WHAT MAKES THE DIFFERENCE AT THE TOP?* - A MANAGEMENT SELECTION MODEL TESTED ON TOP SWEDISH MANAGERS

SVEN-OLOF COLLIN

ANNA STAFSUDD

Department of Business Administration

Lund University

P.O. Box 7080

S-220 07 Lund

Sweden

Tel +46 46-222 94 87

Fax +46 46-222 42 37

E-Mail: Sven-Olof.Collin@fek.lu.se

---

* The work this paper represents was partially funded by The Swedish Council for Research in Humanities and Social Sciences, and The Bank of Sweden Tercentenary Foundation. Allan Bird, Kristina Eneroth, Rikard Larsson and Margaretha Wiersema provided helpful comments. Robert Goldsmith provided language editing.

WHAT MAKES THE DIFFERENCE AT THE TOP?
- A MANAGEMENT SELECTION MODEL TESTED ON TOP SWEDISH MANAGERS

Abstract

A model predicting hierarchical position, based on the tournament theory including both organisational structure signals and social structure signals, was tested on 403 top managers of Swedish firms. Organisational structure signals, such as frequency of change in hierarchical level change and age when assuming the first management position were the strongest predictors, but the social structure signal of class influenced the hierarchical height.

Key words:
Managerial selection
Tournament model
Social similarity

The managerial labour force is an important production factor, as it influences the other production factors employed in the organisation and is held responsible for their utilisation. The importance of management has been researched both in terms of a manager's impact on organisational performance (Hambrick and Mason, 1984; Gupta and Govindarajan, 1984; Hambrick and Finkelstein 1990), as well as on specific parts of the organisation's activities such as strategy (Gupta, 1986; Michel and Hambrick, 1992; Sambharaya, 1996; Wiersema and Bantel, 1992). The selection of a managerial labour force thus represents a crucial activity in every organisation.

In view of its importance, selection of the production factor of managers is a difficult task. With increasing hierarchical level, managerial labour represents a resource that is hard to evaluate either ex ante or ex post, as the responsibility area of a manager will tend not only to increase with hierarchical level, but also to become more difficult to define (Kotter, 1982). Another difficulty in evaluating management performance is their possession of a high degree of freedom, managers being subjected to very little close monitoring. Thus, information about a manager's ability tends to be limited.

Structural theories of management selection such as internal labour market models (Cappelli and Cascio, 1991; Doeringer, 1986) and tournament models (Rosenbaum, 1979, 1989) have in large part focused on limited information and the consequences this has on managerial careers and management selection. The tournament perspective focuses on "winners", which are produced by the organisation, whereas the internal labour market perspective focuses on retaining competence within the firm by reducing external knowledge of "winners" in minimising tournaments to specific managerial ports of entry and exit. Information uncertainty is in the structural perspective lessened by the use of ability signals (Arrow, 1973), which are created by the organisational structure, such as frequency of change in hierarchical position and time spent at the first position (e.g., Kanter, 1977). Other researchers tend to focus on signals created by the social structure, hypothesising that demographic variables are

indicators of attitudes, values and behavioural patterns (Pfeffer, 1983) and that similarities and dissimilarities in personality and values will influence an individual's attraction to and attractiveness for an organisation (Schneider, 1987). Thus, social structure factors could reduce uncertainty in taking certain mechanisms into account, such as the attraction between individuals who are similar (Tsui and O'Reilly, 1989) and in the prediction of behaviour regarding such variables as gender and social class (e.g., Pfeffer, 1977).

The aim of the present paper is to develop and test a model for the selection of managerial labour, including the tournament models, signals of ability created by organisational structure, as well as signals of ability created by social structure. The paper contributes to the selection literature in three different ways. First, it proposes a wider perspective on management selection than the more focused models mentioned above; a perspective that includes both the tournament theory with its organisational desire of uncertainty reduction, attained through signalling on behalf of the organisation and through factors that are created through the social structure, in terms of social similarity, social networks and the prediction of behaviour. Secondly, the model is tested on a data set consisting solely of managers at the very top of listed corporations in Sweden. As the selection process of managers on different hierarchical levels may be influenced by different factors, or more or less strongly by the same factors (Kotter, 1982), this will give us the advantage of observing those factors that specifically influence the top management selection process. Thirdly, the fact that the data set is collected from a population of 699 managers employed by listed corporations in Sweden provides the possibility of comparing Swedish results from this study with existing US ones. As research in this area has been conducted using mostly US samples, this might prove an important contribution in view of possible theoretical implications gained by a cultural comparison of similarities and differences, taking into account that Sweden culturally is rather different from the US (cf. Hofstede, 1980).

The paper is divided into five sections. The first section describes the model of management selection. The second section derives hypotheses of management selection structured according to the model, beginning with hypotheses about actual ability and organisational structure signals, i.e., the tournament model, and ending with social structure signals, i.e., the similarity-attraction paradigm. The third section describes the methods employed and defines the variables. The fourth section presents the results of the analysis. The last section concludes the paper and considers possible implications for further research and praxis.

A MODEL OF MANAGEMENT SELECTION

Organisations need managers. They represent an important production factor since they govern the organisation and are held responsible for its performance (Kosnik, 1990; Norburn and Birley, 1988; Smith, Carson and Alexander, 1984). The allocation of management and the development of it are thus important activities for every organisation. However, it is difficult to measure the ability of a manager in isolation. This is not only due to the number of variables that influence performance. It is also because the manager's difficulty of controlling those variables increases with the manager's level in the hierarchy; and because it is difficult to gain information about a manager through close monitoring since a manager needs to have a large degree of freedom in order to perform well. Thus, the uncertainty accompanying managerial labour limits the possibility of making well-informed decisions concerning the selection of managers and investments in management training.

