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Individual and Group Aspects of Corporate Culture

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I. INTRODUCTION

The study of organizations has been approached by anthropologists, sociologists, (social) psychologists and economists. The share of economics has been modest. This seems surprising because economists have developed a "theory of the firm", but this theory is rather silent about the internal functioning of firms. It would probably be more appropriate to characterize this theory as a theory of markets. However, we believe that recent developments in economic theory provide room for a new attempt to analyse many aspects of the internal functioning of organizations (Hendrikse (1993)). This article will concentrate on corporate culture.

Corporate culture will be analysed with respect to its conscious choice aspects, i.e. it is assumed that people choose to which corporate culture they want to adhere. The factors influencing this choice will be analysed at the level of the individual, the firm and the market. The main concept used at the individual level is the conceptualization of bounded rationality as an incomplete contract. Corporate culture is seen as a way to complete the incomplete contract by providing a coordination device for individuals in order to choose a particular course of action. The main idea employed at the firm level of analysis is the notion of critical mass. It is argued that the emergence of a new culture depends crucially on a certain percen-

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tage of people adopting it. Otherwise, a culture may persist which is not optimal from the point of view of the company. Everybody gains when all switch to a new culture. However, if less than half of the people is going to switch, then each individual is better off staying with the old culture. Finally, the competitive and strategic analysis employs concepts like imitability and first mover advantages. A corporate culture is hard to change and may therefore provide a beneficial commitment to a particular strategy in the market.

This article is organized as follows. Section two conceptualizes and defines corporate culture. The utility maximizing behavior of individuals and the relation between the behavioral characteristics of the individuals who generate some social aggregate (e.g. corporate culture) is analysed in section three. The characteristics of the aggregate are analysed in the fourth section. Section five relates our analysis to the current literature on corporate culture. Finally, a conclusion is provided.

II. CORPORATE CULTURE AT THE INDIVIDUAL LEVEL

Corporate culture is a difficult notion to grasp for economists because the dominant neoclassical approach perceives human agents as having unlimited cognitive abilities to deal with the complex world surrounding them (Heiner (1983)). Once we abandon this assumption, scope is created for thinking about notions like rules of thumb, seemingly myopic behavior, errors, and so on. Simon (1965) develops in this context the notion of bounded rationality as behavior that is "intendedly rational, but only limitedly so".

Many people are willing to take decisions which increase the value of the firm, but they quite often don't know what course of action is most desirable. Schelling (1960) observes for such coordination problems in general that "What is necessary is to coordinate predictions, to read the same message in the common situation, to identify the one course of action that their expectations of each other converge upon. They must "mutually recognize" some unique signal that coordinates their expectations of each other. We cannot be sure they will meet, nor would all couples read the same signal, but the chances are certainly a great deal better than if they pursued a random course of search". This is where the importance of corporate culture emerges. It provides a "clue for coordinating behavior, some focal point for each person's expectation of what the other expects him to expect to be expected to do".

The recent literature on incomplete contracts provides a way to deal with bounded rationality and corporate culture. Contracts specify what will be done when certain contingencies arise. However, it is costly to think through all possible contingencies that might possibly arise. The best that can be done is therefore to write incomplete contracts, i.e. only the most important aspects of the relationship will be included in the contract. Contracts are incomplete in the sense that it is left open what will be done when contingencies arise that are not specified in the contract. Once an unforeseen contingency arises, a decision has to be made about what course of action to pursue. This is resolved by deciding at the start of the relationship who has the discretion over such decisions (Grossman and Hart (1986)), i.e. somebody is given the authority to selectively intervene in the operations of the firm. An example is a labor contract. It specifies broadly which tasks the employee has to carry out, the length and amount of the working days and the salary that will be payed. However, it does not specify for each instant in time what has to be done. The employer has the freedom to assign the employee to tasks in situations which are not described by the contract. The hierarchical relationship is accepted by the employee because the organization has a reputation that fair/equitable decisions will be made, and will be honored because it allows for future beneficial transactions to be undertaken (Kreps (1990)).

