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Werner Nienhüser*

Resource Dependence Theory – How Well Does It Explain Behavior of Organizations?**

This article evaluates to what extent Resource Dependence Theory (RDT) is able to explain organizational processes and structures. The evaluation criteria are the empirical corroboration of the theory, its information content and generality, but also how realistic the assumptions of the RDT are. The evaluation shows that the theory is empirically well confirmed. On the whole, Resource Dependence Theory significantly contributes to explaining behavior, structure, stability, and change of organizations.

Key words: Resource Dependence Theory, power, behavior of organizations

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1. Introduction

This article deals with the question to what extent Resource Dependence Theory (RDT) is able to explain behavior of organizations. Behavior is understood here in a wide sense, it includes actions and decision making as well as "non-decision-making" (Bachrach/Baratz 1977) and results of decision making and actions, like organizational structures. Differences in the behavior of organizations can be traced back to differences in management decisions which are influenced by external and internal agents controlling critical resources. Those who control critical resources have power, and power influences behavior. RDT also claims to be able to explain how different organizational structures emerge, for example why and how the multidivisional form was created, but also why and under which conditions mergers of firms take place. A theory should cover as many aspects of organizational behavior as possible, and not be limited to specific resources or selected strategies or structures. RDT is such a general approach, claiming considerable explanatory power.

I will proceed in the following way: First of all, I will describe the basic assumptions of the theory. Then I will outline main empirical results and discuss central objections to the theory. Finally I will make a final appraisal about the explanatory power of the theory. The empirical corroboration (cf. for this and other criteria Bacharach 1989) is in the forefront of this article. Alongside the empirical validity, I will take into account the following evaluation criteria: first, the information content because if a theory does not exclude any event it does not make sense to carry out an empirical test. A second important issue is how many facts can be explained by the theory, i.e. whether the theory can account for few or very many dimensions of the behavior of organizations. Finally it is important, how close the propositions are to reality. With this I mean whether RDT is based on a realistic picture of actors and the organization (the assumption of strong rationality, e.g., is a less realistic one).

2. Background and basic ideas of Resource Dependence Theory

2.1 Background

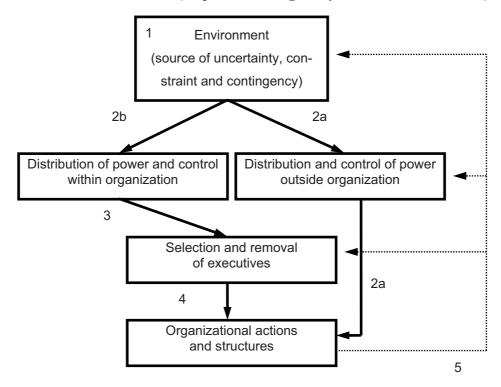
The concept of the "Resource Dependence Perspective" (1978) gained public awareness through the book by Jeffrey Pfeffer and Gerald Salancik "The External Control of Organizations. A Resource Dependence Perspective" and became widely accepted in the Anglo-American discussion. The fact that Pfeffer/Salancik's book (1978) was republished unrevised (with a new introduction) in 2003 is not the only factor that speaks for its importance. According to citation analyses by Üsdiken/Pasadeos (1995) and Gmür (2002) the publication by Pfeffer/Salancik (1978/2003) belongs to the most frequently quoted works. In the important volume edited by Scott (1994) called "Organizational Sociology", RDT is one out of a total of seven theoretical approaches discussed. It also has a place within a much heeded review by Wright/McMahan (1999) on theoretical perspectives of HR strategies. In addition to this, there are many empirical works which means that one can estimate the relative strength of its explanatory power.

A fundamental assumption of Resource Dependence Theory (RDT) is that dependence on "critical" and important resources influences the actions of organizations and that organizational decisions and actions can be explained depending on the particular dependency situation. The following sketch of the RDT relies essentially on the book of Pfeffer/Salancik as both authors have tried to systemize and integrate all their theoretical ideas and empirical results published in various articles into one comprehensive theoretical approach.

2.2 Basic ideas

One can use a diagram by Pfeffer/Salancik which I have adapted slightly in order to more closely depict RDT. It provides a kind of framework, but does not imply any causal propositions. Pfeffer/Salancik do not formulate a system of logically interconnected propositions but present their theory as being an "essay theory". I will first of all explain the framework of reference and then outline some of the central propositions more closely.

Figure 1: The connection between environment, organization and organizational decisions or actions (adapted from a diagram by Pfeffer/Salancik 2003: 229)



I have extended Pfeffer/Salancik's diagram (2003) by arrow 2a, the variable "Distribution and control of power outside the organization", and by relationship number 5. In my opinion, the modified diagram describes the complete picture in the argumentation of RDT better.

(1) Environment as a source of uncertainty and constraint

The central thesis of the theory is as follows: "The central thesis of this book is that to understand the behavior of an organization you must understand the context of that behavior - that is, the ecology of the organization" (Pfeffer/Salancik 2003: 1).

Pfeffer/Salancik (2003: 35) criticize the point that the importance of the environment was always emphasized but most theories concentrated on internal processes of resource use instead of considering processes about gaining resources (Pfeffer/Salancik 2003: 3). RDT postulates that the environment provides "critical" resources needed by the organization. To be able to understand organizational behavior one must first of all clarify which resources are the critical ones. "Criticality measures the ability of the organization to continue functioning in the absence of the resource or in the absence of the market for the output" (Pfeffer/Salancik 2003: 46). A particular resource may only constitute a very small part of total resource needs or costs, but it is critical if the missing of that resource endangers the ability of the organization to function. However, RDT does not argue that the environment and dependency on critical resources directly influence organizational behavior behind the backs of actors involved. Rather, it makes assumptions about actors and their relation to the environment: the theory assumes bounded rationality which takes into account "the limits in formulating and solving complex problems and in processing (receiving, storing, retrieving, transmitting) information" (Simon 1957: 198). At the same time, one can assume that organizations strive to reduce or avoid uncertainty. "Uncertainty refers to the degree to which future states of the world cannot be anticipated and accurately predicted" (Pfeffer/Salancik 2003: 67). The environment is the central source of uncertainty. The extent of uncertainty varies depending on the distribution of critical resources in the environment. Pfeffer/Salancik interpret uncertainty and those environmental dimensions causing it as being scarce resources and their low concentration as well as complexity in an action theory way: it is always about actors who control resources and about other actors who need these resources which result in varying relationships of dependency. If one organization exists with a vast reserve of resources, this reduces the dependency on and conflicts with other actors. Concentration of resources means above all concentration of power. The fewer the number of resources, the higher the concentration of power in the environment, and the more numerous the connections between actors (i.e. complexity), the sooner conflicts and interdependencies arise and the higher the amount of uncertainty is that needs to be reduced. Uncertainty on its own is not a problem. Only when there is uncertainty and dependence on critical resources the organization is forced to take measures to reduce uncertainty.1

On the one hand the environment constrains actions in an *objective* way by the amount of available resources. On the other hand the distribution of resources in the environments has to be subjectively perceived and interpreted by managers. "The

