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Abstract

Thirty years have passed since Pfeffer and Salancik's seminal work on resource dependence theory (RDT). During this time RDT has been applied broadly across the research domain to explain how organizations reduce environmental interdependence and uncertainty. In this review, the authors assess the conceptual development, empirical research, and application of RDT. They structure their review around the five options that Pfeffer and Salancik propose firms can enact to minimize environmental dependences: (a) mergers/vertical integration, (b) joint ventures and other interorganizational relationships, (c) boards of directors, (d) political action, and (e) executive succession. The authors summarize past work, synthesize contemporary thought, and propose future research directions.

Keywords

resource dependence, boards of directors, firm linkages

The year 2008 marked the 30th anniversary of the publication of Pfeffer and Salancik's (1978) *The External Control of Organizations: A Resource Dependence Perspective*. Since its publication, resource dependence theory (RDT) has become one of the most influential theories in organizational theory and strategic management. RDT characterizes the corporation as an open system, dependent on contingencies in the external environment (Pfeffer & Salancik, 1978). As Pfeffer and Salancik (1978: 1) state, "to understand the behavior of an organization you must understand the context of that behavior—that is, the ecology of the organization."

RDT recognizes the influence of external factors on organizational behavior and, although constrained by their context, managers can act to reduce environmental uncertainty and dependence. Central to these actions is the concept of power, which is the control over vital resources (Ulrich & Barney, 1984). Organizations attempt to reduce others' power over them, often attempting to increase their own power over others. Pfeffer (1987: 26-27) provides the basic argument of the resource dependence perspective and interorganizational relations as

- 1) the fundamental units for understanding intercorporate relations and society are organizations;
- 2) these organizations are not autonomous, but rather are constrained by a

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network of interdependencies with other organizations; 3) interdependence, when coupled with uncertainty about what the actions will be of those with which the organizations interdependent, leads to a situation in which survival and continued success are uncertain; therefore 4) organizations take actions to manage external interdependencies, although such actions are inevitably never completely successful and produce new patterns of dependence and interdependence; and 5) these patterns of dependence produce interorganizational as well as intraorganizational power, where such power has some effect on organizational behavior.

This perspective, as well as its proposition that organizations must respond to the external environment, has reached near-axiom-like status in organizational theory and strategic management. As Pfeffer indicates in the introduction to the second edition,

My colleague and co-author Jerry Salancik was fond of saying, “success ruins everything.” To some extent, the very success of resource dependence theory has also been a problem. The idea, seemingly now widely accepted, that organizations are constrained and affected by their environments and that they act to attempt to manage resource dependencies, has become almost so accepted and taken for granted that it is not as rigorously explored and tested as it might be. (Pfeffer & Salancik, 2003: xxxiii)

This 30-year anniversary is an opportune time to assess the conceptual development, empirical research, application, and future direction of RDT. We do so structured around Pfeffer and Salancik's (1978) five actions that firms can take to minimize environmental dependences: (a) mergers/vertical integration (chap. 6), (b) JVs and other interorganizational relationships (chap. 7), (c) boards of directors (chap. 7), (d) political action (chap. 8), and (e) executive succession (chap. 9). Our aim is not to provide a review of all literature in these areas,¹ but only that which uses RDT as the primary lens. We focus on RDT logic for engaging in the focal strategies, the current state of empirical testing of RDT, and how research in these areas extends the RDT perspective. Finally, we highlight gaps in the literature and suggest promising new applications of future RDT research.

RDT and Mergers

RDT has become one of the dominant theoretical rationales explaining why firms engage in mergers and acquisitions (M&As) perhaps second only to transaction costs economics (Yin & Shanley, 2008; see also Haunschild, 1993). RDT offers an externally focused perspective of why firms acquire other firms (Haleblian, Devers, McNamara, Carpenter, & Davison, 2009). More specifically, Pfeffer (1976: 39) suggests three reasons why organizations may engage in M&As: “First, to reduce competition by absorbing an important competitor [*sic*] organization; second, to manage interdependence with either sources of input or purchasers of output by absorbing them; and third, to diversify operations and thereby lessen dependence on the present organizations with which it exchanges.”

Empirical research largely supports these three rationales. Pfeffer (1972a) finds that firms are likely to acquire their transacting partners, which is later confirmed by Galbraith and Stiles (1984) who observe that M&As often reduce interdependency between buyers and sellers. Pfeffer and Salancik's (1978) extension considers the relative importance of sale or purchase

interdependence to the likelihood of mergers. Burt (1980) uses their data and finds the odds of M&A activity to be related to the magnitude of the interdependency. Similarly, Walter and Barney (1990) observe that one of the managerial goals of M&As is to reduce firm dependence on other firms in their environment. Finally, Pfeffer's (1972a) study suggests that M&As are often used to reduce direct competition.

Support for RDT predictions of M&As and interdependency have been tempered, however, by other empirical research showing that the magnitude of interdependency is not the sole determinant of M&As. Other important considerations include the historical context of the firm (Finkelstein, 1997), industry environment (Hitt & Tyler, 1991), environmental munificence and dynamism (Heeley, King, & Covin, 2006), prevailing institutional norms (Palmer & Barber, 2001), and internal considerations (Campling & Michelson, 1998). Thus, although environmental interdependency is a significant predictor of M&As, empirical studies also suggest that it is not the only predictor. Continued work using transaction cost, resource-based view, industrial organization, and other perspectives may be attributed to RDT's perceived inability to fully explain or predict the likelihood of M&A activity.

Casciaro and Piskorski's (2005) recent study of M&As from a RDT perspective may represent a "renaissance" of RDT and mergers, however, and is a contemporary example of RDT theoretical development. They criticize RDT for (a) a lack of discrimination between power imbalance and mutual dependence; (b) confounding normative prescriptions and theoretical predictions; (c) ambiguities around its boundary conditions; and (d) most empirical work focusing on dependence of one actor on another rather than on reciprocal interdependence. Casciaro and Piskorski (2005: 168) define power imbalance as "the power differential between two organizations," whereas mutual dependence captures the "sum of their dependencies" suggesting that these different dimensions of interdependence affect mergers through unique mechanisms allowing examination of the reciprocal nature of dependency. They find that mutual dependence increases M&As, whereas power imbalance curtails them. Thus, their theoretical extension promises new exploration of mergers through the lens of RDT.

