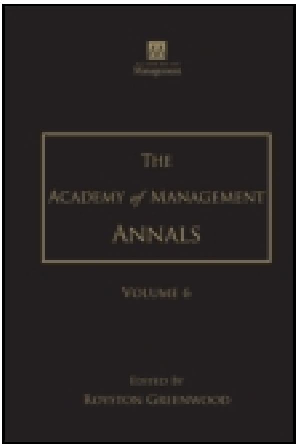

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More than a Metaphor: Assessing the Historical Legacy of Resource Dependence and its Contemporary Promise as a Theory of Environmental Complexity

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More than a Metaphor:
Assessing the Historical Legacy of Resource Dependence and its Contemporary Promise as a Theory of Environmental Complexity

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Abstract

At its inception, resource dependence (RD) held the promise to become a robustly developed theoretical perspective. However, behind an ever-growing citation count, scholars—including one of its key architects—have asserted that RD no longer inspires much substantive research and now serves as little more than an

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appealing metaphor about organizations [Pfeffer, J. (2003). Introduction to the classic edition. In J. Pfeffer & G.R. Salancik, *The external control of organizations: A resource dependence perspective* (classic edition). New York: Harper & Row]. A systematic analysis of RD's uses in the management literature lends some credence to this assessment. However, our analysis also shows a perspective that has been broadly influential and well-supported in applications that cross multiple empirical domains. Moreover, this impact has been achieved despite the widespread neglect of what is arguably RD's most distinctive insight; namely that an organization's external environment is composed of other organizations with diverse agendas and interests. The complexity that arises from these competing demands represents an important challenge for contemporary organizations. As scholars begin to crystalize a research agenda around this theme using an institutional logics perspective, we suggest that RD's unique insights on the topic are the keys to unlocking its contemporary relevance.

Introduction

The latter half of the 1970s was an exceptionally fertile period for organization theory, witnessing the emergence of three highly influential macro-sociological approaches for the study of organizations: neo-institutional theory (NIT) (Meyer & Rowan, 1977), organizational ecology (OE) (Hannan & Freeman, 1977), and resource dependence (RD) (Aldrich & Pfeffer, 1976; Pfeffer & Salancik, 1978). Building on open-systems perspectives (Katz & Kahn, 1966; Thompson, 1967), each took a different slant on organization-environment relationships, energizing new research streams focused on testing and elaborating their unique predictions. Handicapping the race at its starting point, Aldrich and Pfeffer (1976, p. 103) predicted that RD would rise above the fray in terms of scholarly development and impact. Looking back, this is understandable. Among these perspectives, RD was arguably the most comprehensive in terms of development and scope. In particular, *The External Control of Organizations: A RD Perspective* (hereafter *External Control*)—Pfeffer and Salancik's defining statement about RD—argued that: (1) an organization's external environment comprises other organizations, each with their own interests and objectives; (2) organizations hold power over a focal firm—and may thus constrain its behavior—if they control resources that are vital to its ongoing operation. Moreover, *External Control* presented an inventory of practical strategies firms could deploy to diffuse, absorb, and co-opt external constraints, giving the perspective unique managerial relevance.

Early on, Aldrich and Pfeffer's prediction appeared to be coming true. Despite being published a year later than the foundational statements in NIT (Meyer & Rowan, 1977) and OE (Hannan & Freeman, 1977), by 1982 *External Control* had been cited more than both of these works *combined*. Yet, by end of the 1980s RD's influence had begun to wane, giving way to

NIT as the dominant theoretical perspective in macro-organizational research, with OE a clear second. By the turn of the millennium, Jeff Pfeffer lamented that RD had become little more than a "metaphorical statement about organizations" (Pfeffer, 2003, p. xvi). Such an assessment of the moribund state of RD from its chief architect raises two important questions: (1) how has RD actually been used by management scholars? And (2) what place, if any, should RD occupy within contemporary organization theory?

To answer these questions, we conducted a systematic analysis of every study that cited *External Control* in 29 highly regarded management, psychology, and sociology journals between 1978 and 2011. Given the breadth of empirical domains covered by RD, our analysis focused on identifying how, and to what extent, each article used the perspective. Our results indicate that there is merit in Pfeffer's assertion that RD serves primarily as a metaphorical statement about organizations. Though *External Control* continues to be cited at an enviable rate, the vast majority of citations are ceremonial—variously used as a nod toward the environment, resources, or power. Results also show that beneath an ever growing citation count is a fragmented landscape of scholars whose primary interest is in the specific strategies discussed in *External Control*—mergers and acquisitions (M&A), joint ventures and strategic alliances, interlocking directorates and executive succession—rather than the underlying perspective.

To say that RD has been reduced to a metaphorical statement about organizations, however, belies its considerable impact. Indeed, while RD lacks a coterie of followers and has failed to catalyze a dedicated research program in the vein of NIT or OE, it has had a uniquely broad influence within management scholarship. Scholars have drawn on RD to derive key hypotheses in the study of M&A's, joint ventures and strategic alliances, interlocking directorates, and executive succession, with the hypotheses largely supported (Hillman, Withers, & Collins, 2009). RD has also been used in fields such as education, health care, and public policy (Davis & Cobb, 2010), displaying unusual scholarly breadth in its applicability across various types of organizations. In addition, RD has been very influential in terms of facilitating development in other paradigms such as the evolutionary perspective (Aldrich & Ruef, 2006), NIT (Mizruchi & Fein, 1999; Oliver, 1991), networks (Burt, 1983; Gargiulo, 1993; Gulati & Gargiulo, 1999), and stakeholder theory (Frooman, 1999; Mitchell, Agle, & Wood, 1997). Based on its broad and sustained influence, RD rightly stands as a foundational statement in organizational theory. But beyond its past failures and successes, we contend that RD can and should once again move to the foreground of organizational scholarship.

Notably, RD's influence has been achieved *despite* a general disregard of its nuanced theory concerning the external environment of organizations (but see Aharoni, Maimon, & Segev, 1981). Indeed, a central theme throughout the first four chapters of *External Control* is that organizations face complex environments because they rely on resources from other organizations that have diverse perspectives and interests (Pfeffer & Salancik, 1978, pp. 27, 33, 43, 69, 83, 96). Although Pfeffer and Salancik did not sustain their focus on environmental complexity throughout *External Control*—reverting instead to a discussion of strategies for managing dyadic external constraints—it is nonetheless an important theme and one that is highly relevant to the study of contemporary organizations. Indeed, boundary-spanning hybrid organizations are becoming increasingly prevalent (Tracey, Phillips, & Jarvis, 2011), globalization continues to be associated with the growth of multinational corporations (Crilly, 2011), and innovation increasingly takes place within networks rather than individual firms (Kapoor & Lee, 2013; Powell, White, Koput, & Owen-Smith, 2005). Each of these examples entails a level of complexity beyond what Pfeffer and Salancik (1978) theorized in the 1970s. As organization theorists begin to crystalize a research agenda around this theme using an institutional logics perspective (Battilana & Dorado, 2010; Greenwood, Diaz, Li, & Lorente, 2010; Greenwood, Raynard, Kodeih, Micelotta, & Lounsbury, 2011; Kraatz & Block, 2008), we suggest that it is an opportune time for scholars to re-engage with RD's forgotten insights about the external environment.

Taking Oliver's (1991) influential melding of RD and NIT as inspiration, we argue that RD provides a set of analytic tools that allow for a more nuanced and systematic understanding of an organization's external environment, and the complexity therein, than can be achieved using NIT alone. Indeed, *External Control* details an approach for mapping an organization's environment that focuses directly on revealing how specific issues and decisions give rise to conflicting external demands. By conceptualizing competing pulls on an organization as episodic, RD avoids the problematic tendency exhibited by institutional theorists of equating conflicting demands with broad meaning systems—such as institutional logics—without specifying how, why, or the extent to which they generate complexity at the organizational level. Moreover, by starting with issues and then modeling different groups and their interests, bases of power, and linkages with each other, RD helps to draw out the specific locus of complexity being faced by organizations, rather than lumping together firm-specific (Kraatz & Block, 2008), industry-wide (Greenwood et al., 2010), and hierarchical (Crilly, 2011) complexity (Greenwood et al., 2011; Thornton, Ocasio, & Lounsbury, 2012, p. 173).

RD and its Uses

The Genesis and Emergence of the RD Perspective

Thirty-five years after its original publication, *External Control* is still acknowledged as the defining statement on RD. In it, Pfeffer and Salancik integrated insights from open-systems perspectives (Katz & Kahn, 1966; Thompson, 1967), exchange-based theories of power (Blau, 1964; Emerson, 1962), and their earlier empirical work (e.g. Pfeffer, 1972a, 1972b; Pfeffer & Salancik, 1974), to develop an encompassing perspective on how organizations are constrained by environmental forces and how they respond to these constraints. More specifically, the RD perspective, as advanced in *External Control*, was an attempt to synthesize two somewhat divergent views concerning the context of organizational change: a diffuse and rather generic view of "environments", and a more political- and power-oriented emphasis on inter-organizational relations and dependence.

In the mid-1960s, Emery and Trist (1965) captured the imagination of macro-oriented researchers with its typology of four types of environments that constituted a "causal texture" of organizational change. Subsequently, Lawrence and Lorsch's (1967) book, *Organization and Environment*, crystallized the growing concern among organizational researchers with understanding the role that environments played in influencing the structure of organizations. Although it is now long forgotten, Terreberry (1968) suggested that other formal organizations were now the critical components in the environment of any focal organization and that environments, as well as organizations, could evolve. Scholars were clearly struggling with how to conceptualize environments, and no particular taxonomy garnered widespread acceptance.

Simultaneously, authors with a more sociological approach were developing the ideas of Emerson and Blau on power and dependence into frameworks for understanding organizational effectiveness. Although Thompson's (1967) book, *Organizations in Action*, is better known in this regard, Yuchtman and Seashore (1967) offered the first comprehensive model of environments as resource controllers and organizations as competing for scarce resources in which a poor bargaining position could make an organization dependent on others. They defined organizational effectiveness as the ability of organizations to exploit their environments and obtain resources, while at the same time maintaining an autonomous bargaining position. Their implicit assumption was that the major goals of organizational leaders are to avoid dependence on others and make others dependent upon their own organizations (Benson, 1975), leaving these decision-makers with the complicated task of managing their environments as well as their organizations. Taking a micro-political orientation, Zald (1970a, 1970b) provided a systematic framework for examining the internal and external sources of power that both constrain and confer legitimacy to organizations. He emphasized that organizations are both economic and political systems and that power and authority are dispersed throughout the web of interactions comprising an organization's environment (see also Zald & Berger, 1978).

From the debates and disagreements generated by participants in these two streams of thought, Pfeffer and Salancik (1978) drew upon two separate themes that resulted in a pair of unresolved issues being embedded in their framework:

(1) the role of managerial perception and (2) the possibilities of strategic choice. With regard to perception, from Lawrence and Lorsch (1967) onward, researchers argued over how to measure "environments" and in particular, how to deal with the subjectivity of what constituted an organization's "environment" (Mindlin & Aldrich, 1975). With regard to strategic choice, Child's (1972) ringing defense of the possibilities for managerial strategic choice set the stage for a subsequent confrontation with population ecology, as well as stirring hope among ensuing management theorists that RD's focus on strategy was a way to integrate "agency" into organization theory. By tackling the issues of "perception" and "strategy", *External Control* can be regarded as an attempt to both synthesize and reconcile these divergent theoretical streams inherited from the 1960s. Thus, while RD is routinely referred to as a theory in its own right (Hillman et al., 2009; Scott & Davis, 2007), it is more accurately interpreted as an overarching perspective which integrates a theory of the environment and a theory of power to make predictions about a variety of organizational responses.