However, this assignment of authority doesn't eliminate the cost of specifying every time what has to be done once an unforeseen contingency has arisen. The organization would like that their members somehow know what is a good decision and that it is carried out. An aspect of a good decision is that it somehow matches with the decisions taken by others. A corporate culture might be valuable in this respect because it indicates a preference for a particular way of synchronizing these different and dispersed decisions. Corporate culture is therefore an example of a network with positive externalities, like a telephone system. Buying a telephone becomes more attractive when more people have one. Similar considerations apply to corporate culture. Decisions have to be matched and a possibility to establish this is corporate culture. It increases in value when more people adopt the same culture. A corporate culture reduces uncertainty by guiding behavior in situations where many courses of action could be taken. It helps employees fill in the gaps between what is formally decreed and what actually takes place. This is how the contract is "completed" (Kreps (1984)). How these gaps are actually filled depends on time and place and the persons involved.

III. CORPORATE CULTURE AT THE FIRM LEVEL

There are many possible definitions of corporate culture that can be given and many notions which are close or somehow touch on this phenomena (like codes in Arrow (1974) and conventions in Leibenstein (1982)). We will not try to somehow classify them or formulate requirements which should be incorporated in such a definition, but take the observations of the previous section as a starting point. The underlying features of the above analysis of corporate culture are that bounded rationality necessitates the adoption of certain rules or conventions by individuals and that it is in the interest of the organization when the members of the organization adopt the same rules. Corporate culture is therefore defined as a collection of mutually consistent shared conventions of an organization. This definition allows for several corporate cultures to occur at the same time. This occurs when two or more not mutually consistent sets of conventions exist in the same organization, e.g. a marketing and an engineering culture.

The above considerations allow for the possibility to incorporate the factor power into the analysis. Some organization members have the power to implement formal changes which will influence the choice between cultures by all other members. Formal changes are captured by the rules of the contract (i.e. the agenda of the organization). If the contract rules change, then this will change the contingencies not covered by the contract and subsequently determine the frame of reference and the direction of corporate culture. So, the coordinating role of corporate culture is exercised within the set of uncovered contingencies and this can be influenced by those having power. Informal exchange and communication is guided by and exercised within these formal rules. An example is the choice of organization structure. A functional organization structure is organized around functions like marketing, finance and manufacturing. Its strength lies in exploiting economies of scale and an engineering culture usually prevails in such organizations. A divisional organization structure is organized around products. It is especially suitable for responding to changes in the market and to synchronize marketing and engineering perspectives. The corporate culture of a divisional organization is usually less dominated by engineers. The set of unforeseen contingencies of these organization structures will be different and they will probably respond differently to a particular unforeseen contingency.

An example of establishing a corporate culture in the minds of organizational members is the formulation of a strategic plan. A strategic plan formulates the objectives of an organization and the strategies to achieve these objectives. It takes a lot of time and effort to formulate a strategic plan, but it often seems to disappear in some file without being implemented, and people wonder about its usefulness. However, it has fulfilled its role in the process of formulating it by being a framing device for focussing/coordinating behavior of people, and therefore guides behavior in uncertain situations. Another way of formulating this is that the process of formulating a strategic plan tried to establish a more favorable attitude or informal exchange and communication between employees.

Corporate culture was viewed in the previous section as a way to complete the incomplete contract. There are several possibilities to do this, but the main interest will now be just the emergence of a corporate culture. It is therefore sufficient to consider the decision of whether a person will join or not join a particular corporate culture and how this decision is influenced by the environment faced by each person. Some of the terminology which will be used here has been developed by Farrell and Saloner ((1985), (1986)) in the context of product innovation. Notions like standardization and compatibility will be employed.

Each individual is assumed to be characterized by a benefit function. It consists of two components: the attractiveness of a particular culture and how this attractiveness is influenced by which other persons are adopting this culture. It specifies for each person how much (s)he likes a certain culture and the benefit from switching to a new culture as a function of who else will switch. Formally, $B_i(C,S_c)$ represents the benefit for person i of adopting culture C and S_c is the set of people who have already adopted culture C. It is assumed for simplicity that there are only two cultures which can be chosen, i.e. C takes on a value X or Y. Individuals choose either to participate in one set of shared conventions (, i.e. one culture) or another. The set of people adopting a culture represents both the num-

ber of people and the characteristics of each individual. The difference between persons is represented by the index i and therefore allows for heterogeneity in the population.
For example, a dogmatist is characterized by putting strong emphasis on the first term, whereas a follow the crowd type of personality places a high value on the second component. A charismatic person has a personality which motivates and influences other people. This is modelled by attaching a high value to adopting the same culture as this person, i.e. the value of culture X for person i ($B_i(X,S_x)$) is much higher with the charismatic person in S_x than without him.

