UNIVERSITEIT GENT

**FACULTEIT ECONOMIE
EN BEDRIJFSKUNDE**

WORKING PAPER

Managing with Style: What Does It Mean in Practice Having a Knowing, Planning, or Creating style?

Eva COOLS[1]

Herman VAN DEN BROECK[2]

January 2007

[1] Ghent University, Faculty of Economics and Business Administration and Vlerick Leuven Gent Management School.

[2] Ghent University, Faculty of Economics and Business Administration and Vlerick Leuven Gent Management School.

Abstract

Our study aims to contribute to an enhanced understanding of how cognitive styles, being individual preferences for perceiving and processing information, influence managerial behaviour using a qualitative approach. Based on content analysis of written testimonies of 100 managers, we found interesting differences between managers with a knowing, planning, and creating style with regard to both task-oriented behaviour (decision making) and people-oriented behaviour (conflict management, interpersonal relationships). Although the tasks of different managers are largely the same, our study demonstrates that not all managers execute their job in the same way. Our results complement previous quantitative research on the link between cognitive styles and managerial behaviour. Although there is a wide theoretical and empirical interest in cognitive styles, qualitative studies that might provide further support to the practical relevance of cognitive styles for organisations is currently lacking. Because of the pivotal role of strong management and executive leadership on employee attitudes and financial performance, it is important to better understand the manager's characteristics. Our results may contribute to increased managerial self-awareness about the impact of their individual preferences on their management style.

KEYWORDS: cognitive styles; managerial job; qualitative study

Introduction

How people behave or perform in their management job depends on many aspects (*e.g.*, organisational culture, organisational structure). Beside situational aspects the characteristics of the individual manager play an important role in determining his or her performance (Buttner *et al.*, 1999; Church and Waclawski, 1998). According to Berr *et al.* (2000), there currently is a large interest in the potential impact of individual dispositions and preferences on managerial behaviour and effectiveness. Cognitive styles may not be ignored in this regard. Previous research concluded that alignment between people's cognitive style and their job requirements led to success, while misalignment led to a gap between people's performance and their potential (Rowe and Mason, 1987; Willcocks, 1995).

Cognitive styles are extensively studied in diverse research domains (Grigorenko and Sternberg, 1995; Rayner and Riding, 1997). They have also gained prominence in organisational behaviour and management literature over the last decades (Hayes and Allinson, 1994; Hodgkinson and Sadler-Smith, 2003; Sadler-Smith and Badger, 1998), due to the increased attention for cognitive approaches in industrial, work, and organisational psychology (Hodgkinson, 2003). Research showed that cognitive style differences influence learning, problem solving, decision making, communication, and creativity in important ways (Hayes and Allinson, 1994; Kirton, 2003). Although there is a wide theoretical and empirical interest in cognitive styles, qualitative studies that might provide further support to the practical relevance of cognitive styles for organisations is currently lacking (Rayner, 2000; 2006). Recently, Armstrong and Rayner (2002) also emphasised the importance of filling the 'relevance gap'. In their perspective, this means that valence is an important element for the continuation of style research beside validity and reliability. Valence in their model means authenticity, credibility, relevance, and impact, referring to the extent to which the findings of a study are relevant to a particular context.

Consequently, the aim of our study was to examine the link between people's cognitive styles and their managerial behaviour, using a qualitative approach. Given the impact of strong management and executive leadership on organisations in terms of financial performance and employee attitudes (Church and Waclawski, 1998), it is important to better understand the impact of the manager's characteristics.

Managing with style: literature review and research design

Before elaborating on the research design, we shortly review existing research on cognitive styles and on the managerial job to clarify the aim of our study.

Cognitive styles

Regardless of a specific approach or theory, the 'style' concept usually refers to a habitual pattern or preferred way of doing things (Grigorenko and Sternberg, 1995). Building on existing conceptualisations, we define a cognitive style as the way in which people perceive environmental stimuli and how they use this information for guiding their actions (Hayes and Allinson, 1998; Messick, 1984; Witkin *et al.*, 1977). Cognitive styles are considered to be fundamental determinants of individual and organisational behaviour that manifest themselves in individual workplace actions and in organisational systems, processes, and routines (Sadler-Smith and Badger, 1998). Streufert and Nogami (1989) argue that cognitive style may be one of the variables that determine whether or not people are able to respond appropriately across a variety of situations. Researchers used cognitive styles as a basis for studying decision-making behaviour, conflict handling, strategy development, and group processes (Leonard *et al.*, 1999). According to Hayes and Allinson (1994), cognitive styles can be used in the context of recruitment, task and learning performance, internal communication, career guidance and counselling, team composition and team building, conflict management, and training and development. Consequently, gaining insight into cognitive styles is of high significance for organisations (Sadler-Smith, 1998).