Reviewing the RD Perspective

The first two chapters of *External Control* laid the groundwork for the RD perspective by detailing its theory of the environment. Unlike earlier work that theorized the environment in terms of general properties such as richness, placidity, turbulence, and the like (Burns & Stalker, 1961; Child, 1972; Emery & Trist, 1965), RD provided a more concrete theorization, arguing that the external environment comprises the organizations that a focal firm depends on for resources and support (Pfeffer & Salancik, 1978; see also Terreberry, 1968). While the general idea that organizations depend on their environments is not unique to RD—and, indeed is a hallmark of open-systems thinking—the approach employed in *External Control* was not only an advance over previous work, but was also more precise and empirically tractable than the theoretically novel—but difficult to measure—"resource niches" (Hannan & Freeman, 1977) and "rationalized myths" (Meyer & Rowan, 1977) being theorized in OE and NIT at the time.

In this regard, it is worth recalling that one of RD's unique contributions was to clarify the concept of environmental complexity which scholars had theorized as a major challenge for organizations, but were struggling to grapple with empirically (Emery & Trist, 1965; Lawrence & Lorsch, 1967). To this end, RD provided a means to understand complexity by asserting that the organizations in a firm's environment generally have varied interests and objectives (Pfeffer & Salancik, 1978, pp. 18, 27–28, 33, 37, 43). Indeed, Pfeffer and Salancik cited the organizational challenges associated with understanding and managing conflicting external demands as a prime motive for developing the RD perspective. Put plainly at the close of Chapter 2, the authors noted that:

> The task of organization management, as developed from this [RD] view of organizations, is the management of the coalition to ensure continued support and survival of the organization. This task, which is problematic because of the reality of conflicting and competing demands, is necessary because of the organization's interdependence with other participants and organizations outside of its boundary. (p. 37)

Chapter 3 details RD's theory of power. As with Mindlin and Aldrich (1975) and Thompson (1967, p. 31), Pfeffer and Salancik drew upon on Emerson's (1962) exchange-based theory of power (see also Blau, 1964; Hickson, Hinings, Lee, Schneck, & Pennings, 1971) and raised the level of analysis to that of the firm. Emerson's parsimonious account can be summarized simply as: the power of A over B comes from control of resources that B values and that are not available elsewhere. Power and dependence are simply the obverse of each other: B is dependent on A to the degree that A has power over B. Furthermore, power is not zero-sum, as A and B can each have power over the other, making them interdependent. Thus, despite its theoretical legacy as a theory of power (Davis & Cobb, 2010; Pfeffer, 2003, p. xxiii), RD did not break new ground in this regard. However, *External Control* did help to specify the types of resources that were most relevant to inter-organizational influence, suggesting that these included monetary or physical resources, information, and social legitimacy. To be clear though, Pfeffer and Salancik were careful to note that legitimacy is important primarily when the conferring party also controls valued information or material resources (1978, p. 26).

A more noteworthy contribution of *External Control* in this regard, however, was to theorize power beyond dyadic inter-organizational relationships. Using their theory of the environment to map external demands and exchange-based theory to understand their potency, Pfeffer and Salancik provided novel insight into the complexity that emanates from a firm's manifold relationships. Indeed, in laying out the central problematic for the RD perspective, they argued that:

> Organizations could not survive if they were not responsive to the demands from their environments. But, we have noted that demands often conflict and that response to the demands of one group constrains the organization in its future actions . . . This suggests that organizations cannot survive by responding completely to every environmental demand . . . By understanding the conditions of social control of organizations, we believe that it is possible to understand how organizations decide to comply with, or attempt to avoid, influence. (pp. 43–44)

Accordingly, organizational survival from an RD perspective depends to a considerable degree on an accurate assessment of the environment, the demands therein, and the degree to which various parties are capable of imposing their influence on the firm. Reflecting this, Chapter 4 in *External Control* focuses on two themes: (1) cognitive factors that can lead to an organization misunderstanding its environment and (2) how organizations should go about mapping their environment as a precursor for responding to it effectively. In making these arguments, Pfeffer and Salancik drew heavily on Weick's (1969) theory of enactment, arguing that managers selectively interpret the environment in ways that are consistent with their past experiences and training and this may lead to systemic bias in their assessment (1978, pp. 72–75). This is not to say, however, that interpretive processes are isolated from external demands within RD. Rather, mirroring cognate studies on intraorganizational power (Hickson et al., 1971; Hinings, Hickson, Pennings, & Schneck, 1974), Pfeffer and Salancik were quite explicit that once demands are noticed, power accrues to those within organizations who are best equipped to deal with them (1978, p. 71). Still, to the extent that firms may misread their environment, *External Control* lays out a systematic approach for assessing the interests of the parties comprising a firm's environment and the potency of each (pp. 84–89).

The remainder of *External Control* offered a catalog of strategies that firms can use to absorb, diffuse, and co-opt external constraints. However, in discussing these strategies, Pfeffer and Salancik moved away from their earlier focus on environmental complexity. Thus, rather that engaging with the more complicated, but managerially relevant, process of balancing competing demands, the authors chronicled an inventory of tactics for managing dyadic relationships. As such, the empirical strategies that Pfeffer and Salancik discussed in *External Control* fall short of illustrating the more exciting and uniquely RD aspects of their theoretical setup. Nonetheless, the dependence-management studies chronicled in *External Control* were state-of-the-art for their era, drawing on large-scale secondary data sources at a time when the typical analytic approach was to conduct small surveys of individual organizations.

The first set of strategies that Pfeffer and Salancik (1978) discussed were symbolic approaches for managing conflicting demands: restricting information flows, hiding controversial actions, blaming them on others, or actively working to shape the perceptions of external audiences (Chapter 5). Chapter 6 focused on how an organization can absorb external constraints by altering its boundaries. To gain additional control over their environments and enhance their likelihood of survival, organizations can grow organically, whereas a more constraining option is to grow through acquisition. Mergers allow firms to restructure dependencies in order to stabilize critical exchanges. Horizontal mergers reduce uncertainty deriving from competition, whereas vertical integration can eliminate dependencies that the focal firm has with its exchange partners. Diversification buffers against the uncertainty that arises from dependence on other, dominant organizations (e.g. a single, powerful exchange partner) that cannot otherwise be absorbed by an organization.

The third set of strategies, outlined in Chapter 7, called on firms to establish bridging ties to other organizations as a means of coordination, to obtain information, to establish legitimacy, and/or as a means of co-optation. The least entangling of these is to join associations or business groups. Such collectives provide firms with access to information, assist with the establishment and enforcement of product standardization and quality enforcement, and can enable other collusive activities to occur. A slightly more constraining option is to enter into a joint venture or other strategic alliance. Whereas economic explanations for these forms of inter-organizational cooperation focus on their ability to spread risks and increase the access to capital necessary to undertake expensive projects, *External Control* suggested these inter-organizational ties also help to reduce uncertainty and promote stability through the exchange of information. Another form of inter-organizational linkage is interlocking directorates. Drawing on Selznick's (1949) account of co-optation, Pfeffer and Salancik suggested that an organization can manage uncertainty by inviting onto its board of directors a representative of a firm that is a source of constraint. They predicted that having a representative serving on the board gives the source of constraint a vested interest in the dependent organization's survival.

A final strategy for managing dependence relationships involves actively recreating the environmental landscape via political action (Chapter 8). Pfeffer and Salancik's idea was straightforward: if firms are unable to reduce uncertainty and dependence, they will seek to create a new, more favorable environment by establishing, altering, or dismantling government regulations. Though often overlooked by contemporary management scholars, this chapter is especially prescient in anticipating the heightened role that corporations have played in politics in recent decades (Barley, 2010).

In addition to the strategies firms can employ to buffer from, and bridge themselves to other organizations in positions of power, *External Control* also highlighted the role of intra-firm conflict (Chapter 9). Borrowing from earlier conceptualizations of intra-organizational politics, *External Control* defined organizations as internally diverse and, as such, encompassing groups of actors with varying and competing interests (Cyert & March, 1963; March, 1962). *External Control* predicted that the internal groups best able to manage an organization's most pressing external dependencies will obtain the most power within the organization (see also Hickson et al., 1971; Hinings et al., 1974). Reflecting this, the distribution of power and control within organizations was theorized to affect executive succession and tenure. Though Pfeffer and Salancik acknowledged that leaders in organizations serve a mostly symbolic role, they also noted that poor firm performance is often attributed to a misalignment between the environment and the internal structures of the organization. Replacing a CEO with someone "capable of coping with the critical problems facing the organization" (1978, p. 236) was seen as a strategic response to coping with environmental uncertainty.

Assessing the Legacy of RD within Organizational Scholarship

Given the scope of the arguments presented in *External Control*, it is not surprising that RD has been used in a wide variety of ways (Davis, 2010; Hillman et al., 2009). Taking account of these diverse applications, we undertook a nuanced bibliographic review as a means to derive an accurate assessment of RD's theoretical legacy within organizational scholarship. Through our analysis we provide a broad overview of how the perspective has and has not been used by management scholars. Taking this as our point of departure, we highlight some overlooked insights in *External Control* that, if engaged, hold promise for restoring RD's prominence within organization theory.

Scholarly work is influential to the extent that it affects subsequent research (Small, 1978). As such, citations provide one means by which to assess a publication's importance. Citation counts provide some information on the reach and impact of a work on a field of study, but there are limits to what can be learned from counts alone. Specifically, counts offer no information on *how* a work is used by others (Cozzens, 1985) and, once works reach a certain status in the field, citations often accrue through an author's propensity to acknowledge classic work in a ceremonial manner (see Stinchcombe, 1982 for a discussion on the variety ways classic texts are invoked by scholars). Indeed, a straightforward count of citations to *External Control* in the management literature (4268 as of September 2011) might suggest that RD is a robustly developed theoretical perspective.

To better assess how RD has been utilized by organizational scholars, we went beyond simple citation counts. We used citation-context analyses (Hargens, 2000) to categorize articles along two dimensions: (1) the idea(s) from *External Control* being used and (2) how deeply a paper engaged with RD. In doing so, we are better able to determine the extent to which authors have substantively engaged RD and selected specific aspects of the perspective for analysis. We identified papers that had used RD by searching in the Web of Knowledge ISI Citation Index for publications that cited *External Control*. As of September 2011 this included 4268 published works across all academic disciplines. Previous research has used this overall citation count to show how RD is invoked across disciplines (Davis & Cobb, 2010), whereas we limited our review to highly regarded journals in management, psychology, and sociology. In total, we analyzed 29 journals which accounted for 1772 articles. See Appendix 1 for details on the journals used in the study.

We downloaded full-text digital copies of the 1772 articles that cited *External Control*. Using NVIVO 9, we conducted textual analyses to assess the extent to which each used RD. Our purpose was to assess which papers engaged with RD substantively versus those which used it in a ceremonial way. In total, 1442 papers cited *External Control* but showed no attempt to engage the perspective, 22 made a theoretical contribution to RD, 48 made an empirical contribution, and 88 tested its arguments.