A crucial assumption is that whatever a person's choice, (s)he prefers to have others make the same choice (, i.e. adopt the same culture). This critical mass assumption makes the choices of individuals interdependent. When this interdependence (or social pressure) is an important consideration for a person deciding which culture to adopt, early movers can influence later movers' decisions: if person 1 switches to a new culture, then person 2 will find switching more attractive than if person 1 had not switched. The culture(s) at the firm level is (are) therefore generated by the choices made by individuals.

The interdependence of choices might result in a corporate culture which is not optimal from a company wide point of view. If everybody could perfectly foresee how all the other persons would react to his (her) choice, then a firm will never be trapped in an inferior culture. The better alternative will always emerge because everbody knows what is best and that it can be achieved. However, if the reactions of others can not be perfectly foreseen, then "excess inertia" can occur. Excess inertia is a socially excessive reluctance to switch to a superior new culture when important spillovers or network externalities are present in the current one. People might be stuck with an undesirable culture, while there is a better alternative available. The recent switch in the Soviet Union towards a more market oriented economy is a prominent example. A similar situation occurs when people are attracted towards and move to something new, whereas the old culture is actually better. However, it will be hard to reverse such a move. The problem is that no person can be sure that (s)he would be followed in a switch to the new culture. The incomplete information results in coordination problems, which prevents the new culture to be adopted even when adoption is favored by all persons. This arises when all persons only moderately favor the change, and hence are themselves insufficiently motivated to start or join a new culture, but would join if sufficiently many people adopted it. In terms of the benefit function, $B_i(X,S_x)$ has moreless the same values as $B_i(Y,S_y)$ for all persons. Another way of saying this is that social pressure and faits accomplis (or the lack thereof) might be responsible for a firm having an inferior culture, while a better alternative could be chosen. Strong labor unions or rigid bureaucratic organization structures may be responsible for delays in favorable changes.

An escape from an undesirable culture is possible by replacing a person who is only moderately favoring a change by somebody strongly favoring a change. This person will stick with the new culture regardless the decision of his colleagues. This commitment will make the old culture less attractive to those currently adhering to it and might trigger the switch to the new culture. Examples of this comparative statics result are the firing of old and the appointment of new employees or managers and the imprisonment or execution of key persons in times of political revolutions. Another way of overcoming some of the coordination problems is of course to allow for some communication between people. Communication will change each person's subjective probability assessment about a switch being followed. The outcome will change, but it doen't eliminate the problem that we have seen completely.

The time needed for a switch in culture to occur did not yet get any explicit attention. The presence of an installed base may result in excess inertia, even with complete information. If a new corporate culture is built up of new persons in the organization, then delays are caused by the time it takes for enough new people to arrive, i.e. a critical mass of new people adhering to the new culture has to be built up. It implies that the history of the organization may play an important role in the formation of that organization's culture. The choices made by the founding fathers influence the behaviour of those who come later. The arrival of people adhering to a new culture causes two externalities. First, the adoption of the new culture affects the people adhering to the old culture. Their culture ceases to spread and becomes relatively less attractive. Second, an early adopter of the new culture enhances its appeal to later users. If the new culture is built up through adherers switching to the old culture, then delays are caused by the time it takes for persons adhering to the old culture to switch. This is called the penguin effect.

Penguins who must enter the water to find food often delay doing so because they fear the presence of predators. Each would prefer some other penguin to test the waters first.

The selection of workers across cultures depends on the benefit function of all persons involved. This determines whether there is a complete, partial, or absent emergence of the new corporate culture. Persons eager to switch will do so and make it therefore more attractive for others to switch too. Only those persons who really don't like the new culture stay with the old one, even though it is less attractive for them once several colleagues have switched. A replacement of such persons might be necessary in situations where a complete emergence of the new corporate culture is desirable.

