

# “Assessing the compatibility of management behavior and entrepreneurial orientation”

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## SECTION 3. General issues in management

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### Assessing the compatibility of management behavior and entrepreneurial orientation

#### Abstract

The paper uses a data set on a Dutch company of which the partners – who act as managers and entrepreneurs – have assessed both themselves and their peers on dimensions of De Waal's High Performance Management framework. Two of these dimensions relate to Management Behavior (MB) and Entrepreneurial Orientation (EO). The research addresses the question whether the theoretical differences between MB and EO (inward versus outward looking; short versus long term; directly or not directly affecting others; specific versus abstract) are reflected by differences in the predictive power of one's self-assessment on the assessment of one's peers. The authors' findings indicate that MB and EO assessments are uncorrelated; and related to self-assessments in different manners. MB follows the assessment patterns that can be expected among chess players where the skills of the evaluator predict how they evaluate their peers. EO in contrast follows the pattern that can be expected in the popular game of soccer where even unskilled spectators are able to assess the players. In MB, self-assessments by evaluatees are poor predictors of how they are evaluated by their peers. In EO the reverse holds: self-assessments by evaluatees predict their evaluations by peers (and therefore, these self-assessments are informative). The authors argue that the differences between MB and EO have organizational consequences. MB is subject to processes of learning and adaptation, and therefore any differences within management teams can be overcome. Since team members will not easily disagree on each other's EO related skills, weaknesses are taken for granted and may cause an entrepreneurial stalemate with no improvement.

**Keywords:** entrepreneurship, entrepreneurial orientation, management quality, management behavior.

**JEL Classification:** L26.

#### Introduction

**Research questions and hypotheses.** It is widely recognized that knowledge and innovation are key determinants of business performance (Hall, 1999; Cho and Pucik, 2005). Innovation is broadly defined as the development of new values through solutions that meet the requirements of the market through more effective products and processes (cf. Davila et al., 2006). Entrepreneurship has many definitions ranging from factual definitions like Ganter's (1985) interpretation of the act of starting a business, to Stevenson's definition of entrepreneurship as the pursuit of opportunity without regard to resources currently controlled (cf. Burgstone and Murphy, 2012); or alternatively descriptions of entrepreneurs are given as knowledge workers who operate at the edge of their competence and focus their attention on what they do not know rather than controlling what they already know (Kanter, 1990, in Cornwall and Perlman). Interestingly, Kanter's interpretation is rooted in the literature on knowledge entrepreneurship that has been put forward as the relevant approach to knowledge in the non-profit sector where profit maximization is not a main objective. It is assumed that the organizational setting (including culture and leadership) is a determinant of knowledge entrepreneurship which in turn affects innovation performance (McDonald,

2002; Senge, 2007). Skrzyszewski's (2006) definition of knowledge entrepreneurship as "creating and using intellectual assets for the development of new services" leads us to question how non-profit sector specific the concept is. The question is especially relevant in (commercial) organizations where the divide between management and leadership (the organizational setting) on the one hand and knowledge workers and entrepreneurs on the other, is unclear, and where the roles are overlapping. The obvious case in point is the small firm that is owned and managed by what many would call the entrepreneur. For small firms, Sadler-Smith et al. (2003) found that managing vision is related to an entrepreneurial style, while managing performance is related to a non-entrepreneurial style (to be understood as risk-averse, non-innovative, passive and reactive; cf. Covin and Slevin, 1988). More in general, managerial styles relate to the attitudes and behaviors of people in charge of the organization toward others, while entrepreneurial skills relate to the use of creative skills externally. While managerial styles can be categorized (e.g. as formal/informal; paternalistic or autocratic; see Tannenbaum and Schmidt, 1973), entrepreneurial skills are more abstract in nature. The empirical work of Sadler-Smith et al. (2003) suggests that it is hard to combine managerial and entrepreneurial skills within the same person. O'Reilly and Tushman (2004) put forward the idea of the Janus-

faced<sup>1</sup> ambidextrous organization that has to strike a balance between the management of its current activities and an orientation toward the future, as both are needed to keep up with existing and upcoming competitors. The idea of the two-sided Janus-face is extended with a third dimension in the so-called MEL-index that is comprised of the three archetypical decision-makers: managers, entrepreneurs and leaders (Dover and Dierk, 2010a). Although the literature on both entrepreneurs and on managers is well established, not much research has explicitly addressed the question of whether managerial and entrepreneurial skills, however defined, are compatible skills at the individual level in the context of larger organizations.

The major research question that we address in this paper is to whether managerial skills and entrepreneurial skills are similar or different in nature. To the extent that the skills are different they are more likely to be incompatible at the level of individuals: that is, persons in charge are more likely to behave as either a manager or an entrepreneur. If on the other hand the skills are similar in nature then it is more easily conceivable that they are combined within one and the same person. The minor research questions are the following. First, the data set will be used to check whether the nature of managerial skills is indeed different from entrepreneurial orientation. A second research question, of a methodological nature, is to find out whether it makes sense to rely on self-assessments for measuring managerial skills and entrepreneurial orientation.

