unfolds iteratively with each successive round involving a more focused re-reading and review of the data. This enabled me to tap into the layers of the documents in a way that would mirror the application of rational systems theory, for example, seeking first for evidence of shared emphasis on the statement of clear objectives, then the breakdown into goals, followed by alignment of actions, and then the selection of performance measures (Martz, 2013).

In line with this approach, once I selected the documents, I reviewed each one, conducting a quick examination to get a sense of the critical data. In the case of the grant applications, this included the following: what the purpose of the document was; who the intended audience was; how the applications and reporting documents were organized; what questions were asked (and which were not), and in what order; were key terms defined; and were there indicators of how grantee responses would be assessed and/ or used as part of processes for future accountability. Following an assessment of documents for critical data, I engaged in close reading, thoroughly examining the documents with an eye for how the themes pertained to my central research questions. For example, I coded the different terms that the foundations defined, including "objectives", "outcomes", "outputs", "metrics", and "activities," and any language that seemed to reference those items, returning to these later in the interpretation phase to understand where the terms were used and what they meant in the different contexts. In a final examination, I interpreted the text, mapping the different concepts presented in the documents onto those of the rational systems frame previously developed. Keeping with the example above, I would have mapped key terms onto core parts of the theoretical framework, such as goal specification, tight coupling, and means-end chains as rational systems theory is very adept at explaining the prominence and proliferation of those terms across the documents analyze.

Qualitative meta-synthesis is employed as a second method as a means of corroborating and validating the findings produced through document analysis. In this instance, I relied upon Finfgeld-Connett's (2018) approach to theory-generating meta-synthesis to inform my data collection and analysis. In theory-generating meta-synthesis, the goal is to draw upon a range of studies to develop process frameworks, or theories, that might be generalizable to a whole. For this research, studies were selected based on their ability to highlight the dynamic relationship between how foundations think about the goals of their grantmaking and the resulting processes through which grantmaking is carried out. This emphasis on uncovering the extent to which goals serve as the central determinant of organizational structures was guided by rational systems theory, which suggests that the goals of organizations should be the primary determinant of organizational structures, processes, and actions (W. R. Scott & Davis, 2007; Simon, 1947) As part of my selection criteria, I honed in on studies that included the interviewing of foundation staff and, in some cases, grantees as a primary means of data collection. The goal in selecting such studies was to ensure that interpretation of the primary source documents aligned as much as possible to how foundations talk about their own approach, thereby ensuring the accurate reflection of the voice of the main stakeholder in this analysis (Nye, Melendez-Torres, & Bonell, 2016). Data analysis of the selected published research consisted primarily of content analysis to explicate concepts that arose in the document analysis and to determine the extent to which the interpretation of data as part of the document analysis was validated by other existing studies. Thus, the purpose of using such methods was to triangulate the findings from document analysis to produce a confluence of evidence in support of the theory that foundations, both traditional and strategic, can be seen as operating within a rational systems frame.

Findings

As the grant applications serve as the primary unit of analysis, my findings here focus on the form, flow, and content of grant applications, supplemented by information provided in online articles, guiding documents, and other media provided by the foundations themselves. I start first by examining the structure and content of the grant applications, focusing on defining and exploring key terms, before moving to an examination of evidence of how grants are evaluated both for initial approval and throughout the life of the grant.

Structure and Content of Grant Proposals

All proposals start with key information about the grantee and the proposed work (i.e. name of organization, name of proposal, grant term length, requested dollar amount, tax ID number, geography served, etc.). Once basic information is established, all grant applications for Carnegie, Walton, Gates, and Kellogg possess a number of the same elements that proceed in a generally similar. During the close reading and interpretation phases of my document analysis, I found that the grant applications for the four foundations² generally included questions or sections of the following nature:

- Identification of the purpose of the grant and the problem it seeks to address;
- Identification of project objectives, either as part of the description of the grant's purpose or as its own section;
- Description of the design of the project, including major activities that will be carried out to achieve the stated objectives;
- Identification of quantitative and, in some instances, qualitative outcomes that will be accomplished by the project, explicitly in the service of the main objectives and aligned to the activities to be performed;
- Request to detail some of sort of plan for evaluation to demonstrate that the grant is achieving its desired objectives, in addition to meeting any other goals of the foundation providing the funding;
- Description of the organization and why the organization is best suited to carry out the work and solve the identified problem, including who will be leading the work and in what capacity;
- Description of how the work will be evaluated, including the method for measuring project success and any internal or external evaluations to be conducted;
- Assessment of risks to the project, including anything that could prevent the achievement of the project's main objectives and outcomes;
- Financial sustainability of the organization and the project, including listing other key funders and efforts to attract other funders to the work; and
- Dissemination activities to share what is learned with other funders and organizations in the field.