Those wishing to be managers need organisations. Individuals who enjoy managing and having the status and income of a manager are particularly attracted to organisations in which management positions are available, and persons who place a high value on hierarchical levels are drawn to organisations having a hierarchy (Kilduff and Day, 1994). Therefore, those who are managers in large organisations

tend to be persons whom the organisations have selected from a larger sample of persons with a preference for management and hierarchy.

Two main perspectives have been used to explain managerial selection. These are the individualistic and the structural perspective (Rosenbaum, 1989; cf. Malos and Campion, 1995). The individualistic perspective, focusing on individual preferences, involves both psychological models (e.g., Brousseau, Driver, Eneroth and Larsson, 1996) and economic models (e.g., Becker, 1964). Models of both types are commonly used to explain individual career paths. The latter tend to be influenced by such individual factors as family situation, individual preferences for status and income (Gattiker and Larwood, 1988, 1990; Veiga, 1983), and individual calculations regarding investments in education and training. The individualistic perspective can presumably define the sub-sample of would-be managers. These are individuals who are willing to be selected by an organisation for a management position and to climb the organisational ladder.

The structural perspective, in turn, focuses on an organisation's selection of individuals for management positions. It involves two main models, the internal labour market model (Doeringer, 1986) and the tournament model (Rosenbaum, 1979, 1989). The internal labour market model emphasises features of the organisational structure that are intended to implement strategies for developing and protecting firm competence. The tournament model, in turn, focuses solely on selection, considering the organisational promotion system to be a tournament game in which the winner of a game advances one level and the losers tend to remain at their original level.

Both these models within the structural perspective are based on the notion of uncertainty in the measurement of a manager's ability. To complement the direct measurement of ability in the selection of an individual for a position organisations generate signals regarding performance level. Organisations can create signals through a promotional system, one organised as a tournament, so that signals of ability are created through the selection of winners, which in turn will influence the selection

process and thus, those who will get to the top. This can be termed organisational structure signals.

Any model that involves signals, however, has to consider what can be termed social structure signals. Research concerning attributes (Feldman, 1981) and demographics (Pelled, 1996) has shown that groups tend to include individuals who are similar to each other in certain respects, to exclude individuals who are dissimilar, and to reward individuals that are similar (Belliveau, O'Reilly and Wade, 1996). This 'similarity-attraction paradigm' (Tsui and O'Reilly, 1989) would predict that managers or selection committees confronted with the problem of selecting a manager among people with performance that is hard to measure, tend to select a person who is similar to themselves. A qualification could be stated, that the promoting person could promote, not the person similar to the promoter, but similar to the promoters image of itself (Santee and Jackson, 1979; Schlenker and Weigold, 1989). Thus, social structure signals of similarity tend to reproduce top management, as indeed has been argued in political theories of organisations (Pfeffer, 1989; Useem, 1984).

The overall model of management selection presented here can be summarised as follows: from the reservoir of individuals showing preferences for management positions and for ladder climbing, organisations select individuals of high ability, if this can be measured, and complement this by utilising organisational structure signals of ability as well as social structure signals of similarity.

HYPOTHESES ON MANAGEMENT SELECTION

The selection of individuals to management positions is assumed to be influenced by the actual ability of these individuals, their signals of ability created by the organisation structure, their signals of similarity created by social structure and their preference for hierarchical climbing. The specified model that includes the hypotheses of management selection just described is presented in Figure 1.

Insert Figure 1 here

The model begins with actual ability, which here has to be regarded as control variables since the tournament model only conceptualises those factors that are signals of ability. The actual ability of a manager is difficult for an organisation to evaluate and could be non-significant in predicting future performance. This is the very basis of the signalling idea in the tournament model. Nevertheless, one can assume that in a selection process estimates of ability are made, and thus influence the decision arrived at. However, if organisations face difficulties in measuring ability, researchers face even greater difficulties. Our database consists of the personal records of managers which the managers themselves provided. Yet, we have four speculative proxies for actual ability (AA). We assume that varied experience with respect to job functions and different organisations improve an individual's capacity to perform managerial tasks. Having experience in varied environments, be it various functional areas or various organisations, develops a manager's ability since the manager has had to cope with varying situations and organisational rules, and has had to develop different solutions, thereby accumulating a range of solutions to a range of problems. One could expect more varied experience to enhance hierarchical position:

H_{AA1}: Varied job-functional experience is positively related to hierarchical position

H_{AA2}: Varied organisational experience is positively related to hierarchical position

In addition, it can be assumed that educational level influences a manager's ability to accurately analyse information and interact effectively with other people, reinforcing

the ability to act as a manager. Educational level, however, is not simply a proxy for ability, but can likewise have the function of being a signal for ability (Rosenbaum, 1989). Those who can survive the hardships of formal education are presumably easier to educate within an organisation. Education's being both a proxy and a signal does not affect the hypothesis here that having a higher educational level increases a manager's chances of attaining a high managerial position, although it does eliminate the possibility of distinguishing empirically between the effect of educational level as a proxy and as a signal.

H_{AA3}: Educational level is positively related to hierarchical position

Finally, although at first glance it appears obvious, age can have a positive correlation with hierarchical level. Firstly, it can be assumed that age enhances ability since it can be a proxy for accumulation of experience and training, as shown by Tharenou, Latimer, and Conroy (1994). Secondly, age could indicate utilisation of the seniority principle found in many societies, older persons being assigned more respect and power than younger ones. Thirdly, it should be noted, however, that according to the tournament model (Rosenbaum, 1989) age restrains the individual since age - ceteris paribus - is a loser's signal. Yet, since the tournaments are distributed over time and there are many tournaments to join in before the top is reached, thus even winners tend to be old. It can be assumed that, if these opposing forces are considered as a whole and other factors are controlled for, age will be found to make a positive contribution to hierarchical position.