Over the years, researchers have identified a large variety of cognitive style dimensions (Hodgkinson and Sadler-Smith, 2003; Riding, 1997). Different authors have also developed their own assessment instruments, providing unique labels to the cognitive styles under investigation (Shipman and Shipman, 1985). However, much cognitive style research has been done in educational settings, leading to a limited number of instruments for use in organisations (Allinson and Hayes, 1996). Recently, Cools and Van den Broeck (2006) reported on the development of a reliable, valid, and convenient cognitive style instrument – the Cognitive Style Indicator (CoSI) – for use with managerial and professional groups, that has been tested with three diverse samples ($N = 5,924$; $N = 1,580$; and $N = 635$). Substantial support was found for this instrument's construct validity. Reliability, item, and factor analyses confirm the internal consistency and homogeneity of three cognitive styles (with

Cronbach alpha coefficients ranging from 0.73 to 0.85): a knowing, a planning, and a creating style. People with a knowing style are characterised by a preference for facts and details, whereas people with a planning style show a preference for structure and order, and people with a creating style tend to be creative and to like experimentation (Table 1). As the CoSI is found to be a valuable model to conceptualise cognitive style differences, we used this model in our research project.

Table 1. Description of the CoSI model

Knowing style	Planning style	Creating style
Facts, details	Sequential, structured	Possibilities, meanings, ideas
Logical, reflective	Conventional, conformity	Impulsive, flexible,
Objective, impersonal,	Planned, organised,	open-ended
rational	systematic	Novelty
Precision, methodicalness	Routine	Subjective
		Inventive, creative

Note. Based on Table 1 in Cools and Van den Broeck (in press).

The managerial job

Many scholars have studied managerial jobs and managerial behaviour, leading to a wide variety of models (Magretta, 2002; Schermerhorn, 2005). Consequently, an endless amount of lists has appeared in the literature about the tasks, roles, and functions of the manager (Mintzberg, 1994; Whetten *et al.*, 2000). There is currently no overarching model which integrates all visions on the managerial job (Magretta, 2002). One stream of research within the management field has focused specifically on describing the activities of managers, hereby looking at what managers do (*e.g.*, Kotter, 1982; Martinko and Gardner, 1990; Mintzberg, 1973; Whitley, 1989). As the managerial job constitutes of a wide range of activities (Keller and Brandt, 2005), management has been defined as "the process of working with and through others to achieve organisational objectives in an efficient and ethical way" (Kreitner *et al.*, 2002, p. 8). This definition implies both a task-oriented aspect (achieving goals) and a people-oriented aspect (working with and through others). Consequently, several books on management skills divide their reader in parts according to the differences between task-oriented and people-oriented management aspects (*e.g.*, Keller and Brandt, 2005; Whetten *et al.*, 2000).

However, the aim of our research was not to derive an exhaustive list of the tasks, functions, or roles of managers, but rather to learn more about how they do their job. According to Lamond (2004), there has recently been an increased interest in how managers execute their tasks (their management style) instead of in what managers do. He makes in this regard an important distinction between enacted managerial styles (referring to actual behaviour) and preferred managerial styles (referring to preferences people have regarding their role). Our study focuses on the latter concept. However, there is no consensus on what this managerial style implies. We use cognitive style differences as distinguishing factor. Mintzberg's research (1994) concluded that the job of managing is fundamentally one of processing information, as 40 per cent of executives' time is devoted to it almost exclusively. Decision making, information processing, and problem solving are important aspects of effective management (Leonard *et al.*, 1999; Tett *et al.*, 2000). As cognitive styles are individual preferences with regard to how people perceive, process, and structure information, looking at the influence of cognitive style differences on managerial behaviour is highly relevant.

Research design

To grasp the implications of what it means for a manager to have a knowing, planning, or creating style, a qualitative approach seems warranted as this results in data of greater depth and richness (Bachiochi and Weiner, 2002; Patton, 2002). Qualitative research has the advantage of leading to a better understanding of the meaning of what is observed. Despite the call for more qualitative research in organisational behaviour and management studies (*e.g.*, Ehigie and Ehigie, 2005; Gephart, 2004; Symon *et al.*, 2000), there is still a lack of qualitative studies in the field of cognitive styles. Riding (2000) already called for more research on the link between cognitive styles and real, observable behaviour to find clear and relevant applications of style in practice. Recently, Rayner (2006) stated that there can be no doubt that the psychometric tradition and positivist paradigm dominate the cognitive style research domain. He calls for more functional research that takes practitioner awareness and applications of cognitive styles into account. By using a qualitative approach in our study, we want to contribute to these calls for an increased focus on the relevance of cognitive style research for practice. This way, our study also wants to complement previous quantitative research on the link between cognitive styles and managerial behaviour.

