ECONOMIC THEORIES OF ORGANIZATION:

An overview and assessment of some recent developments

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1. Introduction and structure of the paper

Organization theory has the threefold task to explain the nature of organizations, their development and their functioning at any particular point in time. To accomplish this task it draws upon insights from a number of related disciplines, if and when appropriate. These disciplines include sociology, psychology, political science, systems theory, and economics. As compared with the other disciplines, economics has contributed little to the development of present-day organization theory. This is surprising in light of the fact that the entity to which organization theory has traditionally devoted most attention, the firm, has an economic *raison d'être*. Moreover, economists have elaborated a "theory of the firm". Why then has economics not had a more profound impact on the development of organization theory?

The next section suggests some answers to this question. It goes on to indicate that some recent developments in economic theory may be regarded as more promising from the viewpoint of organization theory. These developments concern the research into agency problems and the elaboration of the organizational failures framework. The purpose of this essay is to present an overview and assessment of these developments. Section two will further specify this purpose. Section three deals with some antecedent literatures whereafter sections four and five deal with agency research and the organizational failures framework. Section six, finally, assesses the potential contributions of these literatures to organizational theory as they relate to its threefold task stated above.
2. Microeconomic theory and organizational reality

Traditional microeconomic theory hardly deals with organizational problems. What has been developed as a "Theory of the Firm" can be characterized more appropriately as a theory of markets. In this theory the firm is no more than a single decision criterion, traditionally profit maximization. The theory of the firm examines the effects of applying this criterion in different market settings. The construct called "the firm" receives its information from the markets and adjusts its market behavior in accordance with the assumed decision criterion. By simultaneously examining the behavior of the various parties involved, the theory attempts to explain and predict the resulting market phenomena, such as supply, demand, and prices. It is silent on the internal processes which have led to the firm's response to (changing) market conditions; it gives us no rationale for differences in organizational form or performance; indeed, it hardly explains why we have organizations at all (instead of just cooperating individuals). For all practical purposes, the firm is treated as a black box in the theory of the firm.

Economists have long felt uncomfortable about this situation. At first, their uneasiness concerned the phenomenon of the firm, and, more specifically, the corporation, itself. Adam Smith (1776, p. 700) expressed his feelings as follows: "The directors of such companies ... being the managers rather of other people's money than of their own, it cannot well be expected that they should watch over it with the same anxious vigilance with which the partners in a private copartnery frequently watch over their own. Like the stewards of a rich man, they are apt to consider attention to small matters as not for their master's honor, and very easily give themselves a dispensation
from having it. Negligence and profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company." As we shall see later, this quote already highlights one of the main problems dealt with in later developments, namely the managerial incentive problem.

The spectacular growth of the corporate form forced later economists to accept the corporation as a fact of economic life. In mainstream microeconomics little changed as a result of this recognition; the same basic model of the firm was assumed to be valid for these new forms of organization. Some economists, however, felt uneasy about this. They specifically questioned the retention of the profit maximization hypothesis for the large entities which came to operate in many fields of economic activity. The hypothesis was originally derived for individual behavior. It was retained for small economic units which could easily be identified with the individuals who owned them and who were, in fact, supposed to determine their behavior. Was this hypothesis still appropriate for the giant enterprises which were led by managers who owned little part, if any at all, of the company they managed? Could it be safely assumed that the objective of the firm would not be affected by its growth in size and the displacement of its owners by a separate group of managers? These questions spurred the development of "managerial models of the firm." Such models focus on the motivations of managers in shaping the firm's decisions. For example, growth of firm size replaced profits as the criterion variable in these models and/or satisficing instead of maximizing behavior was assumed to operate (see, e.g., Baumol, 1959; Cyert and March, 1963; Marris, 1964; Williamson, 1964.)
As far as microeconomics is concerned, these developments had relatively little impact. The managerial models were not widely used (Cyert and Hedrick, 1972; Marris and Mueller, 1980). Even if they were used, the change amounted to little else than changing the objective function of the black box called "the firm" to determine whether aggregate market phenomena could be better explained and predicted. These models did not increase the microeconomists' attention for the internal functioning of the firm. On the contrary, many of them subscribed to the methodological position which implied that the actual decision-making processes in the firm were irrelevant as long as the aggregate predictions were satisfactorily accurate (cf. Friedman, 1953). To them it was not important whether the theory of the firm was empirically valid for the individual firm, it was sufficient that the firm would behave "as if" the model were valid as judged by its predictive ability with respect to aggregate phenomena.

These differences in methodology and level of analysis explain the wide gap existing between the microeconomic theory of the firm and organization theory. The latter is much more concerned with empirically valid knowledge about the individual organization like the firm. It does not draw heavily on analytical insights from economic theory. In fact, in most countries it came into being not as an offspring of economic theory but as a reflection upon actual practice. It still is rather strongly practice-oriented and, if it is to be regarded as scientific, it assumes the characteristics of an applied science. Moreover, it is not a monodisciplinary application of any science but it draws eclectically on a number of disciplines such as sociology, psychology, political science, and economics. The managerial models of the firm have influenced organization theory but not to a significant extent as can be judged from the present-day textbooks. These models have had more impact on areas which are more strongly based on economics such as finance.
and, recently, accounting. But even there their influence has not been pervasive.

The wide gap between microeconomics and organization theory is a rather strange and, in my view, unfortunate phenomenon. For even if we accept that the former is concerned with aggregate phenomena, I see no a priori reason why its building blocks shouldn't consist of empirically valid models of individual economic units. And even if we grant that an aggregate approach has to abstract from all the empirical richness at the individual level, shouldn't it at least come up with a description of individual behavior which is recognizable at that level as containing the most important factors? Methodologically speaking, it is hard to swallow that an empirical science shields its basic assumptions by an "as if" justification. The use of this device prevents a falsification of this element of the theory and, what is more, immunizes it for critique altogether (cf. Schreuder, 1983). Therefore, from the point of view of microeconomic theory a strong case seems to exist for narrowing the gap with organization theory as much as possible (Leibenstein, 1979). Similarly, organization theory can benefit from the increased attention of economists for intra-firm phenomena insofar as it might draw upon the economic concepts developed. As before, the fields of finance and accounting stand to gain most, however, as they are already partly based on economics and new developments can be incorporated more easily.

Fortunately, a number of recent developments in economic theory hold a promise in this respect. Economists have, for instance, become much more interested in the role of information in decision-making. The traditional assumption of perfect information is relaxed and the consequences of, e.g., costly, unequal or even unobtainable information are examined. In some approaches this is combined with the insights of the Carnegie School concerning
the computational limits of human decision-making (March and Simon, 1958; Cyert and March, 1963). At the same time research into decision-making in multi-person settings is starting to be applied to a firm's decisions. These and other developments might provide the basis for greater contributions from microeconomics to an understanding of (business) organizations.

The purpose of this essay is to survey some of the emerging types of economic theories which seem particularly relevant in this respect: agency theories and the organizational failures framework. Specifically, I shall try to show which kinds of issues these theories attempt to deal with and to what kind of organizational problems they might therefore be applied. The emphasis thus is more on the proper assessment of the potential contribution of these theories to our understanding of organizational problems than on their current status. The assessment will consequently focus on the conceptual rather than the merely technical formulation of these theories.