The following hypotheses will be tested. First of all we hypothesize that when evaluating others on management behavior (MB) and entrepreneurial orientation (EO) the self-evaluation of the evaluator co-determines the outcome (hypotheses H1a and H1b). The logic is that especially in professional settings people are consciously or unconsciously aware of their own skills relative to the skills of peers; as a result, states-of-mind like overconfidence, self-confidence or lack of confidence will be related to evaluations of peers. Secondly we hypothesize that self-evaluations of evaluatees are related to evaluations by peers. We expect that explicit and implicit feedback mechanisms in a professional environment with a relatively small number of people will see to it that self-assessments of evaluatees predict how they are evaluated by others (hypotheses H2a and H2b). Hypothesis H3 reflects the different natures of MB and EO. In the absence of hard indicators the best

measure of MB and EO skills are peer evaluations, and we hypothesize that these skills are uncorrelated. Strength in one area has no bearing on our strength in the other area. Against the background of our research questions, H3, H4a and H4b are key. In H4a and H4b we test that whether the predictive power of self-evaluations is actually different for MB versus EO. A more elaborate justification of our hypotheses is provided in the section discussing the research model. In summary:

*H1a. With regard to on management behavior: self-evaluations of evaluators predict their evaluation of peers.*

*H1b. With regard to entrepreneurial orientation: self-evaluations of evaluators predict their evaluation of peers.*

*H2a. With regard to on management behavior: self-evaluations of evaluatees predict their evaluation by peers.*

*H2b. With regard to entrepreneurial orientation: self-evaluations of evaluatees on entrepreneurial orientation predict their evaluation by peers.*

*H3. Evaluations by peers on management behavior and on entrepreneurial orientation are uncorrelated.*

*H4a. The predictive power of self-evaluations of evaluators on their evaluation of peers differs between management behavior and entrepreneurial orientation.*

*H4b. The predictive power of self-evaluations of evaluatees on their evaluation by peers differs between management behavior and entrepreneurial orientation.*

A managerial objective of our study is to derive a tentative what-if framework that organizations can use to think about their MEL-constellation, in support of the works of Dover and Dierk (2010a).

We are able to answer our research questions by making use of a unique dataset. The company is a Dutch consultancy company in the water, infrastructure, construction and spatial development sector. It was established in 1946 and has grown to become one of the leading engineering firms in the Netherlands with a workforce of over 900 people. The company prides itself in its dedication to critical quality attributes: friendly, expert, reliable and innovative. The company offers its clients value-added consultancy and top-quality designs for water; infrastructure; spatial development; environmental; and construction projects. The company is structured in product-market combinations (PMCs) which are clustered into four business lines. Examples of PMCs are water

<sup>1</sup> In Roman myth Janus is the god of beginnings and transitions. He is usually depicted as having two faces since he looks to the future and to the past.

management (preparation, transport and distribution of drinking water), effluent treatment, environmental technology, port and river water engineering, and tunnels. The shareholders of the company are the employees, either as an associate, partner or senior partner. There are currently 79 partners out of which 19 are considered to be senior partners. The organization is idiosyncratic in its governance structure and shareholder system. The shareholders are employees, associates, or (senior) partners. Partner shareholding is by invitation of the Board of Directors, while the General Meeting of Shareholders appoints senior partners. Critically important to our research is that the partners collaborate as generalists rather than acting as either specialized managers or entrepreneurs as would be the case in the typical ambidextrous organization. Within the company, the senior partners took part in a *high performance managers* (HPM, hereafter; Waal, 2012; Waal et al., 2012) exercise in which they assessed both themselves and their peer senior partners on – among other factors – leadership, managerial behavior and entrepreneurial orientation.

## 1. Literature review

Blanchflower and Oswald (1998) equate entrepreneurship to self-employment, which makes sense in the Western context in which a large number of people claim to prefer self-employment to a paid job. These authors found that, although the motivation of their research was to find out the psychological traits distinguishing entrepreneurs, access to (inherited) money – and not psychological traits – turned out to be the dominant factor for becoming an entrepreneur. The authors also found empirical evidence of a positive relationship between self-employment and happiness. However, one should be careful in treating actual self-employment as an indicator of entrepreneurship. For instance, especially in emerging economies self-employment is mainly due to a lack of stable employment opportunities (Bateman, 2010; Dichter, 2007). The starting point for Blanchflower and Oswald's research was the individual level – in line with the conceptualization of the entrepreneurial orientation (or posture, or attitude) as defined by Covin and Lumpkin (2007) – being separate from corporate entrepreneurship defined at the firm level (Voss et al., 2005). In the context of the organization, a frequently coined term is the ambidextrous organization (O'Reilly and Tushman, 2004; Dover and Dierk, 2010b). Ambidexterity is defined as the combination of adaptability and alignment (Birkinshaw and Gibson, 2004), whereby the organization's capability to spot new opportunities and adjusting to increasingly volatile markets should not come at the

expense of its business today. While adaptability relates to entrepreneurial skills, alignment focuses on the skills needed to coordinate activities in order to create value in the short run. In a more elaborate version, the concept of the ambidextrous organization reflects the idea of three major decision making archetypes: managers, entrepreneurs and leaders. While managers focus on the (current) complexity of the business, entrepreneurs tend to focus on opportunities, and leaders focus on change by setting directions and motivating people. Implicit in the roles of the three archetypical decision makers is the contrast between the entrepreneur and the manager (future versus present), and the integrating role of the leader in balancing the shift from current optimization to future changes and back. Dover and Dierk (2010a) developed the MEL (management, entrepreneur and leader) instrument to assess a firm's capabilities in this respect. In general, the three archetypes differ in terms of risk perspectives (managers are risk averse, while entrepreneurs are risk taking) and innovation (entrepreneurs are active seekers of long-term breakthroughs, while leaders catalyze or facilitate, and managers focus on the short term). Interestingly, in some of their case studies they report discrepancies between peer evaluations and self-evaluations which are at the heart of this article.