H_{AA4}: Age is positively related to hierarchical position

Returning to the tournament model, the organisational structure signals (OSS) transmit impressions of ability through easily detected measurements. The tournament model views shortness of time spent in the first position as a strong signal of ability

(Rosenbaum, 1989). The individual who is promoted very early during the career signals a readiness to be involved in a rise in career level within a hierarchy. Additionally, the person's promotion, through being a winner in the first tournament, is a signal of the manager's ability. Empirical research has confirmed this in showing that an early promotion is positively correlated with hierarchical position (Sheridan, Slocum, Buda and Thompson, 1990) and with career mobility (Veiga, 1983). Thus, it can be hypothesised that there is an inverse relationship between length of time spent in the first position and the hierarchical position attained.

H_{OSS1}: The length of time spent in the first position is negatively related to hierarchical position.

However, accepting a promotion early in one's career is not a strong signal of the readiness to assume the strains and pains of management. A stronger signal, taken less note of in the literature, is that of an individual's being prepared to accept the first management position that is offered (Eneroth, personal communication). Winning a tournament signals ability and the readiness to climb, and accepting a management position, instead of for example an expert position in a staff, is to transmit a signal of the readiness to assume managerial responsibility. It is thus hypothesised that an individual's hierarchical position is enhanced by the early acceptance of a management position.

H_{OSS2}: The age of the individual when assuming the first management position is negatively related to hierarchical position.

The two signals discussed are ones created early in a manager's career. There is a third signal, however, of **a** more extended character. The tournament model predicts that the frequency of hierarchical change is positively related to hierarchical position. At first

glance, this prediction seems tautological since it maintains that climbers on the ladder reach higher positions. However, it is conceivable that a person could reach the top through winning only a few tournaments, implying there to be only a weak relationship between hierarchical position and frequency of hierarchical change. Yet the argument of the tournament model is that the organisation creates tournaments with small hierarchical increments in order to produce frequent signals of a manager's ability. Since a single tournament may fail to produce the most able winner, use of repetitive tournaments increases the probability of excluding false winners. Additionally, repetitive tournaments provide managers with a structural incentive for continuing to be high performers. Thus, it is hypothesised that the frequency of winning tournaments influences position in the hierarchy.

H_{OSS3}: Frequency of hierarchical change is positively related to hierarchical position

Social structure signals (SSS) are contextual factors produced by the social structure, having the same function of uncertainty reduction as organisational structure signals do. Although the correlation between signal and performance is difficult to reveal, such signals facilitate communication because of similarities between individuals. Also, as discussed by Pfeffer (1983), demographic variables can be related to differences in values and attitudes, and are therefore also assumed to be able to predict behavioural patterns. Accordingly, it can be hypothesised that, when faced with uncertainty concerning the management ability of different candidates, those in charge of organisations tend to select individuals similar to themselves, i.e., similarity-attraction (Tsui and O'Reilly, 1989) or similar to a desirable self-identity (Santee and Jackson, 1979; Schlenker and Weigold, 1989), believing that this increases the predictability of the behaviour of those selected. If one assumes that organisations tend to be ruled by upper-class, white, non-immigrant men from prestigious universities or

business schools in the case of the similarity-attraction idea, or that the norms and values of the upper class are hegemonic in society (Gramsci, 1971) and thus offers a standard to which persons aspire, one can formulate five different hypotheses concerning social structure signals.

Social class origin influences individual behaviour since it is transmitted to the individual during the most formative years. It affects the mind of the individual, for example through language; it affects the "soul", in terms of self-confidence and attitudes for example; and it affects actual behaviour, such as through social skills and style of appearance (Pfeffer, 1977). Social class can be conducive to gaining high hierarchical position in a number of ways. First, the values attached to climbing could be correlated with class, upper class individuals being more ready to engage in a hierarchical career. Secondly, networks of individuals could become less tight as class position becomes higher, ties being weaker but more overarching (Granovetter, 1974), which facilitates more diverse information concerning opportunities, and more intense contact with people at higher levels in organisations, i.e. social capital (Burt, 1997). Thirdly, as class position becomes higher, the individual approaches the class position of the recruiter, and thus has important individual attributes that trigger the inclusion mechanism connected with similarity. Thus, one could expect to find a positive relationship between the class origin of an individual and his/her hierarchical position.

H_{SSS1}: Social class origin is positively related to hierarchical position.

The attending of prestigious schools has been shown to be related to hierarchical position. One reason for this, based on the similarity-paradigm argument, as well as Pfeffer's (1983) argument concerning prediction of attitudes and behaviour, is that recruiters, presumably likewise from prestigious schools, tend to promote people from their own school since they can identify with the applicants' educational history, their thus believing themselves to possess important information on the applicant in this

way. As with social class, having similarity of experience creates favourable conditions for communication, thus enhancing the reproductive character of the implicit signal. In addition, there is a tournament argument that can be advanced in favour of a candidate's coming from a prestigious school. The argument is that a degree from a prestigious school is a signal of ability inasmuch as it is presumably more difficult to gain access to and obtain a degree from such a school as compared with other schools. Thus, one would expect to find a positive relation between attending prestigious school and hierarchical position.