¹ It is noteworthy to point out that there are similarities here with transaction cost theory. Williamson (e.g. 1984; 1990) argues that problems arise in the case of high uncertainty and dependency on specific resources in the transaction cost theory, i.e. transaction costs.

concept of constraint explains why individuals account for relatively little variance in the performance and activities of organizational systems" (Pfeffer/Salancik 2003: 15). The context has a stronger effect than preferences or the will of individuals: "The point is that behaviors are frequently constrained by situational contingencies and the individual's effect is relatively small" (Pfeffer/Salancik 2003: 16). Pfeffer/Salancik (2003: 10) refer to empirical studies (Lieberson/O'Connor 1972; Salancik/Pfeffer 1977) showing that variance in political behavior which can be explained by individual differences (by change of managers or majors) are marginal in comparison to variance which can be traced back to differences in the organizational environment. Nevertheless Pfeffer/Salancik do not maintain that management is irrelevant to any extent, because decisions and actions are also influenced by subjective perceptions and interpretations of the environment. "Organizational environments are not given realities; they are created through a process of attention and interpretation. (...) Since there is no way of knowing about the environment except by interpreting ambiguous events, it is important to understand how organizations come to construct perceptions of reality" (Pfeffer/Salancik 2003: 13). The social construction of perceptions of reality according to Pfeffer/Salancik (2003) is influenced by information systems available to an organization, which direct attention to certain information, work selectively and influence meaning. Pfeffer/Salancik (2003: 13) introduce an aspect that takes the primarily materialistic character of "determined by the environment" away from RDT and places it nearer to neoinstitutional theory (see also discussions by Salancik/Cooper Brindle 1997). But contrary to neoinstitutional theories, Pfeffer/Salancik count more strongly on the "power mechanism" instead.

(2) Environment and distribution of power

One central hypothesis in RDT says that whoever controls resources has the power over those actors who need these resources. Pfeffer/Salancik (2003: 44) refer to exchange theory (Jacobs 1974; Blau 1964), and above all to the power dependency theory by Emerson (1962). The theory of Emerson only needs a few statements: (i) The greater the dependency of actor A upon actor B, the more power actor B has over A. "(ii) The dependence of an actor A upon actor B is, (1) directly proportional to A's amount of motivational investments in goals mediated by B and (2) inversely proportional to the availability of those goals to A outside the A-B relation" (Emerson 1962: 32).

It is assumed that actors want to reduce their dependence (i.e. increase their power) upon others. What can actor A do now to reduce his dependence? He can first of all try to reduce his need, his "motivational investment", for resources that B controls. Secondly, A can acquire alternative sources of resources. The dependence of A can be further reduced if resources which he controls become more important for B and/or if alternative sources dry up for B.

Pfeffer/Salancik apply these basic propositions to the behavior of organizations: "... in general, organizations will tend to be influenced by those who control the resources they require" (Pfeffer/Salancik 2003: 44). The authors expand on Emerson's assumptions in two ways: first of all they take the idea of bounded rationality seriously and consider that external demands upon the organization are not always recognized and that demanding actors have to deal with the difficulty to judge whether or to which extent her demand has been met. Thus, the variable "perception" is of great importance for organizational behavior. Secondly, they emphasize that a relationship of exchange cannot be reduced to just involving two actors, but the relationship between several actors has to be considered.

Pfeffer/Salancik apply the idea of exchange not only to the relationship between the organization and external actors, but also use to the exchange relationships within the organization. Both departments and individuals exchange resources. Depending on resource control etc., they have more or less power and can influence decisions according to their interests.

(2a) External distribution of power and the management of dependency relationships

Those actors who control a large part of critical resources but do not themselves need any resources from the organization are relatively powerful and will make and want to realize high demands on the organization. The more an organization is dependent, the higher the amount of uncertainty and the more it will try to reduce uncertainties. This is the rationale for the importance of management. Management's behavior is neither completely determined by the environment (as assumed in simple micro-economic models) nor is it (nearly) irrelevant as in ecological population theories, which reduce the role of management to just some cause for "blind" mutations. Management is not seen by Pfeffer/Salancik as an actor maximizing profit or realizing rational strategies. Management has a "scapegoat" function as well as a decision and legitimizing function (Pfeffer/Salancik 2003: 18f.) – besides the above mentioned function of perceiving and interpreting the environment.

The *scapegoat function* of management can be justified by referring to attribution theories. People assume that managers have more influence on organizational decisions than they actually have. The cause of such attributions lies in the fact that a personification creates a feeling of prediction, control and orientation to action (Pfeffer/Salancik 2003: 16). Discharging a manager may change little on a materialistic level but on a symbolic level it enhances the legitimization and fulfills the demands of important external actors who control resources. If for example a chairman who is made responsible for wrongly aligning a firm's strategy is discharged this is a signal for potential and current shareholders saying that management is capable of action and that they can thus expect a better return on their shares, this can motivate shareholders to provide the organization with more necessary resources.

A second important function is the *decision making and legitimizing function*. Management makes decisions on how environmental requirements (and also on internal actors) can be managed and at the same time legitimizes decisions towards stakeholders.

What *kind of methods are available to management for handling resources and exchange relationships* with the environment? A considerable part of Pfeffer/Salancik's work (2003: 92 ff.) deals with such methods. The first option entails adapting in the sense of organizational compliance: One meets the demands of a particular social actor. However, this strategy is problematic. One not only gives up scope for action but one also increases the probability of further demands and attempts to influence because other

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actors judge (due to their bounded rationality) the success of earlier attempts at influencing as an indicator for future success. Thus "meek" organizations enhance the probability of further attempts of domination. A second method of action is avoiding influence from the environment. One can avoid demands if one creates the illusion that the demand has already been met, one controls or suppresses certain information or increases the cost of information. One can also try to define criteria by which one measures whether a demand was met or not, one can create information oneself or do PR work by implementing one's own expert. A third strategy involves managing and avoiding dependence. It essentially means creating alternative resources. The fourth strategy is about managing the conditions of social control: one can try to dominate controllers or reduce their dominance.

Pfeffer/Salancik interpret a variety of concrete organizational actions on the basis of these theoretical considerations: From this point of view a firm's mergers has to be understood as a means of reducing uncertainty and controlling resources. Vertical integration is interpreted as an extension of one's own control over resources, horizontal integration as an extended dominance of resource controllers. Other empirically observable strategies aimed at reducing uncertainty and managing the demands of the environment are the use of interlocking boards of directors and the co-option of members of influential organizations in these boards. For example, organizations, boards of directors, and supervisory boards of banks co-opt in order to better gain help to deal with financial uncertainty. Thus the composition of boards reflects the composition of critical resources needed for the organization's survival (Clegg/Rura-Polley 1998: 538).