In addition, each article was categorized based on which ideas from *External Control* were used. This included topics directly covered in *External Control: avoidance; altering the boundaries of the firm* (M&A, diversification, growth); *inter-organizational ties* (alliances and ventures, coalitions and cartels, and other inter-firm linkages); *political action*; *boards of directors* (interlocks and board make-up); and other *intra-organizational dynamics* (executive succession; managerial autonomy; and intra-organizational coalitions). A category for *power* was also included because RD is used often as a rote citation signaling that an author studied "power". There were also a number of instances where *External Control* was cited along with other classic works from organizational theory (Hannan & Freeman, 1977; Meyer & Rowan, 1977) as a way to signal that RD was one of the central perspectives in the field. We included a category for *organizational theory* to capture these uses. Categories for *legitimacy*, *the enacted environment*, *regulation*, and *organizational survival* were also added. See Appendix 2 for details on our coding methodology.

Mapping the Terrain

Since Pfeffer and Salancik wrote *External Control*, RD has emerged as one of the most highly cited perspectives in organizational theory. While scholars today recognize that RD no longer inspires much empirical or theoretical work, at least in comparison with other major macro-organizational theories, citation patterns do not reflect any waning interest in the perspective. Figure 1 displays the cumulative and three-year moving average of the articles citing *External Control* since 1979. The graph indicates a steep increase in the number of publications per year until the latter half of the 1980s. Since that time, the perspective has received a fairly consistent 50–70 citations per year in the journals that we have examined, with some indication of an uptick in interest over the past five years.[1]

Ceremonial Acknowledgment of RD

The overall citation count for *External Control* suggests a sharp increase in the first decade after publication and a subsequent plateauing of citations. However, Figure 2 indicates that this pattern is driven mostly by ceremonial citations. As such, there appears to be support for Pfeffer's (2003) lament

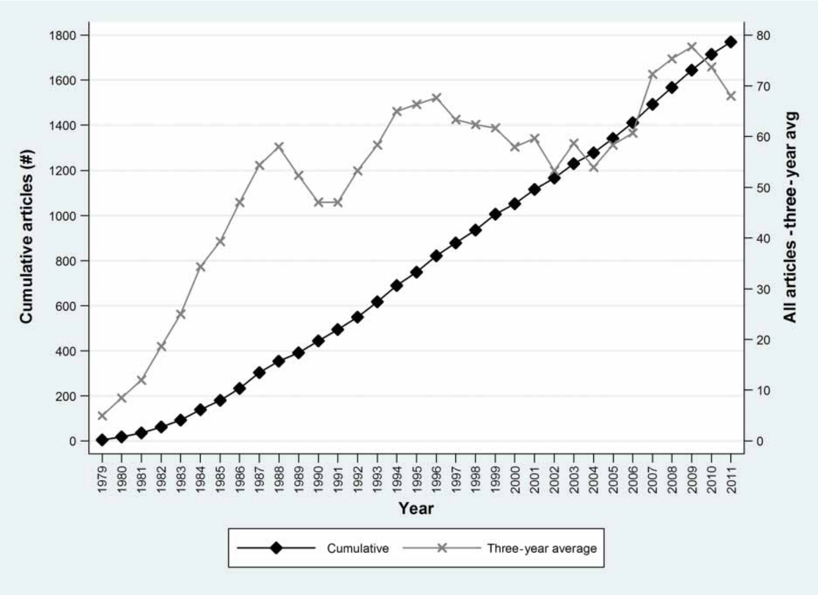

Figure 1 Cumulative and Three-Year Moving Average of Articles Citing *External Control*.

that RD has been reduced, in practical uses, to a metaphor about organizations. Figure 3 provides a breakdown of the ways in which *External Control* has been used ceremonially by scholars, as reflected in the topic(s) referenced when citing *External Control*. The majority of papers do little more than offer passing recognition that RD has something to say about resources, power, or the environment. These uses confirm RD's enduring legacy—it is the default choice of many scholars when they want to make broadly accepted claims that "power" or "resources" matter—themes that are ancillary or absent within other macro-organizational theories, but that are important to organizations. Such ceremonial uses indicate that scholars are filling a theoretical gap in their own subfields by making reference to themes that are central to RD. Still, citations of this sort, akin to the "small coinage function" described by Stinchcombe (1982), are necessarily simplified extractions. They do not attempt to grapple with the complexity of the cited text, but instead draw upon its broadly acknowledged and easily recognized takeaways. This pattern indicates that scholars wishing to make these claims, which are not unique to *External Control* (Emerson, 1962; Thompson, 1967), are simply taking advantage of it as iconic referent without making any real attempt to engage with or apply Pfeffer and Salancik's substantive and nuanced arguments.

The specific strategies outlined in *External Control* for how firms can manage external dependencies comprise the remaining ceremonial citations.

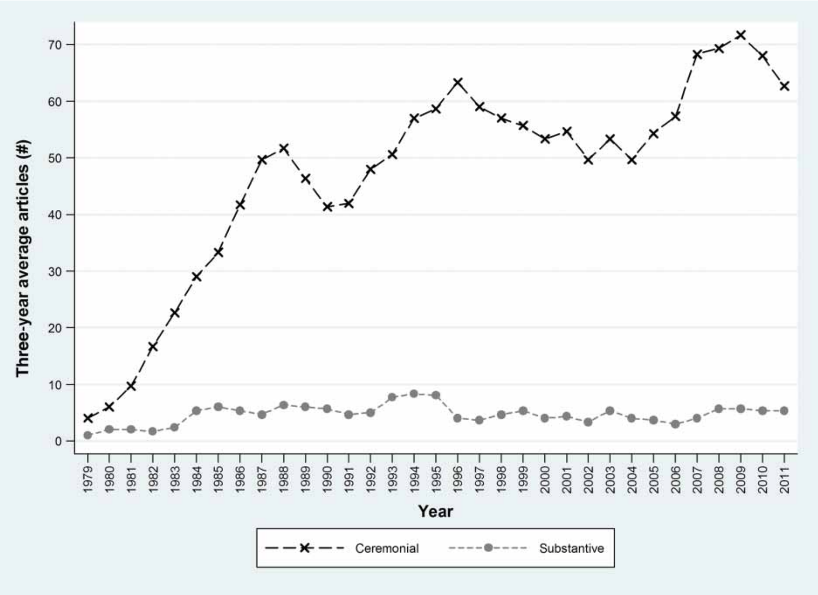

Figure 2 Three-Year Average of Ceremonial and Substantive Articles Citing *External Control*.

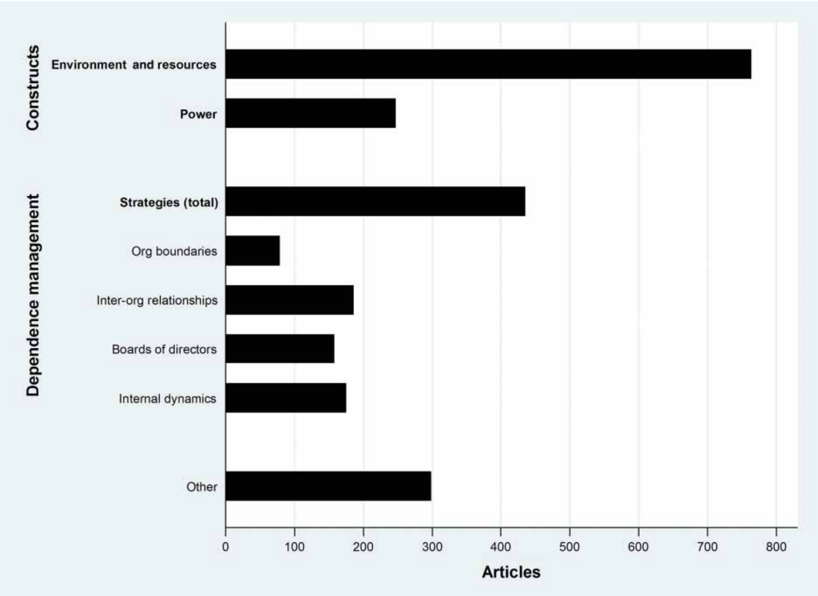

Figure 3 Ceremonial Articles Citing *External Control* by Topic Area.

Indeed, the specific strategies covered in *External Control* are themselves popular areas of inquiry. For example, there are distinct and fairly robust research streams associated with corporate boards, executive succession, alliances and joint ventures, as well as M&A. Because RD is unique among macro-organizational theories in that its foundational statement has a strong empirical focus that crosses a number of research domains, *External Control* likely generates more citations than it might have otherwise. Typically, however, these articles invoke RD as part of a broader discussion of the empirical context being studied—signaling awareness that RD has something to say about the phenomenon in question—rather than to motivate their research question or justify specific hypotheses. Although this helps *External Control*'s citation count, it again shows authors engaging with RD as a disconnected set of concepts and principles applied to specific empirical contexts, rather than engaging with its unique theoretical claims.

One explanation for the preponderance of ceremonial citations is that, despite being an appealing metaphor, there is fundamental flaw in RD's logic that impedes more substantive engagement (Casciaro & Piskorski, 2005; Williamson, 1981) or that RD lacks contemporary relevance. Indeed, the world of organizations described in *External Control* has changed considerably and, with it, the strategies that firms use to manage their external dependencies (Davis & Cobb, 2010; Davis & McAdam, 2000). However, such criticisms are not unique to RD. For instance, critics of OE have questioned the mechanisms behind organizational selection (Perrow, 1986) as well as the relationship between population density and legitimacy (Zucker, 1989). Nonetheless, Hannan and Freeman's (1977) initial statement continues to receive many, and mostly favorable, citations. Similarly, DiMaggio and Powell's (1983) classic paper provides a list of propositions that are difficult to decipher and impossible to test due to a lack of specificity in constructs such as "field" and "structuration" (Davis, 2010). But such criticisms show little sign of weakening NIT's hegemony among macro-organization theorists. As such, it seems unlikely that RD's failure to generate more substantive engagement rests on inferior ideas or logic. To verify this, we undertook a systematic analysis of RD's more substantive uses by organizational scholars.