H_{SSS2}: Having attended a prestigious school is positively related to hierarchical position

It has been argued that social attributes of a more visible nature such as race, sex and immigrant status strongly affect the tendency towards exclusion from a group due to heterogeneity in attributes (Pelled, 1996). Thus, it is predicted that congruence with the standard of white, non-immigrant male will be related to hierarchical position.

H_{SSS3a}: Being of male gender is positively related to hierarchical position

H_{SSS3b}: Being white in colour is positively related to hierarchical position

H_{SSS3c}: The non-immigrant status is positively related to hierarchical position

Summarising the hypotheses, it is predicted that there are three sets of variables that influence the hierarchical position an individual reach: 1. Proxies for ability, such as varied functional and organisational experience, educational level, and age; 2. Organisational structure signals of ability, such as length of time spent in the first position, age when assuming the first managerial position and frequency of hierarchical change; and 3. Social structure signals of similarity, such as social class

origin, attending a prestigious school, male gender, white colour and non-immigrant status.

METHOD

The tournament based model of management selection just presented was tested on a sample consisting of the personal records of 403 managers employed by listed Swedish corporations and ranging in hierarchical level from that of managers of a division to chairman of the board.

The data set provides two major advantages. One is that it is rather compressed in the sense of including top management and one level below the top. Thus, the variance in hierarchical position is low, meaning that a rather strong influence of the independent variables is required for these to distinguish between subjects in terms of hierarchical position. One cannot rule out the possibility that selection to managerial positions is segmented, i.e. that different models of selection are appropriate at different levels on the ladder, for example at the level of supervisors, middle management and top management, respectively, or that one single model is indeed appropriate, but the weights of the factors differ between levels. To my knowledge, no research on this issue has been reported. The fact that here only a compressed stratum of the management ladder is represented, rather than the entire management ladder, reduces the variance attributable to segmented selection.

A second advantage of the data set is that it is a non-US sample. The dominance of North-American research tends to erase the fact that the US investigations are culturally bound to the US population. It is interesting to see if there are any differences that could be explained by cultural factors, or if there is a common model of selection in the Western world. To accomplish this comparison, there is a need of non-US data sets. As realised by the previous hypotheses section, there is nothing in the theory offered that point towards any cultural difference.

The population of interest was defined as that of managers employed by Swedish firms listed at the Stockholm stock exchange and ranging in hierarchical position from being the functional manager of a division to being the chairman of the board. The data were collected at the end of 1994 by means of a survey in which a questionnaire was mailed to those 669 persons whom the annual report of these firms designated as being managers, a group presumably encompassing the entire population of managers at the defined level in listed Swedish corporations. The survey asked the participants for their personal records, such that they were to report every position they had assumed, describing each in terms of function, hierarchical level, corporation, and time of entry and exit, and were also to report on their education, as well as on their father's occupation and their military grade. After one reminder, 424 surveys had been received, a response rate of 63,4 per cent. Due to missing values, the sample included in the analysis consists of 403 individuals (60,24%). No significant differences between this sample and the population were found on variables for which data for the entire population were available (the variables of hierarchical position, functional affiliation, industry and gender). However, there is one particular sampling error that seemed likely to have occurred. Due to loyalty to their old school, managers educated at Lund University may have been more prone to respond than other managers were. Due consideration was taken of this in the analysis.

The survey data was collected and coded by two graduate students, Jörgen Malmsten and Magnus Rönnlid, to whom I express my gratitude.

The independent variable is the person's hierarchical position at the time of the survey. It was coded with 9 for chairman of the board, 8 for president, 7 for vice president, 6 for president of a subsidiary, 5 for staff manager and 4 for manager in a subsidiary. Due to the nature of the survey being a description of a manager's career, three non-management positions were also included. It is treated as a continuous variable. This is controversial, of course, since hierarchical position can be interpreted differently from one organisation to another. For example, the position of vice

president can be that of a crown prince in one corporation but a job for one to be retired in another corporation. Additionally, being at the top in a less prestigious listed firm could be equivalent to being in the middle in one of the large multinational Swedish firms such as Ericsson. However, the alternative would be to use self-reported beliefs concerning hierarchical status, which would be an inferior method since beliefs depend on many factors. One such crucial factor that limit the usefulness of self-report is the difficulty that would then exist comparing the present results with results obtained in other countries. In a country in which the norm of equality is hailed, at least by the lips, understatements of hierarchical position can be expected. A second alternative would be to collect information on salaries. However, salary varies with other factors as well, and there is still the norm of equality prevailing in Sweden, one that would probably cause a marked decrease in the rate of response to such a question.

Ten independent variables were coded and were analysed:

• Age was calculated as the difference between 1994 and year of birth.

• Educational level was coded as 0 for high school level and lower levels, and 1 for the university and business school level.

• Variety of functional experience was calculated as the frequency of changing job function divided by the number of years of working experience. Dividing by the latter was to remove the age effect from each of the frequency measures.

• Varied organisational experience was calculated, similarly, as the frequency of changing the corporation divided by the years of working experience.

• Length of time in one's first position was calculated as the difference in years between the first employment and the year of the first change in position, irrespective of change in function, position or corporation.

• Age when assuming the first management position was calculated as the difference between the year of birth and the year of assuming the first managerial position.

• Frequency of hierarchical change was calculated as the sum of all the hierarchical changes divided by the years of working experience.

• Social class origin was coded according to the father's occupation, using an official coding scheme (SCB, 1982). It yields a very rough estimate of social class, involving only three categories: working class (1), middle class (2), consisting mainly of white-collar workers, and upper class (3), consisting of mainly high positioned white-collar workers, and also of artists. Despite its deficiency, it does provide a picture of the level in the social hierarchy. The occupation of the father was selected instead of that of the mother, based on the belief that a family's class position prior to 1970 was largely dependent on the father. The individuals in the sample presumably lived in their families of birth during the 60s and before, and it was not until the 70s that women increased their involvement in the labour market, thus affecting the class position of the family.