In line with the above definition of management, we distinguish between task-oriented and people-oriented practices in our research design. Whereas early management theories have emphasised the focus on tasks, contemporary models increasingly also value the human aspect (Kreitner *et al.*, 2002). More than ever, managing means working together with other people. Kouzes and Posner (2002) stated that the ability to work well with others and to enable others to act became a critical differentiator between success and failure in executive ranks. Research of Longenecker and Simonetti (2001) concluded that getting results as a manager requires a balance between effective task-oriented practices and effective people-oriented practices, with the balance currently favouring the people side of the equation.

With regard to the task-oriented aspects, we focus on decision making, as this is an important informational aspects of the managerial role that might be influenced by cognitive style differences. Decision making is one of the primary responsibilities of managers. Attention for cognitive style differences is highly relevant in the context of decision making (Leonard *et al.*, 1999), as previous research found that people prefer decision-making processes that are compatible with their cognitive style (Gardner and Martinko, 1996; Hunt *et al.*, 1989). Consequently, attention for cognitive style differences explains why people, faced with seemingly identical situations, use different decision processes (Nutt, 1990).

Given the increased focus on the people aspect of the managerial job, including conflict handling and interpersonal behaviour in our research design is highly valuable. Moreover, research evidence suggests that cognitive style differences may fundamentally affect the nature of interpersonal relationships (Armstrong *et al.*, 2002). Several studies found relationships between people's preferred way of information processing and their styles of handling interpersonal conflicts (*e.g.*, Chanin and Schneer, 1984; Johnson, 1997). Previous research within the cognitive style field also looked at cognitive styles and teamwork (*e.g.*, Fisher *et al.*, 1998; Priola *et al.*, 2004; Volkema and Gorman, 1998) and cognitive styles and interpersonal relationships (*e.g.*, Allinson *et al.*, 2001; Armstrong *et al.*, 1997).

Based on previous (mainly quantitative) research findings within the field of cognitive styles, we expect that people with different cognitive styles will approach their management job differently. We will know elaborate on the methodology of our study.

Methodology

Procedure

We collected testimonies from people with different cognitive styles with regard to a whole range of organisational behaviour aspects. People were invited to write a testimony on how they typically behave in an organisational context. The format of data collection consisted of open-ended questions, asking about people's preferred way of making decisions, handling conflicts, and dealing with others. Additionally, people were asked to let two colleagues complete the same questions for them. As stated by Church and Waclawski (1998, p. 49), open-ended questions give people the opportunity to answer "from their own unique perspective instead of being forced into the response options that are driven by the paradigm of the survey practitioner or design team". Moreover, Mitroff and Kilmann (1975; Kilmann and Mitroff, 1976) used a similar technique to collect data on managers' ideal organisations. In their study, written stories of managers were content analysed, matched with MBTI types, and compared with quantitative MBTI results. Similarly, besides writing a testimony people also completed the Cognitive Style Indicator (CoSI) (Cools and Van den Broeck, in press). Importantly, people were not aware of the theory on cognitive styles or their own profile while writing their testimonies. CoSI is an 18-item cognitive style instrument distinguishing between a knowing, planning, and creating style. Item and factor analyses confirmed the three-factor cognitive style model, with Cronbach alpha coefficients in our study being 0.78, 0.83, and 0.77 for the knowing, planning, and creating style respectively.

Sample

Two diverse samples were part of our exploratory, qualitative study. The testimonies included (1) management and MBA students of a leading Western European business school ($N = 275$), (2) as well as employees from diverse organisations ($N = 278$). In both samples, 63 per cent of people were men, and 37 per cent were women.

Sample 1. The age of the management and MBA students in our sample ranged from 21 to 31 years old, with a mean age of 23.33 ($SD = 1.59$). They had a variety of educational backgrounds, with 50 per cent having a background in economic sciences, 16 per cent in engineering, and 9 per cent in social sciences. About half of the students ($N = 135$) also gave

us testimonies from two colleagues beside their own testimony. These testimonies were coded independently from the respondent's own opinion. Data triangulation, using multiple sources of data, strengthens our findings and increases the validity of our study. Berr *et al.* (2000) also recommended the use of behavioural ratings from others, as they provide a useful source of external validation of the focal person's characteristics.