The desirability of two or more corporate cultures (, i.e. the partial emergence of the new corporate culture) depends on the tradeoff between diversity and standardization. It can be thought of as diversity in order to prevent myopia and standardization as the benefit of "all noses pointed in one direction", i.e. facilitating teamwork and effective decision-making. If standardization is the most important concern, then the benefits of one culture over another have to be evaluated. If diversity is the dominant concern of the organization, then the problem is having one versus two cultures. It might be difficult to establish two corporate cultures due to the interdependence of preferences.

A good or bad culture has not been explicitly defined. The only issue was the emergence of a particular culture at the level of the organization. This is determined by the choices of the members of the organization. Their decisions may coincide with the organizational goal(s) but may also conflict with them. A bad organizational culture may survive for a while because the constituents have an interest in maintaining the status quo. A bad culture may also emerge by an unfortunate appointment or by the unwillingness of incumbents to adapt to a new situation.

IV. CORPORATE CULTURE AT THE MARKET LEVEL

The emergence of corporate culture at the firm level will be taken as given in this section. The interest is now the competition between firms with different corporate cultures in an industry. We will first look at competition by only considering the number of firms in an industry. Subsequently, the strategic aspects of the choice of corporate culture are analysed.

The analysis of Lippman and Rumelt (1982) has implications for corporate culture at the market level. Their argument in our setting runs as follows. Each firm is composed of a particular set of employees, which accounts for a certain culture. This is summarized at the firm level by a particular level of the costs of production. Firms in an industry face different costs, because some cultures do better than others. The distribution of these costs determines a (maximum) cutoff level of production costs at which a firm can make non-negative profits. Firms with costs above this level will make negative profits and leave the industry. Some firms just survive by making zero profits, whereas others make actually positive profits in the long run. These differences within the class of surviving firms occur because there is uncertainty regarding production costs when the entry decision has to be made. A firm doesn't know its precise production costs because the environment is too uncertain and complex to be grasped immediately. The actual costs can therefore be viewed as a realisation of a stochastic variable. Firms will not enter the industry anymore when the cutoff level has dropped to such an extent that profitable entry is unlikely. So, competitive advantages of corporate culture are able to generate above normal profits at the market level in the long run. The excellent firms within the class of survivors are responsible for this. Necessary and sufficient conditions for corporate culture to be profitable in the long run are that corporate culture is valuable, rare and imperfectly imitable. (An unique completion of the incomplete contract or the unique hiring sequence of organizational members are examples of these conditions.) The process of entry and exit can not eliminate these profits. Barney (1986) concludes that "culture research, and the consulting it implies, can not be used to help firms with valuable, rare, or imperfectly imitable cultures or management skills to obtain sustained above normal performance, for such efforts are, in principle, imitable". Imitable cultures won't generate above normal profits in the long run, due to the process of entry and exit. However this doesn't mean that culture research is rendered unfruitful. Culture research might be able to identify factors that are important for performance not to drop below normal profits and that it will result in advising to maintain, protect, and exploit your unique factors, rather than just imitating rivals.

The effect of national culture on performance is channeled through markets. American, European and Japanese car producers are competing with each other in the market. If the Japanese have a competitive edge due to cultural factors, then they are advised to develop these sources of profits even further. (These profits will of course disappear when there are several companies from the same nation competing fiercely against each other.) The imperfectly imitable aspects of a corporate culture are generated in our analysis by the composition of the internal labour force. They determine how the incomplete contract is completed and in which direction this completion is going. American and European car producers should stress and protect their strengths in order to generate above normal profits, instead of trying to imitate japanese successes. Imitation will only increase competition and therefore only generate just normal profits.