• Attending a prestigious school was coded 1 for two colleges of technology (KTH and Chalmers) and for one business school (Stockholm School of Economics), and 0 for the rest. There is no formal and official ranking of schools in Sweden, making a more fine-grained measure impossible to accomplish. Although the coding is subjective, it is probably not controversial, except for my colleagues in Lund.

• Gender was coded 0 for woman and 1 for men. However, the variance was trifling since 397 of the respondents were men and only 6 were women (in the population that received the survey, 653 were men and 16 were women). The variables of colour and immigrant status were omitted. Colour is a non-issue in Sweden. Immigrant status is debated, but is a non-issue in the context of the organisational hierarchy there being even fewer first-generation immigrants than women at the top of the hierarchy.

RESULT

A multiple regression analysis was utilised to distinguish the effect of the different variables on hierarchical position. Two problems arose. One is that the measurement of hierarchical position in terms of a number between 9 and 4 implies that the difference in position between the functional manager of a division and the division

manager is the same as the difference between the president and the chairman of the board. One could avoid this problem by using some technique capable of handling every position separate from the others. This would deprive the analysis of its focus on the ladder character, however.

Another problem, which can be observed in Table 1, is that many of the independent variables correlate with one another. An inspection of the correlation coefficients reveals, however, the collinearity problem is not severe. Most of the correlations are below 0,20 and only one exceeds 0,40. The problem of multi-collinearity can be noted, nevertheless, in the calculation of Tolerance. For all the variables, Tolerance exceeds 0,75, except for a Tolerance of 0,63 for frequency of hierarchical change, this not being low enough to produce unstable results (Afifi and Clark, 1990).

Insert Table 1 here

Inspecting Table 1 further, one can observe that top managers in Sweden are on the average 50 years old, have business school or university level education, and are mainly men. The three frequency measures (varied functional experience, varied organisational experience and frequency of hierarchical change) all have the same standard deviation, but the hierarchical changes are more frequent than the functional or organisational ones. This indicates that selection is according to organisational lines, i.e., that there are internal labour markets with tournaments and with functional specialisation. The high correlation between the independent variables could be caused by the fact that the same basic variable is being measured in different ways, but it could also be a consequence of quite similar individuals being measured. Since only

persons in top management in Sweden are being sampled, it is likely that these high correlations are a consequence of the observations being rather compressed.

Insert Table 2 here

The regression equation (see Table 2) is highly significant. Although the variance explained is quite low as R^2 indicates , this seems to be a quite common phenomenon when selection is being predicted (e.g., Gattiker and Larwood, 1990; Jaskolka, Beyer and Trice, 1985; Kilduff and Day, 1994; Pfeffer, 1977; Powell and Butterfield, 1997; 1994).

At least one of the variables from each of the three categories has a significant effect on hierarchical position. Of the four variables selected as being proxies of actual ability, age is the only one that is significantly related to hierarchical position. One should, however, note that age is also a signal. Educational level is very low in variance, thus losing explanatory power. The means for varied functional and organisational experience are low, suggesting that the ability gained through frequent changes of function and organisation is not conducive to a hierarchical career, thus indicating that individuals are selected to the top for their specialised skills. A complementary explanation is that those seeking hierarchical heights do not have a preference for changing either their function or their corporation.

The organisational structure signals are highly significant in their effect on hierarchical position and contribute strongly to the variance explained, except for the variable measuring time spent in the first position. The non-significant impact of the latter variable is rather unexpected since most studies have found time spent in the first position to have a significant impact. One explanation for its non-significant effect here could be that the material consists of rather old people at top position in

management, reducing the importance of the first explicit signal in the career. The second important explicit signal is age when first position in management was taken. Since this is a signal created later in the career, it would seem to be one more relevant for the later position in the hierarchy

Except for social class, the social structure signals had no impact. In view of class being a variable that possesses only three values, an analysis using a dummy for each class was performed (cf. Pfeffer, 1977). Although this did not change overall results, the analysis indicated that belonging to the upper class or the lower class had a stronger effect than belonging to the middle class did. Gender excluded itself through its being very low in variance, implying women to still be excluded from top management in Sweden. Prestigious school attendance had no effect. However, one should note the possible sampling error of there being a higher frequency of Lundians (persons who have studied in Lund) in the sample than in the population generally. Since Lund is not - as of yet - regarded by the elite of the private economy as a prestigious university, the non-significant impact of prestigious-school attendance might be thought to be caused by this sampling error. Two additional analyses were thus performed in order to determine whether the sampling error could have on impact on the results. For each business school and university, the prestigious-school variable was replaced by dummies. No school or university was found to have a significant impact on hierarchical level. Only the Stockholm School of Economics, which in Sweden is regarded as the most prestigious management school and believed to be the main source of top management in Swedish corporations, showed a result that approached significance on a ,10-level. In a second analysis, 25 % of the Lundians were randomly excluded from the sample, so as to reduce their frequency to a level more similar to that in the population. This had no effect on the equation or on the variables involved, including the prestigious-school variable. Thus, one can fairly conclude that prestigious school attendance does not create either networks or a social capital capable of significantly influencing the hierarchical position at the top.

To summarise, ability, organisation structure and social structure signals were found to have effects on selection, organisational structure signals being found to be the most influential of these. However, much variance is left to be explained, perhaps attributable to ability, which were the least successful variables in the model.