Substantive Engagement with RD

In analyzing substantive uses of RD, we divided articles into three sub-categories—tests, empirical contributions, and theoretical contributions—in order to assess the perspective's evidentiary support and theoretical development. As Figure 4 indicates, the 15 years following the publication of *External Control* were the most fertile for substantive engagement with RD, driven mostly by authors testing the arguments that it put forward. After the peak years of the early 1990s, substantive citations dropped and have since leveled

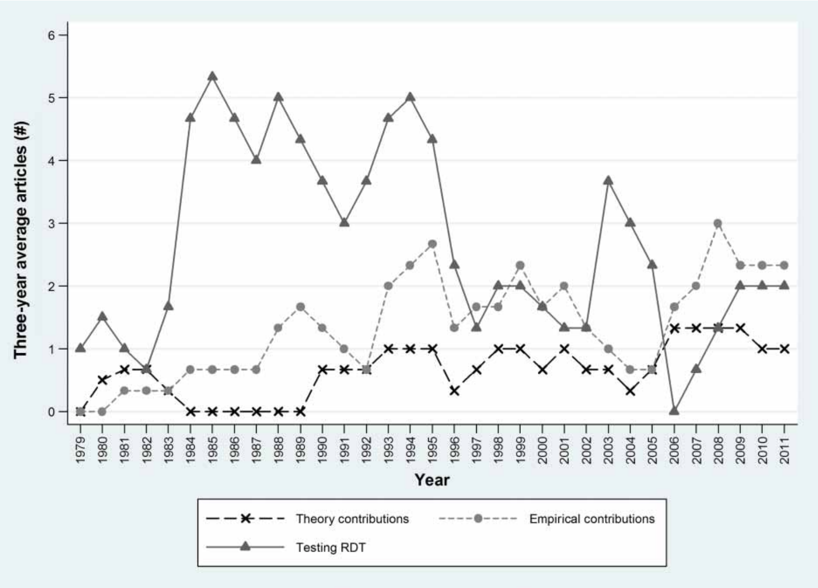

Figure 4 Three-Year Average of Substantive Articles Citing *External Control* by Type.

off at a handful of studies per year. Figure 5 provides a breakdown of articles, by topic area, that test aspects of and/or make a contribution to RD. Per the figure, the vast majority of substantive engagement with RD has been in testing and adding to the repertoire of tactics that Pfeffer and Salancik advanced for dealing with dependencies. Indeed, the imprint of these empirical strategies on the subsequent development of RD has been so strong that recent reviews of the perspective and its prospects have focused almost exclusively on these areas (Davis & Cobb, 2010; Hillman et al., 2009). For many scholars, these prescriptions *are* RD in its entirety.

Tests of RD. Interestingly, although neither Pfeffer nor Salancik paid much attention to RD over the years, they were responsible for some of its initial tests. This is most clearly evident in *External Control* itself, where the authors summarized a variety of their own studies to illustrate key arguments (Pfeffer, 1972a; Salancik, 1979), but it is also apparent in their follow-on work. Indeed, both authors tested the effect of external dependencies on executive turnover (Pfeffer & Moore, 1980; Salancik & Pfeffer, 1980).

Despite the fact that this early attention waned as both Pfeffer and Salancik moved on to different projects, interest in RD was sustained through the efforts of a variety of other scholars who tested its predictions about boards of directors, M&As, alliances, diversification, and the like. Many of these studies were not attempts to build a program of research around RD, but rather to compare and contrast its predictive power vis-à-vis other organization theories (Burgers,

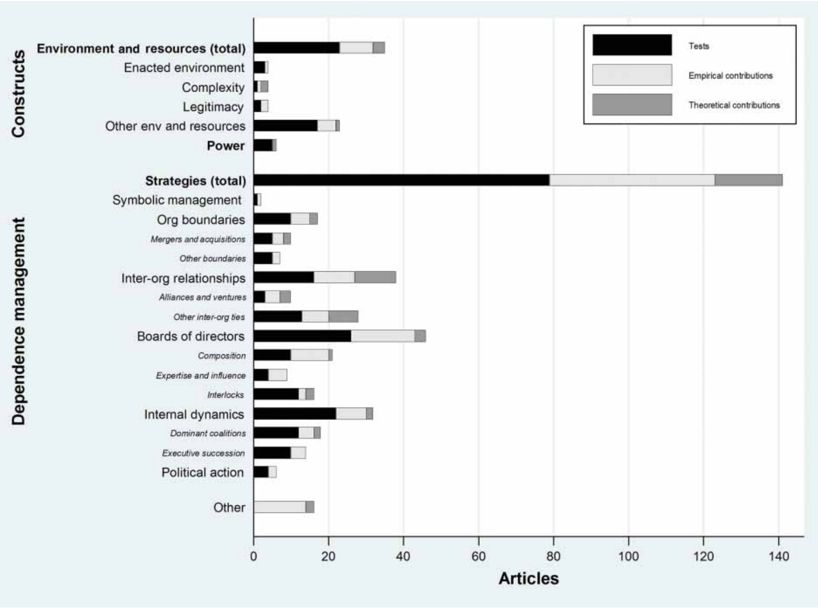

Figure 5 Substantive Articles Citing *External Control* by Topic Area.

Hill, & Kim, 1993; Fennell & Alexander, 1987; Mahoney, 1992; Orru, Hamilton, & Suzuki, 1989; Pennings, Hambrick, & Macmillan, 1984). Notably, RD's predictions have fared very well empirically, mustering broad support for its underlying ideas about dependence management.[2] The one area where RD has received equivocal support, however, involves research on boards of directors. Studies have disputed Pfeffer and Salancik's arguments about which firms are most likely to pursue interlocks (Galaskiewicz, Wasserman, Rauschenbach, Bielefeld, & Mullaney, 1985; Zajac, 1988), but have supported the idea that board composition is homologous with a firm's external dependencies (Hillman, 2005; Hillman, Shropshire, & Cannella, 2007).

Contributions to RD. In addition to testing RD, a handful of scholars have worked to actively develop certain aspects of the perspective. As Figure 4 shows, substantive interest in RD began to wane in the mid-1990s. Still, a steady, if modest, stream of contributions has continued to appear, with some growth evident by the mid-2000s. Katila, Rosenberger, and Eisenhardt even referred to the increase as a "recent renaissance of resource dependence" (2008, p. 321). While Figure 4 suggests that this may be an overstatement, some of the more exciting contributions have occurred during this period as authors increasingly engaged with RD's core theoretical arguments, rather than just its empirical strategies. Table 1 provides a summary of the key insights and findings of a representative inventory of papers that have contributed to a core area of RD.

As Figure 5 shows, most contributions to RD have focused on elaborating and clarifying its dependence-management strategies or identifying new ones not included in *External Control*. For example, a number of studies have examined the dependence-management function of boards of directors, showing that direct links to resource providers are important, but so are political affiliations, domain expertise, legitimacy, and indirect ties to other organizations (Cowen & Marcel, 2011; Haynes & Hillman, 2010; Hillman et al., 2007; Lang & Lockhart, 1990). Likewise, scholars with an interest in intra-firm dynamics have shown that the relationship between external dependencies and sub-unit power is moderated by factors including workgroup interdependencies, internal resource allocations, and self-advocacy among employee groups (Astley & Zajac, 1990; Galang & Ferris, 1997; Lyles & Reger, 1993). Moving beyond the strategies presented in *External Control*, others have broadened the scope of RD by showing that firms can manage dependencies through means as diverse as friendship ties (Westphal et al., 2006), political connections (Hillman, 2005), reputation (Lawrence, 1998; Wang et al., 2008), and the suppression of competence threatening technologies (Dunford, 1987). In another interesting elaboration, Beckman et al. (2004) showed that the choice of dependence-management strategy depends on whether a firm operates in an industry where all participants face similar resource constraints, as compared to when dependencies are firm-specific: firms were more likely to deepen their ties with crucial resource providers in the first case, but pursue new and broader ties in the second.

In recent years, studies have also begun to examine the applicability of RD to new ventures, offering a number of interesting elaborations to the entrepreneurship literature. Research in this milieu has shown the unique role of outside directors who confer legitimacy upon fledgling firms (Higgins & Gulati, 2006; Kori & Misangyi, 2008), as well as the influence of venture incubators (Amezcua, Grimes, Bradley, & Wilklund, 2013) and established corporations (Katila et al., 2008) as resource providers. While the primary aim in these studies was to advance insights about entrepreneurship, the study by Katila and colleagues is noteworthy because it also contributed to RD's theory of power. Specifically, the authors showed the Faustian bargain struck by new ventures in their relationship with capital providers: accepting financial resources exposes them to the risk of intellectual capital theft. In this way, the study reflects a return in the management literature to engaging RD's core theoretical arguments, rather than its dependence-management strategies (see also Aharoni et al., 1981; Provan et al., 1980).

Other notable contributions to RD's theory of power and dependence include Casciaro and Pikorski's (2005) influential study which showed that

Table 1 Summary of Selected Contributions to Resource Dependence

Author(s), publication year	Application of RD	Summary of findings and insights
Aharoni et al. (1981)	Environment and resources: *complexity*	Suggests that firms face heterogeneous pressures. This may create conflict, but can also create opportunities whereby satisfying one set of demands helps lessen the pressure emanating from other sets of demands. Israeli managers perceive most environmental dependencies as complementary. Within the government segment, however, various components have conflicting interests making the strategy of satisfying the dominant party ineffective
Gargiulo (1993)	Environment and resources: *complexity*; inter-organizational ties: *various*	Introduces the concept of two-step leverage, which allows for *indirect* network pressures to affect organizational action. An actor can gain advantage over a party by building a co-optive relationship with a third actor with influence/control over the party's behavior
Provan, Beyer, and Kruytbosch (1980)	Environment and resources: *complexity*; inter-organizational ties: *various*	The study finds that ties with important community elements decrease dependence and increase power of a United Way organization. Authors specifically recognize the importance of the relationships among resource providers—ties with third parties can affect the focal relationship. They conceptualize power not just as the ability to obtain resources, but as the outcome of linkages between organizations and the environment
Wang, Choi, and Li (2008)	Environment and resources: *legitimacy*	Finds that effects of philanthropy on financial performance are strengthened in dynamic environments where firms face greater uncertainty and thus benefit more from managing the perceptions of external resource providers. Study acknowledges that multiple practices can conform to a specific logic and that a given practice can conform to multiple (and potentially competing) logics

Dunford (1987)	Environment and resources: *other*	Paper introduces technology suppression as a strategy to manage resource dependencies. Judicial interpretation of law plays a key role in what tactics firms use to suppress technology
Silver (1993)	Environment and resources: *other*	Case study of a large public organization facing different environmental conditions over time. The changing conditions affect the firm's levels of autonomy and dependency, its ability to innovate, and its performance
Santos and Eisenhardt (2009)	Power	The underlying logic used by entrepreneurs to dominate a new market is power. But these firms use persuasion and other soft-power strategies to dominate a new market rather than hard-power strategies such as coercion
Casciaro and Pikorski (2005)	Org boundaries: *mergers and acquisitions*	Authors clarify the concept mutual interdependence and separate it into its component pieces—power imbalance and mutual dependence. They find that mutual dependence leads to mergers while power imbalance is an obstacle to mergers
Galbraith and Stiles (1984)	Org boundaries *mergers and acquisitions*	RD predicts that between industries with greater levels of exchange you will see more acquisitions. Authors contend and show that exchange cannot be looked at in a vacuum, but rather the power of the parties in the exchange must be considered. Power differentials between exchange partners will lead to different types of mergers (e.g. conglomerate versus vertical and horizontal).
Beckman, Haunschild, and Phillips (2004)	Inter-organizational ties: *alliances*; boards of directors	When firms face greater uncertainty they are more likely to broaden their networks, making links to *new* partners. When industries have more uncertainty, firms are more likely to increase ties to *existing* partners. Study highlights the importance of differentiating between uncertainty that is firm-specific versus field-level

Table 1 Summary of Selected Contributions to Resource Dependence (Continued)