In summary, there is strong support that mergers occur between firms that depend on one another (e.g., buyers/suppliers, competitors) as a mechanism to reduce dependence. In addition, the magnitude of the dependency predicts the likelihood of M&As. However, research also indicates that this notion is an informative, but incomplete, view of M&As. Other important determinants of M&As exist, warranting insights from other theoretical perspectives. This also creates opportunities to further refine RDT, as exemplified in recent efforts to differentiate between power imbalance and mutual dependence.

RDT and Joint Ventures

RDT is also a primary theoretical perspective to understand joint ventures (JVs) and other interorganizational relationships (e.g., strategic alliances, R&D agreements, research consortia, joint-marketing agreements, buyer-supplier relationships; Barringer & Harrison, 2000; Oliver, 1990). Analogous to the merger literature, RDT usage is dwarfed by transaction cost explanations of JVs. Like the study of mergers, the RDT perspective on interorganizational relationships explores how their formation helps an organization acquire resources to reduce uncertainty and interdependence (Auster, 1994; Harrigan & Newman, 1990; Pfeffer & Salancik, 1978). However, unlike mergers, interorganizational relationships only provide partial absorption of the interdependencies.

Early research (Pfeffer & Nowak, 1976) supports RDT's application to JVs finding that JVs are commonly formed between interdependent firms. Empirical evidence also supports the use of interorganizational relationships to reduce domestic and international environmental complexity and gain resources (Elg, 2000; Goes & Park, 1997; Stearns, Hoffman, & Heide, 1987). Park and Mezias (2005) find that alliances formed in periods of low environmental munificence have more favorable stock market reaction, indicating the magnitude of dependency successfully predicts these forms. Similar to M&As, interorganizational relationships are also more likely between domestic and/or international suppliers and buyers (Murray, Kotabe, & Zhou, 2005; Provan & Gassenheimer, 1994; Skinner, Donnelly, & Ivancevich, 1987).

With regard to power, Provan, Beyer, and Kruytbosch (1980) find that firms gain power over resource providers (e.g., United Way) by entering alliances with other agencies. Das, Sen, and Sengupta (1998) find that smaller firms benefit more from these cooperative relationships than their larger partners. Yan and Gray (1994, 2001) examine the balance of power between international partners, finding that alliances occur when organizations are mutually dependent but the partner controlling more important resources retains strategic control. Inkpen and Beamish (1997) find that as one partner accumulates key resources from the other, the venture becomes less stable. Finally, Katila, Rosenberger, and Eisenhardt (2008) examine the possibility of resource misappropriation in interorganizational relationships and the need to consider both resource requirements and defense mechanisms for smaller partners. Thus, scholars are increasingly focused on the dynamic nature of interdependence and power from RDT.

Thus, empirical evidence largely supports RDT research predictions regarding JVs and other interorganizational relationships. As with mergers, however, several scholars continue to augment RDT with other theoretical perspectives to explain interorganizational relationships. Scholars commonly integrate RDT with network theory (Gulati, 1995), which shares many common assumptions regarding dependence but emphasizes the socially embedded context of firms. Others integrate RDT with game theory and organizational learning to understand partner power (Saxton, 1997), with agency theory to model JV control structures (Kumar & Seth, 1998), with transaction cost and/or network theory to predict partner choice (Elg, 2000; Steensma, Marino, Weaver, & Dickson, 2000), and with the resource-based view to model partner complementarity (Murray et al., 2005). As with mergers, RDT is valuable but does not completely explain interorganizational relationships.

Also like mergers, some scholars point to a theoretical "renaissance" of RDT application to interorganizational relationships (Katila et al., 2008: 321). For example, Gulati and Sych (2007) differentiate between two dimensions of interdependence—dependence asymmetry and joint dependence. Based on this delineation, the authors find that joint dependence can be a means of reducing uncertainty and enhancing firms' performance. Ozcan and Eisenhardt (2009) offer a finer-grained perspective of interdependence by reconceptualizing it as multilateral and socially constructed. They provide evidence that "executives can proactively create a vision of interdependence (i.e., industry architecture) that is unique and advantageous to multiple types of firms" (Ozcan & Eisenhardt, 2009: 270). Lomi and Pattison (2006) refine it further by suggesting that interorganizational dependencies extend across multiple networks. This work moves resource dependence from local dependencies to "multiplexity." Finally, Bae and Gargiulo (2004) find that organizations may use a network of interorganizational relationships to gain power and access resources. Thus, new theoretical developments of RDT promise

improved understanding of interdependence and network considerations regarding intraorganizational relationships.

In sum, research in JVs and other interorganizational relationships tells a similar tale to that of M&As. Although these firm relationships represent only partial absorption, unlike mergers, they are also more likely to occur between firms with mutual interdependence (e.g., buyers/suppliers), and power vis-à-vis external dependencies accrues through such actions. An opportunity for future research on JV and interorganizational relationships also lies in integrating RDT with other theoretical perspectives to consider the dynamic nature of these dependencies and power as well as the multiplexity of interdependency.

RDT and Boards of Directors

Although agency theory is the predominant theory used in the research on boards of directors (Dalton, Hitt, Certo, & Dalton, 2007; Johnson, Ellstrand, & Daily, 1996; Zahra & Pearce, 1989), this is the area of RDT's greatest research influence. Pfeffer (1972b) asserts that boards enable firms to minimize dependence or gain resources. Prior reviews of the board of directors literature conclude that RDT is supported more often than other board perspectives (e.g., Johnson et al., 1996; Zahra & Pearce, 1989), including agency theory. Thus, although RDT is less commonly used to study boards than agency theory, empirical evidence to date suggests that it is a more successful lens for understanding boards.