Sample 2. Similarly to a procedure of Butterfield *et al.* (1996), data of this sample were collected through the management and MBA students who each contacted one employee in the context of a "Management and Organisational Behaviour" course [1]. Mean age of the 278 working people in our sample was 38.31 years old (*SD* = 11.35). They had a wide range of functions, with 22 per cent from the general management department, 22 per cent from marketing and sales, 18 per cent from the finance and administrative department, 18 per cent from production and logistics, and 4 per cent from the IT department. They represented diverse sectors, including 34 per cent from industry and production, 27 per cent from the service sector, 14 per cent from government and educational institutions, 8 per cent from IT and communication, and 5 per cent trade and distribution. Various hierarchical levels are represented: 19 per cent general managers, 31 per cent director or senior managers, 23 per cent middle managers, 23 per cent professionals, and 7 per cent clerical staff. For the purpose of this study, only people with a management function were withheld from this sample.

Final sample. For further analysis, we selected those individuals with the most 'extreme' or 'pure' profile from the two samples for each of the three cognitive styles. This means, people had to score more than one standard deviation above the mean for one of the cognitive styles, in combination with a low score on the other two styles (one standard deviation below the mean). In this sense, sampling was based on theoretical considerations instead of randomness to have clear examples of possible cognitive style differences and similarities (see Patton (2002) for purposeful sampling). In the end, 100 testimonies were selected: 16 people with a knowing style, 41 with a planning style, and 43 with a creating style. Table 2 includes more in-depth information on the 100 managers that were included in the content analysis.

Table 2. Sample description (*N* = 100)

	Students *N = 57*	Managers[a] *N = 43*
Profile[b]		
Knowing style	8 (14%)	8 (19%)
Planning style	18 (32%)	23 (53%)
Creating style	31 (54%)	12 (28%)
Mean age	23.20 (*SD* = 1.56)	37.14 (*SD* = 11.58)
Sexe		
Men	55%	58%
Women	45%	42%
Degree		
Economic sciences	49%	28%
Engineering	24%	17%
Social sciences	7%	6%
Exact sciences	2%	11%
Medical sciences	6%	17%
Other	12%	21%
Function[c]		
General management department	56%	14%
Sales and marketing department	25%	24%
Finance, administrative department	19%	24%
Production, logistics department		17%
IT department		7%
Other		14%
Sector		
Services		24%
ICT		5%
Industry and production		31%
Government and education		24%
Other		16%

Note. [a] This sample includes 16% general managers, 19% directors or senior managers, and 65% middle managers. [b] For 58% of the students, we could include testimonies from two colleagues, giving a total of 66 secondary sources (8 testimonies on students with a knowing style, 18 testimonies on students with a planning style, and 40 testimonies on students with a creating style). [c] For the students, we include percentages with regard to the specialisation they have chosen in their management education.

Coding and analyses

A three-stage content analytic procedure was used, distinguishing between a unitising, categorising, and classifying stage (Krippendorff, 1980; Weber, 1990). (1) After selecting the 'pure' profiles, their written testimonies were introduced in the qualitative software package ATLAS.ti. Units for analysis in our study were sentences or paragraphs in each testimony that dealt with a separate managerial behaviour. A coding scheme was developed. As recommended by other scholars (*e.g.*, Brown and Eisenhardt, 1997; Potter and Levine-Donnerstein, 1999), we developed a preliminary coding scheme based upon the conceptual

framework, supplementary literature on managerial behaviour, and the initial questions we asked our respondents. (2) After final refinements and adaptations of the coding scheme, the testimonies were coded. Three categories were distinguished. The first category contained task-oriented behaviours, including paragraphs on decision making, communication, problem solving, and meetings. The second category handled with people-oriented aspects, including quotes on teamwork, interpersonal behaviour, conflict handling, and giving feedback. A third category was called self-awareness, including quotes in which managers indicated the tasks they like or dislike in their job, their strengths and weaknesses, and their least/most preferred co-workers. (3) For the analysis of our qualitative data, cross-case analysis was carried out. The cognitive styles were used as 'families' in ATLAS.ti. The creation of families is a way to form clusters for easier handling of groups of codes (Muhr and Friese, 2004). Once formed, these families were treated as a criterion along which similarities and differences occurring in the qualitative data were compared against. This procedure gets the researcher more focused into the large amounts of data since it provides a structure for cross-case analysis.