To bridge the gap between the literature on entrepreneurs as the self-employed on the one hand, and corporate entrepreneurship and ambidextrous organizations on the other, the works of Van der Zwan (1994) are instructive. Van der Zwan described the strengths of newcomers in an industry in terms of the perseverance and self-confidence of the entrepreneur. At the early stages personal characteristics and entrepreneurial orientation (as an attitude) are decisive, while established organizations rely on professional management. In the same vein, Dover and Dierk (2010a) raised the question about nature and nurture, when it comes to distinguishing the three archetypes. The ELM approaches entrepreneurship at the level of the firm. Clark (1998, 2004) however holds that entrepreneurship can be applied at the level of firms, projects or individuals. In his view, entrepreneurship is a characteristic. In a Schumpeterian interpretation, entrepreneurship, especially at the level of the firm, is dynamic by definition. For the purpose of this research, we will view upon entrepreneurship and entrepreneurial orientation as a trait at the level of the individual.

## 2. Methodology

The data stem from a survey within the one Dutch consultancy company described in the introduction. The 19 senior partners of the company were asked to

fill out a questionnaire containing items on excellent leadership (8 items), managerial behavior (12), personal qualities (13), organizational orientation (8), environmental orientation (7) and entrepreneurial orientation (8), both as a self-assessment and an assessment of five out of the 18 remaining peers (randomly preselected by the researchers in order to avoid any bias due to self-selection). The choice of five peers to be evaluated by each partner was based on a commonly accepted guidelines and practical considerations. Miles and Shevlin (2001) suggest a minimum sample of 80 for moderate effect sizes; Green (1991) suggests a sample of  $50+8k$  to adequately test the model, or  $104+k$  (where  $k$  is the number of predictors) to adequately test all predictors. A sample of 95 (19 senior partners times 5 evaluatees) is therefore adequate. We suspected that the burden to the respondents when evaluating more than 5 evaluatees would negatively affect the quality of the data. All respondents filled out the self-assessments. One respondent did not assess any of his peers. As a result the data set consists of 18 evaluators, times 5 evaluatees, makes 90 records, where each record contains the evaluation of an evaluatee (denoted by Z, in this paper) by an evaluator (denoted by X), the self-assessment of the evaluator, and the self-assessment of the evaluatee. The items on excellent leadership, managerial behavior, personal qualities, organizational orientation, and environmental orientation are based on the high performance management (HPM) framework developed by Waal et al. (2012) (see Appendix 1). Entrepreneurship has been measured in many empirical studies; our research has made use of the Entrepreneurial Orientation questionnaire by Quince and Whittaker (2003), which consists of 11 items relating to four factors: market pro-activeness, competitive aggressiveness, risk-taking, innovativeness (see Appendix 2). These items have been translated into the Dutch language, leaving out two reversely coded items, and combining two items that read very similar into one. The answering scale for all items was a 10-point scale (from 1 = very poor, to 10 = excellent), consistent with Waal's et al. HPM survey and justified by the common interpretation among the Dutch of this answering scale which is used throughout the Dutch educational system.

In the phase of data preparation we have gone through the following steps. First of all, giving the low ratio of number of observations (90) over the number of items (48), we have used Cronbach's alpha as a criterion for keeping items with high correlations with all other items on the *a priori* scales (EL; PQ; ENVO; OO; and MB; see Appendix). A minimum level of 0.30 on item-rest correlations has been applied to reduce the number

of items. Step 2 then factor-analyzed the remaining items, grouping them into easily interpretable factors. Only items with high loadings ( $>0.50$ ) on one factor and low loadings on all other factors were kept. The elbow in the scree-plot suggested a four-factor structure. The pattern matrix revealed that of the original five factors, the items on organization orientation (OO) retained from step 1, loaded highly on the management behavior factor. It was therefore decided to do away with the OO factor as such. Though most of the items showed high loadings on the *a priori* expected factors, some did not. Using factor loadings of 0.50 for retaining items and 0.60 for including items that were assumed to be part of other factors *a priori*, the final 5-item scale on the factor reflecting management behavior – the focus of this paper – is given in Table 1.

Table 1. Retained items of the factor management behavior

A priori scale	Final scale on management behavior (Cronbach's $\alpha = 0.73$ )
Management behavior	Delegate
Management behavior	Allow subordinates authority and autonomy
Management behavior	Try different approaches to management
Organizational orientation	Adaptability
Organizational orientation	Adjust organizational structures and rules to realities of practice

For entrepreneurial orientation, Cronbach's  $\alpha$  was used to check the scale reliability. Five of the original eight items were retained (see Table 2).

Table 2. Retained items on entrepreneurial orientation

Final scale on entrepreneurial orientation (Cronbach's $\alpha = 0.85$ )
A strong emphasis on research and development, and being a front runner in technological leadership and innovation
Leading the competition in innovation, initiating actions to which competitors have to respond
Achieving organizational goals through bold and wide-ranging projects
Encourages employees to try new ways of doing things and to continuously seek unusual, novel solutions.
Encouraging employees to think and behave in original and novel ways.