Early studies using RDT to examine boards focus on board size and composition as indicators of the board's ability to provide critical resources to the firm. For example, Pfeffer (1972b) finds that board size relates to the firm's environmental needs and those with greater interdependence require a higher ratio of outsider directors. He concludes "that board size and composition are not random or independent factors, but are, rather, rational organizational responses to the conditions of the external environment" (Pfeffer, 1972b: 226) and confirms this assertion in a replication study (Pfeffer, 1973). More recently, Sanders and Carpenter (1998) support this, finding board size to be related to a firm's level of internationalization, the latter indicating environmental dependence. Several studies also explore the relationship between board size and firm performance as an indicator of a successful resource dependence strategy. Meta-analyses by Dalton, Daily, Johnson, and Ellstrand (1999) compile these and find a positive relationship between board size and firm financial performance. However, many scholars are quick to question the simplistic answer provided by board size, suggesting that a more complex understanding is necessary. For example, Pearce and Zahra (1992) advocate that board composition and size are contingent not only on the external environment but also on the firm's current strategy and prior financial performance.

Scholars have also followed Pfeffer's (1972b) lead regarding board composition and the need to "match" the resources provided by the board with the needs of the firm. Boyd (1990) suggests that in some environmental conditions board size can be a hindrance, whereas board interlocks (the number of other directorships each director holds) are a benefit, suggesting that "resource-rich" directors should be the focus of board composition. Thus, it's not just the number, but the type of directors on the board that matters.

Pfeffer and Salancik (1978) suggest that directors bring four benefits to organizations: (a) information in the form of advice and counsel, (b) access to channels of information between the firm and environmental contingencies, (c) preferential access to resources, and (d) legitimacy. Significant empirical evidence supports these proposed benefits, both generally and

specifically. For example, Provan (1980) finds firms that are able to attract and co-opt powerful members of the community onto their boards are able to acquire critical resources from the environment. More specifically, Pfeffer and Salancik (1978) find that firms in regulated industries may need more outsiders, particularly those with relevant experience. Luoma and Goodstein (1999) confirm this, finding that firms in highly regulated industries have a higher proportion of stakeholder directors, whereas Johnson and Greening (1999) find that stakeholder directors are more likely to improve corporate social performance. Mizruchi and Stearns (1988, 1994) provide empirical support for the relationship between the firm's need for financial resources and representation of financial institutions on their boards. They (Stearns & Mizruchi, 1993) also find that the types of financial institutions represented on a board affect the financing the firms obtain, suggestive of Pfeffer and Salancik's four benefits of boards.

Support for these benefits is also found in recent work by Kor and Misangyi (2008), who find a negative relationship between top management's and the board's collective levels of industry experience. This suggests that the board supplements top management with vital advice and counsel. Lester, Hillman, Zardkoohi, and Cannella (2008) also focus on specific forms of director resources by predicting the likelihood of board appointments by ex-politicians, differentiating among their human and social capital as well as how recent their government experience is. Others find that firms with specific forms of environmental dependencies are more likely to have female directors (Hillman, Shropshire, & Cannella, 2007).

A good deal of research also establishes the need to change board composition as the environment of the firm changes (Boeker & Goodstein, 1991; Lang & Lockhart, 1990). For example, in the context of China's changing institutional environment, Peng (2004) finds that resource-rich outside directors are likely to have a positive influence on firm performance, whereas resource-poor outside directors are not, suggesting that when board composition is not changed to meet new environmental demands, performance suffers.

Hillman, Cannella, and Paetzold (2000) create a taxonomy of directors based on the RDT benefits that directors provide, exploring how specific types of directors may be more/less valuable as environments change (e.g., deregulation). They propose that directors can be classified as "business experts," "support specialists," and "community influentials," corresponding to the different types of resources they bring to a board. Kroll, Walters, and Le (2007) use Hillman and colleagues' taxonomy, finding young post-initial public offering (IPO) firms benefit from specific types of directors. Jones, Makri, and Gomez-Mejia (2008) observe that family firms pursuing diversification similarly benefit from specific types of directors over others. Thus, research has progressed toward identifying particular types of directors who match specific environmental needs facing firms.

Another stream of RDT research focuses on the times/types of firms most likely to benefit from the board resource provision. Much of this research considers the stages of a firm's life cycle in which director resources are most beneficial. Zahra and Pearce (1989) first proposed the idea that firm life cycle stage may influence the importance of the resource dependence role of boards, something Lynall, Golden, and Hillman (2003) and Gabriellsson (2007) suggest is more relevant during early life cycle stages. Daily and Dalton (1993) support this empirically, finding a significant relationship between several board characteristics (e.g., board size and composition) and performance in small corporations. Others find the monitoring function may be less salient to small firms because of their lack of critical resources (Fiegener, Brown, Dreux, & Dennis, 2000; Finkle, 1998), suggesting resource provision is more important. Similarly,

Daily, McDougall, Covin, and Dalton (2002) find that RDT logic holds up most consistently in entrepreneurial firms compared with other theoretical perspectives: "In the entrepreneurial firm, the resource dependence role may be even more critical than for larger, mature firms" (Daily et al., 2002: 403). Although Certo (2003) bases his study on signaling theory, his findings that prestigious boards can improve organizational legitimacy and subsequent IPO performance also support RDT. Similarly, Certo, Daily, and Dalton (2001: 44) find that board size is significantly related to IPO performance suggesting "potential investors may view larger boards as a signal of increased access to resources."

The RDT perspective on boards also has been important in the study of organizational decline and bankruptcy (Daily, 1996; Daily & Dalton, 1994, 1998). This research suggests that directors' role as resource providers may be especially salient during decline and bankruptcy because distressed firms often experience a reduction in their relative resource bases (Cameron, Kim, & Whetten, 1987). In support of RDT, Daily (1995) finds that firms with a greater proportion of outside directors were more likely to successfully reemerge from bankruptcy. Additionally, Daily (1996) finds the proportion of outside and affiliated directors to be positively related to prepackaged bankruptcy filings and negatively related to time spent in bankruptcy. Arthaud-Day, Certo, Dalton, and Dalton (2006) similarly propose that during legitimacy crises such as financial restatements, director turnover can be an important step toward restoring legitimacy and reestablishing broken links to the environment. As Daily and Dalton (1998: 248) suggest,

The findings regarding the relationship between boards of directors and declining firms provide a far more consistent picture of the impact of board composition and leadership structure than is found in the general literature on the relationship between these two governance elements and firm outcomes.