The above analysis has abstracted away the strategic aspects of the corporate culture choice. However, markets with a small number of firms usually provide some scope for this behavior. An important aspect in such situations is the distinction between short and long run decisions. Short run decisions are taken daily or weekly and therefore reversible, wheras long run decisons are only taken once in a while. Long run decisions have often a sunk character, i.e. there are usually costs involved in changing them, because they are geared towards a particular purpose. Examples of investments with a sunk cost feature are the choice of capacity of a steel mill or the amount spend on advertising. It is not possible to recoup these investments (completely) and use them in another context. This irreversibility feature limits the choices available to the firm in the future. Reduced options to choose from may actually be advantageous in strategic situations because they structure the competitive environment in a way favorable to the firm. For example, the market becomes less attractive for potential entrants when the incumbent builds a large production capacity. The choice of a corporate culture has similar sunk aspects associated with it. A corporate culture can not be sold and casual empiricism suggests that there are considerable costs involved in changing it. The costs associated with a corporate culture are therefore sunk and it forms a commitment to certain behavior inside the firm as well as in the market. Hendrikse (1991) has shown that market considerations may outweigh internal organization concerns in the organization structure choice. Firms choose in his setup either a functional or divisional organization structure. Economies of scale and coordination issues may be such that a functional organization and the corresponding corporate culture is chosen when there are no competitors in the market. However, (potential) competition may require a divisionalized structure and therefore a different corporate culture, despite the superior internal organization aspects of a functional structure. A divisional organization gives the firm a more aggressive profile in the market, which makes it more difficult for potential entrants to invade the market. Profits of the incumbent firm have decreased due to the adoption of a divisional structure, but they are still higher than profits with a functional structure and an additional competitor in the market.

V. RELATIONSHIP TO PREVIOUS RESULTS

We will relate our framework and results to the literature on corporate culture in this section. The comparison will be done section by section.

Analyses of culture inspired by the transaction cost approach have similarities with our second section. We agree with Jones (1983) that organizational culture is framed by the institutional arrangements that are developed to regulate the exchanges of transactions between members of a social group. However, culture has also a role to play within this frame. It implicitly coordinates the actions of organizational members, as has been pointed out extensively in section two. Ouchi (1980) states that "the set of traditions in a formal organization may produce a unified, although implicit, philosophy or point of view, functionally equivalent to a theory about how that organization should work. A member who grasps such an essential theory can deduce from it an appropriate rule to govern any possible decision, thus producing a very elegant and complete form of control". Our analysis is in this spirit, but we don't think that it is restricted to the clan organization, which is characterized by low goal incongruence and high performance ambiguity. Even environments with low goal incongruence and low performance ambiguity require a culture which coordinates the actions of boundedly rational agents.

Culture plays a similar role at the firm level in Weick (1987). His analysis is built on the assumption that "the variety that exists in the system to be managed exceeds the variety in the people who must regulate", i.e. the cognitive capabilities of employees are insufficient to grasp the complexity of the world (bounded rationality) and therefore they don't know the right decision for the organization when faced with unforeseen contingencies. Culture might resolve this because it "creates a homogeneous set of assumptions and decision premises which, when they are invoked on a local and decentralized basis preserve coordination and centralization". We arrive at a similar conclusion, although our starting point is quite different.

Akerlof (1991) derives inertia regarding the emergence of a particular corporate culture by analyzing small mistakes in repeated decisions. Each choice may be close to the maximizing one at a particular time, but the cumulative effect of a series of repeated errors may be quite large. Examples are phenomena like procrastination and obedience. Current costs and benefits count much heavier than those in the distant future. Required actions are postponed until tomorrow without foreseeing that when tomorrow comes, these tasks will be delayed again. This implies in our context that establishing a superior corporate culture today is put off until tomorrow, because the disutility of disobeying today is salient relative to an even more painful change tomorrow.

Scharfstein and Stein (1990) concentrate on reputational externalities instead off compatibility externalties. If somebody adopts a particular culture, then others will tend to be biased toward the same culture for reputational reasons. Making a mistake when others follow the same approach is not as bad as a failure when an independent course of action has been followed. They cite Keynes in this respect with "Wordly wisdom teaches that it is better for reputation to fail conventionally than to succeed unconventionally". Akerlof (1980) specifies the benefits of adhering to a corporate culture by a reputation function. The assumption is that more reputation is lost by breaking with a culture when the number of believers in the corporate culture is larger. Persons adhere to the prevailing corporate culture either if they are reluctant to lose reputation by breaking it or if their belief in it is sufficiently strong. Akerlof's model allows preferences of employees to be changed. Self-selection might result in socialization. However, employees may adhere again to the prevailing corporate culture, even though they don't believe in it. They adhere to a certain culture due to social pressure, although another culture is preferred.