### 3. Research model

Our research model assumes that the scores of evaluatee Z given by evaluator X are dependent on: (1) the self-evaluations of the evaluator; and (2) on the self-evaluation of the evaluatee. The logic behind this model is as follows.

- ◆ We presume that evaluatees are aware of their own skills – either out of self-knowledge, self-confidence or related feedback from peers – and will report on themselves fairly. If the self-assessment is based on feedback from peers, then the correlation between one's self-assessment and the score awarded by the peers is expected to be positive.

- ◆ Assuming that specialized skills (related to management behavior and to entrepreneurship) are more easily detected by peers who possess these skills themselves, again a positive correlation is expected between the self-assessment of the evaluator and his evaluation of others.

In our model we focus on two dimensions: management behavior and entrepreneurial orientation (see Figure 1). At a central position in the research

model is the evaluation that individuals get from their peers, and the main question is to what extent these evaluations can be predicted by (1) the self-assessment of the evaluator and (2) the self-assessment of the evaluatee. Our main research question is to check whether these dependencies are the same for the left hand side of the model (management behavior) and the right hand side of the model (entrepreneurial orientation), and – given the different nature of the two traits – we propose that they are not.

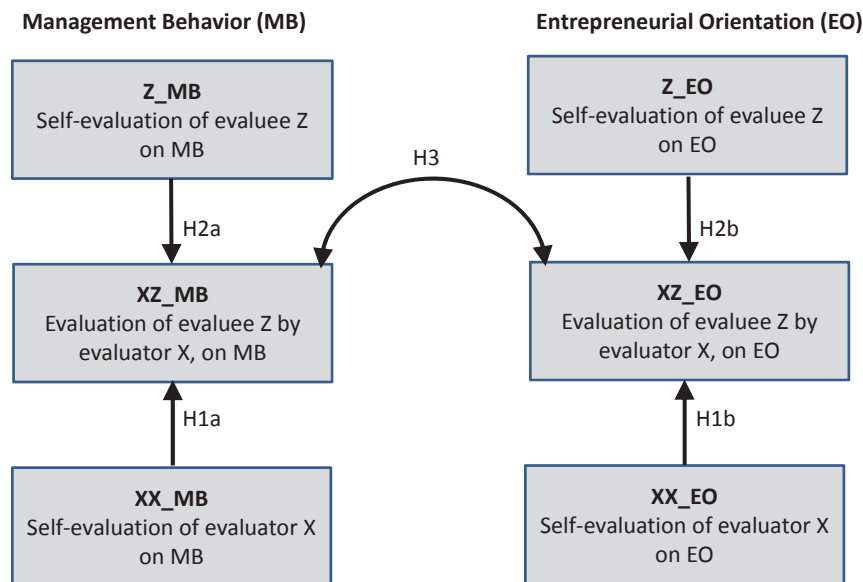


Fig.1. The research model

Our research explores the question whether the general mechanism depicted in Figure 1 is similar for both dimensions. In the literature we already found that management behavior is relatively short-term and internally oriented on people and processes, in a setting where a manager directly affects others. In contrast, entrepreneurial orientation relates to the longer term; is externally oriented; is more abstract in nature (though evaluations may be based on objective events); and others are not directly affected. This leads us to the following set of hypotheses listed in the introduction.

*H1a. With regard to on management behavior: self-evaluations of evaluators predict their evaluation of peers.*

*H1b. With regard to entrepreneurial orientation: self-evaluations of evaluators predict their evaluation of peers.*

The justification for hypotheses H1a and H1b is that skills in others are more easily detected by people who (according to themselves) possess these skills. To draw a simple analogy, in a group of more or less talented chess players, it will be easier for the

most talented chess players to detect who else in the group is highly talented. While in the game of chess talent is ultimately indicated by winning the proportion of games won, this is less so for the ‘games’ of management and entrepreneurship, and, therefore, expert assessment is particularly relevant.

*H2a. With regard to on management behavior: self-evaluations of evaluatees predict their evaluation by peers.*

*H2b. With regard to entrepreneurial orientation: self-evaluations of evaluatees on entrepreneurial orientation predict their evaluation by peers.*

The justification for hypotheses H2a and H2b is that either through self-knowledge or through feedback by others individuals are aware of their skill levels. That is, in any organization (as an example we can think of a football team), there is something fundamentally wrong if one’s self-assessment bears no resemblance to what others think. Especially for management behavior that comes in different styles, an outcome may very well be that self-evaluations and peer-evaluations are uncorrelated, or even negatively correlated. For example, autocratic managers may assess managers adopting an

informal style negatively not necessarily because of proven lower levels of effectiveness but merely because of interpersonal normative differences in approach.

H3. Evaluations by peers on management behavior and on entrepreneurial orientation are uncorrelated.

H4a. The predictive power of self-evaluations of evaluators on their evaluation of peers differs between management behavior and entrepreneurial orientation.

H4b. The predictive power of self-evaluations of evaluatees on their evaluation by peers differs between management behavior and entrepreneurial orientation.

Hypotheses H3, H4a and H4b reflect our assumption of management behavior and entrepreneurial orientation following different mechanisms. The way that thinking positively or negatively about yourself affects your view of others, may differ from one trait to the next. To draw another analogy, virtually everybody regardless of his own soccer skills acknowledges the superior skills of Lionel Messi in the popular game of soccer; however, it requires expert or inside knowledge to compare or assess the skills of, chess players like Bobby Fisher and Gary Kasparov if you're not a chess player. The nature of these two sets of sports skills<sup>1</sup> will be reflected in how we have to interpret players' self-assessments. In

the absence of a clear theory, our hypotheses H4a, b (not shown in Figure 1) on the coefficients of self-evaluations on the two sets of skills are non-directional: we assume that the relation between how people see themselves and how they see others or others see them is different for management behavior versus entrepreneurial orientation.