Before reviewing agency theories and the organizational failures framework I shall summarize some antecedent literatures in the next section. First, Berle and Means' thesis on the separation of ownership and control in modern corporations will be briefly presented. Their seminal work provides an excellent statement of some of the main problems later economists have tried to deal with. Indeed, it can be argued that the Berle and Means thesis has caused a separation of its own. It divided those who basically accepted their evidence and wished to explore its implications (the managerialists) from those who either didn't accept the evidence or argued that other mechanisms mitigated its consequences (the neoclassical economists). For both groups the Berle and Means thesis represented a major source of inspiration as indicated by the numerous references to their work up till the present day (cf. Fama and
Jensen, 1983). Coase's early analysis of the nature of the firm (Coase, 1937) will be reviewed next. It has contributed some conceptual foundations to both of the theoretical approaches which form the subject of this essay.
3. Some antecedent literatures

3.1 Berle and Means on the separation of ownership from control

In their classic "The Modern Corporation and Private Property" Berle and Means (1932) presented a wealth of empirical evidence on two forces at work in the modern corporation:

1. the centripetal force of economic power, and
2. the centrifugal force of ownership.

Regarding the first force, they showed that economic power, in terms of control over physical assets, tended more and more to concentrate in the hands of a few corporate managements. Large corporations grew faster than smaller ones on the basis of both assets and income. As a consequence, the wealth of large corporations increased at a very much more rapid rate than total national wealth. At the same time ownership in these corporations tended to become more dispersed. In many large corporations this trend had evolved to the point where the largest individual holdings represented only a very small percentage of total stock. In addition, new legal devices—such as the holding company, the voting trust and stock with unequal voting rights—were employed to effectively bring control of the corporation in management's hands. As a consequence, the legal owners of the large corporation could no longer be considered in control of its decisions. Whereas formerly corporate ownership implied both control over its physical assets and the legal right to enjoy the fruits of their use, now in many cases control had passed into management's hands and the shareholders enjoyed only the latter right.

The main implication of this development was expressed by Berle and Means (1932, p 6) as follows: "The separation of ownership from control produces a condition where the interests of owner and of ultimate manager may, and often do,
diverge, and where many of the checks which formerly operated to limit the use of power disappear." This gives rise to the following problems:

1. **the incentive problem**: The traditional assumption was that "... if the individual is protected in the right both to use his property as he sees fit and to receive the full fruits of its use, his desire for personal gain, for profits, can be relied upon as an effective incentive to his efficient use of any industrial property he may possess" (p 8). But what incentive exists for those who control the decisions about the use of industrial property, but enjoy the fruits in only a very minor degree?  

2. **the power problem**: the traditional justification of the use of economic power was similarly based on the protection of individual property rights. But what is the justification of the exercise of economic power by corporate managements who own hardly any part of the property of their company? If they are no longer controlled by the legal owners, how can they legitimize the power they wield? What is the philosophical justification of letting these individuals make corporate decisions with far-reaching consequences for the well-being of so many others?  

3. **the external control problem**: this problem is the logical consequence of the former two. In its simplest form it can be stated: Who controls those in control? If the external control of ownership has withered away, by what other mechanisms is it (to be) replaced? What other checks and balances exist - or should be devised - with respect to the economic power in corporate management's hands? And in whose interests should corporate decisions be made?

These problems have been addressed in a wealth of further contributions. Before examining some of these, however, Coase's seminal paper on the nature of the firm will be discussed in the next subsection, since it has provided conceptual foundations to the specific contributions to be surveyed in this paper.
3.2 Coase on the nature of the firm

Images play a major role in determining the direction of research. The way we conceive of reality - i.e. the image we create of it - defines the set of interesting research questions and the acceptable ways of dealing with them. In this sense Coase's (1937) seminal paper on the nature of the firm has provided a basis for both literatures to be surveyed here.

Coase aimed at developing a definition of the firm which was both realistic and tractable by the Marshallian instruments of economic analysis. Observing that economic theory assumed that production is regulated by price movements and, hence, it could conceivably be carried out without any organization at all, he asked the fundamental questions: Why is there any organization? Why don't we only observe individuals whose activities are coordinated by the price mechanism?

His answer was that there is a cost of using the price mechanism. First of all, the relevant price information has to be obtained. Next, there are costs of negotiating and concluding contracts for market transactions. And, finally, there may be circumstances in which longer term, relatively flexible contracts would be desirable. The firm, then, is explained by Coase as an institutional device to avoid costs of using the price mechanism and to enable certain forms of contracts not easily negotiable in atomistic markets comprised of only individuals. Specifically, contracts which only generally indicate the commodity or service to be supplied and which leave the buyer the opportunity to decide on the details later give rise to "a firm" according to Coase (1937, p 337). An example of such a contract is the employment contract. In this way, the firm and the market are presented as two alternative institutions for economic
coordination. The choice between the two is determined by the costs of organizing a given transaction under either arrangement.

The agency literature, as applied to the firm, has primarily adopted the image of the firm as a "nexus of contracts" (Fama, 1980). Agency research analytically examines the effects of certain contracts in different environments and empirically investigates the actual contracts of the firm and the way they determine its behavior. The organizational failures framework, on the other hand, has emphasized the institutional choice between the market and the firm as coordination mechanisms. Its primary conceptual device is not a contract, but the transaction. It explains organizational form by the economic properties of the transactions governed by a certain type of organization.
4. The agency literature: an overview

The agency literature has quickly grown voluminous in size. Accordingly only a broad brush sketch can be attempted here. As indicated earlier, the task will be made manageable by focusing on the issues addressed by agency research and by discussing its potential contribution mainly in conceptual terms. Jensen (1983) has observed that two types of agency literatures have evolved which differ in many respects: the "principal-agent literature" and the "positive theory of agency. The former is generally mathematical and analytical; the latter is mostly non-mathematical and is more empirically oriented. These two literatures will be reviewed separately below.

4.1 The analytical agency literature

In Coase's (1937) seminal paper there is a footnote to his definition of the firm explaining that it is not possible to draw a hard and fast line which determines whether there is a firm or not. The problem, according to Coase, is similar to the legal question of whether there is the relationship of master and servant or principal and agent. In 1972 he characterized his 1937 paper as "much cited and little used" (Coase, 1972). However, by then the initial work had already started which would establish the analytical agency literature which is also known as the "principal-agent" literature.

This initial work was largely done on the problems of insurance.4) (Arrow, 1970; Spence and Zeckhauser, 1971). Subsequently, the insurance example has come to serve as a paradigm for studying employment contracts, optimal budgeting mechanisms, vertical integration, competition in the capital markets etc. The insurance paradigm highlights two information problems.
which may be encountered in these other settings as well: the "adverse selection" problem and the "moral hazard" problem. Both will be illustrated below.

4.1.1 Adverse selection and moral hazard

Adverse selection is an \textit{ex ante} information problem. The essential cause is an inequality of information between the two parties entering into a contract. In the insurance example one party is the insurer offering insurance contracts. The rates set in, for example, life insurance contracts may be initially based on actuarial calculations for some general population. The individuals seeking life insurance will, however, be much better informed about their specific risks and it may be impossible or prohibitively costly for the insurer to obtain equal information. High-risk individuals will, of course, have a greater incentive to buy life insurance than low-risk individuals. If it is impossible or very costly for the insurer to distinguish between high and low risks \textit{ex ante}, he will end up insuring on average higher risks than anticipated on the basis of the actuarial tables. The insurance paradigm thus illustrates that the adverse selection problem concerns unanticipated risk as a consequence of unequal prior information. This problem may arise in many other contexts as well including, for example, employment contracts.

The moral hazard problem concerns \textit{ex post} information. Consider the case of fire insurance. As Arrow (1974, pp 35-36) observes "... the outbreak of a fire may be due to a combination of exogenous circumstances and individual choice, such as carelessness or, in the extreme case, arson. Hence, a fire insurance policy creates an incentive for an individual to change his behavior
and ceases to be a pure insurance against an uncontrollable event." Moral hazard problems range from misrepresentation of private information (after the fact) to outright exploitation of contractual opportunities on the basis of private information.