To enhance the reliability and validity of our cross-case analysis, we randomly selected 20 testimonies for coding by another, independent researcher (Neuendorf, 2002). Initial intercoder reliability was 0.83. To improve the code-recode reliability, a sample of testimonies was coded simultaneously by both coders. When disagreements occurred, coders discussed on the specific variables until there was agreement on the judgments. This procedure for reconciling coding disagreements has been recommended by Gerstner and Day (1997). This led to an increase in the reliability measure (0.92). These results for intercoder reliability demonstrate that the categories were clearly defined and could be located in the text with little ambiguity.

Overall, we did not find differences in our cross-case analyses between self-reporting answers and other opinions, as well as no differences were found between the two subsamples (*i.e.*, MBA students and managers of different organisations). Consequently, in the results and discussion section no distinction is made between the data sources. To strengthen and verify our findings, we used several of the techniques discussed in Miles and Huberman (1984), like 'counting' or 'looking for negative evidence'.

Results and discussion

We first report on the findings with regard to managers' task-oriented behaviour. Afterwards, we focus on their people-oriented behaviour. As we used open-ended questions to collect our data, people spontaneously added other interesting information, which we coded in a 'self-awareness' category. When relevant, we add some of these elements, dealing with manager's most/least preferred tasks and co-workers and their strengths and weaknesses. Our study led to a rich amount of information on how different types of managers prefer to do their job. Based on our qualitative data, we tried to build an image of a 'typical' manager for each of the cognitive styles. Table 3 summarises the qualitative image we have developed of managers with different cognitive styles after analysing the testimonies.

Task-oriented managerial behaviour

Knowing style. Asked about their habitual way of decision making, it became clear that managers with a knowing style like an analytical approach. They want to make informed decisions based on facts and figures, using logical and rational arguments. That is also why they do not like those tasks in their job that seem to serve no purpose, that are undefined, ambiguous, intellectually not challenging, and that lack facts and figures. They prefer to take their time to make decisions, sometimes postponing them to collect more information. A quote of an MBA student with a knowing style makes their preferred way of deciding more concrete [2]: *"By gathering facts and asking questions I try to get a thorough understanding of the problem before taking action. I make decisions only after a detailed analysis of all the possible options and possibilities" (P1).*

Several managers with a knowing style consider their analytical skills and their logical reasoning as their major strengths. However, their strong focus on rationality and facts and figures is sometimes also seen as a disadvantage. *"I am too much focused on finding an optimal solution within the borders that I do not see feasible answers outside the box. Sometimes I shoot down a creative idea too fast, because it seems strange at first sight. I want proof right away, but sometimes an idea needs to grow" (P5, MBA student).* Our findings are consistent with previous quantitative research that found that individuals with a knowing style prefer a logical, rational, and impersonal decision making approach (Cools and Van den Broeck, 2006). Other studies on the link between cognitive styles and decision making also

found that people with an analytical style based themselves on abstract thinking, logic, and careful analysis to make decisions (*e.g.*, Leonard *et al.*, 1999).

Planning style. Managers with a planning style also prefer a rational approach. They do not like to make decisions based on 'gut-feeling'. However, our analysis indicated that managers with a planning style in their decision making are less focused on facts and figures (like people with a knowing style), but preferred above all a structured approach. They try to be quick decision-makers in order to shorten the uncertainty that surrounds decision making, as this confronts them with many doubts. In this respect, they also report a tendency to stick to decisions once they are made. A quote from a planner can illuminate this: *"I desire to have full control of the situation before taking a decision. By making outstanding plans, and by sticking to them, good decisions can be achieved. Nevertheless, decisions may become difficult since I seek extreme excellence in planning. It is not always feasible to make the best preparation, setting up, scheduling, forecast and arrangement" (P26, middle manager of a consulting firm).*

This quote already gives an idea of the strengths and weaknesses that are mentioned by managers with a planning style. On the one hand, they report strong organising and planning skills. *"She has an excellent ability to take any task and define it, organise it, plan it, and implement it through to completion. She is a very hard worker, who does not allow obstacles to get in the way of performing her duties" (P36, colleague on an MBA student).* On the other hand, they are sometimes over-planning, which makes them feel uncomfortable with uncertainty, unexpected changes, and strategic reorientations. Previous research indeed found a negative correlation between the planning style and tolerance for ambiguity (Cools, 2006). Cools and Van den Broeck (2006) also found a significant positive correlation between the planning style and Sensing (MBTI), Judging (MBTI), and Adaption (KAI), indicating a preference for an objective, structured, conventional, and efficient problem-solving approach. Earlier research with the MBTI found that judging types [planning style] prefer to make decisions quickly and with certainty, seeking immediate closure of a situation (Gardner and Martinko, 1996; Myers *et al.*, 2003). Accordingly, managers with a planning style report they like tasks which involve a planned, organised, and methodical approach, and which lead to concrete results. *"I like all tasks that have to do with organising. For me, everybody needs a clear-defined task and has to carry out his duties. I prefer it when things are structured. I always create schemes. I want to know exactly what has to be done and when" (P40, middle manager in an energy services company).* Gardner and Martinko (1996) also found that

sensing types [planning style] have a stronger preference for structured tasks, routine, and detail-oriented activities than intuitive types [creating style].