As to be expected, there is variation on the amount of space the different foundations allot to the different areas of the grant application, which might be seen as a way to assess what areas matter most to some foundations over others. Those differences aside, the foundations are overwhelmingly similar with respect to the order of questions and their approach to structuring

² Bill & Melinda Gates Foundation, 2010; Carnegie Corporation of New York, 2017; Walton Family Foundation, n.d.; W.K. Kellogg Foundation, 2017

the grant proposal to encompass elements of improvement science (Bryk, Gomez, Grunow, & LeMahieu, 2015) and the classic problem-solving cycle (Murray, n.d.), with a clearly identified problem and major objectives, followed by aligned outcomes, outputs, metrics, and activities. This manifests from the beginning of the applications, which all start with the request to describe the purpose of the project, why the problem identified is a worthy problem to solve, to what end the grant dollars will be used, and what will be different as a result of the work. Carnegie's application, for example, asks grantees to provide a project overview, briefly summarizing the main issue or problem the project addresses, and "what you hope to accomplish with Corporation support" (Carnegie Corporation of New York, 2017). Gates takes a slightly different approach, asking potential grantees to first identify the charitable purpose of the grantee (for example, "to support an effective and transferrable program model for...") and then to provide a project description that discusses "how the funds would be used to meet the charitable purpose" (Bill & Melinda Gates Foundation, 2010). Kellogg poses its own iteration of the request, asking grantees to "provide an overview of your funding request by describing the specific purpose, the problem you are trying to solve, and the overall change you expect to see as a result" (W.K. Kellogg Foundation, 2017). Finally, Walton asks grantees to "briefly summarize the purpose and need for the project/program," including any specific terms they would like to be considered (Walton Family Foundation, n.d.). In all cases, the emphasis is on clearly stating a main purpose for the grant to serve as the foundational stone around which the rest of the grant is built.

Immediately following the statement of the grant's main objective, applicants are asked to enumerate the outcomes, outputs, and activities of the grant. As dictated by both improvement science and the problem-solving cycle, outcomes and outputs should directly connect to the project objectives and the goals the grant is seeking to achieve. Following those models, the focus in these sections is on making an explicit connection between the purpose of the project and the main objectives, and the outcomes to be attained, the outputs to be produced, the activities that will lead to the attainment of outcomes and production of outputs, and the metrics that will be used to show the extent to which progress against the outcomes is made. In many ways, this can be seen as the heart of the grant proposal as it describes how the grantee plans to enact the work to be funded by the grant and how they will know if they are on track to achieve their goals. The majority of the grant following these sections is focused on evaluating the grant and disseminating findings.

As previously noted, a critical part of the document analysis undertaken was the identification of recurring themes and a deeper exploration of those themes to attempt to grasp where terms and ideas were used consistently across the documents and where they diverged. The initial read of documents to select data indicated that terminology was prominent in the applications; this led me to focus heavily on understanding terminology in the thematic analysis stage. With respect to major terms such as "objectives", "outcomes", "activities", "outputs", and "metrics", there is very little differentiation across the foundations. What difference does exist is primarily exhibited at the margins; for instance, where one foundation calls something an objective and another would include those components as part of its definition of outcomes. Table 1 shows the definitions for each key term by foundation. Strong similarities exist between each organization on these terms, indicating a degree of consensus across the sector on what components are necessary if foundations intend to evaluate grants on their own merits and use grants as a means to assess their own strategy. For example, Gates, Carnegie, and Walton all align on their definition of "outputs," which they define as the products or services that are produced as a result of undertaking the grant. A similar alignment exists across objectives and

outcomes. For instance, both Carnegie and Walton include in their definition of outcomes an expansive, global view of change, asking grantees to think about the ways that the grant might change human behavior, policies, and/ or whole ecosystems. While there is some difference between them, Carnegie classifying such outcomes to be "Long Term Outcomes," with "Project Objectives" serving as the short-term outcomes for the grant to be attained in the service of the long-term outcomes (Carnegie Corporation of New York, 2018a), and Walton seeing those outcomes as the end result for the grant itself, the overall impact on the order and components of the grant is the same. These differences aside, the emphasis on outcomes and how the outcomes are supposed to relate to the overarching purpose or objective of the grant, and ultimately, the main goals of the foundation is central to rational systems theory as these elements determine what actions should be taken in the grant and, in terms of bounded rationality, what decisions should be made by grantees to ensure these actions are successful in achieving the goals (W. R. Scott & Davis, 2007; Simon, 1947).

Table 1: Definitions and Explanations of Key Terms, by Foundation

Foundation	Objectives	Outcomes	Outputs	Metrics/Measures	Activities
Bill & Melinda Gates Foundation	The conceptual aim of the project; the condition that will exist when the project has been successfully completed. The objective should include the desired long-term impact or effect of the project that will result if the project's outcomes are achieved.	The measurable consequence of an activity and an output.	The work product or service (also called a 'deliverable') that results directly from a project activity.	Not defined	A task or process that uses inputs to produce a project's output(s). Each major project activity should be identified clearly on the timeline and the budget worksheet.
Carnegie Corporation of New York	Project Objectives are the specific goals to be achieved during the grant-term that are expected to help achieve the Long-Term Outcomes.	Long-Term Outcomes are the desired long-term changes in behavior in individuals, institutions, communities, and/or policies (most likely not achieved within a grant-term).	Project Outputs are the tangible products or services that a grantee delivers.	Project Metrics are the actual achievements against the Project Objectives to help assess the results of the work.	Project Activities are the actions taken by grantees to deliver the Project Objectives and to deliver Project Outputs.