Thus, both early in the life cycle and in stages of decline, empirical research supports RDT. These findings, combined with support that matching board composition to external needs accrues specific benefits, prompted Daily and Schwenk (1996) to suggest that RDT is a key determinant of board composition.

Although RDT-based studies of boards represent a strong research stream, as mentioned earlier, it has been dwarfed by applications of agency theory. The mounting empirical evidence in support of RDT and boards, however, bodes well for the future health of the RDT stream. In their review of corporate governance research, Daily, Dalton, and Cannella (2003: 275) discuss the limited results obtained from an agency theory perspective and suggest that

rather than focusing predominantly on directors' willingness or ability to control executives, in future research scholars may yield more productive results by focusing on the assistance directors provide in bringing valued resources to the firm and in serving as a source of advice and counsel for CEOs.

Additionally, just as in the areas of mergers and interorganizational relationships, RDT may be experiencing a theoretical renaissance in boards through a focus on the resource provision role of directors. This recent advance examines individual directors, not just the board as a whole, as resource providers (Kaplan & Harrison, 1993). Although earlier reviews of boards (Johnson et al., 1996; Zahra & Pearce, 1989) discuss roles of directors related to RDT ideas, Hillman

and Dalziel (2003) suggest only two board functions: (a) monitoring from the agency theory perspective and (b) resource provision from RDT. They argue that the level of board capital (sum of director human and social capital), along with incentives, will affect both monitoring and resource provision. Westphal and colleagues (Carpenter & Westphal, 2001; Westphal, 1999) find empirical evidence to support this differentiation between the monitoring and resource provision (i.e., advice and counsel) functions.

Lester et al.'s (2008) study of directorships among ex-politicians differentiates between the depth, breadth, and deterioration of individuals' human and social capital applicable to boards and resource provision. They find support for specific forms of individual human and social capital being more desirable to firms than others, suggesting promise in future efforts determining director resource provision. Others similarly focus on director motivation to contribute in the boardroom. Hillman, Nicholson, and Shropshire (2008) model the influence of directors' multiple identities on resource provision to understand when a director will provide advice and counsel, use their external connections, and so on.

Additionally, although research has extensively focused on the relationship between interdependencies and organizational ties, Westphal, Boivie, and Chng (2006) examine the impact of strategic dependencies on informal executives' ties. These authors find that different sources of strategic dependence affected the likelihood that CEOs reconstitute friendship ties to top executives from other firms, broken accidentally when either executive exited from their primary firm. They also find CEOs are more likely to reconstitute friendship ties with other executives when the other represented resource-rich providers (e.g., buyers/suppliers, financial institutions, and competitors under high level of competitive uncertainty). This research offers initial evidence of how executives may strategically use informal ties to manage resource dependencies.

To summarize, board of directors' research has seen the greatest application of RDT over the past 30 years. Again, strong support exists for Pfeffer and Salancik's (1978) assertions that boards can manage environmental dependencies and should reflect environmental needs. Strong support also has accrued for the four benefits directors can bring to firms: advice and counsel, channels of information flow, preferential access to resources, and legitimacy. The dynamic nature of boards (i.e., changing composition as environmental needs change) appears to be a nearly normative convention, although this has received little empirical testing. However, like the other areas, scholars still call for a multitheoretic view of boards, particularly one including agency theory. A richer understanding of the specific resources individual directors bring to a board, as well as their motivations to contribute to them, is also needed.

RDT and Political Action

Perhaps Pfeffer and Salancik's (1978) most commonly overlooked chapter is "The Created Environment: Controlling Interdependence Through Law and Social Sanction" (chap. 8). The crux of this chapter is that because firms are unable to reduce uncertainty and interdependence on the larger social system (including the government), they undertake other means to reduce the uncertainty and interdependence from these environmental contingencies. Pfeffer and Salancik (1978: 189, 190) note that "the organization, through political mechanisms, attempts to create for itself an environment that is better for its interest" and that "organizations may use political means to alter the condition of the external economic environment." In doing so, firms actively seek to "create" their environment by trying to shape government regulations that produce a more favorable environment.

We find research support for much of this initial thought on the “created” environment, though more frequently studied under the domains of political economy or political science than management. These efforts have often invoked alternative theoretical foundations. Although the general statement that “firms are dependent upon the government, therefore they will engage in corporate political action” has taken on almost a truism status and is often accompanied by a citation to Pfeffer and Salancik (1978), not much of the work in this area has invoked RDT in a meaningful way. Meznar and Nigh (1995) find that firms heavily dependent on the government are more likely to engage in political activity. Similarly, Birnbaum (1985) finds that as regulatory agency dependency increases (the agency controls more of the firm’s financial resources), managers are more favorably disposed toward political activity. One exception to these findings is that of Blumentritt (2003), who finds no relationship between bargaining power of the firm vis-à-vis its host country and subsidiary’s government affairs activities. However, these results should be tempered by the difficulty in measuring relative bargaining power and support he finds for a relationship between how efficacious top managers believe these activities are and their usage. On net, empirical research supports the underlying relationship between government dependency and political action.

Mullery, Brenner, and Perrin (1995) find support for RDT by observing similar patterns of political campaign contributions by firms in comparable regulatory environments. Thus, firms facing the same environmental dependencies are more likely to use the same strategies of cooptation. Therefore, not only is the absolute level of dependency a predictor of engaging in political action, but similar environmental dependencies are predictors of similar firm responses. Blumentritt and Nigh (2002) find that dependence within the firm is a predictor of coordination of political efforts across subsidiaries, suggesting that dependence operates at different levels of analyses within multidivisional firms.