We have hardly paid any attention to communication issues in order to resolve the coordination problem. The classic starting point for economics of such an analysis is the theory of teams by Marschak and Radner (1972). Cremer (1987) analyses within this framework the quality of a response, based on its appropriateness and speed, in a world with bounded rationality.

Soeters and Schreuder (1988) provide an empirical study with respect to the effect of national culture on organizational cultures in accounting firms. They advance a "socialization hypothesis" versus a "(self-)selection hypothesis" as possible explanations for their empirical results with respect to the existence of different corporate cultures at the firm level. Their empirical result is expressed as follows: "The significant effects of the US-culture upon the organizational cultures of the Big Eight firms operating in The Netherlands are surprising if one takes into account that these firms employ hardly any US-citizens". The (self-)selection hypothesis states that employees are attracted to those firms already conforming to certain aspects of their preferences. The socialization hypothesis states that employees internalize aspects of corporate culture through organizational processes of socialization. We interpret the socialization hypothesis as trying to mold the preferences of employees so as to make them (more) supportive of the corporate culture. This translates in changing the benefit function in the terminology of the third section. A weaker notion of the socialization-hypothesis is adopted in section three by leaving the benefit function unchanged but allowing a difference between obeying a corporate culture and liking it, i.e. a person obeys a certain culture because others do, but (s)he prefers another culture when enough other people adhered to this other culture. So, employees may adhere to the prevailing corporate culture, even though they don't believe in it. Our model poses therefore that a selection and socialization hypothesis might be operating together in equilibrium.

Notice that our approach of persons making choices with respect to corporate culture belies what has come to be understood in the interpretive literature about cultural processes and phenomena in organizational settings. Culture rests in this literature on a set of subjectivist, internal assumptions. Organizational symbols (see e.g. Morgan, Frost and Pondy (1983)) are signs which "express much more than their intrinsic whole, they are significations which embody and represent some wider pattern of meaning". Individuals were considered as making an explicit choice between participation in one corporate culture or another in section three. It is subsequently used to guide certain decisions implicitly, i.e. it is used to complete the incomplete contract. The study of Soeters and Schreuder (1988) provides empirical support for the perspective that there are at least some conscious choice aspects associated with corporate culture at the firm level. They found that their results "may rather be due to (self-) selection than to socialization mechanisms".

Another difference between our approach and the interpretive literature is due to the definition of corporate culture used. We define corporate culture in terms of shared conventions, whereas the interpretive literature defines culture in terms of norms and values. Notice also that our definition of corporate culture as a collection of mutually consistent shared conventions of an organization does not allow for a culture consisting of internal contradictions. However, we allow for two or more cultures to exist at the same time, which might complement, or possibly contradict, each other. So, it might seem as if there is one culture consisting of internal contradictions at the organization level, whereas there are actually two or more in our terminology.

Soeters (1986) has offered two hypotheses about the decline of excellent companies. The first hypothesis is that companies that are possessed by their corporate culture run the risk of becoming myopic. His second hypothesis stresses the tendency of mobilization processes to decline in intensity after a while. However, being possessed by a corporate culture without being myopic and having an intense mobilization process seems not to be good enough to guarantee sustained above normal profits in the long run. Excellent companies are excellent because their efforts are valuable, unique, and inimitable, and not because they are not myopic or not intense. Being intense and not myopic might be necessary, but it is not sufficient to generate and sustain above normal profits. There are of course other contributions with respect to organizational decline (e.g. Nystrom and Starbuck (1984), Whetten (1980)) but this study is discussed because it illustrates nicely the role played by the three conditions formulated in the fourth section.

VI. CONCLUSION

This article has looked at corporate culture at the individual, firm, and market level of analysis. It has shown how individual behavior is embedded in the analysis of the firm, and subsequently the firm in the market environment. Concepts like incomplete contracts, compatibility and imitability were applied to the phenomenon of corporate culture. These notions were used to analyse the role of corporate culture at the individual level of analysis, its group dynamics and market forces. The main focus was on coordination issues. However, an important aspect not dealt with in this paper are incentive issues. Further research might address such issues like those treated in Sniezek et. al. (1990). They have investigated in this context the conflicting individual and collective interests of the reward system in decisions of groups.