Pfeffer/Salancik sketch a range of propositions as to how organizations can react to influence attempts but they do not develop systematic propositions about under which conditions which action occurs. They are quite clear with regard to the factors explaining the attempts to influence one or more organizations on another. One factor is the expected success, and the success of past attempts to influence is an indicator for the expected success probability (Pfeffer/Salancik 2003: 95). Another factor explaining the extent of interorganizational attempts of influence is the distribution and the control of critical resources. The more an organization A controls resources which are critical for B, the more A tries to influence B and the more B complies to A's demands (all things equal). But the question under which circumstances organizations comply to or try to avoid attempts of influence, is not answered by systematically derived propositions but only by describing possible actions and giving illustrative examples.

(2b) Internal distribution of power

Stakeholders are not only to be found outside the organization. Actors within the organization control important resources, too. One of the main hypothesis in RDT states: "Those sub-units most able to cope with the organization's critical problems acquire power in the organization" (Pfeffer/Salancik 2003: 230). For instance, if firms are affected by massive changes in the law, then their internal legal departments are most probably relatively powerful. If product demand is unstable and frequent product changes have to be made then it is probable that the marketing and technical de-

partment are more powerful. A further hypothesis says that organizational sub-units try to extend their power over and beyond their contribution to safeguarding of resources for the organization. If environmental changes occur, the dominant sub-unit is not necessarily interested in making everyone aware of these changes to the environment, in case this change might endanger the current power structure (Pfeffer/Salancik 2003: 234). Members of powerful sub-units will thus try to influence any information seeking criteria there might be. These criteria will direct perception to environmental segments which are favorable for the powerful sub-unit as it can make a contribution to the reduction of uncertainty resulting from these segments.

(3) The connection between distribution of power and executive succession

"To say that organizations are externally controlled or constrained (..) does not specify how. (...) The mechanism is that of executive succession (...)" (Pfeffer/Salancik 2003: 225). "(...) it is likely that power will be used to influence the choice of top administrative personnel" (236). Those who possess great power will prefer to select someone to fill a position who is able, in their opinion, to maintain and enhance their power. Another rationale for this hypothesis is a psychological effect. People tend to prefer people who have similar backgrounds to them (Pfeffer/Salancik 2003: 236), i.e. marketing specialists prefer marketing specialists, lawyers prefer lawyers etc. (Westphal/Zajac 1995). Pfeffer/Salancik insinuate that attempts to maintain power contribute to the survival of the organization, but only as long as there are no major changes in the environment. At the same time, guarantee of survival is definitely a secondary condition for deciding who will fill executive positions. The reproduction of one's own power is at the forefront of the minds of those in power. The result of the decision can be conducive to organizational goals under certain conditions, although this was not necessarily intentional or was at least unimportant at the outset.

(4 and 2b) The connection between management structure, distribution of power, and decisions or organizational structures

By controlling resources, powerful external stakeholders influence the filling of important positions of the organizations' dominant coalition. It is realistically assumed that the interests of powerful decision makers are more likely to be realized than other interests. The decisions lead to actions and organizational structures that suffice power interests and also efficiency interests of dominant coalitions. The efficiency of the organization is thus (only) a means to an end, for the purpose of retaining power. At the same time, actions meet requirements of important suppliers of resources and thus contribute to providing the organization with critical resources and ensure survival of the organization.

(5) Feedback effects

Pfeffer/Salancik (2003) do not use an arrow in their diagram to show an feedback effect, but it is clear that, according to their central arguments, decisions and actions in organizations have an feedback effect, i.e. above all on the resource situation and the demands of powerful groups. Organizations are considered as not being able to balance themselves out again every time by perfectly working feedback effects. There is not always an equilibrium. Thus, actors within organizations may secure their power if

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they succeed in detaching themselves from the environment and external as well as internal stakeholders. In extreme cases, this can lead to the demise of the organization if it can no longer secure critical resources.

2.3 Relationships to other theories

There are at least two different kinds of relationships of RDT to other theories. I will not discuss this aspect extensively, except to mention two points: First, RDT explicitly draws on more general theoretical ideas, that is to say, the vertical dimension of relationships to other theories. Second, there are several overlaps with other theories concerning terminology and content, this is the horizontal dimension.

With regard to the first point, the vertical dimension, RDT represents an application of more general theoretical ideas to a specific problem. This is the case for most organizational theories where RDT has its foundations especially in social exchange theory. Pfeffer/Salancik explicitly refer to theories relating to social exchange and power as applied by Emerson (1962), Blau (1964) and for example by Thompson (1967), Hickson et al (1971) and White (1974) to problems in organizational theory (Pfeffer 2005: 441). Insofar one may say that RDT is based on well-elaborated and widely accepted theoretical core hypotheses. Or to put it the other way round, all criticism against social exchange theory (e.g. Cropanzano/Mitchell 2005) also hits RDT. The horizontal dimension of relationships to other theories refers to overlaps between RDT and other theories at the same level. The most obvious, at least terminological relationship exists with the Resource Based View (RBV) (Barney 1991). In the centre of both perspectives is the assumption, that the control over critical resources of one focal organization is the most important determinant of firm behavior. There are similarities, and some scholars (e.g. Knyphausen-Aufseß 1997; Medcof 2001) argue that RDT and the RBV could and should be combined. But there are also differences between the two approaches: RDT stresses the external environment, it explains actions and reactions of organizations to the demands of the external (to some extent: internal) environment. RDT aims to explain differences in market behavior, but also in organizational structures. The most important mechanism used to explain differences in the behavior of organizations is power (and its equivalent: dependency). In contrast, the RBV focuses on internal, scarce and inimitable resources (Barney 1991). Firms controlling such resources are supposed to gain a competitive advantage in the market. The main mechanism is profit-seeking behavior. That means there are at least two main differences between RDT and the RBV: First, RDT has a stronger external perspective, the RBV a more internal perspective. Second, different assumptions on theoretical mechanisms are used for developing explanations. And third, RDT is a more descriptive, explicative and value-neutral (or critical) approach. The RBV, in contrast, is more prescriptive, which is understandable because it has been developed and is embedded in the discursive context of strategic management.

Because of a lack of space I can not discuss similarities and differences with regard to other theories, like transaction cost economics (Williamson 1985, cf. Tremblay/Coté/Balkin 2003) or institutional theory (Scott 1995; for a short discussion Pfeffer 2005: 448ff.). To put it very briefly: The dependent and independent variables of RDT, transaction cost economics and institutional theory are quite similar, but the theoretical mechanisms (the moderating variables) are different: power versus efficiency versus norms and values as "social forces".

2.4 Empirical corroboration

It is not possible to test such a complex theory like RDT in its entirety because it consists of many hypotheses. Thus empirical results will only be related back to single hypotheses. One can differentiate between three groups of empirical studies in relation to RDT: first of all, studies done by Pfeffer/Salancik and other scientists who work closely with them and can be directly related to statements in the theory, and secondly studies carried out outside this group of scholars and referring explicitly to RDT, and thirdly studies that were carried out in another context but which can be interpreted within the Resource Dependence Theory. I will only sketch out such studies here that directly relate to RDT and to its most important propositions.

A central proposition states: Organizations (or organizational sub-units) controlling resources that other actors need have power over these actors.