4.1.2 The conceptual formulation of agency problems

An agency relationship is said to arise between two (or more) parties when one, designated as the agent, acts for or on behalf of the other, designated the principal, in a particular domain of decision problems (Ross, 1973, p. 134). Within the context of the firm, the principal might be the employer or superior and the agent might be the employee or subordinate. The agency research addresses the problem of how to write the contract between the principal and the agent so as to maximize their joint welfare. This problem becomes interesting in the face of uncertainty and of information asymmetry as discussed above and further illuminated below.

Both parties are assumed to act in their best interests, i.e., to maximize their subjective utility. The utility of the agent is assumed to be affected positively by the fee he receives for the services rendered and negatively by the effort expended. The principal is assumed to strive for as high a monetary residual as possible after paying the contractual fee to the agent. The principal might, for instance, be conceived as the owner of assets and the agent as a manager hired to operate them. The agent would want to maximize the contractual fee for this service subject to the necessary effort levels. The principal would want to maximize the returns from the use of the assets subject to the fee payable to the agent (see, e.g., Baiman, 1982).

Uncertainty is introduced in this setting by means of a state variable. This variable may represent any uncertain exogenous event such as the weather,
machine breakdown, competitors' behavior etc. which affects the agent's productivity (Tiessen and Waterhouse, 1981, p. 21). The fee to be paid to the agent is assumed to depend on the actions chosen by the agent and on the state of nature which evolves. Hence, the level of the fee actually to be paid is only partially under the agent's control. This introduces risk to both the agent and the principal. In such a setting the agency problem is specified as the determination of a contract that will result in the optimal sharing of rewards and risks. The agent is mostly assumed to be risk-averse; the principal either risk-neutral or risk-averse.

The problem is further complicated by the existence of imperfect information for one or both parties to the contract. It is assumed that the fee can be based only on what is jointly observable to the principal and the agent. However, it may be impossible or prohibitively costly to the principal to continuously monitor the agent in order to determine what action or effort level he chooses. In that case the fee cannot be based on the effort level. At one extreme, an alternative arrangement would be the payment of a fixed wage. However, this arrangement would provide no economic incentives to the agent to produce at the agreed effort level. At the other extreme, the principal might rent the assets to the agent. This arrangement would, however, impose a presumably nonoptimal amount of risk on a risk-averse agent. The agency problem again is to come up with an optimal sharing rule which would make the principal and agent better off than in these extreme cases. 5) This problem is multifaceted. It takes on different forms dependent on, e.g., the specific information considered (on the agent's effort and/or on the state of nature); its timing in the decision process (precontract, predecision, postdecision); the asymmetries allowed (moral hazard and/or adverse selection); the allowed set of feasible contracts; the number of principals and agents; the number of time periods etc. Some of the
main contributions have been made by Christenson (1979); Demski and Feltham (1978); Gjesdal (1981, 1982); Harris and Raviv (1979); Harris and Townsend (1981); Holmstrom (1979, 1982); Lambert (1981); Shavell (1979); and Wilson (1969), among others. It would transcend the scope of our survey to detail the particular contributions made. The general description offered above should suffice to highlight the problems defined by analytical agency research and the conceptual approaches taken to address them.

4.2 The "positive" agency literature

The "positive" agency literature to be surveyed here shares with the analytical literature the conceptualization of its research problems in terms of contracts. It is, however, much more concerned with describing and possibly explaining the contracts observed in the real world. It also examines the effects of those contracts on, e.g., the firm's behavior. It is based on a particular elaboration of Coase's image of the firm provided by Alchian and Demsetz (1972), Jensen and Meckling (1976) and Fama (1980). The contributions of these authors to the conceptual basis of "positive" agency research will first be discussed below, whereafter the research problems addressed in this literature will be examined.

4.2.1 The concept of the firm

Alchian and Demsetz (1972, p 783) elaborate a view of the firm which "... is not necessarily inconsistent with Coase's; we attempt to go further and identify refutable implications." Whereas Coase stressed the contractual basis of the employer's direction of resources, Alchian and Demsetz deny that such direction typifies the firm. Rather, the employer is continually involved in renegotiating the contracts on terms that must be acceptable to both parties. He is a spider in a web of contractual relationships which enable the firm to
execute team production. In team production the marginal products of the individual team members are not directly and separately observable. This leads Alchian and Demsetz to examine the efficiency properties of different monitoring and reward systems. The owner of the classical firm is identified as a specialist who will monitor the membership of the team (i.e. will manage the use of cooperative inputs) and will receive the residual rewards of production. Summing up, they identify the essence of the classical firm as "a contractual structure with (1) joint input production; (2) several input owners; (3) one party who is common to all the contracts of the joint inputs; (4) who has rights to renegotiate any input's contract independently of contracts with other input owners; (5) who holds the residual claim; and (6) who has the right to sell his central contractual residual status. The central agent is called the firm's owner and the employer" (Alchian and Demsetz, 1972, p 794).

Jensen and Meckling (1976) extended this analysis by focussing on the costs of the agency relationship. First of all, there are costs attached to the principal's monitoring of the agent's behavior or performance. As these costs diminish the total rewards to be divided between principal and agent, it may in some cases be in the agent's best interest to signal to the principal that he will not deviate too much from the behavior preferred by the principal. If the agent expends resources for this purpose, "bonding costs" are incurred. However, positive monitoring and bonding costs generally cannot guarantee that the agent will take only optimal decisions from the principal's point of view. Thus, there may be a "residual loss" defined as the monetary equivalent of the reduction in welfare experienced by the principal due to the divergence. Agency costs, then, are the sum of:

(1) the monitoring expenditures by the principal,
(2) the bonding expenditures by the agent,
(3) the residual loss.
Jensen and Meckling (1976) view this general framework as applicable to agency problems in all kinds of organizations and in all cooperative efforts. In their paper they confine their attention to the agency costs generated by the contractual arrangements between the owners and top management of the corporation. In later papers Jensen has collaborated with Fama to extend the scope of their analysis to other organizations.

With respect to the theory of the firm Fama (1980) has argued that the former authors did not carry their analysis far enough. Particularly, the retention of the concept of "owners" of a firm (or of an entrepreneur in the classical sense) is an anachronism for the large modern corporation in which control is in the hands of managers who are more or less separate from the firm's security holders: "Instead, the two functions usually attributed to the entrepreneur, management and risk bearing, are treated as naturally separate factors within the set of contracts called a firm. The firm is disciplined by competition from other firms, which forces the evolution of devices for efficiently monitoring the performance of the entire team and of its individual members. In addition, individual participants in the firm, and in particular its managers, face both the discipline and opportunities provided by the markets for their services, both within and outside of the firm" (Fama, 1980, p 289).

4.2.2. Research problems addressed

The wider conceptual framework as proposed by Fama (1980) is reflected in the kind of problems addressed in this type of research. Researchers are not only interested in the contractual relationships but also in other forms of "disciplining mechanisms" which constrain an agent's opportunities to deviate from optimal behavior from the principal's point of view. Generally speaking,
these other mechanisms are based on the operation of either markets or (other) information systems. For example, the manager's behavior is perceived to be constrained by a wide array of "disciplining mechanisms" including:

**contracts:** executive employment and compensation contracts

  financial contracts (e.g. debt covenants, lease arrangements)

**markets:** the market for goods and services (end products)

  the capital market (including the market for corporate control)

  the external labor market (the market for managerial services)

  the internal labor market (competition among managers)

**information systems:** internal monitoring systems (e.g. the accounting system)

  external monitoring systems (e.g. financial analysts and the press).