Finally, the emphasis on some economic dimensions of corporate culture is not to be interpreted as some judgment about the many contributions made by other social sciences to our current thinking about corporate culture. It is hoped that the largely ignored field of corporate culture by economists will be further developed and that there will be more cross fertilisation between the different approaches, empirical as well as theoretical.

REFERENCES

Akerlof, G., 1980, A Theory of Social Custom, of Which Unemployment May Be One Consequence, *The Quarterly Journal of Economics* 94, 749-755.

Akerlof, G., 1991, Procrastination and Obedience, *American Economic Review* 81, 2, 1-19.

Arrow, K., 1974, The Limits of Organization, (Norton).

Barney, J., 1986, Organizational Culture: Can It Be a Source of Sustained Competitive Advantage ?, *The Academy of Management Review* 11, 3, 656-665.

Cremer, J., 1987, Corporate Culture: Cognitive Aspects, (Virginia Polytechnic Institute and State University).

Farrell, J. and G. Saloner, 1985, Standardization, Compatibility, and Innovation, *Rand Journal of Economics* 14, 1, 70-83.

Farrell, J. and G. Saloner, 1986, Installed Base and Compatibility: Innovation, Product Announcement and Predation, *American Economic Review* 76, 5, 940-955.

Grossman, S. and O. Hart, 1986, The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration, *Journal of Political Economy* 94, 691-719.

Heiner, R., 1983, The Origin of Predictable Behavior, *American Economic Review* 73, 4, 560-595.

Hendrikse, G., 1991, Organizational Choice and Product Differentiation, *Managerial and Decision Economics* 12, 361-366.

Hendrikse, G., 1993, Coördineren en motiveren, (Academic Service).

Jones, G., 1983, Transaction Costs, Property Rights and Organizational Culture: an Exchange Perspective, *Administrative Science Quarterly* 28, 3, 454-467.

Kreps, D., 1990, Corporate Culture and Economic Theory, in Alt, J. and K. Shepsle (eds.), Positive Perspectives on Political Economy, (Cambridge University Press).

Leibenstein, H., 1982, The Prisoners' Dilemma in the Invisible Hand: An Analysis of Intrafirm Productivity, *American Economic Review* 72, 2, 92-97.

Lippman, S. and R. Rumelt, 1982, Uncertain Imitability: an Analysis of Interfirm Differences in Efficiency under Competition, *The Bell Journal of Economics* 13, 418-438.

Marschak, J. and R. Radner, 1972, Economic Theory of Teams, (Yale University Press).

Morgan, G. P. Frost and L. Pondy, 1983, Organizational Symbolism in Organizational Symbolism, Louis Pondy (ed.), (Jai Press Inc.).
Nystrom, P. and W. Starbuck, 1984, To Avoid Organizational Crises, Unlearn, *Organizational Dynamics* 12, 4, 53-65.
Ouchi, W., 1980, Markets, Bureaucraties and Clans, *Administrative Science Quarterly* 25, 129-141.
Scharfstein, D. and J. Stein, 1990, Herd Behavior and Investment, *American Economic Review* 80, 3, 465-479.
Schelling, T., 1960, The Strategy of Conflict, (Harvard University Press).
Simon, H., 1965, Administrative Behaviour, (Free Press).
Soeters, J. and H. Schreuder, 1988, The Interaction Between National and Organizational Culture in Accounting Firms, *Accounting, Organizations and Society* 13, 1, 75-85.
Soeters, J., 1986, Excellent Companies as Social Movements, *Journal of Management Studies* 23, 3, 299-312.
Sniezek, J.A., D.R. May and J.E. Sawyer, 1990, Social Uncertainty and Interdependence: A Study of Resource Allocation Decisions in Groups, *Organizational Behavior and Human Decision Processes* 46, 155-180.
Weick, K., 1987, Organizational Culture as a Source of High Reliability, *California Management Review* 29, 2, 112-127.
Whetten, D., 1980, Organizational Decline: A Neglected Topic in Organizational Science, *Acadamy of Management Review* 5, 4, 577-588.
Wilkins, A. and W. Ouchi, 1983, Efficient Cultures: Exploring the Relationship Between Culture and Organizational Performance, *Administrative Science Quarterly* 28, 468-481.