Resources on which power is based can of course differ considerably from case to case. The work of Provan/Beyer/Kruytbosch (1980) is one example of a study which analyses the relationship between resource control and power. They examined the relationship between non-profit organizations and their umbrella organization financing them and conclude, in agreement with RDT's assumptions, that power over an individual organization is larger the more resources it controls. Resources are relationships that an organization has in a particular community. Resources increase the more connections it has to the elite in the community, the more connections it has to other member organizations (e.g. via personal contacts), and the more their services are in demand within the community. An organization with these characteristics therefore controls valuable resources for the umbrella organization and is more independent and thus more powerful.

Burkhardt/Brass (1990) examine knowledge as a resource of individuals in companies and their positions of power. From a network analytical point of view they suspect that those people that adopt and use new technologies first have a more central network position and are more often asked for advice and possess a stronger position of power. The results confirm this proposition (using a survey of 81 people in a company at four different times).

Saidel (1991) presents further results which support RDT. In a survey of over 80 non-profit and 73 state organizations he found a correlation between the importance of a controlled resource and the influence of the organization controlling this resource.

A second, closely related proposition is: The larger the dependency on resources of actor A from actor B, the more likely A is to meet the demands of B.

A row of studies confirm this proposition with regard to the relationship between organizations on one hand and customers and suppliers on the other hand.

In a study of Israeli managers (Pfeffer 1972a) found a positive correlation between the share of turnover, which the company attained by selling products to state organizations, with the willingness to meet demands (hypothetically named to those surveyed) of state actors.

In surveys which analyzed exchange relationships between traders of agricultural products and their main suppliers (producers of tractors) there was proof of a correlation between perceived resource dependency and perceived influence of suppliers (Skinner/Guiltinan 1986; see also Armstrong-Doherty 1996). Provan/Skinner (1989) also likewise examined producer-trader relationships on how dependency on an actor influenced his opportunistic behavior (on opportunism see Williamson 1985²). The results show in accordance with RDT that the tendency to behave in an opportunistic way decreases with increasing dependency. Meznar/Nigh (1995) show that companies are in a stronger position to defend themselves from the demands of others the more important the resources are for the others.

Salancik's findings (1979) show that women are thus supported more in firms that are dependent on jobs from state organizations. Those firms more dependent on such jobs are more likely to meet demands of state organizations for equal rights than the less dependent ones.

Morgan/Milliken (1993) found a positive (although low and insignificant) correlation between the proportion of women in an organization and its "family friendly" policy. However, one must critically note that the proportion of women should only have an influence if the female labor force is a critical resource. But this assumption is not always true: If sufficient labor is available (related to a certain job or number of jobs) then women's demand for "family friendly" human resource policies are less likely to be met than in a situation in which the available workforce only consists of a few females. Thus, it is also plausible for this reason that in a similar survey in which the rate of unemployment was controlled for, a significant positive effect of the proportion of women employed (Goodstein 1994). If we assume that female managers represent a critical resource, then we should find a (stronger) positive effect of the proportion of female managers and family friendly practices. This assumption is supported by the results of Ingram/Simons (1995). According to this study, the proportion of female employees shows a negative (insignificant) effect overall but a positive (notably likewise insignificant) effect of the proportion of women at an executive level.

If power increases the probability that demands will be met then one can assume that employees' wages increases, all other things equal, the more powerful they are (see also Balkin/Bannister 1993). The results of Pfeffer/Davis-Blake (1987) confirm this assumption. Jobs which are more important in private and state colleges and universities, e.g. whose job holders control more resources, receive higher salaries compared to the average (see Hambrick/Finkelstein 1995 for similar results).

The connection "resource control creates power" also applies according to RDT for relationships between departments in organizations. A number of studies are avail-

² These results also illustrate that opportunism refers to a general behavioral tendency, whereas it depends on situational circumstances whether opportunistic behavior occurs. This is what Williamson (1985) means by "strategic behavior" motivated by self-interest seeking.

able on this subject. For example, university departments (faculties) that require important resources for the university are given more internal resources than other departments that generate fewer and less important resources (Salancik/Pfeffer 1974). Long before RDT became popular in the Anglo-Saxon world, Hickson et al. (1971) formulated and studied the conditions for the power of departments (Hinings et al. 1974).³ These are above all the uncertainty about future events, combined with the ability of a department to overcome this uncertainty, as well as the non-replaceability of a unit and centrality (i.e. the extent of connections to other units). These propositions have been confirmed in several studies (Hinings et al. 1974; Saunders/Scamell 1982; Lachman 1989).

A *third* important proposition can be phrased as follows: *uncertainty triggers off strategies to reduce uncertainty*.

This proposition has above all been tested in the fields of mergers, interlocking boards of directors, and organizational structures. But apart from this, there are studies which analyze the reactions of founders of firms to dependency on important workers and to control of resources in the form of suppressing new technologies. Let us examine these studies more closely.

Pfeffer (1972b) showed in empirical tests that mergers occur more often in industries highly dependent on resources and where uncertainty is high. Uncertainty is especially high when markets are concentrated to a moderate extent. Uncertainty is low when the market is highly concentrated because only a few actors are involved and their behavior can be observed, predicted and be coordinated comparatively easily. Uncertainty is low even when the market is not very concentrated due to low interdependency. Only for medium concentration⁴ are there many actors where their actions have to be predicted or coordinated and at the same time there are so few in the sense that one cannot reduce resource dependency by switching suppliers. Finkelstein (1997) replicated Pfeffer's study (1972b), relating to the period from 1948 to 1969, and ascertained additional data for the period up until 1992. The correlations are nearly identical for the period surveyed by Pfeffer and his results can be confirmed when controlling for other influencing factors for mergers (see Butler/Sohod 1995 for further results). Palmer/Barber/Zhou/Soysal (1995) examined how resource dependency affects the probability for friendly or hostile takeovers. According to RDT, so the authors say, one would expect that firms with an unfavorable position in the dependency network welcome takeovers because they can improve their position, and thus friendly takeovers should be more probable. On the other hand, autonomous, strongly independent firms should have less of an incentive to be taken over and defend themselves which makes a hostile takeover more likely. However, according to the authors, the findings only partially support these propositions. Casciaro/Piskorski (2005) have reformulated central propositions of RDT and tested with data on interindustry mergers and acquisitions among U.S. public companies in the period from 1985 to 2000.

³ In the year 1976, Gerald Salancik spent some time with David Hickson's team at Bradford University, see Clegg/Rura-Polley (1998: 538).

⁴ This is similar to an oligopolistic situation. In their book Pfeffer/Salancik (2003: 175) refer explicitly to oligopolies and oligopoly theory.

They conclude that their reformulated RDT model is a "powerful explanation of interorganizational action" (167).