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W.K.	Not defined	Summarize the	Not defined	Not defined	Describe the
Kellogg		outcomes to be			project
Foundation		achieved by			activities to
		implementing			be achieved.
		the WKKF-			What is the
		funded			project's
		activities and			work plan?
		how they will			For example,
		be measured.			for the
		-What			WKKF-
		qualitative and			funded
		quantitative			project
		programmatic			activities,
		outcomes will be			please
		achieved as a			describe who
		result of			will do what,
		implementing			when, how,
		the WKKF-			where, with
		funded			whom, how
		activities?			frequently,
		-What types of			and across
		knowledge			what
		and/or			timeframe,
		knowledge			etc.
		products will be			
		generated (if			
		applicable)?			
Walton	Not defined	Outcomes are	Outputs are the	Not defined	Not defined
Family		the impacts or	direct results of		
Foundation		changes in the	the activities		
		world that you	you undertake		
		intend to	under your		
		achieve	Foundation		
		through your	grant. They		
		outputs. These	are products,		
		may, for	goods, or		
		example, be	services that		
		changes in	you (or your		
		policy, human	partners) create		
		behavior or	or deliver		
		activity,	during the		
		student	course of the		
		achievement,	grant.		
		or the state of			
		an ecosystem			
		or ecosystem			
		component.			
L	l .	Joinponent.			

It is important to note that while not every foundation defines every term, core components of their applications still often call for those areas to be addressed. For example, in the case of Walton, while it does not define the terms "project objectives", "metrics", or "activities", grantees are asked to specify for each individual output and outcome a host of conditions that encompass each of those components. Specifically, they must state who will complete each output or outcome and/or which organization is responsible for the achievement of each output or outcome, in the event there are multiple organizations engaged on a project; "what the output or outcome will be (including how much, meaning some indication of the size extent, or number of what is to be achieved)"; when the output or outcome will be achieved; and "how it will be known or demonstrated that the output or outcome has been achieved" (Walton Family Foundation, n.d.). These components, which might be seen as critical to the evaluation of the grantee's work, parallel and extend Carnegie's own definition of metrics, which simply states that metrics are the achievements attained in pursuit of the project objective and against which the results of the work will be assessed. The extension here is particularly important in light of the centrality of role formalization in rational theory. The request to detail who will complete activities adds two layers of role formalization, the first being the role the grantee plays vis-à-vis the foundation's goals and the second being who within the grantee organization is expert and capable of carrying out the assigned tasks (Bolman & Deal, 2008; W. R. Scott & Davis, 2007).

Furthermore, Walton also mirrors Kellogg's explanation of what constitutes a discussion of project activities, which includes "who will do what, when, how, where, with whom, how frequently, and across what timeframe, etc." While Kellogg, like Walton, does not define "metrics", it asks grantees to "provide the goals and related strategies to be accomplished specifically with WKKF [W.K. Kellogg Foundation] funding to achieve the outcomes identified" (W.K. Kellogg Foundation, 2017). The application goes on to specify that grantees should employ the SMART (Specific, Measurable, Attainable, Relevant and Time-bound) format when describing such goals and strategies. The emphasis on SMART goals by Kellogg harkens to Walton, as it asks grantees to be as explicit as possible in defining the terms of both their own success and how that success should be evaluated. This, as I'll discuss, is a critical part of goal specification, wherein organizations must select goals against which their success can be evaluated. Thus, the lack of a clear definition for a term, either in a glossary or in the body of the application itself does not mean that the foundation has diverged from the pack, so to speak. Rather, the concept manifests in other components of the application, as described here.

In any case, a review of grant applications shows the high degree of similarity across foundations — be they traditional or strategic — in how they ask grantees to think about and frame their work. In particular, these findings highlight the application of improvement science and business-rooted problem solving cycles in grantmaking practices, emphasized by the convergence around a shared understanding of project objectives, outcomes, outputs, metrics, and activities and the centrality of these concepts across all the grant applications.

Proposal Evaluation and Grant Monitoring

On what criteria proposals are evaluated and how they are monitored over time speaks directly to the priorities of the foundation in their grantmaking. To this end, the importance of identifying organizations to be grantees who align with the goals of the foundation, can extend the foundation's work, and help the foundation achieve its strategic objective through fulfillment of the work of the grant is central to all the foundations application and selection process. For example, Kellogg includes a section on "Racial Healing & Racial Equity," wherein applicants

are asked to discuss how their work will "dismantle racial and structural inequities that limit opportunities for children, families, and communities" – a key goal of the foundation (W.K. Kellogg Foundation, 2017). Taking a different approach to evaluating grantee fit, Carnegie includes a section where applicants that are current grantees are asked to list the goals and outcomes of the last phase of work funded by Carnegie and describe the short term and long term impacts of the activities and outputs of that grant, as a means of assessing the extent to which the grantee can continue to advance the foundation's goals. Meanwhile, Walton, in publications produced by foundation officers, emphasizes it seeks to identify "potential grant partners who share the foundation's vision" and then to "empower those partners to use their expertise in implementing projects and programs to achieve the foundation's goals," thereby indicating the centrality of alignment between foundation goals and the mission of organizations when choosing grantees (Holley & Carr, 2014). Thinking forward to rational systems theory, this once more harkens to facets of role formalization, as foundations simultaneously select grantees that share a vision conducive to achieving the foundation's goals and can fulfill specific functions in the achievement of those goals (W. R. Scott & Davis, 2007).