The heterogeneity of dependence is a theme explored by Aharoni, Maimon, and Segev (1981). They find that managers perceive the government as one of the most difficult environmental dependencies to control because of the heterogeneous interests of different agencies and political decision makers. Similarly, Lester et al. (2008) find that as government officials leave office, the heterogeneity of their individual human and social capital results in differential rates of joining corporate boards. This indicates that firms seeking to create linkages with the government through boards as Pfeffer and Salancik (1978) suggest purposefully seek those directors who have the best ability to manage this interdependence. Thus, not only have scholars established the varying dependencies that comprise the “government,” but they also are beginning to establish the specific forms of ties or cooptation that can help manage them.

Finally, a set of findings speak to the benefits of political actions to manage environmental dependency. Hillman, Zardkoohi, and Bierman (1999) find that abnormal shareholder returns accrue to firms whose top managers are elected or appointed to federal positions in the U.S. government, suggestive of the benefits of linkages between firms and political decision makers. Similarly, Peng and Luo (2000) find that ties between Chinese managers and government officials (social ties) help improve market share and that this relationship is even stronger for firms with greater dependence on the government. Furthermore, Hillman (2005) finds a relationship between financial performance and ex-politicians on the board, particularly in more heavily regulated firms. Thus, research in this area finds not only that firms who are more dependent on the government will engage in political action but also that financial benefits accrue to those that create co-optive linkages.

Although the topic of “created environment” is perhaps the most overlooked by management scholars, research in this area supports the following: (a) political action correlates with the degree of environmental dependency the firm faces, (b) firms facing the same environment are likely to choose the same forms of political behavior to manage it, and (c) performance benefits accrue to firms that create linkages with the political environment. Although we hesitate to depict this as overwhelming support for RDT, these promising studies suggest an opportunity for further research incorporating the RDT perspective. Unlike M&As, JVs, and boards, political activity has not experienced a theoretical renaissance, but to be fair there wasn’t much to start.

RDT and Executive Succession

Executive succession is a topic in which Pfeffer and Salancik (1978: 248) discuss an organization’s internally focused answer to cope with environmental uncertainty and dependencies. They suggest, “Executive succession . . . is itself one strategic response to environmental contingencies.” They provide the following model of effects:

- (1) the environmental context, with its contingencies, uncertainties, and interdependencies, influences the distribution of power and control within the organization; (2) the distribution of power and control within the organization affects the tenure and selection of major organizational administrators; (3) organizational policies and structures are results of decisions affected by the distribution of power and control; and (4) administrators who control organizational activities affect those activities and resultant structures. (Pfeffer & Salancik, 1978: 228)

Thus, poor firm performance may be attributed to a misalignment of organizational behavior with the environment. Replacing the CEO with someone “capable of coping with the critical problems facing the organization” may remedy this misalignment (1978: 236).

Harrison, Torres, and Kukalis (1988) observe that firms that are more dependent on the environment have an increased rate of executive turnover. Several others support the relationship between firm presuccession performance and executive succession (Arthaud-Day et al., 2006; Friedman & Singh, 1989; Goodstein & Boeker, 1991; Zhang, 2006) as well as executive tenure (Guthrie, Grimm, & Smith, 1991). That is, when a firm experiences poor performance (or signals poor leadership through events such as financial restatements), they are more likely to replace their CEO and the market is more likely to respond positively. In more competitive or uncertain environments, executive tenure is also shorter than in stable, predictable environments. Similarly, Guthrie and Olian (1991) find that environmental contingencies are linked to the executive selection process. As environmental uncertainty increases, years of business unit tenure decreases for individuals selected as general managers. In these instances, experience from a single organization is viewed to be less relevant than diverse, extraorganizational experiences in a highly uncertain environment. Daily, Certo, and Dalton (2000) similarly proxy international assignments as a form of competency in managing external dependency and find that these assignments may ultimately benefit outside firms during executive succession.

There is also a strong stream of RDT research regarding the type of executive selected during a succession event. Dalton and Kesner (1983) used RDT to investigate the relationship between organizational size and internal/external succession candidates. As RDT would

predict, they found evidence that larger firms may have entrenched executive power and thus were more likely to replace a CEO with an insider. Dalton and Kesner (1985) studied whether poor-performing firms select insiders or outsiders as new CEOs and find that the relationship is complex. Both companies with “reasonable performance” prior to executive succession and those with “poor performance” tended to choose insiders, whereas those companies with a mid-range of performance tended to select outside CEOs. This runs counter to Schwartz and Menon’s (1985) findings among firms filing bankruptcy. These authors find companies in dire financial straights were more likely to hire an outside CEO than their healthier counterparts. This has prompted some scholars to explore more nuanced relationships between performance and inside/outside successors.

For example, Cannella and Lubatkin (1993) find that sociopolitical forces decoupled the relationship between firm performance and selection of an outsider. Specifically, they find outsider succession is unlikely when either (a) an heir apparent is present that the board of directors is already committed to or (b) when the outgoing CEO is able to influence the succession process. Similarly, Harrison et al. (1988: 229) find that when the CEO and board chair positions are held separately, it “makes it more difficult to replace either executive when performance declines.” Reflecting the complexities of executive succession, Salancik and Pfeffer (1980) note that to replace the CEO some interest must initiate change when firm performance is unacceptable, and the power of the incumbent must be sufficiently weak to allow replacement. They further suggest that the distribution of ownership, as well as the proportion of insiders on the board, mediates the relationship between firm performance and executive tenure. Finally, Welsh and Dehler (1988: 949) suggest resource scarcity and intraorganizational political activity shape the postsuccession environment so the successor’s role is well defined. They note, “With scarce resources, the impact of a successor’s actions will be much less ambiguous than it will be when resources are abundant.”

To summarize RDT’s application to executive succession, Pfeffer and Salancik’s (1978) assertions that (a) intraorganizational power is affected by external dependencies and (b) executive succession can reduce environmental dependencies have received empirical support. Scholars find the degree of environmental uncertainty or dependence is likely to affect the rate of executive turnover and tenure, as well as the type of new executive selected. Although RDT seems well positioned to enhance the executive succession discourse, it has not been widely used to explain turnover events. Instead, other traditional perspectives such as agency, vicious cycle, and ritual scapegoat theories (Finkelstein, Hambrick, & Cannella, 2008; Kesner & Sebor, 1994) are more prevalent.