The executive employment and compensation contracts could be used to tie the managers' and shareholders' interests together. By giving the managers, e.g., bonus plans (based on earnings) or stock options their interests will parallel those of the shareholders more closely. The managers' incentives to divert funds to their private use, for example by indulging in perquisites, will be mitigated. As Jensen and Meckling (1976) have explained, however, any departure from full ownership will induce such incentives to some extent. It may be that the other mechanisms take such tendencies into account. Jensen and Meckling's example concerns a full owner selling part of his shares in a company. The stock market will discount his increased incentive to divert funds to his private use in the new financing structure and will adjust the stock price accordingly. Hence, the owner bears the agency costs and has incentives to signal to the market that he will not be (over)spending privately. He can do so, for example, by entering into bonding arrangements like an auditing requirement. In many
respects, Jensen and Meckling's example constitutes an ideal case. The reasoning cannot be equally applied to the very large modern corporation whose managers own little or no equity, as Jensen and Meckling (1976, p 356) acknowledge. Although they speculate that their approach might yield insights for that case as well, I share Williamson's (1981, p. 1565) doubts about this.

Financial contracts may constrain the manager's behavior in many ways. They may, for instance, specify minimum or maximum levels of certain ratios. Violation of these requirements would lead to (costly) renegotiation of the contract. Similarly, the other mechanisms are perceived as constraining the manager's discretion. The hypothesized effect of managerial "misconduct" on share prices has already been mentioned. A low share price would make the firm a likely take-over target and this threat may therefore restrain managerial self-interested behavior. Furthermore, the internal and external competition among managers could ensure the elimination of sub-standard practices. Internal and external monitoring systems facilitate the effective operation of these other mechanisms. Some of these monitoring systems (such as the press, for instance) could claim a role of their own which goes beyond providing the necessary information for other disciplining mechanisms.

To what extent these mechanisms operate in practice and their degree of effectiveness is, of course, an empirical issue. Unfortunately, although the "positive" agency literature purports to be empirically oriented (Jensen, 1983, p. 334) the amount of empirical research conducted in these areas is somewhat disappointing. Most studies remain at the conceptual level and fail to empirically test the hypotheses generated by theoretical analysis. Furthermore, a number of the studies which are sometimes cited as lending empirical support to the notions mentioned above have often been conducted independently of (and prior to) any research program on "positive" agency theories. Disregarding this
uncertain kinship, it must be further noted that relatively many studies just provide descriptive data on the factors which are thought to be operative without linking these factors to the managerial behavior they are assumed to determine. Finally, the area is plagued by methodological problems and, possibly as a result, the findings are often highly contradictory (cf. Kelly, 1983). An obvious difficulty is that management's behavior is probably motivated-and constrained- by many different factors, some of which may be largely situation-specific. The isolation of individual factors may therefore already be problematical, whilst the determination of their influence on management's behavior will be even more complex.

Empirical research into the effect of management employment and compensation contracts on managerial behavior is virtually non-existent. Some descriptive data on the forms of management contracts do exist (cf. Conference Board, 1979 and 1980) but these data have not been empirically linked with behavior yet, as far as I know. Research has aimed at collecting similar descriptive data (e.g. Lewellen, 1971; Benston, 1981) and at most these have been linked with profits and share price performance of the corporations (e.g. Lewellen and Huntsman, 1979; Ciscel and Carroll, 1980). There are of course many intervening variables confounding these relationships; the direction of causality is questionable; and it is very difficult to separate the incentive effects of certain compensation schemes from their tax effects (see Smith and Watts, 1982). As a result we have not yet gained much insight into the empirical validity of the hypothesized effects of employment contracts on managerial behavior.

Financial contracts may also constrain managerial discretion. Here the attention of empirical researchers has mostly focussed on the terms of debt covenants. Smith and Warner (1979) and Leftwich (1983) gathered descriptive
data on such provisions. They also attempted to theoretically rationalize the specific contractual forms they encountered, proceeding from the assumption that the persistence of these forms indicates their efficiency. Kalay (1982) relates the characteristics of his sample of bond indentures to the stockholder-bondholder conflict. Since stockholders are assumed to make the dividend payout decision, management's role in this conflict remains somewhat nebulous. Kelly (1983) reviews the literature on corporate management's role in external financial reporting. Bond covenants constitute one of the categories of factors hypothesized to determine management's accounting choices. Within this category, the degree of leverage is included as a surrogate for the existence of bond covenants upon the assumption that more highly levered firms are riskier and may, therefore, be more constrained by bondholders. Whether this assumption empirically holds is hardly examined by the studies reviewed. Leverage (and risk) may, for instance, directly influence managerial choice. In addition, leverage may surrogate for other factors and/or be highly correlated with them. Since larger firms are often more highly levered, leverage may e.g. surrogate for firm size. It is, therefore, not very clear that leverage is legitimately included in the bond covenant category. Direct measures of the existence and tightness of bond covenants feature seldomly in these studies and, where they do, produced mixed results. We are again left to conclude that the empirical relationships between (financial) contracts and managerial behavior remain largely unexplored.

Since agency research explicitly adopts the "nexus of contracts" perspective the paucity of empirical knowledge concerning the contractual determinants of managerial choices is disturbing. Although it is clearly beyond the scope of this essay to survey the empirical evidence on the other "disciplining mechanisms" which are hypothesized to operate, it may safely be noted that the situation often is comparable. The explanation of mergers and take-overs, for instance,
remains one of the unsolved puzzles of finance theory (Brealey and Myers, 1981). There is hardly any evidence on the disciplining effect of the managerial labor market, probably because of the multi-period formulation of these hypotheses. And the effects of internal and external monitoring systems on managerial discretion have only just begun to be investigated. Maybe the embryonic nature of our empirical knowledge concerning agency relationships is due to the early stage of development of this perspective. Nevertheless, it remains worrisome that the early studies in a research program that aims to be empirically oriented, have tended to neglect the demonstration of the empirical validity of its hypotheses. Whether in the future the balance will shift from conceptual analysis and the collection of descriptive data to the demonstration of the effect of the various disciplining mechanisms upon managerial behavior remains to be seen.
5. **The Organizational Failures Framework**

The organizational failures framework has been elaborated in a number of publications (co-)authored by Oliver Williamson. Williamson graduated from Carnegie-Mellon University in 1963 and he has credited Richard Cyert and Herbert Simon for stimulating his interest in the firm as an object of analysis (Williamson, 1970, p. ix). His first major publications (1967, 1970) were indeed concerned with the theory of the firm and attempted to formulate "managerial" alternatives to the traditional model. In Williamson (1970) particular attention was given to the effects of organizational form upon enterprise behavior, apparently influenced by Chandler's (1966) work on *Strategy and Structure*. In later years the perspective was broadened to a comparative institutional analysis of the firm and the market as governance structures for the execution of economic transactions. It is this perspective which Williamson (1975) labelled the organizational failures framework. This label refers to the general idea underlying this framework namely that one mode of organizing transactions will give way to another when certain (human and environmental) factors work together to undermine its efficiency properties. The framework will first be described in its general form below, whereafter its application to the modern corporation will be discussed.

5.1 **The general formulation of the framework**

Following Coase (1937) and Commons (1934) Williamson (1975) adopts the transaction as the basic unit of analysis. His objective is to explain the institutional mechanisms which will arise to govern a related set of transactions. The main forms of such mechanisms are markets and organizations (or hierarchies). The organizational failures framework (OFF) attempts to identify and link the
various factors involved in determining the choice between these two mechanisms. These factors are sought in (1) the characteristics of human decision makers and (2) the properties of the environment.