Author(s), publication year	Application of RD	Summary of findings and insights
Xia (2011)	Inter-organizational ties: *alliances*	Author finds that international alliances are based on the interplay of dependence relations among countries as well as the substitutability of partners in a target country. Specifically, the more substitutes available in a target country, the greater likelihood of alliance dissolution
Baker (1990)	Inter-organizational ties: *other*	In a study of firm firms' relationships with their investment bank(s), author shows that market ties form in order to manage dependence. Specifically, firms directly manipulate the number and intensity of these market ties to pursue the objectives of independence, uncertainty reduction, and efficiency
Beekun and Ginn (1993)	Inter-organizational ties: *other*	The study examines the relationship between environmental turbulence and the inter-organizational linkages for firms with different strategies. Authors analyze acute care hospitals following reactor, defender, prospector, and analyzer strategies and find these interact differently with environmental turbulence to predict loose versus tight linkages
Gulati and Sytch (2007)	Inter-organizational ties: *other*	Authors decompose organizational dependence into dependence asymmetry (difference in actors' dependencies on each other) and joint dependence (sum of dependence between actors in a relationship) and show joint dependence has positive effects on manufacturers' procurement relationships. Dependence asymmetry has mixed but mostly disadvantageous effects on manufacturer performance
Katila et al. (2008)	Inter-organizational ties: *other*	The study examines entrepreneurial funding relationships. The authors show the importance of resource needs and defense mechanisms available to entrepreneurial firms when choosing with whom to seek financing

Cowen and Marcel (2011)	Boards of directors	Study shows how financial fraud at the firm level leads to a loss in board legitimacy—a key board function in RD. Subsequently, board members are more likely to be dismissed from their board seats on other firms
Hillman (2005)	Boards of directors; political activity	Firms in heavily regulated industries have more ex-politicians on the board. These ties are associated with improved financial performance
Westphal, Boivie, and Chng (2006)	Boards of directors	Study shows that managers seek to reconstitute social relationships with managers in firms upon which the focal firm is dependent. These informal ties among executives serve the same purpose as formal board interlocks but impose fewer constraints on the focal firm
Galang and Ferris (1997)	Internal dynamics: *coalitions*	Shows that HR departments gain power when they engage in symbolic activities that highlight their importance to the organization. They do so by defining what resources are important and how they have unique skills needed to address them
Schwochau, Feuille, and Delaney (1988)	Internal dynamics: *coalitions*	Combines insights from industrial relations to show how unions and the legal environment affect subunit power and thus resource allocations for police units
Dant and Gundlach (1999)	Internal dynamics: *other*	Authors challenge the assumption that dependence and autonomy lie on opposite ends of the same continuum. Argue that dependence and autonomy can be mixed in four ways (hi,hi; hi,low; low,hi; and low,low); each combination with different implications for firm-franchise relationships
Mizruchi (1989)	Political activity	Uses RD and social class theory to examine the conditions under which firms will engage in similar patterns of political contribution. Facing similar constraints firms in the same industry utilize contribution strategies as a means to shape their environment

parsing RD and *inter*dependence (see also Aldrich, 1979; Blau, 1964) yields contradictory predictions about the conditions under which firms will pursue mergers. Probing this distinction further, Gulati and Sytch (2007) showed that as inter-firm relationships move from asymmetric dependence to mutual dependence, they are increasingly governed by behavioral norms rather than overt influence attempts. Santos and Eisenhardt (2009) also contributed to RD by showing that new firms can use alliances and acquisitions as sources of "soft power" to actively influence the environment rather than to manage inter-organizational dependencies, as was theorized in *External Control*.

A number of scholars have also expanded the empirical scope of RD by examining its applicability outside of North America. For instance, Orru et al. (1989) showed that linkages among Japanese firms were best predicted by collectivist norms rather than individualistic RD factors. Studies have examined RD's predictions in contexts as diverse as joint ventures in China (Li, Karakowsky, & Lam, 2002) and Sweden (Edström, Högberg, & Norback, 1984), board composition in Australia (Kiel & Nicholson, 2003), South Korea (Kim, 2007), and Singapore (Ong, Wan, & Ong, 2003), and diversification strategies among Japanese keiretsu firms (Kim, Hoskisson, & Wan, 2004). Results typically support the predictions made in *External Control*, but also show the moderating influence of national culture, giving RD a cosmopolitan flair that is unique among organization theories (Amburgey & Rao, 1996; Thornton & Ocasio, 2008).

In sum, despite recent efforts to elaborate the theory of power discussed in *External Control*, the bulk of studies that have contributed to the perspective have focused on developing its dependence-management strategies. Reflecting this, the data presented in Figure 5 show a balkanized landscape where RD has been invoked by a variety of authors primarily interested in the strategies that *External Control* puts forward for managing external dependencies. Analyses of co-citations among articles that have contributed to the perspective also show the lack of systemic development in RD.[3] Strikingly, less than half of the studies that have contributed to RD cite more than one other contribution. And, even among those which have more deeply integrated previous research, three disconnected clusters are apparent. One set of studies focuses on boards of directors (Haynes & Hillman, 2010; Hillman, 2005; Hillman et al., 2007), another comprises research on strategic responses to external pressures (McKay, 2001; Oliver, 1991), and the last includes the most recent attempts to reinvigorate RD's insights about power and dependence (Casciaro & Piskorski, 2005; Gulati & Sytch, 2007; Katila et al., 2008). While it is encouraging that there appears to be an emerging cluster of scholars who are working to elaborate RD's theory of power, it is nonetheless clear that RD does not claim a dedicated group of scholars. Particularly telling in this regard, neither Pfeffer nor Salancik authored a paper which contributed to RD in the journals that we analyzed. Deprived of followers, it is somewhat remarkable that the perspective has developed *at all*. In many ways, the fact that diverse and disconnected scholars have independently worked to develop aspects of RD testifies to the broad and enduring resonance of its ideas.

Contributions of RD

Although studies that engage substantively with RD are a small fraction of all citations to *External Control*, this should not be equated with a lack of influence. As noted above, empirical tests generally support RD's predictions about dependence-management strategies in both American and international contexts and scholars have drawn on RD to add nuance to our understanding of mergers (Casciaro & Piskorski, 2005), supplier relations (Gulati & Sytch, 2007), and entrepreneurial resource acquisition (Katila et al., 2008). Perhaps most importantly though, scholars have appropriated insights from RD to buttress and enliven other paradigms, giving RD a deep, though not always visible, influence across multiple theoretical domains.

For instance, Aldrich's (1979) influential work on organizations and their environments drew heavily on RD arguments to develop key points about inter-organizational relations. Specifically, he argued that selection processes are not simply the working out of an impersonal invisible hand, but rather that power and domination are the keys to understanding organizational change. Influential work in stakeholder theory has also adapted RD's insights about power and influence to make theoretical predictions about which stakeholder groups managers should attend to (Frooman, 1999; Mitchell et al., 1997). Also, not surprisingly, network theory—with its focus on inter-organizational linkages—is a natural outcropping of RD's predictions about the conditions under which firms are more or less likely to form ties with each other. A number of influential network studies have drawn heavily on insights from RD (Burt, 1983; Gulati & Gargiulo, 1999; Gulati & Sytch, 2007) and, in the introduction to the re-issued version of *External Control*, Pfeffer (2003, p. xvi) noted that studies of inter-organizational relations which *could* invoke RD are now generally pursued under the guise of networks.

Still, RD has arguably had the greatest out-of-domain influence in NIT. Although Meyer and Rowan's (1977) article was the first NIT paper, DiMaggio and Powell's (1983) classic statement about organizational isomorphism is generally credited as the catalyst for NIT's ascent (Greenwood, Oliver, Sahlin, & Suddaby, 2008). What is noteworthy from an RD perspective, however, is that many propositions about the conditions which produce isomorphism are based in RD. For example, the article predicts:

> The greater the centralization of organization A's resource supply, the greater the extent to which organization A will change isomorphically

to resemble the organizations on which it depends for resources (DiMaggio & Powell, 1983, p. 154), and;

The greater the extent to which an organizational field is dependent on a single . . . source of support for vital resources, the higher the level of isomorphism. (p. 155)

In addition, DiMaggio and Powell (1983) argued that normative isomorphism is most likely among organizations with a common reliance on the same groups of professionals. Thus, while the authors positioned their work very much apart from RD, key parts of their theory of isomorphism can be plausibly be read as a theory of shared RD (see also Mindlin & Aldrich, 1975). While we are loath to make inferences, perhaps it is not surprising that 1983 was the inflection point where NIT began to ascend and RD's direct influence began to wane (King, 2011). It appears that RD was upstaged by NIT, with ideas about resource-based constraint being taken forward under the guises of coercive and normative isomorphism (DiMaggio & Powell, 1983; Mizruchi & Fein, 1999).

Again, when Oliver (1991) looked to re-introduce agency and strategic action in to NIT, she invoked RD as a central player. Indeed, many of Oliver's predictions about how organizations respond to institutional demands flowed quite neatly from arguments found in *External Control*. In many ways, Oliver's paper helped spur a shift among scholars from examining isomorphism to studying institutional change (see also Davis, Diekmann, & Tinsley, 1994; DiMaggio, 1997; DiMaggio & Powell, 1991), resulting in a deep—if subtle—integration of RD into the cannon of institutional scholarship. As theorists elaborated these arguments, NIT further encroached on topics featured in *External Control*. In particular, Figure 5 shows a general neglect of the symbolic approaches to dependence management mentioned in Chapter 5 of *External Control*. However, rich research streams have emerged around these themes in NIT using the lenses of framing and theorization (Greenwood, Suddaby, & Hinings, 2002), storytelling (Lounsbury & Glynn, 2001; Wry, Lounsbury, & Glynn, 2011), and institutional entrepreneurship (Lawrence & Phillips, 2004; Maguire, Hardy, & Lawrence, 2004).

The analyses above provide a complex view of RD and its impact. On the one hand, the abundance of ceremonial citations combined with a relatively modest number of tests and contributions would indicate that RD has indeed become little more than a metaphorical statement about organizations (Pfeffer, 2003). On the other hand, the perspective has been increasingly deployed across a range of empirical domains and has been assimilated into many of organization theory's most prominent paradigms. Moreover, this impact has been achieved despite the fact that some of the more unique and novel ideas advanced in the first half of *External Control* have been all but ignored by subsequent scholars. In the section that follows, we investigate one of those ideas—Pfeffer and Salancik's theory of the environment—and argue that an RD perspective has much to offer contemporary scholars studying environmental complexity, and as such, suggest RD's impact on the field has far from run its course.

Reviving a Focus on Environmental Complexity

We have documented that RD has been broadly influential despite the widespread neglect of what is arguably its most distinctive contribution—namely its theorization of environmental complexity. Whereas the empirical strategies associated with RD comprise rich and independent research streams and its theory of power is an incremental extension of Blau (1964) and Emerson (1962), the principle of conceptualizing the environment in terms of other organizations—each with their own agenda and interests—was directly advanced by the efforts of scholars using RD (see also Terreberry, 1968). In addition to contributing precision with regard to conceptualizing an organization's environment, this approach offers practical insights into modeling and assessing the competing demands that organizations face by virtue of their manifold dependencies. However, despite potentially important implications of this insight, it has lain largely dormant; studies have concentrated on RD as it applies to dyadic relationships rather than the complex and interconnected environments that Pfeffer and Salancik theorized.