DISCUSSION AND CONCLUSIONS

A model infusing the tournament model with the social structure signals derived mainly from the similarity-attraction paradigm was formulated and hypotheses structured in terms of actual ability, organisational structure signals of ability and social structure signals of it was tested on a data set concerning 403 Swedish managers. Except for age, which was regarded both as proxy of ability and a signal of it, the organisational structure signals derived from the tournament model performed best in the equation. Of the social structure signals, only class origin showed a significant effect. Since the overall model had rather low predictive capacity, much work is left to be done to investigate factors explaining management selection at top management level in Sweden.

The most important finding was that organisational structure signals of ability such as frequency of hierarchical change and of age when assuming the first management position are the most powerful predictors of selection to top management, corroborating the main predictions of the tournament model.

There was one important exception, however, which was that of the non-significant influence of years spent in first position. This finding can be explained in the terms of a diminishing effect of organisational structure signals, a finding calling for a modification of the historical-effects hypothesis (Rosenbaum, 1989). Length of time spent in the first position is a signal produced at (pertaining to) one point in time, early in the manager's career. Later in the career of the individual, a second one-point-in-time signal is created, that of age when assuming the first management position. The latter signal is a more timely one than the former since it is less distant in time

from the final position to be predicted. In addition, the content of the signal is different. To accept a management position early in one's career is to create a signal more relevant to a management position revealing as it does the readiness not only to accept promotions, but also to accept the burdens of a management position. The signal found to be the most powerful one is the repeated signal produced by a high frequency of hierarchical change. It is the signal most recently produced and it contains several indications of readiness to assume a management position. Thus, when using signals to predict management selection, both the content of the signal and the possibility of the signal's effect having diminished should be taken into account.

On the basis of the results, it appears that the selection of top management in Sweden is not much different from management selection in the US. The largest difference would seem to be the non-significant influence here of the time spent in the first position, yet the logic of this could be that suggested above, namely the diminishing effect of this signal over time and the lesser relevance of its content than that of other explicit signals. However, a solid conclusion regarding differences or similarities in the selection practices found in different Western countries can only be drawn when an actual comparison is conducted using material based on similar instruments.

There could well be cultural differences of note. One important predictor, that of frequency of hierarchical change, could be influenced by differences in the specific institutions of a country, for example. The low frequency of hierarchical change that was found implies that the tournament strategy is not a strong selection instrument in Sweden, other selection mechanisms presumably being primarily utilised. Instead of the organisation itself being the main arena for selection, other alternative arenas could be in use, such as small, dense informal networks in which many participants share information concerning each promising candidate. Such a network's being small could be caused by exclusion mechanisms within society, such as the presence of an immobile class structure, top management positions being reserved for upper-class

individuals who meet in clubs and other closed associations. Useem's (1994) research on the power elite of England points to the existence of such closed networks outside of organisations. Another cause of the low frequency of hierarchical change, perhaps applying to Sweden in particular, is the use of flat hierarchies, restraining the very numbers of possible hierarchical levels and thus the opportunities of changing one's level. Statistics from the Yearbook of Labour statistics, presented in Osterman (1996) reveal that the share of administrative and managerial workers in the US in 1989 was 13.4 per cent, which is almost six times as high as the Swedish proportion of 2.4%. This seems to clearly indicate that Swedish organisations are flatter, there thus being fewer steps on the hierarchical ladder. Add to this the positive value assigned to co-operative behaviour and the condemnation of individual competitive behaviour as being antisocial, one could predict that Swedish managers should display less frequent hierarchical change than managers from societies with multi-step hierarchies such as in the US.

However, this argument creates an interesting puzzle. If there is such a thing as a diminishing effect of signals, then a multi-step ladder, producing many signals, should reduce the importance of the first signal created, that of the time spent in the first position. A flat ladder, on the other hand, does not produce as many signals, thus preserving the importance of the first signal created. This line of reasoning seems to be at odds with the empirical material presented here and in other studies, although one should recall that the present inquiry into selection practises is limited empirically to top management. One explanation for the preservation of the importance of early signals in a multi-step hierarchy would be that such a hierarchy, presumably having relatively few positions available at any given level, is characterised by frequent, but relatively less intense, competition, making it possible for those making selections to trust a simple set of signals. With a flat hierarchy, on the other hand, in which competition is infrequent but very intense when it occurs, a more diverse set of signals could be thought to be used, reducing the importance of specific early signals. The

implications of this for further research are that one should regard the height of the ladder as a possible factor influencing the importance of early signals.

Still another important conclusion that can be drawn, aimed more at praxis than at theoretically oriented research, concerns the significant influence class origin was found to have on management selection. Compared to Powell and Butterfield (1997), that found no direct effect of race on promotion to top management but only indirect effects of race through job relevant factors, I have found social class as having a direct influence on a persons hierarchical level. It is quite surprising. Even in a society such as the Swedish, characterised by informality and by small degrees of social distance (Hofstede, 1980), a class effect was revealed. Class origin affects presumably both the individual behaviour and access to social networks, i.e. social capital. The importance of social networks created in the adult years of the individual in Sweden is presumably low, as the insignificant influence of prestigious school attendance suggests. This is in accordance with research indicating stronger effects of social capital in the United States than in Europe (Belliveau et al., 1996). We will then suggest that the creation of social capital appears earlier, through the family origin of the individual, i.e., class origin. However, even this social capital explanation can be questioned with reference to the data. Burt (1997) found a positive association between early promotion and social capital. If class origin constitutes a social capital in our sample and age when assuming first management position equals early promotion, then high class origin would imply low age when assuming first management position, i.e. negative correlation. The data, however, show no significant correlation between these variables. This cannot rule out any social capital explanation to the effect of class origin upon hierarchical level. However, it suggests caution to be taken when using social capital as an explanatory variable since there could be another explanation to the class origin effect.