Interlocking boards of directors constitute a strategy to reduce uncertainty in the same way. According to Pfeffer's (1972c; 1973) findings, size and composition of the board of directors are affected by resource dependency. The probability of cooptation increases with the extent that an individual controls resources and thus reduces uncertainty. The results of the study by Lang/Lockhart (1990) support this assumption: The stronger an industry is deregulated, the larger is its resource dependency and the more there is board interlocking (see also Schreyögg/Papenheim-Tockhorn 1995). Hillman/Shropshire/Cannella (2007) find that the likelihood of female representation on boards of directors is higher in larger organizations, in industries with more female employment and in organizations with a higher number of linkages to firms with female representation on the board. They argue that large firms have a higher need for legitimacy. The larger the female employment bases the higher the need for legitimacy in the eyes of potential and current employees. The rationale for the linkage or network effect is the assumption that the exchange of information and the diffusion of diversity practices is enhanced between companies with female representation on the board.5

Tolbert (1985) examined the connection between resource dependency and *organizational structure*. The proposition based on RDT is as follows: The greater the resource dependency, the more the organization can differentiate itself according to this dependency. But she does argue, relating back to the neo-institutional approach (Scott 1995), that this proposition is only valid under certain conditions. One cannot always expect differentiating out; only when this structure can be reconciled with the leading views on "right" structures. The results confirm her opinion. Tolbert interprets the results as limiting the validity of RDT. Such an interpretation seems to me to be questionable however, since RDT determines that valid norms and values should be included as constraints. However, most of Pfeffer's surveys mainly concentrate on "objective" aspects and do not include such factors although the later very clearly neo-institutional studies by Salancik (e.g. Salancik/Goodrick 1996) are different. Thus, Tolbert's intent to give RDT a materialistic meaning is not quite suitable.

Baker/Aldrich (2003) examined how company founders react to the dependency on employees who possess qualifications as critical resource. There are two *patterns of human resource politics* which confirm the assumptions of RDT: For one, employers create alternatives for "irreplaceable" staff by recruiting further suitable staff and thus reducing their dependency. On the other hand, they make such powerful staff dependent on the organization by better fringe benefits and other financial sources of motiva-

⁵ The resource-based view would interprete strategies at the level of single organizations differently from RDT: It implies that organizations seek to develop strategic, inimitable competencies, whereas RDT theorists would tell us that organizations try to reduce their uncertainty and dependence. The assumption of RDT seems to be more general, that is, to develop inimitable resources is only one of several strategies to reduce uncertainty. Thus the potential explanation power of RDT is higher.

tion. Interviews also clarify that the motives of entrepreneurs match those assumed in RDT, but this has relatively rarely been tested empirically.

Strategies to reduce dependency or to increase resource control are manifold. How much control can be attained depends on the particular area of resources. One interesting and important strategy was studied by Dunford (1987). The aim was to find out whether and how companies gain control over new technologies and information about these technologies. Dunford analyzed cases in which technological patent and conflicts between competitors had been taken to court. The result was that companies tried to retain control over inventions although they do not always fully use them themselves. They really only want to prevent other firms from using them and not only let inventions be patented but also buy patents and let all new technologies around them be patented to prevent e.g. machines with similar functions from being replicated and used. Together with other companies they create patent pools, keep information secret, muffle the interest about new inventions by launching negative information etc. Dunford unfortunately does not investigate under which conditions, which type of strategy and to which extent it occurs, although this work does point out that it is necessary and possible depending on the area being examined to deduct different forms and shapes of resource control and thus to make the theory empirically fruitful.

A fourth proposition is: Implementing "correct" strategies to reduce uncertainty has a positive effect on organizational performance.

According to this proposition, successful organizations should have different, more strongly "interweaved" connections between management and control instances than those less successful. Pfeffer (1972c) indeed finds that firms that correspond rather with a "optimal" board structure and size are more successful. Boyd (1990) also finds that the correlation between uncertainty and stronger interlocking boards of directors are stronger in "high performing" firms. Sheppard (1995) tested whether those companies who survive or do not survive differ in the variables that RDT highlights as being essential for a firms' performance, i.e. on procuring critical resources. It is shown that the amount of controlled resources, the number of personal interconnections that a company has (number of board members in other companies), but also the stability of the industry (low uncertainty) has positive effects on the ability of a firm to survive.

A fifth proposition can be phrased like this: Powerful actors use their power to their advantage; that also means that they try to extend their power over and above their contribution to resource control. Their power is reinforced and it cannot be reduced again easily by changes in resource demands of the organizations.

Various studies (Pfeffer/Salancik 1977; Salancik/Pfeffer 1980; Allen/Panian 1982) have proven that powerful actors in firms have a longer period of service to the firm than those less powerful. It seems obvious that they are needed for longer due to the functionality of the resources controlled by them and thus they remain in the organization for longer periods of time. One cannot miscount the fact that powerful managers can better defend themselves when environmental change occurs and they retain their positions for longer, using their abilities to secure resources. One study by

Boeker (1992) shows that this affects resources and thus creates attempts to stabilize power. Boeker analyses the connection between low performance and the dismissal of senior managers in a total of 67 companies over a period of 22 years. He finds that low performance increases the probability for a change in management, but powerful managers are more likely to be in a position to retain their jobs. The conditions under which this is the case are also given (Boeker 1992): Managers are more likely to stay in their positions the more capital they have invested in the company, the more the company's capital owned by others is spread (i.e. the less powerful other actors are, because opposition is harder to organize and faces a more difficult task if capital is spread widely rather than in a limited way), and finally the lower the number of external members on the board, and the larger the number of management members who the CEO recruited himself. These results are so close to RDT that one hardly needs to interpret them anymore.

Fligstein (1987) analyzed 100 of the largest companies in the US from 1919 to 1979 and asked, among other things, why the number of presidents from the Financial Department has increased. In general, as Fligstein notes with a view on RDT, those people who control critical resources become president. The resources that are critical change within the course of time. On a company level, strategies and structures require a certain knowledge. People who possess this knowledge are promoted with a higher probability. This proposition is confirmed. However, there are institutionalized ideologies that are influential, independent of "knowledge promoting" strategies and structures. The more companies think that one must have a president with a financial background, the higher the probability that such a position will be filled by a corresponding person. Hambrick (1981) argues that not only the environmental situation influences power, but that one must also consider the connection to the corporate strategy. He could confirm empirically that the power of top management is larger, the more the combination of strategy and environment requires certain qualifications.

There are further empirical works which can be related to the above mentioned propositions, but these are mainly descriptive case studies, e.g. about the resource and power relationships between airlines in the South Pacific (Taylor/Kissling 1983), about the power of churches (Jun/Armstrong 1997), about the fusion of educational institutions in Great Britain (Chadwick 1997), or about union mergers in the British and Australian Radio and Film Industry (Campling/Cook/Michelsen 1998). In addition, there are studies that examine the effects of resource dependency when implementing practices such as Total Quality Management in Retirement Homes (Zinn/Weech/Brannon 1998) or "just in time" (Handfield 1993).

Table 1 summarizes the most important empirical results. I do not describe the differences in methods (qualitative or quantitative), samples, statistical methods, effects etc. This is first and foremost due to a lack of space but I would also like to avoid the impression that the results of this very heterogeneous collection of empirical studies could be interpreted in a meta-analytic way. One has to take the whole pattern into account, not just the effects on average.