#### 4. Data analysis

The easiest way to start our argument is by showing the correlations between all the scales that have been included in the research – apart from Management Behavior (MB) and Entrepreneurial Orientation (EO) we have Excellent Leadership (EL), Personal Qualities (PQ) and Environmental Orientation (EO). Correlations between the four retained factors from De Waal's (2012) five factor High Performance Managers framework (as explained, organizational orientation was left out after some of the items were combined with management behavior) are all positive, though some of them non-significantly, in the range of 0.17 to 0.43 (see Table 3). Entrepreneurial Orientation is significantly positively related to all HPM factors except Management Behavior with a non-significant correlation close to zero. That is, hypothesis 3 is rejected: Management Behavior and Entrepreneurial Orientation, as measured by the validated and reliable items, are unrelated to one another.

Table 3. Correlations between factors of high performance management and entrepreneurial orientation

Factors	EL	PQ	ENVO	MB	EO
Excellent leadership (EL)	1				
Personal qualities (PQ)	0.39*	1			
Environmental orientation (ENVO)	0.34*	0.32*	1		
Management behavior (MB)	0.43*	0.17	0.17	1	
Entrepreneurial orientation (EO)	0.45*	0.25*	0.41*	<b>0.01</b>	1

The nature of our dataset is hierarchical, in a fairly complex manner. The 90 records in the dataset are clustered both in evaluators (18 evaluators assess exactly 5 evaluatees each) and in evaluatees (19 evaluatees are assessed by 4 or 5 evaluators). We proceed by identifying how much of the variation in the assessments on Management Behavior (MB hereafter) and Entrepreneurial Orientation (EO) is due to the variation between the evaluator grouping by calculating the intraclass correlation ( $\rho$ ). The intraclass correlations are remarkably different: for MB the intraclass amounts to 0.50 while for EO it is only 0.05. The interpretation (see Rabe-Hesketh & Skrondal, 2012) is that 50% of the variability in management behavior is explained by the groups (here, the evaluators) compared to only 5% for

Entrepreneurial Orientation. This difference in intraclass correlations lends support to the assumption that, indeed, the assessment mechanisms (to be formally tested below) substantially differ between MB and EO.

Taking into consideration the hierarchical nature of the data, hypotheses H1a and H1b have been tested by using fixed effects models in which the evaluatees are the groups (or clusters). For each group the models check to what extent the self-evaluations of the evaluators predict their assessments of the randomly selected five peers that they were asked to evaluate. Since the scorer is the same for the main variables in the model (namely the evaluator assessing both himself and the evaluatee), the outcomes are likely to be affected by what we call a scorer effect (cf. Pearse, 2011, on the use of Likert scales). Some respondents may seek or avoid the extremes; other respondents may give higher scores

<sup>1</sup> Although many would disagree the *game* of chess is generally considered a sport since it requires skills; and therefore it requires training; and moreover it's competitive.

on average due to attitudinal differences (skeptical; positive-minded; and so on) or interpretational differences (e.g. the meaning of 8 on a 10-point scale); specifically for this research responses may be affected by the evaluators being aware of the fact they are also being assessed themselves. As an indication of the prevalence of scorer effects, the mean scores across evaluators range from 5.9 to 8.2 for MB and 5.6 to 8.1 for EO which – given the random assignment of evaluatees – is unlikely to be coincidental. To adjust for this scorer effect in the MB model, we have included the mean scores on the EO variable (using the mean for MB would not be appropriate since, with only five evaluatees per evaluator, the score on MB is a substantial part of the average score on MB of the evaluator; a further advantage of using EO is that it is – as we have seen – uncorrelated to MB). Likewise, the mean score on MB by evaluator has been added to the model explaining EO. The outcomes are summa-

rized in columns (1) and (2) of Table 4. It turns out that while for MB the self-assessment of the evaluator predicts the scores the evaluator gives to his peers, the same does not hold true for entrepreneurial orientation. Assessments of MB related skills in others are impacted by the self-ascribed MB skills of the evaluator. For EO this is not the case. Self-assessments by evaluators on EO do not predict their EO assessments of others. In terms of our soccer and chess analogy MB follows the chess pattern, while EO is more out-in-the-open, for anybody to appreciate soccer style. That is, H1a is accepted, while H1b is rejected. Since the coefficient of self-evaluations on MB differs from zero while the coefficient of self-evaluations on EO does not, in the process we accept H4a: the predictive power of self-evaluations of evaluators on their evaluation of peers differs between management behavior and entrepreneurial orientation.