For expositional convenience it is assumed that "in the beginning there were markets" (Williamson, 1975, p. 20). Thus, the question is addressed why we observe organizations at all. Why are not all economic transactions mediated through the market? The answer is that certain human and environmental factors may impede the successful completion of particular types of transactions via markets. The joint operation of such factors may thus give rise to a "market failure." In such cases the transaction may well be more efficiently carried out in an organization. Organizations, however, may give rise to inefficiencies of their own: in principle, the same set of factors apply. Hence, only a comparative institutional analysis of market failures and organizational failures will enable us to predict which mechanism will be most efficient in what circumstances.

The human factors involved are bounded rationality and opportunism, while the environmental factors are uncertainty and small numbers exchange. The first three factors together give rise to a derivative condition termed "information impactedness." These factors will be elaborated upon below. Bounded rationality is used in the sense defined by Simon (1957, p. 198): "The capacity of the human mind for formulating and solving complex problems is very small compared with the size of the problems whose solution is required for objectively rational behavior in the real world." As a consequence, human behavior is "... intendedly rational, but only limitedly so" (Simon, 1961, p. xxiv). It is already evident from these descriptions that bounded rationality is only interesting in complex situations: only then are the limits of rationality
reached. If environmental complexity or uncertainty is high, it may be very costly or simply infeasible to specify a complete contract which would enable a market transaction. When the market "fails" in this way, the costs (inefficiencies) of internal organization may be less than the costs (inefficiencies) of market organization and the transaction will shift from one domain to the other.

Opportunism is introduced by Williamson (1975, p. 26) as extending "... the conventional assumption that economic agents are guided by considerations of self-interest to make allowance for strategic behavior." The term is intended to cover both "moral hazard" and "adverse selection" phenomena and to apply generally to a wide set of human behaviors involving (1) selected or distorted information disclosure and (2) self-disbelieved promises regarding future conduct. Generally speaking, the term therefore refers to a lack of candor or honesty in transactions. It is not assumed that all economic agents necessarily behave this way. The crucial assumption is that some agents behave opportunistically and that it is costly to sort out those who do from those who don't (Williamson and Ouchi, 1981). Given the possibility of opportunistic behavior, it is much more difficult to spell out an adequate contract for market transactions. The terms must be specified in a much more detailed fashion and great effort must be expended in anticipating contingencies. By itself, however, opportunistic behavior need not impede successful contracting. If large numbers of potential contractors compete, the opportunistic winner of the contract will pay for his behavior at the contract renewal date by losing the contract. If, however, a small numbers condition prevails, the trading situation is very different. In the extreme case of only two parties involved in an exchange the trading situation assumes the characteristics of a bilateral monopoly with
its associated uncertain outcome. Of special interest in the OFF is the sit-
uation where a large numbers condition prevails at the outset, but is trans-
formed to a small numbers condition during the execution of the initial con-
tact. This possibility will be elaborated upon further below.

In Figure 1 the discussion above is summarized in the coupling of the factors
bounded rationality - complexity/uncertainty and opportunism - small numbers
exchange. In Williamson (1975, p. 31) "information impactedness" is discussed as
"a derivative condition that arises mainly because of uncertainty and opportunism,
though bounded rationality is involved as well. It exists when true underlying
circumstances relevant to the transaction .... are known to one or more parties
but cannot be costlessly discerned by or displayed for others." Williamson
submits that such information problems already exist when buyer and seller
have identical information but (a) one agent makes representations that the true
state of the world is different than both parties know it to be and (b) it is
costly for an outside arbiter to determine what the true state of the world is.
Such problems increase as information is distributed more asymmetrically; as the
information is more incomplete; and as actors behave more opportunistically.
In later expositions of the OFF this derivative factor of "information impacted-
ness" is scarcely mentioned, presumably because it does not seem to add much to
the basic factors introduced earlier.

Figure 1. The organizational failures framework

<table>
<thead>
<tr>
<th>Human factors</th>
<th>Environmental factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bounded rationality</td>
<td>Uncertainty/Complexity</td>
</tr>
<tr>
<td>Opportunism</td>
<td>Small numbers</td>
</tr>
</tbody>
</table>

From: Williamson and Ouchi (1981)
Another factor mentioned in the original formulation of the OFF is "atmosphere." It was seen as a general condition describing the institutional setting of the transaction. More specifically, it referred to the attitudes of the economic agents toward the institutional setting of the transaction:

"The standard economic model misses such considerations because it assumes that individuals regard transactions in a strictly neutral, instrumental manner. However, it may be more accurate, and sometimes even essential, to regard the exchange process itself as an object of value. Concern for atmosphere tends to raise such systems issues; supplying a satisfying exchange relation is made part of the economic problem, broadly construed.... Thus, modes of organization or practices which would have superior productivity consequences if implemented within, and thus would be adopted by, a group of expected pecuniary gain maximizers, may be modified or rejected by groups with different values .... which is to say that efficiency and a sense of well-being (that includes, but transcends, equity) are intrinsically joined" (Williamson, 1975, pp. 38-39). This aspect of the original OFF formulation has been presented here with such a lengthy quote, because it points toward a factor which has received increasing attention in organization theory. It is, therefore, somewhat surprising that this factor is subsequently neglected in further expositions of the OFF, even in the essay directed primarily toward organizational theorists (Williamson and Ouchi, 1981). 7) If preferences for atmosphere exist, and if such preferences influence the behavior of individuals (e.g., by determining their choice of organization; by constraining their opportunistic inclinations or by affecting their trade-off between material gains and nonmonetary satisfactions), it seems an important organizational design issue how such preferences can be accommodated.
The OFF discussed above describes the main factors which will jointly operate to determine the governance structure of transactions. It does not yet tell us which institutions are available as potential governance structures nor what kinds of transactions will be mediated through which types of institutions. In Williamson (1975) the governance structures are identified as markets, peer groups and hierarchies. Peer groups involve "collective and usually cooperative activity, provide for some type of other-than-marginal productivity and income-sharing arrangement, but do not entail subordination" (pp. 41-42). When the limitations of peer groups become too restrictive, simple hierarchies are adopted, which do involve subordination. Ouchi (1979, 1980) lists the available governance structures as markets, bureaucracies and clans. According to his sociological analysis these three mechanisms are arranged in order of an increasing number of social requirements. All control mechanisms require reciprocity; the individuals involved must regard the transaction as equitable. Bureaucracies in addition, require a norm of legitimate authority. Clans require both these norms as well as a set of common values and beliefs among their members. The three mechanisms differ also in their information systems: in market organization the information requirements are primarily satisfied via the price system; in bureaucracies via the rule book and in clans through traditions.

Which transactions will be mediated through what mechanisms? To answer this question we have to identify the main characteristics or dimensions of transactions which will make them particularly suitable or unsuitable for different governance structures. Williamson (1981) proposes three such dimensions: (1) the frequency with which transactions recur, (2) the uncertainty to which they are subject, and (3) the degree to which they are supported by durable, transaction-specific investments (see also Williamson, 1979). In his analysis
a considerable amount of explanatory power turns on the last dimension. Such asset specificity can arise in any of three ways: site specificity, physical asset specificity and human asset specificity. In each case a buyer and seller may become more closely tied together once an investment has been made. Consider the human asset specificity which may result from investing in training personnel. Especially on-the-job training may produce such specific skills that the employer and the employee are increasingly "locked into" the employment relation. At the extreme a bilateral exchange relation may obtain (cf. Williamson, et. al., 1976). Note that this is an example of the transformation of a large numbers exchange relation into a small numbers condition during the execution of the initial contract. Accordingly, where asset specificity is great, buyer and seller will make special efforts to design an exchange relation that has good continuity properties. As a result, recurrent autonomous contracting gives way to more complex forms of contracting and sometimes to internal organization (Williamson, 1981, pp. 1546-1547).