Table 1: Summarization of most important propositions and empirical studies

Propositions	 Most important results of empirical studies
Organizations (or organizational	- The more relationships a non-profit organization has in a particular community, the
sub-units) controlling resources that	higher its power (Provan/Beyer/Kruytbosch 1980)
other executives need have power	- Positive effect of the importance of a resource controlled by an organization on the
over these executives.	power of this organization (Burkhardt/Brass 1990; Saidel 1991)
The larger the dependency on re-	- Positive relationship between the share of turnover of sellers and the willingness to
sources of actor A from actor B, the	meet demands of buyers (Pfeffer 1972a)
more likely A is to meet the de-	- Positive relationship between perceived resource dependency and perceived influ-
mands of B.	ence of suppliers (Skinner/Guiltinan 1986; Armstrong-Doherty 1996)
	 Dependency reduces opportunistic behavior (Provan/Skinner 1989)
	- The more important the resources an enterprise controls are for others, the stronger is
	the position to defend themselves from the demands of others (Meznar/Nigh 1995)
	- Firms more dependent on jobs from state organizations are more likely to meet de-
	mands of state organizations for equal rights (Salancik 1979)
	- The higher the proportion of women in an organization the higher the likelihood of a
	"family friendly" policy (positive effect: Morgan/Milliken 1992; Goodstein 1994; negative
	but insignificant effect of the proportion of female employees, but a positive, insignifi-
	cant effect of the proportion of women at an executive level: Ingram/Simons 1995)
	- The higher the power of employees, the higher are their wages (all other things
	equal) (Pfeffer/Davis-Blake 1987; Hambrick/Finkelstein 1995)
	- Departments that require important resources are given more internal resources
	than other departments (Salancik/Pfeffer 1974; Hinings et al. 1974; Saun-
	ders/Scamell 1982; Lachman 1989)
Uncertainty triggers off strategies to	Mergers and acquisitions
reduce uncertainty.	- Median concentration in industries (that means: high uncertainty) leads to mergers
	(Pfeffer 1972b; Finkelstein 1997)
	- The higher the resource dependency the higher the probability for friendly or hostile
	takeovers (Palmer/Barber/Zhou/Soysal 1995, but only partial support for the propo-
	sition)
	- Resource dependency has an effect on interindustry mergers and acquisitions
	(Casciaro/Piskorski 2005)
	- Interlocking boards of directors
	- The probability of cooperation of an individual increases with the extent that an indi-
	vidual controls critical resources (Pfeffer 1972c; 1973)
	- The stronger an industry is deregulated, the larger its resource dependency is and
	the more there is board interlocking (Lang/Lockhart 1990)
	- Large firms with a high proportion of female employees have a higher need for le-
	gitimacy in general and with regard to their potential and current female employees
	Thus these firms show a higher likelihood of female representation on boards of di-
	rectors (Hillman/Shropshire/Cannella 2007).
	Organizational structure and strategies
	Organizational structure and strategies - Connection between resource dependency and organizational differentiation (mixed)
	 Organizational structure and strategies Connection between resource dependency and organizational differentiation (mixed results: Tolbert 1985)
	 Organizational structure and strategies Connection between resource dependency and organizational differentiation (mixed results: Tolbert 1985) Companies gain control over new technologies and information about these tech-
	 Organizational structure and strategies Connection between resource dependency and organizational differentiation (mixe results: Tolbert 1985) Companies gain control over new technologies and information about these technologies to reduce dependency or to increase resource control (Dunford 1987)
	 Organizational structure and strategies Connection between resource dependency and organizational differentiation (mixed results: Tolbert 1985) Companies gain control over new technologies and information about these technologies to reduce dependency or to increase resource control (Dunford 1987) Company founders react to the dependency on employees who possess qualifica-
	 Organizational structure and strategies Connection between resource dependency and organizational differentiation (mixed results: Tolbert 1985) Companies gain control over new technologies and information about these technologies to reduce dependency or to increase resource control (Dunford 1987) Company founders react to the dependency on employees who possess qualifications as critical resource by reducing their dependency (Baker/Aldrich 2003)
	 Organizational structure and strategies Connection between resource dependency and organizational differentiation (mixed results: Tolbert 1985) Companies gain control over new technologies and information about these technologies to reduce dependency or to increase resource control (Dunford 1987) Company founders react to the dependency on employees who possess qualifications as critical resource by reducing their dependency (Baker/Aldrich 2003) Positive effects of resource control strategies and structures on organizational
A fourth proposition is: Implement- ing "correct" strategies to reduce	 Organizational structure and strategies Connection between resource dependency and organizational differentiation (mixed results: Tolbert 1985) Companies gain control over new technologies and information about these technologies to reduce dependency or to increase resource control (Dunford 1987) Company founders react to the dependency on employees who possess qualifications as critical resource by reducing their dependency (Baker/Aldrich 2003)
ing "correct" strategies to reduce uncertainty which has a positive ef-	 Organizational structure and strategies Connection between resource dependency and organizational differentiation (mixed results: Tolbert 1985) Companies gain control over new technologies and information about these technologies to reduce dependency or to increase resource control (Dunford 1987) Company founders react to the dependency on employees who possess qualifications as critical resource by reducing their dependency (Baker/Aldrich 2003) Positive effects of resource control strategies and structures on organizational
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ing "correct" strategies to reduce uncertainty which has a positive ef- fect on organizational performance. Powerful executives try to extend	 Organizational structure and strategies Connection between resource dependency and organizational differentiation (mixed results: Tolbert 1985) Companies gain control over new technologies and information about these technologies to reduce dependency or to increase resource control (Dunford 1987) Company founders react to the dependency on employees who possess qualifications as critical resource by reducing their dependency (Baker/Aldrich 2003) Positive effects of resource control strategies and structures on organizational performance or survival (Pfeffer 1972c; Boyd 1990; Sheppard 1995) Powerful executives in firms have a longer period of service to the firm than those
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ing "correct" strategies to reduce uncertainty which has a positive ef- fect on organizational performance. Powerful executives try to extend	 Organizational structure and strategies Connection between resource dependency and organizational differentiation (mixed results: Tolbert 1985) Companies gain control over new technologies and information about these technologies to reduce dependency or to increase resource control (Dunford 1987) Company founders react to the dependency on employees who possess qualifications as critical resource by reducing their dependency (Baker/Aldrich 2003) Positive effects of resource control strategies and structures on organizational performance or survival (Pfeffer 1972c; Boyd 1990; Sheppard 1995) Powerful executives in firms have a longer period of service to the firm than those less powerful (Pfeffer/Salancik 1977; Salancik/Pfeffer 1980; Allen/Panian 1982; Boeker 1992)
ing "correct" strategies to reduce uncertainty which has a positive ef- fect on organizational performance. Powerful executives try to extend their power over and above their	 Organizational structure and strategies Connection between resource dependency and organizational differentiation (mixed results: Tolbert 1985) Companies gain control over new technologies and information about these technologies to reduce dependency or to increase resource control (Dunford 1987) Company founders react to the dependency on employees who possess qualifications as critical resource by reducing their dependency (Baker/Aldrich 2003) Positive effects of resource control strategies and structures on organizational performance or survival (Pfeffer 1972c; Boyd 1990; Sheppard 1995) Powerful executives in firms have a longer period of service to the firm than those less powerful (Pfeffer/Salancik 1977; Salancik/Pfeffer 1980; Allen/Panian 1982; Boeker 1992)
ing "correct" strategies to reduce uncertainty which has a positive ef- fect on organizational performance. Powerful executives try to extend their power over and above their contribution to resource control.	 Organizational structure and strategies Connection between resource dependency and organizational differentiation (mixed results: Tolbert 1985) Companies gain control over new technologies and information about these technologies to reduce dependency or to increase resource control (Dunford 1987) Company founders react to the dependency on employees who possess qualifications as critical resource by reducing their dependency (Baker/Aldrich 2003) Positive effects of resource control strategies and structures on organizational performance or survival (Pfeffer 1972c; Boyd 1990; Sheppard 1995) Powerful executives in firms have a longer period of service to the firm than those less powerful (Pfeffer/Salancik 1977; Salancik/Pfeffer 1980; Allen/Panian 1982;
ing "correct" strategies to reduce uncertainty which has a positive ef- fect on organizational performance. Powerful executives try to extend their power over and above their contribution to resource control. Their power is reinforced and it	 Organizational structure and strategies Connection between resource dependency and organizational differentiation (mixed results: Tolbert 1985) Companies gain control over new technologies and information about these technologies to reduce dependency or to increase resource control (Dunford 1987) Company founders react to the dependency on employees who possess qualifications as critical resource by reducing their dependency (Baker/Aldrich 2003) Positive effects of resource control strategies and structures on organizational performance or survival (Pfeffer 1972c; Boyd 1990; Sheppard 1995) Powerful executives in firms have a longer period of service to the firm than those less powerful (Pfeffer/Salancik 1977; Salancik/Pfeffer 1980; Allen/Panian 1982; Boeker 1992) Positive effect of dependency of financial resources on the social structure of presi-