In terms of orchestrating alignment between the foundation and the grantee at the application stage, Gates offers the most guidance to applicants on the proposal review criteria for grant applications. First and foremost, grantees are evaluated on strategic alignment with the foundation, including how well the project aligns with the foundation's priorities for the sector in which the applicant operates, and how clear the definition of project success is and to what extent the definition of project success supports their "learning activities" in the sector. There are then questions of impact, sustainability, and scalability. Of particular interest here are questions pertaining to whether the project has "the ability to continue delivering results after the funding period of this grant and/or test an approach that could do that in the future," and whether the project model is capable of being scaled "to reach significant numbers of poor people." There is then the assessment of the approach, including whether the proposed design and methodology are appropriate to accomplish the aims of the project, and to what degree the proposed implementation plan, timeline and milestones are "appropriate, feasible and technically sound." This is followed by an assessment of the organization, including its strengths, its comparative advantage to conduct the work it has proposed, the organization's track record and experience in managing such projects, and whether it possesses a confluence of factors deemed necessary to carry out the work, such as the research, technical, management and leadership capability to implement a project of the proposed nature and scope, and a team with the necessary expertise, experience and commitment to implement the project. While this certainly draws upon many areas that all the foundations ask grantees to cover, in particular the grantee's ability of an organization to carry out the proposed work compared to other organizations in the field, Gates is the only one to provide applicants a specific proposal evaluation criteria, and therefore some insight into what parts of the proposal are central to getting approved.

The thorough reading of the grant applications and reporting documents reveals an ongoing theme of evaluation, suggesting that evaluation of the proposal is but the first evaluative exercise over the course of the life of grants. Through interpretation of the data, it becomes clear that evaluation salient across the lifespan of the grant. Gates, for example, defines "milestones" in its key terms, stating "milestones must be measurable as subsequent funding disbursements may depend on reaching a milestone or milestones," and thereby implying that evaluation will take place throughout the lifespan of the grant. The importance of measurable indicators that can be used to assess on-going progress is also evident in Carnegie's interim report form. Mirroring

the original grant application, grantees are first asked to discuss whether the project objectives determined at the start remain relevant. Grantees can take the opportunity to suggest changes to the selected objectives and metrics, if desired. After discussing the project objectives, grantees must report on their progress against every project metric included in the grant agreement and the status of all past and upcoming activities to be undertaken in pursuit of the metrics. This format is then repeated in the final report (Carnegie Corporation of New York, 2018b, 2018c). Finally, Kellogg and Walton, likes Gates, embed the expectation of regular evaluation at the time applicants are completing their proposals. Kellogg explicitly says that grantees will be asked for evaluation reports during and at the end of the grant, and Walton asks grantees how they plan to evaluate the work going forward. In this way, foundations set the expectation that measurement as a means of showing progress is deeply embedded into the practice of grantmaking and implementation, and grantees should move ahead with an eye to building their capacity to quantitatively assess their work, if they do not already have such capacity available to them. Not only does this align with our expectations of action planning and performance monitoring in rational systems, by both implicitly and explicitly directing grantees to devote resources to measurement, evaluation, and monitoring, foundations can be seen as bounding the rationality of grantees to preference the direction of financial and human resources to these activities (Simon, 1947).

Overall, findings indicate that foundations structure grant proposals in such a way so that prospective grantees must think about their work within a particular logic sequence that begins with identifying the problem to be solved and the major objectives to be achieved through the project, and breaks down the work into a series of parts: measurable outcomes, tangible outputs, and the activities through which both of those elements are attained. While the logic chain comprises the meat of the grant application, it is not the only component on which prospective grantees are evaluated; their reputation for achieving organizational goals, particularly compared to other organizations in the field, and how well the work and organization fit into the foundation's vision of its work and impact are all a part of the proposal evaluation process. Finally, on-going evaluation and monitoring, and the ability of the prospective grantee to assess its progress towards goals and report on progress throughout the life of the grant is central to foundation grantmaking practices. In the analysis that follows, a rational systems lens provides a means of understanding grantmaking practices across the foundation sector from an institutional perspective.

Analysis of Foundation Grantmaking Through a Rational Frame

Based on the literature and my findings, we might divide foundation grantmaking practices into two levels. The first is the strategic level – how foundations through grantmaking pursue their over-arching specific goals. The second is the implementation level, or rather, the practices foundations employ when crafting and monitoring grants. Rational systems theory, as delineated in my theoretical framework, provides a useful frame through which to analyze both levels of the grantmaking process, focusing on goal specificity and the creation of means-end chains, vertical coordination to command and control functions, the formalization of roles, and bounded rationality (Bolman & Deal, 2008; W. R. Scott & Davis, 2007; Simon, 1947).

Goal Specificity and the Construction of the Means-End Chain

As outlined in the theoretical framework, organizations are expected to act reasonably and rationally to produce results (Thompson, 1967). With this in mind, goal specification is

critical for behavior to be seen as purposeful and coordinated, as it provides criteria by which alternative activities can be evaluated for their appropriateness and selected (Martz, 2013; Simon, 1947). To be considered goals in the rational systems model, organizational goals must be "specific and measurable, realistic, operative," and not just gratuitous, stated with no intention to operationalize (Martz, 2013, p. 387). Building on that, the goals must be critical and related to the organization's purpose, meaningful, reflective of outcomes, and distinguishable from the means of their achievement and the constraints that dictate organizational behavior (Martz, 2013, p. 387). The emphasis on grant objective and outcomes in the grant applications and proposal guidance indicates that foundations – both those considered traditional and strategic – are heavily focused on the identification of specific, measurable, and operative goals that are closely tied to the objectives of the foundation on the strategic side and the objectives of the grantee's organization on the implementation side. For example, Gates requires grantees in the application to detail the goals of the organization, the goals of the project, the actions that will be taken to achieve the project goals, and the indicators the applicant will look at throughout the grant to gauge progress to the goals. In addition, Gates states that both the alignment of the applicant's organization and the proposed work, including the goals, with the foundation's priorities, vision of success, and desired learning is considered when deciding whether to give a grant, subsequently drawing attention to many ways that the identification of goals is critical in the grantmaking process. Namely, these goals become an ever-present part of the grantee's existence vis-à-vis the foundation as they will have to report against these goals and the actions they proposed to take to achieve them throughout the grant term and in the final grant report.