Creating style. Managers with a creating style tend to make decisions based on data as well as 'gut-feeling'. They describe it as a mixture of an intuitive and a rational process. Quoting an MBA student with a creating style: *"I like to make decisions and do that merely based on gut feeling or an impulsive illumination, although of course some thinking is part of the process, but my feeling will dominate" (P75).* They do not doubt much when making decisions and even if they do, it does not prevent them from fast decision making. *"I think making a wrong decision is better than making no decision" (P93, middle manager of a textile company).*

Managers with a creating style have a strong imagination and are good at developing new ways of doing things. *"I can adapt quite easily to new situations. I think out of the box and can find solutions not yet thought about" (P73, MBA student).* Accordingly, managers with a creating style prefer those tasks in their job which require creativity, action, flexibility, and own input. The weaknesses that are reported by managers with a creating style are related to their strength in imagination. *"Working on projects, he proposes original ideas without sometimes considering the feasibility of his propositions. He tends to propose a multitude of solutions the one after the other. It happens that not all project participants adhere to this style of working" (P101, colleague on an MBA student).* People with a creating style sometimes keep on suggesting original ideas, without considering the possible implementation of these ideas. In previous quantitative research the creating style showed a strong correlation with the Innovator (KAI), Intuiting (MBTI), and Perceiving (MBTI), indicating a preference for a creative, unconventional, flexible decision-making approach (Cools and Van den Broeck, 2006). In their study on the link between individual differences and managerial performance, Berr *et al.* (2000) found that people with a preference for Intuition [creating style] tended to be consistently perceived (by others) to be more effective in behaviour related to innovation and strategic thinking than managers with a preference for Sensing [planning style]. Additionally, they also found that perceiving managers [creating style] were rated better on innovation, as they are more willing to take risks or to try something new than their judging counterparts [planning style]. Research from Kirton (1994) concluded that in problem solving Adaptors [planning style] tend to take the problems as given and that they focus on generating ways to develop better solution for immediate high

efficiency. Innovators [creating style], on the other hand, focus on redefining problems, breaking previously defined restraints, and producing multiple, non-obvious ideas.

Conclusion. Overall, our results confirm previous, mainly quantitative studies that found that people with different cognitive styles use different problem solving strategies and demonstrate various decision making behaviour (Gardner and Martinko, 1996; Hough and ogilvie, 2005; Leonard *et al.*, 1999) (see Table 3). Managers with a knowing and planning style tend to make decisions in a rational way (although they emphasise different elements), whereas people with a creating style combine an intuitive and a rational approach. Creating managers do not mind taking decisions based on gut-feeling, whereas knowing and planning managers try to base themselves on data and information. Knowing and creating managers seem to be mainly focused on the content of decision making (taking facts-based or creative decisions respectively), whereas planning people mostly refer to the decision-making process as such. Managers with a knowing style like to take their time to make decisions, whereas managers with a planning and creating style prefer quick decision making. Doubts are part of the decision making process of planning people, whereas knowing types report less doubts given their strong focus on facts and figures. From our data, we could also derive that managers' cognitive styles influence which tasks they like or dislike most in their job. It is remarkable that people mostly dislike those tasks that do not play their strengths. They mostly like those tasks that make use of their preferred way of perceiving and processing information. Given the largely ill-defined nature of the managerial job, part of the managerial work is determining its own boundaries (Hales, 1986; Tett *et al.*, 2000). Our findings are highly valuable in this regard, as it became clear that managers' cognitive styles influence the tasks they will emphasise most in their job.