3. Discussion

3.1 Empirical confirmation of RDT

Overall, empirical studies support RDT, but very often one finds only very weak effects and a very low proportion of explained variance. But this is not very different from other theories.

A lot of confirming work has been done by Pfeffer, Salancik or from a number of various scientists associated with them or with their theory (as pointed out by Clegg/Rura-Polley 1998: 540). Studies which test RDT in a strict sense, in particular in comparison to other theories, are limited (Pfeffer 2003: xx, xvi; Casciaro/Piskorski 2005: 167). This situation hardly differs from other theories. One could understand the study of Tremblay/Coté/Balkin (2003) as an exception, because it tries to test agency, transaction cost and resource dependence theory. But the empirical measures are only loosely related to the theoretical constructs of these theories, and Tramblay/Coté/Balkin (2003) combine the propositions of the three theories mentioned above rather than to test them as "competing explanations". Also others combine RDT with different theories (for instance Buvik/Gronhaug 2000 and Buvik/Reve 2002 with transaction cost theory and Corcoran/Shackman 2007 with institutional theory). One reason for missing comparative theory tests may be that one can hardly show with one and the same set of data that for example transaction cost theory is correct and RDT is wrong.

That we do not find so many empirical tests of RDT respectively negative results may be due to another reason. Whoever has gained data with a RDT backdrop and then established that his explanation failed with the aid of RDT will not be very motivated to publish these results. And journals are reluctant to accept statistically insignificant, falsifying research results (Begg/Berlin 1988). There are more reasons for theory tests being generally "weak". Data is frequently too unspecific because it has been collected for other purposes and measures are often "far off" from the theoretical constructs of RDT. Central concepts like "uncertainty" are banished into a black box (Clegg/Rura-Polley 1998: 541).

3.2 Conceptual criticism

The empirical test of theories is only one - if undoubtedly the most important - of many quality criteria. At the same time there are other important criteria such as the logic of the line of argument, the matching of the theory and its propositions to other tested and more general theories, the ability of the theory to explain in comparison to other theories, its information content and its generality. With this in mind there are a number of objections towards RDT. I will illustrate these points of criticism mentioned in the literature, discuss, elaborate, and finally assess them.

Power or efficiency?

One objection profusely made by Donaldson (1995), an advocate of contingency theory, focuses on the prominent relevance of power structures and processes and the thus resulting ignorance about economics, costs and efficiency actors to explain company behavior (similar to Williamson 1995: 235). Donaldson (1995: 135f.) criticizes that Pfeffer/Salancik do not sufficiently justify why organizations should be viewed mainly as po-

litical systems and not or to a lesser extent as technical and economic systems. In particular, economic factors were disregarded to explain mergers. Donaldson (1995: 152) argues that economic theories where costs and efficiency are at the center of attention and not uncertainty or power could also explain many other phenomena just as well or even better than RDT. In addition to this, empirical studies do not measure resource dependency but simply the exchange of goods as usual in economic theory and thus it could be economic and not political power motives that caused the correlation reported in empirical studies (Donaldson 1995: 149f.). This is in my opinion an objection to be taken very seriously, but it is only relevant if one *isolates* the studies about company mergers from the other work by Pfeffer/Salancik. At the end of the day, and Donaldson is right about this with regard to the empirical studies on mergers, Pfeffer/Salancik only assume that propositions are valid for political power mechanisms in their work about company mergers but do not measure power directly or admonish them in their empirical studies to the "black box". However, in other works they try to test propositions about power mechanisms and their relevance for the explanation of organizational actions, processes and structures (e.g. Salancik/Pfeffer 1974; Pfeffer/Moore 1980). Empirical results suggest that power mechanisms cannot be ignored without giving an explanation. To Donaldson, especially the prominent relevance of power is clearly a penetrating thorn in his functionalistic flesh: He also believes the propositions about the distribution of power within an organization are wrong. He sees the distribution of power as the result of a rational process geared to organizational goals and not the product of an informal, political struggle for power (Donaldson 1995: 156f.). Donaldson clearly differentiates between "rational = nonpolitical" on the one hand and "irrational = political" on the other hand. However, Pfeffer/Salancik are just about to give up this simple point of view. First of all, by no means they deny that egoistic actors orient their interests around organizational goals. Organizational goals (let's assume for once that they exist) create constraints, a type of "corridor" for egoistic actions. At the same time, actors try to assert their interests and it is in my opinion unrealistic to assume that power is not used in this situation. Secondly, Pfeffer/Salancik explicitly say that the distribution of power is at least partly or sometimes functional to realizing organizational goals. Actors are more likely to receive and retain power if they can attain critical resources, and the critical resources are functionally related closely to organizational goals. However, distribution of power is not always positively functional. It can also reinforce itself and be dysfunctional. The criticism by Donaldson is thus in my opinion not very convincing as Pfeffer/Salancik are specifically not taking the tortuous path of crating a dichotomy of "political irrational" versus "nonpolitical rational" structures and processes.