The specification of goals is critical to the development of the means-end chain. Recall that the means-ends chain is the hierarchy of goals that dictates the arrangement of work within an organization – "each level to be considered as an end relative to the levels below it and as a means relative to the levels above it" (Simon, 1947, p. 63). Looking just for now at the applications, the structuring of the grant application to delineate a clear purpose in the grant proposal, followed by a series of activities, outcomes, and outputs essentially creates the meansends chain for each grant. The objectives set out at the beginning of the grant dictate the outcomes, which determines the activities and outputs the flow from it. For example, Kellogg, in its "Design & Execution" section organizes the section to capture information in a logic sequence, as the instructions indicate: "(1) how it [the funding request] aligns with the work and expertise of your organization; (2) the specific outcomes, goals, strategies, and activities...; [and] (3) the long-term plan and partnerships for sustaining this work beyond WKKF funding" (W.K. Kellogg Foundation, 2017). The section then proceeds to methodically engage each element identified, starting with the purpose of the project and working down to the key activities to be undertaken to achieve the goals. This process might be seen as initiating the tight coupling of goals, actions, and metrics, ultimately creating the means-end chain.

Importantly, this becomes the basis for both the planning and control systems that the foundation enacts upon the grantee, in particular the performance control system through which concrete outcomes are set and monitored, and action planning, which specifies the methods and time frames for which grantees will be expected to account in their decisions and actions (Bolman & Deal, 2008) The goals then are not just goals in name only; rather, they serve as the means via which grantee performance is evaluated and deemed sufficient (Martz, 2013). That outcomes become the means through which foundations seek to control and evaluate grantees is supported by Tompkins-Stange's (2016) study of decision-making inside Gates, Kellogg, the Eli & Edythe Broad Foundation, and the Ford Foundation. In her work, she identifies as a dominant

trend in strategic philanthropies the employment of an "outcomes-oriented approach" to grantmaking. This approach is highly centralized, with foundations retaining strategic oversight of grantees and holding them accountable to negotiated measurable outcomes. Based on a review of the grantmaking practices of the four foundations featured in this study, it would seem that an outcomes-oriented approach is also a feature of traditional philanthropies, as both Carnegie and Kellogg emphasizing the selection of appropriate measurable outcomes in their grant proposals and explicitly tying these outcomes to evaluation throughout the grant term.

With its emphasis on command and control, and attempt to establish a tight causal link between grantee actions and outcomes, the outcomes-oriented approach can be seen as the practical translation of March and Simon's "means-ends chains" (W. R. Scott & Davis, 2007, p. 54). On the strategic end, each grant can be seen as a means through which the foundations seek to achieve their organizational objectives or purpose (Simon, 1947). The examinations of Walton, Gates, Carnegie, and Kellogg here and Tompkins-Stange's (2016) description of Broad and Gates's suggest that the exercising of centralized control throughout the grant-making process is a prime example of the means-end chain in practice. All the foundations set clear policy priorities, which, in this case, might be seen as the initial goals or ends. The foundations then use these priorities to dictate a set of means. In this case, the means would be the organizations selected as grantees to fulfill specific expectations. The specific expectations attached to grants and grantees, which includes concrete deliverables and measurable outcomes, become the subgoals, and the actions that are identified and undertaken in pursuit of these subgoals are the second, more granular set of means. This interpretation is supported by this excerpt from an article on how to operationalize strategic philanthropy written by program officers at the Walton Foundation:

In short, the foundation's overarching strategy for each focus area consists of a small number of key initiatives, and each of those initiatives is sub-divided into strategies. Our goal is to conduct evaluations at each of those levels in each focus area—for individual grants, for each strategy, and for each initiative," (Holley & Carr, 2014)

To the extent that program officers can be seen as actively trying to dictate the second set of means, which we can categorize as the work of grantees, the findings indicate that foundations may be exercising some influence. Indeed, this is perfectly captured in the grant applications. Carnegie, above all, illustrates this through the dissemination of its "Results: Flow Chart and Glossary" (2018). The flow chart starts with the desired long-term outcomes at the top, then draws an arrow from project objectives to the long-term outcomes. Below project objectives are project activities, followed by project outputs, with one arrow pointing from activities to objectives and one pointing down from project activities to the project outputs. Finally, project metrics are at the very bottom with an arrow extending from them to the project objectives. This desire to manage the flow of work for grantees is further emphasized by the comments of a Gates staffer describing Gates as explicitly adopting a "high-engagement' mindset in managing the day-in, day-out work of grantees" as a vehicle to do whatever is necessary to achieve their goals are notable (Tompkins-Stange, 2016, p. 70). That being the case, if we interpret the "day-in, dayout work of grantees" as the second set of means, which based on Simon would be the granular set of means that leads to the subgoals, and those means are dictated through the grant, then we can see the grant application as fully detailing a means-end chain. From there, we are able to clearly see how centralized control of grantees is the translation of rational systems theory into practice via the means-ends chain: Philanthropies, in an attempt to ensure tight coupling between their high-level priorities and the outcomes of grantees, pursue a chain of action wherein they try

to tightly align the grantees they select, the goals those grantees set, and the actions they pursue to get there.