Summary: State of RDT

Clearly, this review supports Pfeffer and Salancik’s (1978) original assertion that firms that depend on the environment can and do enact multiple strategies to combat these contingencies. M&As, JVs/other interorganizational relationships, boards of directors, corporate political action, and executive succession are used to manage these dependencies. Empirical evidence across each of these areas validates the reciprocal effect of uncertainty and interdependence on firm action.

Taking a more holistic view across these areas, we beg to differ with Pfeffer’s assertion (in the Pfeffer & Salancik, 2003, introduction to the second edition) that RDT has not been as rigorously tested or explored as it should be. In surveying extant research, RDT appears to be well

established in terms of the general relationships between firms, their environments, and the actions firms take to reduce these dependencies. Although the areas of political action and executive succession are less frequently explored, on balance we can say that RDT's underlying model is an accurate portrayal of M&As, interorganizational relationships, and boards of directors. However, we share concern over relative lack of recent theoretical interest in RDT as a foundational theory because of the opportunity for further development, refinement, and application. We now turn our attention to our thoughts regarding an initial future research agenda that would help move RDT forward.

The Future of RDT

Talking Between the Five Streams of RDT Research

One opportunity for expanding RDT is to bridge the five research streams considered in this review. For the most part, these five areas have been partitioned with the obligatory citation of Pfeffer and Salancik (1978) being the only conduit between them. However, we feel that each of these divergent literatures may benefit by considering the work conducted on other interdependence-reducing strategies. Fundamentally, we suggest that the research using RDT should talk to one another to more fully appreciate how dependencies are reduced.

One area that may directly benefit by incorporating research from another strategic area is research on JVs and other interorganizational relationships. The “renaissance” in RDT theoretical development in this area and M&As share similarities. Recent M&A work that differentiates conceptually between power imbalance and mutual dependence might profit from the theoretical distinction JV scholars make between the types of interdependence, recognition of multiplexity dependencies, and dynamic nature of these relationships. Although these two areas are most theoretically similar, we also believe that each of the aforementioned areas of RDT research may benefit from synergistic approaches. For example, board research may gain new insights from examining the multiple forms of interdependency and how they affect interlocks that develop or the types of directors that are chosen. Similarly, work in corporate political action may benefit from more dynamic considerations of interdependency and the work on the heterogeneity of government-created dependencies from the work on multiplexity of dependency in JVs. Work on executive succession may benefit from board of director research examining assets individuals bring with them to the organization as well as their motivations to employ these assets for betterment of the firm. For example, are the individual differences that contribute to CEO success similar to those that predict effective board member behavior? Will environmental factors that influence executive succession vary by whether board members provide their human and social capital (e.g., advice and counsel, use of communication channels, access, etc.)?

Beyond simply referencing “lessons learned” from other areas of RDT research, an integrated, interactional approach using multiple resource dependence strategies seems promising. Recent research suggests that between 1980 and 2000 firms began engaging in multiple resource dependency relationships to reduce their overall dependence on the environment (Hambrick, Finkelstein, Cho, & Jackson, 2005). Despite this movement toward multiple resource dependency relationships, research has rarely considered multiple simultaneous strategies for reducing interdependencies. Because of this void, we know very little about how these different strategies may interact and influence one another.

Fortunately, there is relevant work in other areas on which to build. In corporate governance research, some have begun considering the potential substitution effects that may exist between different governance mechanisms (e.g., Rediker & Seth, 1995). Similarly, research examining resource interdependence may examine the potential substitution effect existing between these different forms of interdependency-reducing strategies. Therefore, the following questions arise: How do these different interdependency-reducing strategies interact? Are they complements that work in concert to reduce environmental uncertainty and interdependence? Or, do these strategies work independently as substitutes with little or no change in interdependence when employing multiple interdependency-reducing strategies?

Highlighting differences across the five strategies for managing dependencies may lead to a better understanding of their intrarelationships. For example, M&As are the most complete form of absorption, whereas JVs and other interorganizational relationships (e.g., appointing directors and executive succession) are more partial forms. Each carries different degrees of risk and control, similar to the various strategies used by firms going international (e.g., exporting, licensing, JVs, greenfields). Perhaps future research can delineate the similarities between these strategies to understand their substitution/complementarity. This could improve understanding of the tradeoffs among these as well. For example, do firms progress through a natural sequence of resource dependence strategies to reduce interdependency? For example, do firms first look to board of directors before implementing more resource intensive strategies such as political action, JVs, or executive succession?

Furthermore, the examination of multiple interdependency-reducing strategies raises the following questions about how employing one affects the use of others. For example, how does the decision to engage in JV affect the decision to nominate certain directors or change board size or interlocks? Do new director interlocks or other board capital result from a JV? Conversely, does board capital act as the catalyst for a potential firm to enter into a JV with another? Very little research considering how these different strategies may affect the decision to engage in other interdependency-reducing strategies exists. Changed dependencies may trigger an executive succession resulting in a firm that engages in more/fewer mergers, alliances, political strategies, or changes at the board level. The interrelationships among these strategies are ripe for theoretical and empirical development.

Integrating RDT With Other Salient Theoretical Perspectives

Another potential area for future research is juxtaposing RDT with other theoretical lenses to examine organizational interdependencies. As our review indicates, in none of the five areas is RDT sufficient on its own. Rather, research using RDT has a long history of integration with other theoretical perspectives to examine the phenomenon of interest. In each different research stream discussed in this review, RDT has been integrated with other theoretical perspectives. Transaction costs has been the favored partner of RDT in M&A (Yin & Shanley, 2008) and JV work (Auster, 1994), whereas agency is the primary partner for research in boards (Hillman & Dalziel, 2003). Some integrate RDT with an institutional theory perspective (Oliver, 1990), whereas others offer meta-theoretical views of organizations combining RDT with multiple theoretical frameworks (e.g., Lynall et al., 2003; Ulrich & Barney, 1984). Thus, we believe that there is much promise in integrating other theoretical lenses with RDT to offer new insights into the relationship between an organization and its environment.