While complexity has long been recognized as a challenge for organizations (Lawrence & Lorsch, 1967) it is arguably even more-so today than when *External Control* was published. For instance, organizations that blend multiple meaning systems in their operations—and are thus exposed to competing internal and external behavioral demands—are increasingly found on the organizational landscape (Battilana & Dorado, 2010; Tracey et al., 2011). In addition, research and development in high technology fields is increasingly embedded in complex inter-organizational networks rather than individual firms (Kapoor & Lee, 2013; Powell et al., 2005). Scholars also increasingly recognize that spanning geographic boundaries—be they within or across nations—exposes firms to layers of complexity beyond those experienced by local operators (Crilly, 2011; Henisz & Delios, 2004). Yet, to date, complexity has been a marginal theme within macro-organizational scholarship with empirical and theoretical development lagging areas such as schemes and codes (Hsu & Hannan, 2005), logics (Thornton et al., 2012), and institutional change (Clemens & Cook, 1999).

Recently, however, organizational scholars have begun to show renewed interest in environmental complexity as it relates to institutional logics (Greenwood et al., 2010; Pache & Santos, 2010). From this perspective, competing demands owe to the existence of meaning systems within a field which create divergent expectations for how an organization should appropriately act (Greenwood et al., 2011; Kraatz & Block, 2008; Thornton et al., 2012). While this is a promising research direction, we contend that the means through which logics create complexity at the organizational level cannot be adequately theorized without a more precise conceptualization of the environment and the mechanisms that link external pressures to organizational action.

Based on this, we take Oliver's (1991) influential integration of NIT and RD as inspiration and call for renewed attention to RD as a means to advance research on environmental complexity. However, whereas Oliver's contribution was to theorize organizational responses to individual institutional pressures, we highlight Pfeffer and Salancik's insights about organizations and their environments as a means to map the environment, the multiple demands therein, and the extent to which these impinge on an organization. In particular, we note that the ingredients for studying complexity are the same in NIT and RD—both focus on understanding the sources of conflicting pressures and how these influence organizational decision-making. However, the two locate complexity and influence at different levels of analysis and this gives rise to divergent analytic strategies. NIT takes a top-down approach whereas RD's approach is based more on emergent outcomes from the bottom-up, providing a more systematic and precise conceptualization.

Institutional Logics and Environmental Complexity

In recent years, the logics perspective has emerged as a prominent outcropping of NIT, becoming the standard bearer in macro-organizational theory for conceptualizing and modeling an organization's external environment (Greenwood et al., 2011; Thornton et al., 2012). From this perspective, logics constitute the high-level "rules of the game" within a field. They shape the collective identities that are claimed by groups of actors, and thus serve as a cognitive guide for determining which issues to attend to and how to appropriately act when addressing them. Failure to act in ways that are consistent with a logic may bring derision and scorn from others who identify with it (Thornton et al., 2012; Wry et al., 2011). Incongruent logics thus present conflicting demands for legitimate action. From this perspective, groups and organizations are thought to experience complexity as the clash between incompatible scripts dictated by the logics to which they are subject. Translating this to an analytic strategy, studies in this genre take a top-down approach where complexity is assumed to emerge from logics and manifests itself as competing demands on an organization. For some, the existence of multiple logics serves as the basis for asserting that a specific organizational population faces complexity (Battilana & Dorado, 2010; Pache & Santos, 2010). Others undertake a more robust mapping of the environment, starting with logics, looking for proxies of their influence, and then examining the proxies to theorize organizational responses (Battilana & Dorado, 2010; Goodrick & Reay, 2011; Greenwood et al., 2010).

In either case, theoretical issues arise when scholars adapt the logics perspective to account for complexity. In particular, the mechanisms that link logics to action are cognitive (attention and identity) and normative (social identity) (Thornton et al., 2012). This provides a reasonable explanation for how logics shape attention and interest in subtle and endogenous ways. However, it has difficulty accounting for the external imposition of a logic upon an unwitting actor or organization. To address this limitation, scholars have stayed within an NIT framework, theorizing complexity as a property of institutional fields (cf. Scott & Meyer, 1991). Specifically, the demands associated with competing logics are expected to impinge most acutely on organizations in fields that are populated by uncoordinated actors (fragmentation), each with some degree of authority (moderate centralization) (Greenwood et al., 2011; Pache & Santos, 2010). Under these conditions, the assumption is that multiple logics are a stable source of complexity that arises via divergent demands across a wide range of organizational issues and decisions. Based on this, scholars have focused on understanding the internal-organizational dynamics associated with complexity (Battilana & Dorado, 2010; Pache & Santos, 2010) as well as organizational responses to competing demands (Goodrick & Reay, 2011; Greenwood et al., 2011; Kraatz & Block, 2008).

A RD Perspective on Environmental Complexity

We applaud efforts to broaden the horizons of institutional analysis to encompass environmental complexity and to reinvigorate research on its relationship to internal organizational dynamics. However, a top-down approach that relies so heavily on high-level meaning systems risks assuming complexity rather than assessing it, thereby glossing the mechanisms that link competing demands to different organizations.

In comparison, RD treats complexity as episodic, with varying configurations of external interests coalescing around different issues. From this view, specific organizational decisions serve as the analytic starting point for a bottom-up approach comprising four inter-related steps: (1) identifying interested parties both inside and outside the organization; (2) determining the nature of their interests; (3) analyzing sources of power; and (4) examining how groups themselves are inter-connected (Pfeffer & Salancik, 1978, pp. 83–90). Note that a group's interests are not determined *a priori* by its institutional location, but rather by examining what's at stake for it in a given situation. Although this is a small epistemological shift, it has important implications for mapping the external environment and theorizing the mechanisms that link complexity to organizational action. Logics provides a tool that can help us to understand how different groups define and frame their interests in symbolic terms, but RD sensitizes researchers to go beyond this to consider the more direct causal pathways which link these interests to organizational action. Accordingly, RD may help scholars to clarify both the source and level of complexity surrounding particular issues and decisions.

Identifying Coalition Members and their Interests. As with the logics perspective, an RD approach to complexity relies on an assessment of the interests held by various parties in a firm's environment. However, RD's bottom-up approach may help to resolve issues that can arise when complexity is inferred from the degree to which institutional logics are compatible. In particular, concerns emerge when researchers assert that divergent logics create conflicting expectations for an organization without considering the potential for the extent of conflict to vary with different issues—potentially calling into question the existence and extent of complexity that an organization is facing. For example, studies have asserted that microfinance institutions face complexity because they operate in a fragmented field where powerful parties identify with incompatible banking and development logics (Battilana & Dorado, 2010; Pache & Santos, 2010). Similarly, Greenwood et al. (2010) have argued that Spanish firms face demands for workforce reduction based on their exposure to market logic as well as countervailing pressures levied by family and regional-community logics. However, in both cases, the extent to which these logics manifest in complexity at the organizational level is unclear.

With regards to microfinance, for example, Pache and Santos (2010, p. 457) argued that complexity exists because the field comprises fragmented and moderately centralized actors. However, this assertion is neither backed with a means through which to assess fragmentation or centralization nor with clear guidance as to how competing demands might actually be assessed, or the degree to which they apply to different issues and practices. Even more abstractly, Battilana and Dorado (2010) asserted that banking and development logics are a source of competing behavioral demands for microfinance organizations. However, although these firms are exposed to multiple logics by virtue of their dual missions of social outreach and financial sustainability, studies have shown that these logics can actually be symbiotic with regard to sustainable lending practices (Armendáriz de Aghion & Morduch, 2007). Zhao and Wry (2011) have also found evidence that the complexity created by these logics may vary significantly among organizations and across countries. Thus, whereas logics may be a driving force behind some competing behavioral demands, we should not assume that this applies uniformly across organizational issues and contexts.

Greenwood et al.'s (2010) study faces similar limitations. Although the paper is built around a tension between market versus family and regional-community logics, it is unclear that these give rise to divergent interests at the organizational level in relation to downsizing. In particular, the relationship between market logic and downsizing is equivocal; evidence on the short-term market reaction to layoffs indicates that on average share prices fall after a firm announces layoffs (Hallock, 2009). The long-term effects on company performance also indicate that downsizing has no discernible positive performance effects for firms, and it is unclear that actors whose interests are guided by market concerns actually advocate for downsizing. Likewise, it is unclear that family logic leads to an interest in stable labor relations. Rather, family logic is associated with a desire to "increase family honor" (Thornton, et al., 2012, p. 73), and this may take a variety of forms. Conforming to local norms is one option (Berrone, Cruz, Gomez-Mejia, & Larraza-Kintana, 2010), but so is profit-maximization (Le Breton-Miller, Miller, & Lester, 2011).[4] Thus, the interests of different families may be shaped by market logic, a more paternalistic family logic, or combinations thereof, making it difficult to determine, *a priori* and without actual investigation, a family's interests in downsizing.

Seen through the lens of RD, this type of logic-based approach jumps directly from identifying multiple logics to assuming that they actually create challenges for organizations by presenting them with stable and rigidly counterpoised demands. Comparatively, RD would build an argument by identifying groups with interests in a specific issue (or set of issues). In this regard, a key insight from RD is that there can be considerable variation in patterns of agreement among groups with regards to different issues. Reflecting this, Pfeffer and Salancik (1978) suggested that distinguishing between intertwined and incompatible interests may be useful as theoretical polemic, but it rarely reflects organizational reality. Rather, they argued that "interdependence existing between two social actors need not be either competitive or symbiotic—frequently, relationships contain both forms of interdependence simultaneously" (p. 41) and, because of this, the level of convergence between the interests of different groups should be systematically analyzed. Furthermore, Pfeffer and Salancik argued that a decision may be important to one group, but irrelevant to another—even when their interests diverge in fairly radical ways otherwise. For example, dividend policies may be very important to investors, but of little interest to government regulators or environmental groups (p. 40). Thus, while logics may shape the interests of various groups, RD suggests that care should be taken in ascribing particular logics to particular groups and assuming that they create divergent interests.

Translating this into a practical analytic strategy, we suggest that it may be useful to map the relationship between logics and interests by the extent to which a decision is required, prohibited, or permitted according to a particular logic (Clemens & Cook, 1999, p. 448). Although this framework imposes an ordinal structure on a continuous variable, it is a useful heuristic that reminds not all practices which are consistent with a logic are required by it.[5] Reflecting this, studies have used RD to draw out and validate the idea that common practices can be used to manage groups with ostensibly counterpoised interests. This was first illustrated by Friedlander and Pickle (1968) and Pickle and Friedlander (1967), who empirically correlated the satisfaction of different groups with an organization's actions. More recently, Wang et al. (2008) showed that corporate philanthropy was effective for managing dependencies with multiple external parties in turbulent environments, and Meznar and Nigh (1995) showed that decisions can be narratively framed in ways that align with the interests of diverse groups. RD is thus actually quite faithful to the logics approach and its assertion that logics shape, but do not determine, an actor's interests (Thornton et al., 2012, pp. 76–80). RD also makes salient the variety of practices that may be considered consistent with a logic (Lounsbury & Crumley, 2007) and goes beyond NIT in asking that analysts refrain from assuming that any particular action follows automatically from an organization's location in institutional environments saturated with multiple logics.

Identifying the Sources of Coalition Members' Power. In addition to helping clarify the interests that coalitions may have in a specific issue or decision, a distinct advantage of an RD approach to environmental complexity is that it focuses directly on the mechanisms through which influence is exerted on an organization—a weak-spot in the logics approach to complexity. Interestingly, the foundations of power and influence in RD are similar to those found in the logics perspective. Both theorize that decisions are evaluated against the specific criteria that a group has for assessing legitimate (or effective) organizational action (Pfeffer & Salancik, 1978, pp. 32–36; Thornton et al., 2012). However, the logics perspective endogenizes these criteria in a theory of attention and identity that it is careful to distinguish from material resource pressures (Thornton et al., 2012, p. 157). Consequentially, logics may contribute insight to the dynamics of particular groups (Wry et al., 2011), but they do not say much about how groups go about imposing their interests on others—either within an organization (Pache & Santos, 2010) or from outside its boundaries (Greenwood et al., 2010).