The Formalization of Roles

Importantly, while the process detailed above speaks to the centrality of goal specificity in rational systems theory, it also reflects the second feature – formalization of roles. As introduced in the theoretical framework, formalization would determine how the grantees should act, or what they should be doing to achieve the goals specified (Bolman & Deal, 2008). This can also be seen as a form of functionalization and specialization. Thinking of grantees as the individuals or a unit operating within an organization - the foundation, foundations can be seen as looking to grantees to specialize in a particular area critical to the achievement of the foundation's goals. The findings on how foundations emphasize grantee fit and organizational capacity in their grant application speak directly to the desire of foundations to formalize the roles of grantees. For instance, Gates, in its proposal review criteria, states that applicants should make evident their comparative advantage in executing the proposed work, including "what expertise, experience, and commitment" staff have to implement the work (Bill & Melinda Gates Foundation, 2010). Carnegie, similarly, asks organizations to "describe your organization's capacity to implement and administer the proposed activities" and explain "what makes your organization the right one to conduct the project" (Carnegie Corporation of New York, 2017). By asking prospective grantees to highlight the strengths of their organizations and speak to why they are best positioned to solve the identified problem and carry out the work proposed, foundations might be seen as trying to assess whether an organization 1) has the specific skills and knowledge it deems necessary to do the work the foundation wants; and 2) is the best organization to carry out the work, as opposed to any others in the field with whom they might partner. This might be seen as fundamental to formalization, ensuring that an organization, prior to becoming a grantee, has the capability to act in the ways to be agreed on and can achieve the goals specified.

To the extent that controlling how grantees act is a part of grantmaking in practice, Tompkins-Stange's study would seem to corroborate this. Informants from Gates and Broad participating in Tompkins-Stange's study described the utilization of high-engagement practices and centralized control as a means of ensuring "quality control and professionalism in terms of initiatives they funded" (2016, p. 74). On a more superficial level, the overriding concern here is that the foundations do not want to be associated with initiatives that fail to meet their "quality bar," as one Broad staff member put it (Tompkins-Stange, 2016, p. 74). Going deeper, it is clear that formalization is influencing the organization at the strategic level and the implementation level. On the strategic level, the foundations seek organizations that collectively bring them closer to achieving a specified goal. As a grantee of both Gates and Broad commented, "They're orchestrating across several organizations to achieve a goal, and we're a part of that community, where we have specific things that we can deliver and advocate for" (Tompkins-Stange, 2016, p. 72). This statement speaks to the part of formalization wherein the principal organization attempts to make explicit and visible the structure of relationships between roles and the principles that dictate behavior in the system (W. R. Scott & Davis, 2007). In this case, the individual grantee organizations each play a specific role in the foundation's pursuit of its goals, and each grantee is made aware of the role it is playing vis-à-vis other grantees. The foundation, having vetted grantees for their potential to align with and progress the foundation's goals, makes it apparent to the grantees exactly how each of them is working in pursuit of the said goal. In this instance, the granting of dollars by foundations to applicants for the specific purpose the identified in the grant application solidifies this relationship. Formalization, in that sense, allows for functionalization by foundations – foundations can break up their organization objectives into subsidiary objectives and assign each of the subsidiary objectives to different grantees (Simon, 1947).

To that end, reporting is as much a vertical command and control mechanism as it to ensure that grantees are carrying out their designated roles and on their way to achieving the objectives that have been assigned to them. Recall that planning and control systems dovetail performance control – the imposition of concrete objectives and targets – and action planning the specification of methods and time frames for decisions and actions to be undertaken (Bolman & Deal, 2008). Reporting might be seen as the operationalizing of these systems, taking what the foundation and grantee agree upon in the grant proposal in terms of objectives, outcomes, actions, and timeframes, and ensuring that grantees actually fulfill the work and the goals assigned to them, with future funding and work tied to successful achievement. For example, in the case of Carnegie, the interim and final reports require grantees at designated times throughout the life of the grant to report to the foundation exactly how much progress has been made against the grant outcomes, what actions have been taken, and when next actions will be taken. Gates takes it a step farther, requiring grantees to not only identify outcomes but milestones and indicators of success to be reported on throughout the grant term. Findings by Quinn et. al. highlight this sort of "close monitoring of outcomes, accountability for results and impact, and direct involvement of funders with the day-to-day management of grantee organizations" (2014, p. 956) as quintessential to the high-engagement model, with evaluative frameworks serving a key role in assessing, legitimizing, and elevating the work they support at the time it ties the future of grantees, including funding, to their success in executing it.