For example, integrating RDT with the resource based view of the firm (Barney, 1986, 1991) may be particularly productive. Because of their complementary focus on resources, integrating these two theories may offer new insights into the organizational resource endowments. It may also explain how organizations obtain competitive advantage by obtaining valuable, rare, nonsubstitutable, and imitable resources from the external environment. Comparing these two theories allows consideration of both an internally focused perspective of how organizations specify resource needs and an externally focused perspective of how organizations obtain these valuable resources. A synthesized approach may offer insight into how obtaining control of critical resources offers firms competitive advantage and how developing resource interdependencies around critical resources affect the advantage derived from them.

As another example, several similarities exist between RDT and stakeholder theory, which both recognize the firm's interdependence on external and internal contingencies (stakeholders). Research in stakeholder theory has been refined to explain which stakeholders take precedence in a situation (e.g., Mitchell, Agle, & Wood, 1997), which might be a constructive frame of reference for RDT scholars. To our knowledge, other than noting that the magnitude of dependency affects strategic use and multiple dependencies coexist, RDT has not specified which dependencies take precedence over others if multiple important dependencies exist. Perhaps combining recent RDT recognition of the multiplexity of dependencies with the insights from theory regarding stakeholder importance would yield greater insights for managing dependencies and the specific strategies to do so.

Another potential theoretical lens for integration may be real options theory (Bowman & Hurry, 1993). In this case, examining multiple resource dependence—reducing strategies from a real options perspective may prove productive. Real options theory occupies a central conceptual position in the development of theory that offers guidance for strategic decision making under uncertainty (McGrath, Ferrier, & Mendelow, 2004). The application of a real options perspective with RDT may allow further examination of how firms manage and call on these strategies to reduce uncertainty. For example, is asking a director to serve for election to your board an “option” in managing this dependency (e.g., politicians as board members)? Is the director's fee a way of taking out an option to use valuable political influence should critical dependencies arise in the future? Can an alliance be used as a way to gain more certainty around a potential partner before exercising an option for a full merger?

Because of their similar focuses on the role of the external environment, population ecology may also represent a theoretical perspective for integration with RDT. In one of the earliest attempts to integrate RDT with other theoretical lenses Ulrich and Barney (1984) do just this. The authors use these two perspectives along with transaction cost economics to develop a meta-theoretical perspective of organizations. They suggest population ecology's perspective of organizational selection and survival may be explained by a firm's ability to reduce environmental dependencies while gaining power over others. However, beyond this initial theorizing, little research has considered the role that resource dependence relationships play in the survival and selection process from this perspective. For example, niche theory from the population ecology perspective may offer a fruitful area for integration with RDT. As Hannan and Freeman (1977: 947) suggest, “The niche . . . consists of all those combinations of resource levels at which the population can survive and reproduce itself.” Thus, the niche offers firms the necessary resources required to survive (Ulrich & Barney, 1984). Integrating niche theory and RDT

may offer new insights into how resource dependence relationships develop in certain industries.

Integration of RDT and institutional theory may prove enlightening as well. Much of the research in corporate political action takes the country's institutional environment into consideration when describing the sources of uncertainty and dependence. Although this work draws on neoinstitutional theory primarily from economics (e.g., North, 1990), management scholars pay a good deal of attention to institutional forces within a society that result in isomorphism (e.g., DiMaggio & Powell, 1983). Searching for the theoretical synergies between legitimacy and forms of cooptation may hold promise. For example, is electing a director from a critical source of external dependency a form of legitimation? Do institutional forces influence what form of dependency reducing strategies firms use (i.e., alliances vs. executive succession)?

RDT and contingency theory share a number of fundamental assumptions regarding the role of environmental uncertainty and dependencies/demand. Yet, to our knowledge, these similarities have not been explored in depth nor have the more nuanced relationships explored in contingency theory been extended to RDT. Although some of the more recent work in contingency theory builds on RDT, in particular, Dess and Beard's (1984) research on environmental dimensions, research in the two perspectives seems to have followed separate but parallel paths of development. Perhaps RDT could suggest which environmental contingencies hold the most influence over organizational actions and outcomes. Similarly, expanding contingency theory's environmental dimensions may highlight different segments/sources of interdependency.

At its foundation, RDT builds on several micro perspectives (e.g., reciprocity, power, culture) to understand how firms develop strategies to engage and manage their environment. Thus, juxtaposing RDT with other microperspectives may also offer new insights into the adoption and of these interdependency-reducing strategies. For example, researchers may consider parallels between interdependence at the micro-macro level. The impetus and outcomes of behavior at the firm level may emulate similar forces frequently studied in terms of individual behavior. As a macro concept, RDT addresses interdependence as the reciprocity between organizations and the environment as a contributor to firm success. Micro-level research has long studied reciprocal relationships and defines interdependence as the extent to which employees rely on their coworkers to perform successfully (Bachrach, Hui, Bendoly, & Shuoyang, 2007; Bachrach, Powell, Collins, & Richey, 2006). The micro-macro conceptualizations share a focus on reciprocity as a means to generate successful performance within a given environment. Syntheses of these streams may contribute to the overall body of knowledge. Bridging RDT with micro theories is emerging in the work on boards, but it may also have potential in the area of executive succession and other forms of dependency-reducing strategies. We hope that this will trigger a new generation multilevel dependency research, which promises to advance current micro, macro, and meso theories.

By juxtaposing RDT with other theoretical perspectives, the emergence of and advantages gained from these interdependency-reducing strategies may be better understood. The interaction of interdependent organizations and their environment is a dynamic, complex process requiring robust perspectives that can explain a broad range of outcomes. Thus, integrating RDT with other complementary perspectives may offer a more realistic perspective of this interaction. Furthermore, new applications of RDT may be realized through the integration of RDT with complementary theoretical perspectives.