The combination of the OFF with (1) the specification of the alternative governance structures and (2) the identification of the critical dimensions of transactions completes the transactional perspective elaborated by Williamson. Although the linkages between these elements have not yet been fully spelled out, the OFF has been applied with reasonable success to such issues as the employment relation (Williamson et. al., 1975), franchise bidding (Williamson, 1976), vertical integration (Williamson, 1975), oligopoly (Williamson, 1975), aspects of inflation (Wachter and Williamson, 1978) and organizational design (Ouchi 1979, 1980; Williamson and Ouchi, 1981; Williamson, 1981). The latter application will be discussed in the next subsection.
5.2 The OFF and organizational design

Consistent with the general thrust of the OFF-approach organizational design is addressed as a transaction cost issue. Thus, the traditional economic assumption that organizations economize on production costs is broadened to include transaction costs (Williamson, 1981, p. 1547). Related specifically to the two behavioral assumptions of the OFF the following compact statement of the problem of economic organization is suggested: "assess alternative governance structures in terms of their capacities to economize on bounded rationality while simultaneously safeguarding transactions against opportunism." According to Williamson (1981, p. 1546) this is not inconsistent with the imperative to maximize profits but it focusses attention somewhat differently. Although he doesn't explicitly state what constitutes the differences we may infer that they are (1) the design issues following from bounded rationality and (2) the strategic behavior problems associated with opportunism.

The foregoing implies that efficiency considerations are assumed to generally determine the choice of organizational forms: "except when there are perversities associated with the funding process, or when strategically situated members of an organization are unable to participate in the prospective gains, unrealized efficiency opportunities always offer an incentive to reorganize" (Williamson and Ouchi, 1981, p. 355). To be sure, it is not argued that efficiency analysis will provide answers to all problems in organization theory. It is, however, maintained that efficiency considerations are crucial to the study of commercial organizations and may be important to the study of other organizational forms as well.
Williamson (1981) has advanced three propositions concerning organizational design. The first is the asset specificity principle: "the normal presumption that recurring transactions for technologically separable goods and services will be efficiently mediated by autonomous market contracting is progressively weakened as asset specificity increases" (p. 1548). The principle is intended to apply to recurring transactions with an intermediate degree of uncertainty. For such transactions market contracting will be used as long as assets are non-specific or semispecific. When assets take on a highly specific character, however, internal organization will displace market contracting. The basic reason is that contracting will become too costly. Buyers and sellers will insist upon extensive contractual safeguards before undertaking a project involving highly specific assets which will "lock them into a transaction". Therefore, as specificity increases, so do the inefficiencies associated with contractual market arrangements. Bounded rationality will also impose a limit upon the contingencies to be covered in contracting. Moreover, internal organization offers a number of incentive and information advantages: (1) common ownership reduces the incentives of the trading units to pursue local goals, (2) internal organization may invoke fiat to resolve disputes whereas autonomous traders would have to resort to costly adjudication, and (3) internal organization has easier and more complete access to the relevant information to settle disputes (Williamson, 1981, pp. 1548-1549).

The second organizational design principle advanced is the externality principle. It applies mainly to the production-distribution interface and is concerned with potential quality debasement by distributors when it is difficult for the producer to monitor their behavior. If a distributor's behavior affects not only his own performance but impacts also on other distributors' sales and the product's reputation in general, "demand externalities" are said to arise.
The externality principle then holds that "the normal presumption that exchange between producers of differentiated goods and distribution stages will be efficiently mediated by autonomous contracting is progressively weakened as demand externalities increase." If it is difficult for producers to insulate their products against quality debasement by distributors, market contracting will give way to organizational forms with superior quality control properties.

The third proposition is the hierarchical decomposition principle. It states that "internal organization should be designed in such a way as to effect quasi-independence between the parts, the high frequency dynamics (operating activities) and low frequency dynamics (strategic planning) should be clearly distinguished, and incentives should be aligned within and between components so as to promote both local and global effectiveness." The principle recognizes the limits of bounded rationality which necessitate the division or problems into manageable units. At the same time it attempts to prevent agents from engaging in opportunistic behavior, e.g., by pursuing local goals.

It is recognized that these principles are not yet neatly embedded in a larger optimizing framework involving both production and transaction costs. In fact, the connection between the latter two principles and the general OFF seems rather loose. They seem to be more inspired by the work of Chandler (1966, 1977) than strictly deduced from the OFF foundations. Methodologically, it is therefore somewhat troublesome that Williamson (1981) uses Chandler's findings as examples to illustrate his organizational principles. This resembles a procedure of testing hypotheses upon the same sample from which they were derived. Nevertheless, it is instructive to see that Chandler's work may be
interpreted from a transactions cost perspective. More empirical work on new
data will, however, be necessary to demonstrate the validity of these organi-
zational principles.

Ouchi (1979, 1980) has provided several noteworthy extensions of the OFF-
approach. First of all, as noted above, he has added clans to the list of or-
ganizational forms available as governance structures for transactions. Next,
he has provided an interpretation of the OFF from the sociological literature and
from the perspective of organizational theory. Finally, and partly connected
with the former, he has delved deeper into the alternative means of control in
organizations. He has shown the close correspondence between (1) the modes of
recruiting and monitoring people in organizations, (2) the form of their com-
mitment, i.e., by internalization, identification or compliance, and (3) the
organizational form of control: markets, bureaucracies or clans. In addition,
he has argued that the type of control exercised will depend on the ability to
measure outputs and on the degree of knowledge available about the trans-
formation process, i.e., the relationships between input and output. Clans,
for example, will arise where not much is known about these relationships and
where the ability to measure outputs is low. An example is the research lab-
oratory. In such circumstances the form of commitment relied upon is internal-
ization of prevailing norms and identification with common goals. Control is
not exercised in a very explicit way, since this would be infeasible and probably
noxious to the employees. The close connection between these observations and
Williamson's original reference to atmosphere will be clear.

The empirical tests of the OFF have been conducted in other areas, such as
franchise bidding (Williamson, 1976). In the field of organizational design
the empirical data brought to bear have largely been derived from prior studies which were reinterpreted from a transaction cost perspective. Although this may be valuable as a first step, certainly if the studies relied upon are as distinguished as Chandler's (1966, 1977), the proof of the pudding remains in independent testing of the generated hypotheses. As far as its application to organizational design is concerned, the OFF presently shares with "positive" agency research its empirical orientation in principle as well as its lack of independent empirical support in practice.
6. **An assessment**

The purpose of this essay was to present an overview and assessment of some recent developments in economic theory from the perspective of their potential contribution to organizational theory. In the preceding sections the overviews of agency research and the organizational failures framework have been presented in conceptual terms and have focussed on the issues addressed in these literatures. The assessment of their potential contribution to organizational theory will accordingly be carried out from the same perspective. As noted in the introduction, organizational theory has the threefold task of explaining the nature of organizations, their development, and their functioning at any particular point in time. The question to be examined below is to what extent agency research and the OFF may be expected to contribute toward the accomplishment of this threefold task.

First, a general characterization of the two literatures will be given primarily by comparing them with one another. Then, their relationships with the tasks of organizational theory will be examined.