Studies that examine how groups within an organization respond to the institutional environment illustrate this point. Research in this genre recognizes the importance of understanding the sources and nature conflicting external demands, but focuses primarily on how these affect events within a firm. For instance, Battilana and Dorado (2010) suggested that microfinance organizations may face paralysis if they fail to subdue the emergence of internal groups who identify with either "banking" or "development" logic. Pache and Santos (2010, p. 469) similarly suggested that balanced representation among logics within an organization may be problematic. However, the sources or power for these groups were not addressed, and the influence of the external environment on this dynamic was not considered. Moreover, by endogenizing the conflicts caused by competing behavioral expectations within the firm, these studies gloss the imposition of multiple external demands on an organization, implicitly suggesting that the best way to manage environmental complexity is to pursue internal homogeneity. Comparatively, RD highlights the importance of externally imposed demands, both as an imposed constraint as well as a determinant of internal power structures. Indeed, a number of studies have used RD to show that power accrues to the parties within a firm who manage key dependencies (Astley & Zajac, 1990; Galang & Ferris, 1997; Lyles & Reger, 1993; Salancik & Pfeffer, 1980; see also Hickson et al., 1971; Hinings et al., 1974). Thus, without more precision in establishing the existence of environmental complexity and the means through which it impinges on an organization, the antecedents for theorizing internal dynamics are neither defined nor established empirically.

Compared to studies of complexity and internal power dynamics, Greenwood et al. (2010) made a more concrete attempt to isolate competing institutional influences. However, the limitations of a logics approach are again apparent in their analysis. They attempted to measure the strength of market logic with financial performance variables. However, such measures endogenize market logic within firms rather than considering the influence exerted by external actors whose interests are shaped by market logic and who may have an interest in downsizing. Similarly, the influence of family logic was measured by the presence of family owners in management. However, this again implies an internal-cognitive mechanism whereby an organization's goals and strategies are motivated by a manager's family interests. Cast this way, the complexity emerging from these logics is endogenous to the decision-maker, not an imposed pressure and, as such, the consequences of acting in ways that are inconsistent with either logic are unclear. In this regard, RD is useful because its approach of identifying groups—as opposed to logics—helps to distinguish complexity that emerges from internal conflicts (Astley & Zajac, 1990), mismatched internal and external interests (Silver, 1993), and conflicting external demands (Aharoni et al., 1981). To date, NIT has theorized these as equivalents (Greenwood et al., 2011; Pache & Santos, 2010; Thornton et al., 2012).

In comparison, the variables that Greenwood et al. (2010) used to index regional-community logic—nationalist governing party and industrial spending—are external to organizations. Although these are good proxy measures, RD points to the importance of going a step beyond to consider the more direct mechanisms that link these to organizational action. Interestingly, much of the discussion used to motivate hypotheses about regional-community logic in the paper signals the value of an RD approach. For example, the authors note that "networks linking Spanish business leaders with local elites are well documented"; the influence of the media is also mentioned, but not pursued; and arguments that "high levels of [industrial development] spending indicate a regional stance that goes beyond the rhetoric of civic boosterism" (p. 525) are based upon, but stop short of illustrating, a link between government resources and coercive influence.

We see considerable potential in the direct integration of RD into such arguments; indeed, interests and legitimacy assessments are key components of both NIT and RD. But Pfeffer and Salancik (1978, p. 26) cautioned that legitimacy is important only to the extent that an assessing party has influence over the organization being assessed. Developing this view, they argued that external constituencies can exert influence when they control resource(s) that are important to an organization, so long as they do not also rely on the organization for similarly important resources. According to RD, therefore, complexity emerges when parties have different bases for assessing legitimacy *and* similarly high levels of influence over an organization—the existence of competing interests alone is not sufficient (pp. 84–88). Thus, an important step in understanding environmental complexity is to analyze the sources of power held by various groups and the likelihood that they will simultaneously try to use it in order to influence an organization (Provan et al., 1980).

Illustrating RD's bottom-up Approach to Complexity. Focusing again on Greenwood et al.'s (2010) study, we show how following the steps implied by an emergent, bottom-up RD approach can add specificity to the mechanisms linking external influences and organizational action, while helping to distill a more complete view of the complexity in a firm's environment. Figure 6 maps Greenwood et al.'s (2010) top-down approach which starts with logics, looks for proxies of their influence, and examines these proxies to theorize organizational responses. Figure 7 shows the added detail and precision that can be gained through a bottom-up RD approach. Starting with the downsizing decision, we imagine that interested parties may include owners, managers, employees, the regional government, the media, and the local community—

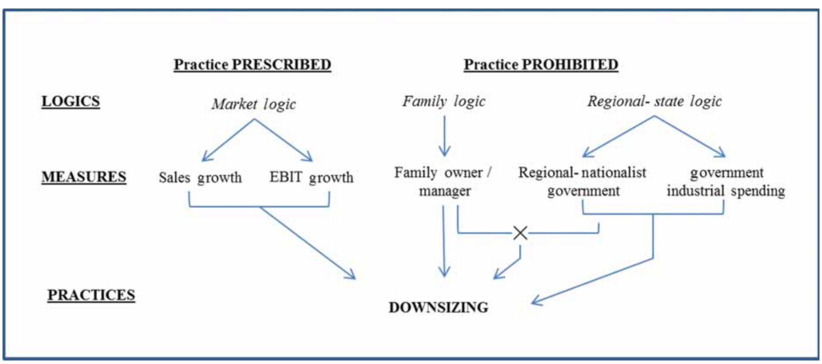

Figure 6 Institutional Complexity as Presented in Greenwood, Diaz, Li, and Lorente (2010).

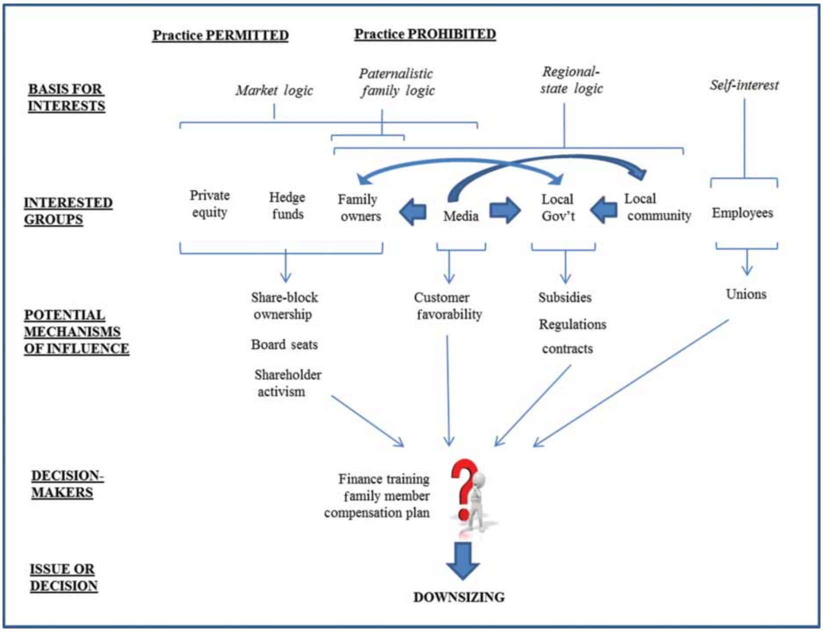

Figure 7 Mapping Complexity with RD Theory: Resources, Sources of Influence and Interconnectedness in the External Environment.

though there are surely others. Figure 7 maps these groups, the logics that are most likely to shape their interests, and whether downsizing is required, permitted, or prohibited from this view.

To understand how these groups might pursue their interests, we need to consider their sources of power. In almost every private enterprise, ownership is an important basis for power because owners provide necessary capital for the firm to function (Herman, 1981). Owners, however, have differing abilities to influence corporations. Mintzberg (1983) argued there are two dimensions that determine the extent to which an owner has power: (1) the level of concentration of ownership and (2) the level of involvement an owner has in the decision-making process in the firm. Many owners, however, including most individual investors, insurance companies, and mutual funds, do not engage in shareholder activism or become involved in issues of corporate governance (Davis & Kim, 2007). Private equity firms, hedge funds, and family owners, however, often do. Due to their willingness to take positions on the board, in top management and/or to actively engage in issues of corporate governance, these types of owners are likely to have considerable influence on the strategies and goals of the firms in which they invest (Jensen & Murphy, 2009). Thus, an analyst assessing the influence of market logic within a corporation should consider its ownership structure and the various groups comprising it, and their capacity to affect the firm's goals and strategies (Cobb, 2012).

Labor is also a crucial resource for any firm because organizations depend on worker effort to create goods and services—and is thus a source of power for employees. Individually, employees have very little power to affect an organization's goals and strategies. However, power is greatly enhanced through mobilization and collective action. Though workers are able to mobilize through a variety of mechanisms, such as through collective ownership (Blasi, Freeman, Mackin, & Kruse, 2010) and social movements (Briscoe & Safford, 2008), the method most germane to the Greenwood and colleagues' study is through unionization. The decline of unions is often seen as a primary cause of changes in employment practices in the U.S.A. (Cappelli, 1999; Fligstein & Shin, 2007). We surmise that unions pressure firms to consider broader stakeholder interests—in particular the interests of workers—when setting their strategies and thus can serve as a countervailing power against broader market pressures.

As Pfeffer and Salancik repeatedly noted, another key source of dependence for companies is the government. Government plays a large role in determining the competitive landscape of an economy or industry through laws, subsidies, tariffs, tax policy, and other forms of regulation. And, for many firms the government is also a key customer or supplier. They can also take ownership positions in firms directly (e.g. state-owned enterprises) or indirectly (e.g. through public pension funds), thereby allowing governments a greater ability to influence issues of corporate governance. In addition to control over material resources, governments also confer legitimacy to organizations. Because governments have to balance complex and often competing sets of interests, one would expect that political considerations would greatly influence whether a government would actively promote, passively permit, or actively prohibit a certain organizational practice. Thus, although Greenwood et al. (2010) included a measure of government industrial spending in their analysis, they could gain new insights on the political forces permitting/dissuading firms from downsizing through inclusion of additional variables related to a firm's reliance on the government through subsidies, grants, customer/supplier relationships as well as influence through ownership.

Finally, an organization may be affected by popular assessments of its legitimacy, such as those that are reflected in media coverage (Deephouse, 2000; Suchman, 1995) or by those in the broader community. These assessments, however, are unlikely to much impact unless they affect a firm's ability to obtain material resources (Pfeffer & Salancik, 1978, p. 26). To this end, a key, but seldom acknowledged, insight from RD is that individual components of the external environment are inter-linked; essentially creating "webs of power" that affect the level of influence associated with different interests (pp. 65–71). As such, an external party may be able to influence a firm despite being unable to directly affect the flow of resources to the company. For example, Provan et al. (1980) showed that the agencies with the most influence over a United Way organization were those with the strongest linkages to groups which the United Way depended on for survival. Likewise, Gargiulo (1993) found that external parties can affect the behavior of a focal organization through their influence on its key resource providers (also see Lang & Lockhart, 1990 for a discussion of indirect board interlocks). Thus, while the media and community members may not have direct influence over a firm through their legitimacy assessments, they may be able to translate this symbolic resource into substantive influence through indirect channels.