Examining Other Strategies to Reduce Environmental Dependency

Although we focused our review on the five actions/strategies identified by Pfeffer and Salancik (1978), future research would also benefit from exploring other actions firms can take to manage/reduce environmental dependencies. For example, outsourcing has become much more prevalent in recent years, yet research applying RDT to supply chain management is minimal. The interfirm relationships made possible by the tremendous advances in communication and transportation technology have introduced new levels of environmental dependency between the firm and its outsourcing partners. As Pfeffer (1987) suggests, attempts to control external interdependencies may produce unintended consequences, such as new patterns of dependence. This is exemplified with extensive outsourcing programs (such as full service suppliers) that improve certain operational issues and create new dilemmas. Cooperation and information sharing, which are important for successful supply chain management, can also be problematic. Information exchange may cause knowledge spillover (Inkpen & Currall, 2004) and information asymmetry may create a power imbalance (Tsang, 1999). Concerns about information asymmetry and power imbalance would align nicely with Casciaro and Piskorski's (2005) study of M&As. Consortia, co-ops, modular structures, trade associations, and other business groups may also be interorganizational forms that reduce dependency/uncertainty in the environment that warrant further examination.

RDT conceptualizes executive succession as a firm-level action to more fully align it (with the CEO as a proxy for organizational strategy) with the environment. This is a classically macro interpretation. Selection, training, and performance appraisal may be some of the most critical resource management responsibilities an organization has. Whereas macro scholars may view the succession process primarily as a firm-level exercise, human resource management scholars may view this as a prototypical individual-level selection process heavily influenced by individual differences. For example, Hiller and Hambrick (2005) discuss how CEO core self-evaluations, a decidedly micro-level concept, may affect organizational strategy and performance. Both the micro and macro interpretations would benefit from the incorporation of RDT. In an example of a micro application of a resource dependence perspective to strategic human resource management, Wright and McMahan (1992) point out that traditional HR functions such as selection, training, and performance appraisals can provide a competitive advantage and ultimately lessen the impact of environmental uncertainty.

The rapid pace of globalization in the past three decades also raises new opportunities for organizational forms designed to reduce interdependencies across different institutional settings. Some argue that we are witnessing "hypercompetition" (D'Aveni, 1994), and although this is debatable (McNamara, Vaaler, & Devers, 2003), rapidly changing environments may also warrant alternative forms of interorganizational linkages to reduce interdependence.

Theoretical Developments of RDT

Finally, although the basic tenets of RDT are well supported, it has not experienced substantial theoretical development or refinement. Work in M&As delineating the differences between power imbalance and mutual dependence is promising, as is the related work in JVs differentiating between interdependence types. Recognizing that dependencies exist with multiple environmental contingencies, or the "multiplexity" of these relationships, also shows potential. Insights from network theory may help scholars better understand the web of interdependencies. Similarly, the dynamic nature of interdependencies, as well as the strategies organizations

use to manage them, is a fruitful area for future research. Although all these initial forays have been in the areas of M&As and JVs, the application of these theoretical developments to boards, political action, and executive succession may also prove to be fertile grounds of research.

Within the study of boards, the focus on the resource provision role of individual directors may inspire related work on executive selection and the role of succession in managing environmental uncertainties. Work that disentangles the types of human/social capital needed on the board to provide the benefits Pfeffer and Salancik (1978) advocate is another area ripe for further theoretical refinement.

The strategies of political action and executive succession represent areas with the greatest need for both theoretical and empirical work in the future. Although scholars recognize the heterogeneity of dependence that accompanies government decision making, little theoretical development seeks to address this phenomena.

Boundary Conditions of RDT

We also echo Pfeffer and Salancik's (2003: xxiv) call for more research considering the boundary conditions of RDT. As Dubin (1978: 125) eloquently states, "In order that a model may represent an empirical system, it has to have boundaries corresponding to the empirical system." However, research has been slow to determine the boundary conditions for RDT, with only a few notable exceptions (e.g., Casciaro & Piskorski, 2005; Finkelstein, 1997). Finkelstein offers an extension to Pfeffer's (1972a) study by examining the boundary conditions in which RDT is more predictive of M&A formation. As Finkelstein (1997: 808) indicates, "Both established industry patterns of response, and variability in the extent to which firms in some industries may benefit from reducing constraint, affect the likelihood that strategies designed to reduce dependencies will be employed." However, Finkelstein also finds that the predictive power of the RDT explanation may depend on the historical context in which the firms found themselves. Additionally, Casciaro and Piskorski (2005: 167) suggest that by considering "constraint absorption, other interorganizational operations aimed at restructuring dependencies, and operations aimed at using power given the dependence structure" boundary conditions for the effects of power imbalance and mutual dependence are recognized.

Our review hints at other areas that may confine the theory. For example, Palmer and Barber's (2001) research on M&As and research in other institutional contexts (e.g., Peng, 2004) may uncover further limitations to RDT. Although cross-national studies invoking RDT begin to emerge, more work may inform applications of RDT beyond the U.S. context. Employing historical methods may also offer further insights into the temporal conditions limiting RDT applications. Furthermore, following Casciaro and Piskorski (2005), research examining multiple forms of interdependencies may reveal of the conceptual perimeter of RDT. For RDT to remain theoretically relevant, research needs to fully explore its landscape as well as its natural borders that restrain its application. Thus, we believe that research examining the boundary conditions of RDT remains a fertile ground for future research.

In closing, we agree with the introduction to the second edition of Pfeffer and Salancik's (1978) work on RDT that the contention that firms are constrained by and can affect their environments is well accepted. In this manner, RDT has been a success as this review shows. But where we differ is whether this success has indeed "ruined" RDT. We believe that RDT is a valid theoretical framework with a strong future in management research. Scholars can and should build on this successful foundation. There is much yet left to be done.

Note

1. For example, see reviews of M&As (e.g., Barkema & Schijven 2008; Carper, 1990; Halebian et al., 2009), diversification (e.g., Hoskisson & Hitt, 1990), boards and co-optation (e.g., Johnson et al., 1996; Zahra & Pearce, 1989), strategic alliances (e.g., Inkpen, 2001; Inkpen & Tsang, 2007), political strategies (Hillman, Keim, & Schuler, 2004), and executive succession (Kesner & Sebor, 1994).

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