Table 4. Summary of regression models

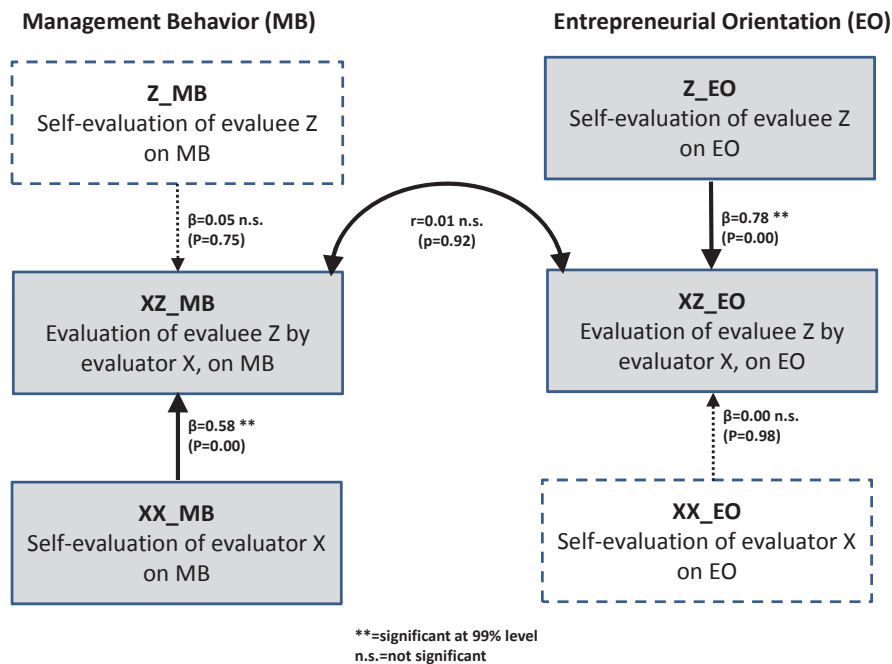
	Impact of self-assessment by evaluator on their assessment of evaluatees		Self-assessment by evaluatee as predictors of their assessment by peers	
	(1)	(2)	(3)	(4)
	Hypothesis 1a MB	Hypothesis 1b EO	Hypothesis 2a MB	Hypothesis 2b EO
Self-evaluation of evaluator, on MB	0.58**			
	[0.00]			
Average scores by evaluator (control)	-0.19	0.63**		
	[0.33]	[0.00]		
Self-evaluation of evaluator, on EO		0.00		
		[0.98]		
Self-evaluation of evaluatee, on MB			0.05	
			[0.75]	
Self-evaluation of evaluatee, on EO				0.78**
				[0.00]
Constant	3.99**	2.65	6.61**	1.21
	[0.01]	[0.08]	[0.00]	[0.28]
<i>N</i>	90.00	90.00	90.00	90.00
<i>R</i> <sup>2</sup>	0.13	0.13	0.00	0.30
Rho	0.26	0.64	0.56	0.27

Notes: *p*-values in brackets; \**p* < 0.05, \*\**p* < 0.01. (1) *X* and *Z* represent the evaluator and the evaluatee, respectively; (2) The dependent variable for models 1 and 3 is *XZ\_MB*; for models 2 and 4 *XZ\_EO*.

For hypotheses H2a and H2b, again a fixed effects model has been estimated, this time with the evaluators as groups (or clusters). Since the evaluators are different persons (the evaluator *X* and the evaluatee *Z*, respectively, evaluate *Z*) and assignment of evaluatees to evaluators was done randomly, there is no need to include a scorer-effect into the model. As can be seen in Table 4, columns (3) and (4), the results for EO are the opposite of those for MB. While for MB, the self-evaluation of the evaluatee does not predict the score assigned to

him by the evaluator, for EO the self-evaluation is a strong predictor: each 1-point increase in self-evaluation on the 10-point scale corresponds to a .78 increase in the scores given by the evaluator. Thus H2b is accepted, while H2a is rejected. We do accept H4b: since the coefficients for self-evaluations of evaluatees on their evaluations by peers are non-zero for EO and not significantly different from zero for MB, we conclude that the predictive power differs between EO and MB. The final model is depicted in Figure 2.





**Fig. 2. The final numerically specified model**

From the final model we can draw the following conclusions. In line with our working hypotheses, the factors of management behavior and entrepreneurial orientation are indeed of a different nature.

**Management Behavior (MB)**

- ◆ For MB the self-evaluation of the evaluator helps in predicting the score given to the evaluatee (hypothesis H1a). Controlling for scorer-effects, respondents with higher self-evaluations on MB tend to give higher scores to their peers on MB. If various managerial styles would have been present within the organization (e.g. democratic next to autocratic styles), one might have expected negative coefficients. The positive coefficient may be specific to the organization examined and reflect a certain consensus on the desirable style of management within this organization. The positive coefficient reflects a strong degree of subjectivity and recognition of one’s own skills when assessing one’s peers. The mechanism corresponds to what we would expect in the game of chess.
- ◆ At the same time, one’s self-evaluation on MB is not a predictor of one’s assessment by peers (H2a). This finding might indicate that even though a common management style has developed within the company, there is still some need among the group of managers to nurture one’s own style of management – although obviously these aspirations are not

recognized by the peer group. In terms of our analogy, it is like the brilliant chess player who either overestimates or underestimates himself, resulting in evaluatee self-assessments that poorly predict assessments by (expert) peers.

**Entrepreneurial Orientation (EO)**

- ◆ For entrepreneurial orientation, the self-assessment of evaluators is not a predictor of how they evaluate their peers (H1b). Like what we would expect the assessment mechanism in the soccer sport to be, regardless of one’s own entrepreneurial skills evaluators can spot the skills in others.
- ◆ In line with the above, the predictive power of one’s self-evaluation of EO on the scores given by peers can be explained by the ‘open’ nature of OS skills (H2b). Assuming that Lionel Messi is well aware of his skills, his self-assessment is reflected by how the audience and his peers judge him.