### 6.1 A general characterization

As will have become apparent from Section 4 the agency literature consists of two very different parts. One is the "principal-agent" literature which is highly analytical and mathematical; the other is the "positive" agency literature which is more empirically oriented, mostly non-mathematical, and rather descriptive. The two literatures do, however, share the same conceptual origins. Both conceive of their research problems in terms of contracts. The analytical agency literature attempts to specify optimal contracts for specific decision
problems; the "positive" strand is much more concerned with the contracts observed in the real world and their impact upon the behavior of the parties involved. Both may be characterized as predominantly employing a (comparative-) static analysis. In the analytical agency literature the decision situation is taken as given and the research problem is defined as specifying the optimal contract for the given situation. Similarly, in the positive literature the existing contracts are mostly taken as given and their incentive or disciplining effect on behavior is studied. To be sure, an external change (e.g., a regulatory change) may be introduced into the analysis and the effects of this change upon the contracts and/or the behavior may be studied. Such external stimuli may well be handled in a comparative-static approach. The internal dynamics of the problem, however, fall outside the scope of the analysis: what endogenous factors of the decision situation cause the set of contracts (and/or the behavior they elicit) to change over time? How do these endogenous factors interact with external factors to transform decision situations and modify behaviors?

The OFF, on the other hand, adopts a comparative-institutional approach. Such an approach can, in principle, accommodate both a static analysis and a dynamic analysis. Indeed, the OFF employs both. It examines what type of transactions will be governed by which type of institution. But it also studies the possible transformation of a transaction from one type to another, giving rise to a change in governance structure. An example is the transformation of a trading situation from a large numbers to a small numbers condition, leading to increased asset specificity and hence to an increased competitive disadvantage of market contracting. Hence, the OFF-approach may be considered broader than the agency formulation of research problems.
As Jensen (1983, p. 334) has observed, the two agency literatures have developed rather independently. The "principal-agent" literature has employed a *deductive* approach to elaborate the analytical framework of contractual relationships and induced behaviors. With a few notable exceptions (e.g., Demski and Feltham, 1978), this literature has remained devoid of real world implications. Indeed, most researchers have found it difficult to derive testable propositions from this literature, mainly as a result of the restrictive nature of its assumptions. Consequently, the analytical skeleton has remained without empirical flesh and blood. This undesirable situation\(^8\) could have been remedied if the "positive" strand of the agency literature had adopted an inductive approach. If it had proceeded from the same conceptual foundations it could have closed the gap between analytics and empirics from the latter side. Two related factors have, however, inhibited this development. The first is that "positive" agency research has primarily focussed on further conceptual development at the expense of empirical work. The second is that this further conceptual development has led to the addition of many other kinds of "disciplining mechanisms" which are not accommodated in the analytical framework. As a result, the conceptual basis of positive agency research has broadened and has probably become empirically richer. At the same time, however, this development has widened the gap between both agency literatures instead of narrowing it. In summary, the current status of agency research is rather far removed from the methodological ideal of the interplay of inductive and deductive approaches, analytics and empirics.

In comparison the OFF presents a much more consistent picture. The empirical work which has been done, corresponds closely to the analytical framework. However, as noted in section 5, as yet very little empirical research has been
conducted and most of it has consisted of reinterpretations of previous findings. Here, too, the challenge in the forthcoming years will be to correct the current imbalance.

6.2 The three tasks of organizational theory

What conceptual relationships exist between these two economic theories of organization and the threefold task of organizational theory? This question will be examined below for each of the three aspects of the task, whereafter a general evaluation will follow.

Nature of the organizations

The fundamental question here is: Why do we observe organizations at all? From an economics perspective the question is why not all transactions are carried out through the market in "a single gigantic once-for-all forward 'higgle-haggle'" (Meade, 1971, p. 166). Agency research sheds little light on these questions, as far as I can see. It takes a principal-agent relationship as given. Analytical agency research searches for the optimal contractual form of this relationship; "positive" agency research for the contractual and other determinants of the behavior of both actors. In general, neither explain why this relationship should necessarily be embedded in an organization rather than mediated through the market. The "nexus of contracts" view of organizations has thus generally failed to adequately distinguish between market and organizational contracts.9)

In contrast, the explanation of the existence of organizations represents the very core of the OFF. The explanation hinges upon bounded rationality and
opportunism. But for bounded rationality, all economic exchange could be efficiently organized by contract (as elaborated in the Arrow-Debreu model).

Given bounded rationality, however, incomplete contracting is the best that can be achieved in complex situations. Incomplete contracting is hazardous if the possibility of opportunistic behavior exists. Consequently, organizations may be the most efficient governance structure to economize on bounded rationality and to protect transactions against opportunism. As Williamson (1981b, p. 554) has observed: "... while organizational man is computationally less competent than economic man, he is motivationally more complex." Organizations are conceptualized as efficient mechanisms for dealing with both factors for the types of transactions where incomplete contracting would pose opportunistic hazards.

**Development of Organizations**

What are the internal and external factors leading to organizational transformation? Why do we observe continuous adaptations or organizational forms in the real world? As argued above, agency research does not fully address these questions as a consequence of its comparative-static approach. In this approach it is possible to compare one organizational form with another at the same point in time (see, e.g., Fama and Jensen, 1983b). This comparative analysis may yield insights as to the factors explaining differences across organizations. It is, however, not suited for an examination of organizational development over time. Indeed, no work of this nature exists in the agency literature, as far as I know. The analytical work has been mostly confined to one-period models. Even in multiperiod formulations the objective is to determine a contract covering all periods, not to allow for contractual adaptations. Similarly, in the "positive" branch of agency theory some disciplining mechanisms are conceptualized to operate...
in a multiperiod fashion (e.g., the managerial labor market) but only their effect on current managerial behavior is examined. It seems, therefore, fair to say that the comparative-static approach of agency research inhibits exploration of these dynamic issues.

The OFF, on the other hand, can accommodate such dynamic issues in its comparative-institutional approach. It attempts to identify not only what factors will cause autonomous contracting to give way to organization but also why one organizational form succumbs to another. The prominent explanation here is the transformation of a large numbers to small numbers situation leading to increased asset specificity, "idiosyncratic exchange", and - at the limit - bilateral monopoly bargaining. This general analysis has been applied to such specific problems as vertical integration, multidivisionalization and multinationalization (Williamson, 1975; Williamson, 1981a). Scrutiny of these specific applications reveals that the general factors identified above are mostly not sufficient to explain the examined phenomenon entirely. In most cases additional factors are identified and used in a rather ad-hoc fashion. Nevertheless, the conceptual formulation of the OFF permits such analyses and may shed additional light on organizational transformations. It is this potential contribution which concerns us here.

Organizational functioning

Both research programs pertain to organizational functioning at a particular point in time. It may, therefore, be most instructive to compare them with one another as they relate to organizational functioning. Analytical agency research, then, remains closest to economics. It broadens traditional economic analysis by including the informational variable which had been largely neglected
beforehand. One of the assumptions of the model of perfect competition is the existence of perfect information to all market parties concerned. The notion of perfect information implies that the informational requirements of the necessary marginal calculations are fully met, that the information is reliable and that it is costlessly available. When market imperfections have been analyzed, the assumption of perfect information has seldomly been relaxed. Information is usually assumed to be sufficient, costless and evenly distributed. Analytical agency research, on the other hand, turns information into the centerpiece of the analysis. It inquires into the consequences of insufficient, costly and/or asymmetrical information. As such, it introduces an additional variable into the economic analysis. It recognizes that economic actors may sometimes find it advantageous to manipulate this variable rather than others. Such behavior may still be subsumed under the assumption of rational self-interest seeking; only the means available to the actors have increased. As noted above, such informational problems may occur within organizations as well as across markets. Analytical agency research hardly discriminates between the two, although the information settings may be expected to differ rather widely. Instead it focusses on characteristics which may apply in both situations such as the risk attitude of the principal and the agent, and the observability of effort, outcomes, etc. It is assumed that these characteristics have the greatest explanatory power. Whether this is the case in organizational settings, and what modifying effects may emanate, e.g., from the existence of organizational norms and information systems, remains an empirical question which as yet has hardly been addressed.