Another possible explanation, more focused on the individual, is that class origin influence selection through its impact on individual behaviour, shaping the language,

values, and even the body language of the individual. As experimental research has shown (Nisbett and Wilson, 1977), subtle implicit signals generally tend to influence judgements made of individuals. For matters of praxis, such an effect of implicit signals can be both rational and irrational. The influence of implicit signals is rational when these imply differences in behaviour that affect the performance of the group in which the manager who is selected is later to work. The similarity-attraction paradigm shows that differences in attributes can produce both conflict and innovation. However, implicit signals of class origin would probably not create conflict or tensions in those relationships that are more persistent, such as commonly is the case in work groups. Rather, the class origin effect can perhaps best be seen as an irrational effect of the tendency towards seeking similarities. Its irrationality lies in the fact that excluding individuals of other than upper-class origin is to limit the pool of managers through failure to exploit a potential human resource. For an unbiased form of recruitment to be established, it appears to be necessary that the social structure signals are removed through such methods, for example, as depersonalising contacts or using recruiters who are similar in class origin to the candidates. Such methods could, of course, be applied as well to the even more irrationally biased recruitment situations in which selection tends to be based on gender differences or immigrant status.

REFERENCES

Afifi, A. and Clark, V. 1990. Computer-Aided Multivariate Analysis (2d Ed.), N Y: Van Nostrand Reinhold.

Arrow, K. J. 1973. Information and economic behavior. In Collected Papers of Kenneth J. Arrow, Vol 4, chapter 11. Cambridge, Mass.: Belknap.

Becker, G. S. 1964. Human Capital: A theoretical and empirical analysis, with special reference to education. N Y: Columbia University Press.

Belliveau, M. A.; O'Reilly, C. A. and Wade, J. B. 1996. Social capital at the top: Effects of social similarity and status on CEO compensation. Academy of Management Journal, 39: 1568-1593.

Brousseau, K. R., Driver, M. J. Eneroth, K. and Larsson, R. 1996. Career pandemonium: Realigning organizations and individuals. Academy of Management Executive, 10: 52-66.

Burt, R. S. 1997. The contingent value of social capital. Administrative Science Quarterly, 42: 339-365.

Cappelli, P. and Cascio, W. F. 1991. Why some jobs command wage premiums: a test of career tournament and internal labor market hypotheses. Academy of Management Journal, 34: 848 - 868

Doeringer, P. B. 1986. Internal Labor Markets and Noncompeting groups. The American Economic Review, 76: 48-52

Feldman, J. M. 1981. Beyond attribution theory: cognitive processes in performance appraisal. Journal of Applied Psychology, 66: 127-148.

Finkelstein, S. and Hambrick, D. C. 1990. Top Management Team Tenure and Organizational Outcomes: The Moderating Role of Managerial Discretion. Administrative Science Quarterly, 35: 484-503.

Gattiker, U. E. and Larwood, L. 1988. Predictors for managers' career mobility, success, and satisfaction. Human Relations, 41: 569 - 591.

Gattiker, U. E. and Larwood, L. 1990. Predictors for career achievement in the corporate hierarchy. Human Relations, 43: 703 - 726.

Gramsci, A. 1971. Selections from the Prison Notebooks, NY, USA: International Publishers

Gupta, A. K. 1986. Matching Managers to Strategies: Point and Counterpoint. Human Resource Management, 25: 215-234.

Gupta, A. K. and Govindarajan, V. 1984. Business Unit Strategy, Managerial Characteristics, and Business Unit Effectiveness at Strategy Implementation. Academy of Management Journal, 27: 25-41.

Hambrick, D. C. and Finkelstein, S. 1987. Managerial Discretion: A Bridge Between Polar Views on Organizations. In Cummings, L. L. and Staw, M. B. (Eds.), Research in Organizational Behavior: 369-406. Greenwhich, CT: JAI Press.

Hambrick, D. C. and Mason, P. A. 1984. Upper Echelons: The Organization as a Reflection of Its Top Managers. Academy of Management Review, 25: 193-206

Hofstede, G. 1980. Culture's consequences: International differences in work-related values. London: Sage Publications.

Jaskolka, G., Beyer, J. M. and Trice, H. M. 1985. Measuring and predicting managerial success. Journal of Vocational Behavior. 26: 189 - 205.

Kilduff, M. and Day, D. V. 1994. Do chameleons get ahead? The effects of self-monitoring on managerial careers. Academy of Management Journal, 37: 1047 - 1060.

Kosnik, R. D. 1990. Effects of board demography and directors' incentives on corporate greenmail decisions, Academy of Management Journal, 33:129-150

Kotter, J. P. 1982. The General Managers. New York: Free Press

Malos, S. B. and Campion, M. A. 1995. An options-based model of career mobility in professional service firms. Academy of Management Review, 20: 611-644.

Michel, J. G. and Hambrick, D. C. 1992. Diversification Posture and Top Management Team Characteristics. Academy of Management Journal, 35: 9-37

Nisbett, R. E. and Wilson, T. D. 1977. Telling more than we can know: Verbal reports on mental processes. Psychological Review, 84: 231-259.

Norburn, D. and S. Birley 1988. The Top Management Team and Corporate Performance, Strategic Management Journal, 9:225-237.

Osterman, P. 1996. Introduction. In Osterman, P. (Ed.), Broken Ladders: Managerial careers in the new economy: 1-22. NY: Oxford University Press.