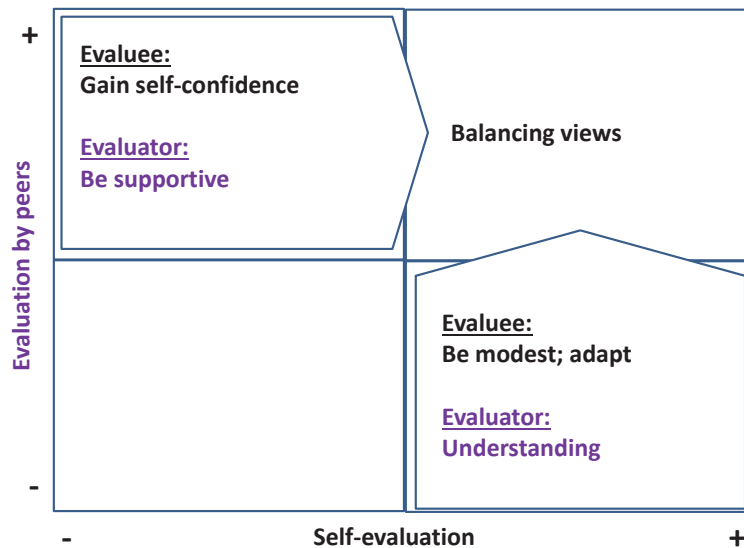
**Summary and discussion**

In this article, based on data collected from 19 partners in a Dutch consultancy company, we have examined the nature of several factors of management in a broad sense, with a focus on two factors that in recent years have been discussed as the pillars of the ambidextrous organization: management behavior and entrepreneurial orientation. In our analyses we have found that, as expected, the two factors differ in nature. Actually, among all of the six factors that we started

out with, these two turn out to be the ones that have very little in common. In a model that relates evaluations by peers to self-evaluations of both the evaluator and the evaluatee, we have found that management behavior is more open to the subjective interpretation of peers, while entrepreneurial orientation is more ‘out in the open’.

We have used the data in an explorative manner, as a starting point for theorizing on the issue. The implications of our findings are both methodological and managerial. On the methodological side, we conclude that self-evaluations make more sense for entrepreneurial orientation than for management behavior. On the managerial side, it is evidently hard to combine both pillars of the ambidextrous organization within one and the same person: the nature of the management behavior and entrepreneurial orientation factors are too diverse. The main challenges to the organization are in the feedback mechanisms that apply. For management behavior, partly due to its alleged short-term orientation, one would expect that regular feedback, through processes of adaptation and learning, cancels out any differences in views (Garvin, 1998). But as our data show, there is no guarantee. One hindrance is that the evaluations by peers (or more in general, anyone being affected by the behavior of the managers) are inconsistent with the manager’s self-evaluation (H1a and H1b), and in response the manager may be tempted to persevere in what becomes his or her personal management style. The challenge to the

organization is in bridging the differences in views. The key message therefore is that the organization and its managers need to think of ways to resolve the potentially conflicting views which are often not made explicit. Figure 3 provides a tentative set-up of ways managers can adapt their behavior, presuming they do have access to a set of (self) evaluation on management behavior. Conflicting situations are of two types. In the first type – the lower right cell in Figure 2 – the manager thinks highly of himself and ignores the signals that he receives from his peers. This may be a sustainable situation for the truly brilliant chess players in a competitive situation but untenable in the situation of a company like the one we have examined where a certain consensus on ‘suitable’ management styles is key to their effectiveness. The second type of conflict arises if managers whose skills are well appreciated underestimate themselves. This, many would argue, is not a normal trait of managers who are driven by affiliation, power and achievement (Ramo et al., 2009) but it may be of relevance in situations in which – like in our case – professionals are expected to adopt roles as leaders, managers or entrepreneurs since circumstances so dictate. For an optimal organizational outcome it is required that the manager becomes aware of his talents. As an extreme example from the world of chess, Bobby Fisher, considered by many (experts) to be the greatest chess player ever, hardly played a match after becoming champion of the world at the age of 29; a clear waste of talent.



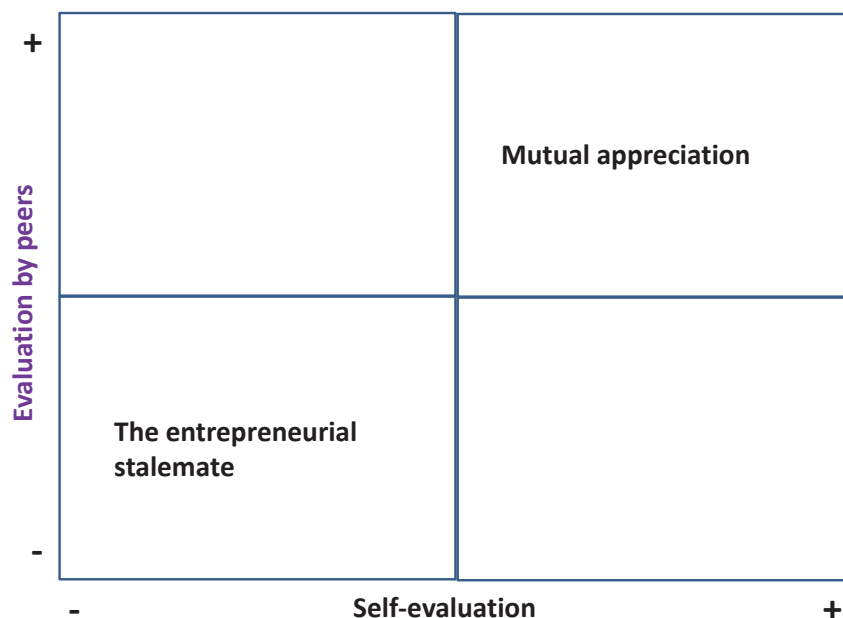
**Fig. 3. Mechanisms toward organizational optimization: differences between self and peer evaluations on management behavior**