One objection which can hardly to be taken seriously is Donaldson's criticism of the world-view of Pfeffer/Salancik's work and their opinion about managers "... the background world-view behind resource dependence theory is the New Left counterculture of the sixties" (1995: 135) and their view about organizations and their managers being cynical because they overstress the negative aspects of organizations and their actions. Since the validity and not the motivation for the construction of propositions are important, I do not count these claims as being an argument (even if Donaldson were right with regard to the background world-view). However, this does not devalue any other of Donaldson's arguments in any way.

What are resources? What is power?

Two interconnected objections can be analyzed here: on the one part the exclusive confinement to material resources and on the other part the ignoring of power structures which are not only related to objective resources.

The objection that the RD perspective mainly concentrates on material resources (Tolbert 1985) is not wholly true. The exclusion of resources other than material is not mentioned in the theory. It is true, that in empirical studies generally symbolic resources are not taken into account. Basically, it would not be a problem in my opinion to observe authority likewise as a resource, and there are efforts to extend the theory to symbolic resources (Johnson 1995).

Clegg/Rura-Polley (1998: 541) criticize that RDT was based wrongly on too narrow a concept of power over controlling objective resources: Resources but also alternatives and interests are "socially constructed". This criticism is at least partly appropriate: RDT comes too short if one interprets it in a too materialistic or objective way. One cannot only limit oneself to the objective side if one wants to understand processes about power. Because the interests and values of actors but also the resources and resource alternatives are represented in a cognitive way, and these cognitive maps are influenced by socialization processes, for instance - they are socially constructed. By assuming bounded rationality it follows that organizations, and to be precise: individuals in organizations, must estimate and put a value to resources in dependency situations. This estimation is frequently difficult to make and not precise. These estimates and evaluations in turn influence power relationships (Bacharach/Lawler 1976). Underestimates of one's own and overestimates about the resources of others lead to increased "perceived" dependency and thus to power advantages for others. A manipulation of perceived importance of resources can be used as an instrument of power. In the somewhat technically sounding theoretical language of Emerson's exchange theory: If actor A can create the illusion for actor B that the resources controlled by A are especially important and in addition convince B that those resources controlled by B are especially unimportant for A then the perceived and thus actionrelevant dependency of B on A increases. In the first case A changes the preferences or values of B, in the second case, the knowledge of B about the values of A (Walton/McKersie 1965 for collective actors).

Including perception, interpretation, and attribution processes and their influence as a means of carrying out power is thus already established in RDT or in its respective core theory (Salancik/Cooper Brindle 1997: 116; Pfeffer 1981). Criticism is less aimed at the theory itself. It more so applies to empirical studies. It would be worth exhausting the potential of RDT more in the future.

Information content: overall acceptable, questionable in part but can be improved

On the whole, the information content of RDT is acceptable. Thus, the propositions can be tested empirically. However, some basic assumptions are indeed problematic, the content of the information is dangerously low. For instance: Pfeffer/Salancik say that in case of changes in the amount or distribution of critical resources in the environment a) one should expect changes in the distribution of power, but it could also be the case, that b) actors are so powerful beyond their pure control of resources that

they are able to withstand the changes. But under which conditions do changes lead to (a) or (b)? Precise statements are lacking here although they could be made if one would take into account the above mentioned work by Boeker (1992) about the conditions under which managers can "stay". RDT theorists should thus pre-determine which resources are critical in which situation and then predict which people in which positions control these resources. In less successful or even bankrupt organizations there should be a lower correlation between resource control and power than in successful organizations.

A proposition that is similarly problematic is the following one: Organizations fit into their environment or they change the environment. The content of information in this statement is less than in most varieties of contingency theory which ignores that organizations influence their environment and due to this limitation has *more* information content. More precise statements are necessary in RDT. It should be determined under which conditions organizations fit into, resist or change the environment etc. A starting point can be found in Oliver (1991) who systematically elaborates a typology of (re-)actions of organizations to changes in the environment.

4. Summary

This article wanted to clarify to which extent RDT can explain behavior of organizations. A theory's potential and real explanation power can be assessed at best by assessing whether core propositions are informative or not, applicable to a large number of phenomena, realistic and empirically tested – or at least testable - and confirmed.

The *information content* in RDT is only problematic for some but at the same time important propositions. Thus, it is necessary to create more precise propositions about which conditions are required for organizations to fit into their environment, to resist or to actively change their environment. Such propositions are available (Oliver 1991). Further adaptations of RDT could easily refer back to this. The relationship between securing resources and power also has to be clarified. The specification needs requirements under which the power of certain actors either decrease due to their discontinued contribution to securing resources and organizational goals, or when actors "retain their power" even with a decreasing contribution. Fligstein (1987) and Boeker (1992) have developed some propositions which could be integrated into RDT. This means the information content can be increased.

The range of phenomena that can be explained by RDT, is quite broad. As RDT is based on assumptions on exchange processes in general, various phenomena of firm or organizational behavior can be explained. The area of application of RDT should roughly correspond with that of transaction cost theory. Thus there are surveys which investigate the emergence and change of organizational structures, how relationships are built between organizations (such as mergers but also customer and supply relationships etc.), how resources are allocated within organizations, how boards are structured etc., phenomena for which RDT does not have a collective noun but which should correspond to what one would call "institutional arrangements" in transaction cost theory (Williamson 1985).

The *realisticality of the basic assumptions* is high for the following reasons: RDT does not view organizations as formations with homogeneous interests but assumes differ-

ent interests that lead to conflicts in which the actors within and outside the organization use their power to realize their interests. The power mechanism, striving for retaining and extending power, plays a large role without ignoring the importance of efficiency. For actors to retain power, a minimum measure of efficiency or at least effectiveness it is necessary. To give an example: a company which can no longer attain goals cannot provide management with any positions, management loses its power (at least in this company). RDT is also realistic about the role of management: The ability of management to act is limited by resources. Apart from this, RDT assumes that bounded rationality applies for managers: the perception of the environment is directed and filtered by cognitive structures which are learnt through socialization and cognitive capacities to process information are seen as limited. Thus, it is not environment or resources that determine how organizational core groups decide or act, but cognitively and socially constructed environment. One further point that contributes to the theory being true to life: The organization is not viewed as simply adapting to a more or less "dynamic" environment. Rather RDT assumes that organizations create their environment too, change, disprove resistance etc. It would be very strange in my opinion if one should explain the behavior of multinational corporations with hundreds of thousands of employees and profits which exceed the GNP of states by a theory that assumes that organizations purely adapt to their environments.

The *empirical corroboration* is exceedingly good, empirical results support RDT propositions on the whole. One must still point out that other theories are usually surrounded by a wreath of empirical results that support them since comparative theory tests and real attempts of falsification appear relatively infrequently (in organizational research as in other sciences). But those few studies that include alternative explanations to RDT (especially Tolbert 1985; Fligstein 1987; Palmer/Barber/Zhou/Soysal 1995) reach conclusions that partially or in connection with other variables (above all legitimacy) support RDT.

On the whole, Resource Dependence Theory thus significantly contributes to explaining behavior, structure, stability, and change of organizations. In short: it can explain behavior of organizations well.

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