Pelled, L. H. 1996. Demographic Diversity, Conflict, and Work Group Outcomes: An Intervening Process Theory, Organization Science, 7: 615-631.

Pfeffer, J. 1977. Toward an examination of stratification in organizations. Administrative Science Quarterly, 22: 553 - 567.

Pfeffer, J. 1983. Organisational Demography. In Cummings, L. L. and Staw, B. M. (Eds.), Research in Organizational Behavior, 5: 299-357. Greenwhich, CT: JAI Press.

Pfeffer, J. 1989. A political perspective on careers: interest, networks, and environments. In Arthur, M.; Hall, D. T. and Lawrence, B. S (Eds.), Handbook of Career Theory: 380-396. Cambridge: Cambridge University Press.

Powell, G. N. and Butterfield, D. A. 1994. Investigating the "Glass Ceiling" phenomenon: An Empirical Study of Actual Promotions to Top Management, Academy of Management Journal, 37: 68-86.

Powell, G. N. and Butterfield, D. A. 1997. Effect of race on promotions to top management in a federal department, Academy of Management Journal, 40: 112-128.

Rosenbaum, J. E. 1979. Tournament Mobility: Career patterns in a corporation. Administrative Science Quarterly, 24: 220 - 241.

Rosenbaum, J. E. 1989. Organization career systems and employee misperceptions. In Arthur, M.; Hall, D. T. and Lawrence, B. S (Eds.), Handbook of Career Theory: 329-353. Cambridge:Cambridge University Press.

Sambharaya, R. B. 1996. Foreign Experience of Top Management Teams and International Diversification Strategies of U.S. Multinational Corporations. Strategic Management Journal, 17: 739-746.

Santee, R. T. and Jackson, S. E. 1979. Commitment to Self-Identification: A Sociopsychological Approach to Personality. Human Relations, 32: 141-158.

Schlenker, B. R. and Weigold, M. F. 1989. Goals and Self-Identification Process: Constructing Desired Identities. In Pervin, L. A. (Ed.), Goal Concepts in Personality and Social Psychology. 243-290. Hillsdale, N J: Lawrence Erlbaum Associates, Inc.

SCB 1982:4 1982. Socioekonomisk indelning (SEI), Stockholm: MIS.

Schneider, B. 1987. The People Make the Place. Personnel Psychology, 40: 437-453.

Sheridan, J. E., Slocum Jr., J. W., Buda, R. and Thompson, R. C. 1990. Effects of corporate sponsorship and departmental power on career tournaments. Academy of Management Journal, 33: 578 - 602.

Smith, J. E., K. P. Carson and R. A. Alexander 1984. Leadership: It can make a difference, Academy of Management Journal, 27:765-776.

Tharenou, P., Latimer, S. and Conroy, D. 1994. How do you make it to the top? An examination of influences on women's and men's managerial advancement. Academy of Management Journal, 37: 899 - 931.

Tsui, A.S. and O'Reilly III, C. A. 1989. Beyond Simple Demographic Effects: The Importance of Relational Demography in Superior-Subordinate Dyads, Academy of Management Journal, 32: 402-423.

Useem, M. 1984. *The Inner Circle.* N Y:Oxford University Press.

Veiga, J. F. 1983. Mobility influences during managerial career stages. Academy of Management Journal, 26: 64 - 85.

Wiersama, M. F. and Bantel, K. A. 1992. Top Management Team Demography and Corporate Strategic Change. Academy of Management Journal, 35: 91-121.

TABLE 1.

Mean, Standard Deviation and Correlation Coefficients for Dependent (1) and Independent (2-11) Variables (n = 403)

	M	SD	*1.*	*2.*	*3.*	*4.*	*5.*	*6.*	*7.*	*8.*	*9.*	*10.*
1. Hierarchical position	6,1	1,16										
2. Age	50,4	6,9	24***									
3. Educational level	0,91	0,27	03	-09								
4. Varied functional experience	,08	,08	11*	-24***	04							
5. Varied organisational experience	,10	,08	-02	-24***	07	11*						
6. Years in first position	3,0	2,6	-03	10*	-20***	-17**	-21***					
7. Age, first mgmt. position	30,4	4,6	-13**	21***	12**	-13**	-10*	11*				
8. Freq. of hierarchical change	,15	,08	15**	-37***	10	46** *	31***	-31***	-21***			
9. Social class	2,2	0,6	09	-09	13**	07	07	-02	03	07		
10. Prestigious school	,37	,48	15**	10*	23***	11*	-08	-06	-05	09	-04	
11. Gender	,98	,12	02	01	-04	-02	05	02	-13**	05	04	09

*p<.05; **p<.01; ***p<.001 (decimal point excluded from correlation matrix)

TABLE 2.

Result of Regression Analysis (N=403)

		Hierarchical position	Stand. Error	Tolerance
Proxies of Ability	*2.* Age	0,06***	0,01	0,78
	3. Educational level	0,20	0,21	0,85
	4. Varied functional experience	1,05	0,80	0,77
	5. Varied organisational experience	-0,33	0,74	0,85
Organisational Structure Signals	*6.* Years in first position	0,02	0,02	0,85
	7. Age, first mgmt. position	-0,04***	0,01	0,88
	8. Freq. of hierarchical change	3,44***	0,90	0,63
Social Structure Signals	*9.* Social class	-0,20*	0,09	0,96
	10. Prestigious school	0,16	0,12	0,88
	11. Gender	-0,17	0,45	0,96
	Constant	3,91***	0,80	
	F=8,08***	R^2=15,0		

*p<.05; **p<.01; ***p<.001

FIGURE 1.

A Model of Management Selection