People-oriented managerial behaviour

Knowing style. Our analysis makes clear that managers with a knowing style preferably interact with others in a straightforward, rational way. When asked about their preferred way of dealing with conflicts, they indicate a preference for rationality. They stay calm, never get emotional. Managers with a knowing style take their time to listen to someone's arguments and expect that the other one listens to them too. When they are convinced of their solution, they have difficulties to compromise. Rational and logical arguments are the basis of acting in conflict situations as well. *"He will search for a compromise, but without neglecting his own*

point of view. He will always try to find the best/smartest solution for the problem he faces. But he will be irritated by unwise choices, so if he estimates a choice has been made without thinking, he may be capable to impose his standpoint" (P6, colleague on an MBA student). Previous research on the link between the MBTI and conflict-handling behaviour found that Thinking types [knowing style] primarily prefer to handle conflicts in an assertive and competing way (meaning they are primarily focused on satisfying their own concerns and forcing others to do what they think is right), which is consistent with their pragmatic, rational, and unemotional way of decision making (*e.g.*, Johnson, 1997; Percival *et al.*, 1992). However, one study found that Thinking types also sometimes used a collaborating mode of conflict handling in order to find a solution that fully satisfies all parties concerned (Chanin and Schneer, 1984).

Managers with a knowing style also like to give feedback in line with their strengths, preferring a rational and straightforward approach. They sometimes have a tendency to postpone negative feedback to be sure it is justified. Given their rationality, they are inclined to give more negative than positive feedback, as they find it more useful to give people ways to improve their weaknesses instead of just praising them. *"I only tend to give feedback when I feel it is really necessary" (P8, MBA student).* Accordingly, a weakness that several knowing people mentioned is that they are sometimes too much focused on rationality and logic when interacting with others that it leads to a lack of empathy and difficulties in explaining and 'selling' their ideas. Sometimes they might hurt people's feelings, because they are too honest in their interaction and communication, focusing only on the facts and rational arguments.

Planning style. Managers with a planning style preferably interact more in a rational than in an emotional way with others, but they are also concerned with diplomacy. Although they value honesty and integrity very much when dealing with others, they also take care to do it in a diplomatic way. In that sense, they are less focused on rationality alone as the knowing people. Managers with a planning style prefer a calm, direct, honest, and diplomatic approach when dealing with conflicts. If a conflict occurs, they want to handle it as soon as possible. Like managers with a knowing style, they mostly like to solve conflicts through open discussion. In general, they try to search cooperatively for the best solution for the parties involved, however without neglecting their own standpoint (certainly not in the case of important issues). *"I always try to be open for each remark, and willing to engage in a discussion. So when there is a conflict, I prefer to get all parties round the table and just get*

to the bottom of the problem. When I honestly believe to be right I will be more reluctant to change my opinion. In a neutral conflict, I try to come up with a solution that is beneficial to both" (P43, MBA student). Previous research found that managers with a high score on Sensing [planning style] like to use the compromising mode when dealing with conflicts, indicating a preference for searching a middle ground solution (Chanin and Schneer, 1984).

Similarly, managers with a planning style like to give feedback to their people in a direct, straightforward, and diplomatic way. They give both positive and negative feedback. They find positive feedback important to stimulate people. They also have no problem providing negative feedback to give people the chance to improve. *"In relation towards feedback, I will always be straightforward, but at the same time I will try to be as diplomatic as possible. This is because I am thinking very much about the way the other could perceive the feedback, and I want him to perceive it in a positive way" (P44, MBA student).*

Creating style. Our results reveal that managers with a creating style use a combination of an emotional and a rational approach in interacting with others. Some managers tend to use a rational approach to solve conflicts: staying calm, listening to the different opinions, searching for consensus. Others are more emotionally involved. *"On the outside, I try to use my calm and rationality to answer conflicts. But, this rational behaviour hides a more emotional driven person. If I cannot connect to a situation emotionally, it is a non-issue for me" (P76, MBA student).* In general, managers with a creating style assertively try to persuade and convince others of their ideas. This does not mean they are not open to a compromise. If others can convince them with good arguments, they are willing to change their mind. Some managers really try to avoid conflicts, while others are open for a good discussion and even seek a conflict. This seems to evolve with experience. *"In former times, I was somebody who liked confrontations in a conflict situation. Nowadays I would rather let the storm blow over when there is a disagreement. Afterwards I will try to stick the pieces together and continue cooperating in a positive way" (P90, senior manager in an automotive production company).* Armstrong *et al.* (2002) suggested that intuitive people [creating style], given their social orientation and strong interest in being with other people, would be more likely to shift their opinions to resolve a conflict than analytic people [knowing style], who are less willing to adapt their views to those of others, due to their strong cognitive analysis skills and more impersonal nature. However, these hypotheses were not confirmed in their research.