Bounded rationality: Limiting Foundations and Grantees

Finally, there is potentially a third level to which we might apply rational systems theory: the individual organizational change level. To this end, Simon's bounded rationality is most applicable. In bounded rationality, the decisions of individual actors and organizations are at once bounded by their own knowledge and the constraints in which they operate, be it technological constraints, the processes and practices of the organizations, and the limitation of their own authority, to name just a few possible constraints (Simon, 1947). In the analysis undertaken thus far, a great deal might be attributed to foundations operating similarly to Taylor's scientific management approach - a scientific analysis of the tasks of individual entities is undertaken and from it, a determination made about the procedures that could yield the greatest output with the least input of resources (W. R. Scott & Davis, 2007). However, a key part of this is that while efforts are focused on individual tasks, changing the labor of an individual worker, or grantee, invariably leads to changes in the entire structure of work arrangements (Scott & Davis, 2007). In the case of foundations, this may well be the case.

Pairing Taylor with Simon, it becomes evident that the formalized structure imposed by foundations, coupled with the literal financial support of the individual grantees in the form of grants, supports rational decision-making from the top to the bottom of the means-ends chain by both assigning responsibility to grantees and giving them the means to carry them out. In changing the work of the grantee, new constraints on decision-making would arise. For example, it would be the duty of grantees, upon receipt of funding, to ensure that they could carry out the agreed upon actions to achieve the outcomes and outputs, or else risk losing the ability to apply

for further grants, either at that foundation or others. This would, based on Simon's bounded rationality, act as a new constraint – the decision to accept the grant and make an agreement with the foundation influences subsequent decisions of the grantee organization, potentially leading to the reformation of the organization as it responds to the new circumstances in which it finds itself.

I should be careful not to overstate the extent to which grantees are limited in their ability to flex their own authoritative muscles during the term of the grant. Carnegie's evaluative frameworks, for instance, seem to recognize that grantees must be able to adapt to changing circumstances on the ground as new challenges that could not have been predicted at the outset emerge. Walton's request that grantees identify potential risks to the success also speaks to an awareness that there are constraints beyond the grant that come to bear on grantees and to which grantees must be able to respond. That being said, the influence of philanthropy on organizational and individual behavior, particularly on those receiving funding, is not insubstantial (see, for example, Feuer, 2016; Reich, 2018; Russakoff, 2016) and should be considered as part of the constraints that inform the rational decision-making of grantees.

Limitations of a Rational Systems Frame

There are, of course, limitations to the applicability of a rational systems frame. A primary critique might be that rational systems theory overemphasizes the importance and power of the foundations in the foundation-grantee relationship, failing to see the way that the two entities together form a collective of social groups, with each group possessing its own goals while at the same time assuming power, authority, and control in relation to one another (Handler, 1996). Thinking about organizations as collectivities falls very much within the domain of natural systems theory, which emphasizes the way in which informal structures, informed by "individually shaped ideas, expectations, and agendas, and...distinctive values, interests, sentiments, and abilities" come to bear on the working arrangements within and between organizations (W. R. Scott & Davis, 2007, p. 63). There is good reason to believe that natural systems offers explanatory power in the cases of interest here. Take, for example, the selection of goals for grants. While rational systems thinking would lead us to see the selection of goals as driven primarily by the organizational objectives of the foundation, that may not be true in the case of education philanthropy. Specifically, the process of goal selection for each grant happens in conjunction with grantees, where a negotiation between the ideas, expectations, and agendas of the respective organizations is likely to occur. These deliberations, which are inseparable from and crucial to the work of both the foundation and the grantees, leads to opportunities to reify and redefine what it means to have and exercise power between the parties. Whatever the outcome of the deliberations, the interaction alone would have an impact on practices and processes guiding the work of the foundation and the grantee, which constitute the informal and formal structures of the organizations. Thus, rational systems theory would have us overlook the ways in which the grantmaking process leads to renegotiating of power, authority, and structures within and between foundations and grantees; natural systems theory, on the other hand, would bring it into focus.

Another limitation of rational systems theory in this case is its failure to account for the impact of external forces that might have a mitigating impact on both foundations and other actors. This includes the larger political, social, and economic forces shaping the goals and actions of both the principal organization (the foundation) and the agent individual (the grantee). To this end, it could be argued that the inclusion of Weber into the model would add explanatory

power. In particular, Weber's emphasis on bureaucratic systems as different from traditional administrative forms could be very useful. For example, in the case of grantmaking in education philanthropy, Weber's notion that jurisdictional areas are clearly specified, with regular activities distributed in fixed ways, would extend the concept of formalization of roles, drawing attention to the way that foundations, as funders, do nothing to implement the work they fund, which is the sole responsibility of those in which they invest (W. R. Scott & Davis, 2007). This begets a clear hierarchy, with the "lower office" – the grantee – controlled and supervised by the "higher office" – the foundation (W. R. Scott & Davis, 2007, p. 49). While it is the opinion of this author that Simon's administrative theory offers vastly more explanatory power in this instance through both the means-ends chain and bounded rationality concepts, it could nonetheless be argued that the application of rational systems theory might be strengthened by the inclusion of Weber's understanding of bureaucratic systems as distinct from traditional administrative forms.