For entrepreneurial orientation, the lack of differences in views of evaluators and evaluatees may seem good news. The upper left and lower right cells of the diagram (Figure 4) will not easily occur, as peer evaluations are in line with what the

evaluatees think of themselves. But what happens in case of low evaluations? Especially because the consequences of poor entrepreneurial skills are not felt directly the other members of the organization will more easily take it for granted. Since evaluators

and evaluatees are in agreement on the evaluatee’s lack of skills there is no obvious mechanism (like support; adaptation; or understanding) to move to the optimal situation. What results is an ‘entrepreneurial stalemate’. Figure 4 depicts the most likely situations, in accordance with our findings (hypothesis H2b). The evaluatee’s self-assessment is a good predictor of assessments by his

peers. If both assessments are positive, there is an ideal situation of mutual appreciation. If both are negative, there is no obvious path to improvement. First of all, there is no disagreement (the situation is what it is). And secondly, the assessment of the evaluatee by the evaluator is not related to what the latter thinks of himself: the evaluator may not have the skills to help the evaluatee.



**Fig. 4. Mechanisms toward organizational optimization: differences between self and peer evaluations on entrepreneurial orientation**

In sum, we can conclude that MB and EO are different types of skills. While MB is more about ‘nurture’ and subject to processes of learning, adaptation and peer support, EO is more about ‘nature’. As a consequence differences in MB within, for example, a team of

managers may converge into an organizational management style with room for some individual approaches. Differences in EO will simply not occur as easily; as a consequence organizational weaknesses in EO tend to remain unresolved.

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## Appendix

Table 1A. The five factors and accompanying characteristics, of the HPM Framework<sup>1</sup>

Excellent leadership
EL1. Have confidence when dealing with work and people
EL2. Give recognition for good work
EL3. Create a sense of purpose and enthusiasm in the workplace
EL4. Motivate employees
EL5. Continue to learn how to improve performance
EL6. Have a strategic vision for the organization
EL7. Organize work time effectively
EL8. Be honest

<sup>1</sup> The appendix shows the list of items; the questionnaire as used in the field, in the Dutch language, will be sent on request.

Table 1A (cont.). The five factors, and accompanying characteristics, of the HPM Framework

Personal qualities
PQ1. Respect the self-esteem of others
PQ2. Be consistent in dealing with people
PQ3. Be dependable and trustworthy
PQ4. Accept responsibilities for mistakes
PQ5. Deal calmly in tense situations
PQ6. Listen to the advice of others
PQ7. Return favors
PQ8. Speak clearly and concisely
PQ9. Write clearly and concisely
PQ10. Follow what is morally right, not what is right for self or for the organization
PQ11. Accept that others will make mistakes
PQ12. Have a sense of humor
PQ13. Be an initiator, not a follower
Environmental orientation
ENVO1. Have a multicultural orientation and approach
ENVO2. Foster an international perspective in the organization
ENVO3. Be socially and environmentally responsible
ENVO4. Identify social trends which may have an impact on the work
ENVO5. Constantly evaluate emerging technologies
ENVO6. Use economic indicators for planning purposes
ENVO7. Be responsive to political realities in the environment
Organizational orientation
OO1. Adaptability
OO2. Share power
OO3. Support decisions made jointly by others
OO4. Focus on maximizing productivity
OO5. Sell the professional or corporate image to the public
OO6. Act as a member of the team
OO7. Give priority to long-term goals
OO8. Adjust organizational structures and rules to realities of practice
Managerial behavior
MB1. Make work decisions quickly
MB2. Select work wisely to avoid overload
MB3. Focus on the task-at-hand
MB4. Make decisions without depending too much on others
MB5. Listen to and understand the problems of others
MB6. Be logical in solving problems
MB7. Persuade others to do things
MB8. Make decisions earlier rather than later
MB9. Trust those to whom work is delegated
MB10. Keep up-to-date on management literature
MB11. Delegate
MB12. Try different approaches to management

Table 2A. The adapted entrepreneurial orientation characteristics

EO1. My colleague favors a strong emphasis on research and development, and being a frontrunner in technological leadership and innovation.
EO2. My colleague makes sure we lead the competition in innovation, initiating actions to which our competitors have to respond.
EO3. My colleague has a strong propensity for high-risk projects with chances of very high return.
EO4. My colleague emphasizes that, to be able to achieve organizational goals, we need to do bold and wide-ranging projects.
EO5. My colleague takes decisions quickly, even when matters are still uncertain and there is a risk of high costs.
EO6. When competitors have developed new, smart ways of doing business, my colleague makes sure that we quickly adopt this 'new way of doing things.'
EO7. My colleague encourages employees to try new ways of doing things and to continuously seek unusual, novel solutions.
EO8. My colleague encourages employees to think and behave in original and novel ways.