"Positive" agency research occupies an intermediate position. It is empirically richer than the "principal-agent"-literature. It also includes
disciplining mechanisms which do exist within organizations but not in market settings. Organizational functioning is viewed deterministically. The combined effects of the various disciplining mechanisms severely constrain organizational choice. Managerial discretion is restricted by various markets, such as the market for corporate control, the internal and external labor markets for managers, and also the (derivative) "market for information". The operation of these markets counters the adverse effects of the separation of ownership from control in the firm. In this respect the positive agency research remains close to economics. The number of markets considered has increased, but their (combined) effect on organizational functioning has remained the same. Whether the additional mechanisms function in the manner hypothesized, again is an empirical question which has largely remained unexplored.

The OFF, finally, combines elements of economics and organizational theory and thus represents the most comprehensive bridge between the two. Especially its emphasis on bounded rationality (and uncertainty) fits closely with a tradition established in organizational theory by Barnard (1938) and Simon (1947) and developed further in March and Simon (1958) as well as Cyert and March (1963). In this respect it builds upon the connection between this tradition and the managerial models of the firm in economics (see section 2). It adds a number of elements developed in economic theory, especially (a) the informational problems discussed above, (b) the concept of economizing on transaction costs and (c) the analysis of small numbers trading situations. The combination enables a fresh analysis of a number of traditional problems in organizational functioning such as the employment relation (Williamson, et al., 1975) and organizational control (Ouchi, 1979 and 1980). The OFF therefore seems particularly suited to throw an economic light upon problems of organizational
functioning. It extends a familiar conceptualization of these problems with economic elements rather than reformulating the problems from a purely economic perspective and in the process introducing concepts which are alien to organizational theory and not easily to be integrated with it.

A summary

In summary it will be clear that the OFF exhibits the closest conceptual relationships with the threefold task of organizational theory. In comparison with agency research, it is both broader (pertaining, as it does, to all three areas discussed above) and conceptually more integrated with organizational theory (employing some of the same concepts). It is, therefore, not surprising that its potential contributions have already begun to be explored in the organizational literature (see, especially, Van de Ven and Joyce, 1981; and Williamson, 1981b) whereas the agency research has not yet had much impact on this literature. In comparison, agency research may lend itself more easily to transferring organizational insights to the economic literature. As discussed above, its conceptual structure and mode of analysis remain closest to the economics tradition. And the "positive" research explores a number of mechanisms which have remained outside the scope of traditional economic analysis. Although it is quite possible that economics stands to gain by the incorporation of organizational insights, the purpose of this essay was to assess the potential contribution of recent economic research programs to organization theory. From this perspective the OFF certainly seems most promising.

6.3 Two concluding observations

In conclusion, two remarks will be made which are not specifically related
to the purpose of this essay, but which may serve a useful role in the overall evaluation of both literatures:

a. First of all, it must be noted that both literatures harbor some concepts which are insufficiently defined. For the agency literature the main example is the notion of "unwritten" or "implicit" contracts. Jensen (1983, p. 326), for example, defines "an organization as a legal entity that serves as a nexus for a complex set of contracts (written and unwritten) among disparate individuals." The concept of an "unwritten contract" remains undefined. Moreover, it would seem to defy operationalization. Retaining the concept in this form would entail the danger of rendering the theory completely tautological: all phenomena not to be explained by explicit contracts will conveniently be assumed to be governed by implicit contracts.11)

The two prime examples of inadequately defined terms in the OFF are "opportunism" and "transaction costs." Opportunism is introduced as allowing for strategic behavior and for self-interest seeking with guile. The term apparently covers "moral hazard" and "adverse selection" phenomena but is intended to be broader. Exactly what other behaviors are included, however, remains unclear. Similarly, the term "transaction costs" which figures so prominently in the OFF initially remained undefined, as Perrow (1981) has pointed out. In response, Williamson and Ouchi (1981b) offered the general characterization of transaction costs as "the costs of running the economic system." The term is intended to focus attention on "alternative means of contracting" and on "the frictions" that will impede or block the formation of either markets or hierarchies. Such general descriptions invite the same dangers of tautology which were alluded to
above. Again, a major task in the further elaboration of this research program is the more precise specification of these key concepts.

b. The agency literature displays a peculiar imbalance in that "the principal's problem" (cf. Ross, 1973) is arduously investigated, whereas the agent's problem remains virtually unexplored. In principle, however, the informational problems may be just as severe for the agent as for the principal. The principal may also have private information which is costly or impossible to obtain for the agent and which may be strategically used by the principal ex ante or ex post. It would, therefore, seem preferable to formulate the analytical framework in a more general fashion and to allow both unilateral and bilateral information asymmetries.
Notes

1. Galbraith's (1981, p. 518) "... metaphor was of a man obsessed by sex who devotes his life to enhancing the sexual opportunities of other people whom he has not met."

2. For example, some of those accepting Berle and Means' thesis have sought for a new concept of the "social responsibility" of corporations to broaden its traditional "economic responsibility." I shall not deal with that literature here; I have attempted to do so elsewhere (Schreuder, 1981; Schreuder and Ramanathan, 1983).

3. This seems the most important implication of Kuhn's (1970) concept of a research paradigm. It has been applied to organizational theory by Morgan (1980) and to accounting by Davis et. al. (1982), while Bourn, et. al. (1983) employ the concept of "myths" to explore this idea.

4. McManus (1975) and Barzel (1983) have called attention to the fact that Frank Knight already recognized the importance of "moral hazard" for explaining organizational forms. He discusses the concept extensively in Chapter 8 of his Risk, Uncertainty and Profit (1921). In proceeding from the discussion of risk in Chapter 8 to that of the entrepreneur and the firm in the following chapters, the problem of moral hazard is abandoned without explanation. As a consequence, Knight is usually credited with a "risk-theory" of the firm and the entrepreneur instead of a more general transactions cost theory (Barzel, 1983).

5. Information economics expands the analysis to include the selection of an optimal information system. Information systems differ in their costs and benefits. The latter consist of better expected decision outcomes as a result of better signals. In this view, information is regarded as an economic commodity and its purchase can be analyzed accordingly.

6. See Williamson (1975) and Ouchi (1980) for the conditions leading to the infeasibility of different types of contracts.

7. Ouchi (1980) has devoted much attention to norms of "reciprocity", "legitimate authority" and "common values and beliefs" in interpreting the OFF-framework. These norms seem to be subsumed under Williamson's general heading of "atmosphere", a relationship Ouchi does not discuss.

8. At least if one accepts that both economics and organization theory belong to the empirical sciences (whether applied or not).

9. To be sure, some authors acknowledge the existence of transactions costs as the differentiating variable (e.g., Fama and Jensen, 1983b). However, this is generally noted in passing and the analysis subsequently focusses on the "agency costs" associated with different organizational forms. Hence, there is an omission to explain when market contracting will give way to organization.
10. Cf. the externality argument in the case of forward integration and the hierarchical decomposition argument in the case of multidivisionalization (Williamson, 1981a). The explanation for the growth of conglomerates and multinationals I find rather unconvincing, as it hinges mainly upon the experience gained by management in multidivisionalization. This explanation seems at odds with the general thrust of the OFF which stresses efficiency considerations.

11. Jensen (1983) stresses the usefulness of tautologies but seems to inadequately distinguish these from definitions. The notion of an "implicit contract" is especially troublesome since many organizational relations would seem to be non-contractual in nature (Macaulay, 1963; Kaplan, 1983).


Davis, S. W., K. Menon and G. Morgan (1982), The Images that have Shaped Accounting Theory, Accounting, Organizations and Society, Vol. 7, No. 4, pp. 307-318.


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