Conclusion and Areas for Further Research

Of the relatively little recent research on private philanthropies' impact on education policy, only a fraction of that research has been directed at how foundations undertake the core function of grantmaking. Even less time has been spent developing a theoretical framework to explain popular grantmaking practices. The rational systems framework provides a useful lens through which to assess the grantmaking practices of strategic and traditional philanthropy. The analysis undertaken in this research points to an increasingly regimented grantmaking practice that centers on both organizing grantmaking to achieve the specific organization goals of the foundation and on organizing the work of individual grantees in the service of high-level and sub-level goals. Through directing prospective grantees to specify goals for each grant and the formalization of the role of each grantee in the pursuit of the foundation's larger purposes, foundations have attempted to impose order and logic to otherwise loosely coupled parts. This is best exemplified by the establishment of a means-ends chain through the grant application, which seeks to make clear the set of goals to be pursued and the actions that should be carried out in the service of their achievement. Critically, this means-ends chain, which is reinforced through the grant application and contract, may produce the effect of bounding the rationality of grantees by imposing numerous constraints on the decision-making of grantees, directing their thinking to preference activities and outcomes that align with the preferences of those funding them. While this strategy has certainly led to a consolidation of power for foundations, its viability in the long term remains to be seen, particularly as the goals of education and means of attainment remain heavily contested in the public sphere.

This raises a number of questions for further consideration and research. The focus of this paper has been on providing a theoretical explanation for grantmaking as an institutional practice. This leaves many questions as to why foundations have adopted this model. One possible explanation worth exploring is the extent to which the history of philanthropy and education reform has informed the current structures. Since the rise of strategic grantmaking in the late 1990s and early 2000s, both the philanthropic sector and education community writ large have experienced a rise in managerial values and movement towards rationalization in decision-making. The determination on the part of foundations to attempt to tightly couple the work of institutions operating in education, particularly schools or non-profits providing support services to schools, would seem to be aimed at remedying the long standing challenge of effectively coordinating and controlling the system to ensure that interventions intended to rollout on the classroom level are actually implemented, implemented with fidelity, and attain their targeted

change (Meyer, Scott, & Deal, 1983). Whether the preference for outcomes-oriented grantmaking like that examined here derives from the business experience of the founders of new philanthropies (J. Scott, 2009), the perceived failure of prior reform movements to achieve their goals (Hess, 1998), or other factors requires further examination.

Moreover, the evidence presented here of the adoption of this outcomes-oriented model by traditional foundations, considered once to be more interested in field-oriented grantmaking, also deserves further examination. The findings and analysis in this research show that there is a high degree of convergence between traditional and strategic philanthropies in terms of operational processes that reflect a rational systems approach to organizational structure and practice. To determine the extent to which this transcends approaches to grantmaking as they are represented on paper and extends into other areas, including what education reform strategies to pursue and who to fund, and to what factors we might attribute both convergence and divergence, more research should be undertaken.

Considering foundations as political actors, a third area for future examination might be to explore the ways in which high engagement and outcomes-oriented grantmaking stems from principal-agent challenges in philanthropy and, broadly, education. It could be argued that the desire to tightly couple activities in education with outcomes, despite the challenges of doing so, may in some part arise in response to classic principal-agent problems. Foundations, the principals, entrust grantees, the agents, with considerable funds on the promise that grantees will use foundation dollars to carry out activities in the pursuit of outcomes that align with and further the specific goals of the granting foundation. The use of grant proposals and the creation of detailed grant agreements with terms and conditions dictating how and when grant funds should be spent, what outcomes should be pursued and reported on throughout the life of the grant, and penalties for failing to adhere to the contract all suggest the use of rational choice logic to create contracts that make apparent the principal-agent relationship and control it (Peters, 2011). The use of contractual agreements as a vehicle to pursue foundation goals would also suggest that foundations seek to use the tools of their institution to mitigate the downsides of principal-agent relationships. In this case, the structure of grantmaking serves to ensure that the agent (the grantee organizations) fulfills the principal's (the foundation) wishes. This would seem to function both as a compliance mechanism and also an incentive strategy – grantees are bound through the contract to report regularly to the foundation on their progress and also know that their failure to fulfill the terms of the agreement could result in their no longer receiving funding from that foundation for future work (Peters, 2011). In light of these practices, considering how principal-agent concerns inform current grantmaking practices may be an area worth further exploration.

A final, and perhaps most pressing, avenue for further research involves the exploration of how the grantmaking practices discussed here impact the distribution of power in education politics and policy, particularly when it comes to what policy problems are considered important, what solutions are deemed viable, and who is charged with their implementation. On the one hand, as Reckhow observes, "philanthropic foundations are no obvious contenders for influence in a democracy; they lack two vital resources: a constituency to represent and formal political power" (2013, p. 25). Considering that, there is the potential to overstate the effect of philanthropies on the work of grantees. After all, grantees across the spectrum are, as a matter of location in the education ecosystem, closer to students, parents, teachers, and school and district administrators than even the smallest of national foundations, and its those individuals who are closest to the problems and critical leaders and stakeholders in the future of public education.

However, the lack of proximity of foundations to the work on the ground, does not mean we should not be concerned about the power they have to influence it. The swing of the reform pendulum back to top-down, centralized control has real impact on the balance of power in the sector, including the power dynamics between grantee organizations and foundations, grantees and those they are supposed to serve, and foundations and the general public. Foundations have no electoral accountability; program officers and foundation directors do not stand for election and the public is rarely, if ever, invited to participate in the decision-making of foundations, including on matters of what goals are most important, where funds should be directed, what actions should be pursued, and what metrics are given real weight (Reich, 2016). Understanding how grantmaking practices impact power amongst different actors is critical to understanding how the operations of foundations influence public policy.

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