In our reworking of the findings presented by Greenwood et al. (2010), we have attempted to show how using the emergence perspective of RD supplements the top-down approach of the logics perspective. To this end, our aim has been to show how RD might complement institutional studies of complexity by providing a set of tools to help more systematically theorize and isolate the mechanisms that link multiple logics to competing demands. In such cases, detailed consideration of the material pushes and pulls associated with conflicting interests is required to make well-grounded predictions about organizational action. In addition, while there are analytical challenges associated with analyzing multiple interacting pressures, new tools such as set-theoretic analysis (Fiss, 2007) and boosted regression (Elith, Leathwick, & Hastie, 2008) can help to isolate configurations of influence, potentially opening new frontiers in the analysis of environmental complexity in tandem with a revitalized RD.

Conclusion

At its inception, RD held considerable promise as a robust theoretical program, and one that seemed likely to animate organizational scholars for years to come (Aldrich & Pfeffer, 1976). That potential, however, was largely unfulfilled. Although *External Control* is cited at a rate commensurate with other classics of organizational theory, most authors have done so in a ceremonial manner. Research in the RD tradition is also fragmented along empirical lines, with authors using the perspective to motivate research in specific empirical contexts, rather than pursuing a sustained program of theory-development. In this regard, our analysis also highlights the importance of considering the specific ways that a citing text engages with a theory. Citations counts may convey interesting patterns at a very broad level of analysis, but detailed bibliographic analysis opens the door to much richer and more informative insights.

Given that RD has been much more effective in generating symbolic interest than sustained development, it is tempting to write it off as an appealing metaphor about organizations that has little to offer contemporary scholars. However, such a dismissal runs the risk of overlooking RD's past contributions. Indeed, RD has had a uniquely broad impact within organizational scholarship, contributing to areas as diverse as the study of alliances, M&As, board composition and interlocks, and executive succession (Hillman et al., 2009). Its application across diverse organizational contexts also speaks to its enduring legacy in organizational scholarship. No less significant, though much less apparent, is RD's influence on other theoretical paradigms. Many of its ideas were taken up and extended by network scholars to clarify the sources of constraint in exchange relationships (Burt, 1983). It also helped stakeholder theory to clarify which external parties deserve an organization's attention (Frooman, 1999). Perhaps most significantly, RD bolstered foundational propositions in NIT (DiMaggio & Powell, 1983) and was a key support for institutional scholars as they turned toward agency and strategic action in the 1990s (Oliver, 1991).

Beyond its past successes and failures, though, we believe that RDs influence has far from run its course. Although *External Control* is remembered primarily for its insights about power and dependence, its most distinctive contribution was arguably to theorize environmental complexity in an empirically tractable way. That organizations face complex environments is a hallmark of open-systems perspectives (Lawrence & Lorsch, 1967; Thompson, 1967) and once again, theorizing, defining, and measuring environmental complexity has become a burgeoning area of inquiry for organizational scholars using an institutional logics framework (Greenwood et al., 2010; Pache & Santos, 2010). Problems arise, however, when trying to account for the mechanisms that link logics to imposed external constraint. Thus, studies in this milieu risk misspecifying the complexity that logics create for an organization. In comparison, RD suggests that interests are not simply the result of coalition members' location in institutional space and that complexity emerges when groups have different interests in a particular issue and also hold power over a focal organization. In short, rather than viewing "competing logics" as the source of complexity, RD helps to account for complexity in terms of organizationally proximate and empirically measurable power dynamics.

In addition to providing a powerful lens for mapping the external environment, RD's insights about environmental complexity signal a range of potentially fruitful research directions. One obvious application is to integrate complexity into Oliver's (1991) theorization of organizational responses to institutional demands. For instance, RD suggests that environmental complexity may vary systematically around different issues and decisions (Pfeffer & Salancik, 1978, p. 44). As such, responding to conflicting pressures is likely an ongoing process that plays out over time through multiple interactions among organizations (pp. 43–44). And, while Pfeffer and Salancik stopped short of fully developing this insight, other overlooked themes in *External Control* may offer clues. For example, the use of symbolic approaches for managing conflicting demands has been largely subsumed by NIT scholars who have made notable contributions to this area with studies on de-coupling (Meyer & Rowan, 1977; Westphal & Zajac, 2001), framing (Weber, Heinze, &

DeSoucey, 2008) and hiding controversial actions (Briscoe & Murphy, 2012). An RD perspective can complement these approaches by highlighting other means for managers to deal with these issues, such as through restricting information flows and actively working to shape the perceptions of external audiences.

In addition, *External Control* hints at the importance of sequentially managing competing demands (pp. 29, 96–100). Consistent with the conceptualization of complexity as a series of episodes over time, one implication is that an organization's options for responding to its environment are constrained by its previous decisions and its historic relationships with the sparring groups. This view of complexity management as an ongoing dialectic also points to potentially fruitful links between RD and the study of political action and social movements as tools for organizations to shape their environment.

In sum, our intention has been to remind scholars of significant but neglected aspects of RD, as we believe that the perspective still has significance for contemporary audiences. We see exciting terrain for organizational scholars to explore where an RD perspective might provide new and interesting insights. *External Control* was written in a particular era that led Pfeffer and Salancik to offer many historically specific strategies through which organizations manage their power-dependence relationships. However, a surprisingly large number of RD's core insights about managing dependence are still relevant today to scholars trying to understand and explain the situations facing organizations in complex environments. In the realm of academic fads and fashions, RD has shown its staying power and we are hopeful that our assessment of its contributions and prospects will encourage a renewed appreciation of *External Control.*

Endnotes

1. Note that the data for 2011 are only through September of that year.
2. Though there is an acknowledged success bias in published research, we note that less than 5% of studies which tested some aspect of RD failed to find support for at least one of its predictions.
3. The network data are available from the authors upon request.
4. A stream of research on family ownership argues that because these owners tend to be more risk averse, have a greater desire for control, and place a particular emphasis on obtaining regular income from the enterprise through high dividend rates, family owned and controlled firms are thought to be more conservative and less likely to make long-term investments into the firm (Gomez-Mejia, Haynes, Nunez-Nickel, Jacobson, & Moyano-Fuentes, 2007; Morck & Yeung, 2004).
5. We also believe that scholars should be wary of trying to backstop the interests of all groups with a logics framework. For instance, interests in social responsibility do

not accord easily with existing theory about logics (Zhao & Wry, 2011). It is also unclear what a logics perspective would add to our understanding of employee interest in workforce retention beyond their obvious self-interest (Cobb, 2012).

6. These works include: Aldrich and Pfeffer (1976), Pfeffer (1972a, 1972b, 1973), Pfeffer and Leblebici (1973), Pfeffer and Salancik (1974), Pfeffer and Nowak (1976), and Pfeffer and Leong (1977). We also included Pfeffer (1987) as it is an influential theoretical piece on RD.

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Appendix 1. List of journals and number of articles citing *External Control* and related RD articles

	Citations	
Journal	***n***	**Percentage of total**
Academy of Management Annals	5	0.28
Academy of Management Executive	2	0.11
Academy of Management Journal	209	11.79
Academy of Management Perspectives	3	0.17
Academy of Management Review	166	9.37
Administration & Society	32	1.81
Administrative Science Quarterly	167	9.42
American Journal of Sociology	27	1.52
American Sociological Review	43	2.43
Annual Review of Psychology	2	0.11
Annual Review of Sociology	20	1.13
Corporate Governance	45	2.54

(*Continued*)

Appendix 1 (Continued)

Journal	Citations n	Citations Percentage of total
Human Relations	62	3.50
Industrial and Corporate Change	13	0.73
Journal of Applied Psychology	13	0.73
Journal of Business Ethics	76	4.29
Journal of Business Venturing	40	2.26
Journal of International Business Studies	57	3.22
Journal of Management	100	5.64
Journal of Management Inquiry	13	0.73
Journal of Management Studies	134	7.56
Management Science	40	2.26
Organization Science	108	6.09
Organization Studies	106	5.98
Personnel Psychology	5	0.28
Research in Organizational Behavior	32	1.81
Research Policy	19	1.07
Social Forces	19	1.07
Strategic Management Journal	210	11.85
Strategic Organization	4	0.23
Total	1772	

Appendix 2. Methodology

We downloaded full-text digital copies of the 1772 articles that cited *External Control* in the 29 journals selected for analysis. Using NVIVO 9, we conducted textual analyses to assess the extent to which each article used RD. We began by running queries to determine the number of times each article cited the text or articles from Pfeffer and coauthors that pre-dated *External Control* but were foundational to the theory's development.[6] As an initial cut, we categorized articles that cited these works four or more times as *substantive* and those that cited them three or fewer times as *ceremonial*. In spot-checking the articles, we discovered instances where citations were not picked up by the query. This occurred primarily when citations were spread across two columns or pages. To combat this, we ran an additional query on the keyword "Pfeffer" for all ceremonial articles. We added those containing "Pfeffer" five or more times to the substantive list for additional analysis. To ensure the validity of our cutoff criteria, we randomly selected 50 ceremonial articles and read their introduction and discussion sections to ensure that RD was indeed being used ceremonially. From this sub-sample, we found *no* instances where RD was being used substantively but was classified as ceremonial.

In total, we identified 1442 papers that cited *External Control*, but showed no attempt to actually engage with RD. To analyze these, we extracted the paragraphs of text where *External Control* or a related work was cited, totaling 1962 paragraphs. Two of the coauthors read each paragraph and categorized it based upon how RD was being used. The categories include: *avoidance; altering the boundaries of the firm* (M&A, diversification, growth); *inter-organizational ties* (alliances and ventures, coalitions and cartels, and other inter-firm linkages); *political action*; *boards of directors* (interlocks and board make-up); and other *intra-organizational dynamics* (executive succession; managerial autonomy; and intra-organizational coalitions), *power*, *environment and resources*, *organizational theory*, *legitimacy*, *the enacted environment*, *regulation*, and *organizational survival*.

For our analysis of the substantive articles, two of the coauthors read each article and coded it using the same categorization scheme as above. We also coded these articles based on how *extensively* RD was actually being used. Specifically, we placed each article into one of five categories: ceremonial, covering an RD topic but not actually using the theory, using RD to motivate at least one hypothesis, making an empirical contribution (e.g. by using RD in an empirical context not covered in *External Control*), and making a theoretical contribution (e.g. by clarifying or extending propositions of the theory). Those deemed ceremonial and those covering an RD topic but not using the theory were removed from the substantive file and added to the ceremonial file.

We recognize that determining what constitutes a contribution to theory is a subjective enterprise. However, efforts were made to ensure inter-rater reliability. The same two coauthors read and coded each article on two different occasions, writing detailed notes on the empirical context being studied, other theoretical perspectives invoked, key findings, how the author framed her/his contribution to RD, and what we felt was the contribution (if any) of the article. Disagreements were discussed until consensus was reached. We identified 22 articles that made a theoretical contribution to RD, 48 that make an empirical contribution, and 88 that tested propositions from the theory.