Concerning giving feedback to their co-workers, managers with a creating style prefer to do it in a direct and honest way, although they attach a lot of importance to being positive and constructive. *"I prefer to be direct, but in a light hearted way" (P68, MBA student).* They give both positive and negative feedback, with a stronger focus on the positive one. They like to give positive feedback to make people feel good and to stimulate their self-esteem. They are very careful with negative feedback, taking their time to check their findings, being very tolerant before giving their opinion, and attaching much importance not to hurt someone's feelings. Different managers with a creating style report that they have a personal approach in giving feedback, adapting it according to the situation or the person they have to deal with.

Conclusion. Based on our findings, we can conclude that the way in which people with different styles approach conflict situations resembles their preferred way of making decisions (see Table 3). Although managers with a knowing and planning style both prefer a rational and straightforward way in dealing with others, planning types are more inclined to handle conflicts and to give feedback in a diplomatic way, whereas knowing types purely focus on the rationality and logic of the situation. Managers with a creating style tend to be more emotional involved, using a personal approach in handling conflicts and giving people feedback. These differences imply that knowing types tend to emphasise negative feedback, whereas creating types focus on positive and constructive feedback. Our findings indicate that people's cognitive styles indeed influence the way they relate to others, as has been suggested in previous research (*e.g.*, Armstrong *et al.*, 1997; 2002; Kirton, 1994; Riding and Rayner, 1998). Helping managers understand the impact of cognitive styles on interpersonal behaviour can in this regard provide a basis to foster better working relationships (Allinson *et al.*, 2001; Armstrong and Sadler-Smith, 2006; Hayes and Allinson, 1994). However, concerning the link between cognitive styles and interpersonal behaviour there seem to be less conclusive results from previous research where we can related our findings with (as was the case for the link with task-oriented behaviour). In the past, more attention has been devoted to linking cognitive styles to task-oriented behaviour than to people-oriented behaviour. In this regard, our findings are highly relevant to complement previous quantitative findings on the link between cognitive styles and people-oriented behaviour.

Table 3. Managing with style: summarising table

	Knowing style	Planning style	Creating style
In general			
Motto	Think before you act	Plan before you act	Cre-act
Attracted by	Knowledge, facts	Structure	Future
	Rational arguments	Control	Possibilities
	Logic	Plans	Ideas
Searches for	Accuracy	Certainty	Renewal
Task-oriented behaviour			
Focus	Factual content	Process	Creative content
Decision making	Detailed analysis	Structured analysis	Intuitive analysis
	Take their time	Quick decision-makers	Quick decision-makers
	No doubts	Doubtful	No doubts
Strengths	Analytical skills	Organising, planning	Strong imagination
	Logical reasoning	Sticking to agreements	Thinking out-of-the-box
Weaknesses	Lack of creativity	Dealing with unexpected changes	Implementation of ideas
Preferred tasks	Think-tasks	Plan-tasks	Cre-action tasks
	Intellectually challenging tasks	Tasks involving planned, organized work	Creatively challenging tasks
	Clear purpose	Structured, concrete, well-defined	Allowing own input, flexibility, action, fun
People-oriented behaviour			
Conflict handling	Rational, direct approach	Rational, diplomatic approach	Combining emotional and rational approach
	Based on rational and logical arguments	Quick solutions	Assertive, sometimes even provocative
Feedback	Rational, straightforward approach	Direct, diplomatic approach	Direct, constructive approach
	Emphasise negative over positive feedback	Both positive and negative feedback	Emphasise positive over negative feedback
Main quality	Reliable	Dutiful	Flexible
Weaknesses	Too straightforward	Demanding to oneself and others	Difficulty compromising
	Lack of empathy		
	'Selling' ideas	Too controlling	Impulsive

Conclusion

As there currently is a strong interest in the link between individual differences and managerial behaviour, the unique contribution of our study lies in its qualitative approach to further grasp the implications of cognitive style differences on managerial behaviour. Based on content analyses of 100 written testimonies of a variety of managers, we have identified differences in preferred management styles for managers with a knowing, planning, and creating style. These differences became clear both for various task-oriented as well people-oriented managerial practices. Our findings complement previous quantitative results on the link between cognitive styles and managerial behaviour. For instance, quantitative studies mainly emphasise the intuitive and creative aspects of creating types, whereas our findings reveal that managers with a creating style preferably show a combination of rationality and intuition in their task- and people-oriented managerial behaviour.

As cognitive style research stems from the psychometric tradition, cognitive styles are mainly studied with quantitative research methods, being almost exclusively self-report measures. Recently, more and more voices call for qualitative research in the field to better understand what it implicates to have a certain cognitive style (Rayner, 2006; Riding, 2000). Cognitive style research can significantly increase its credibility and relevance towards practice by focusing more on the 'so what'-question. With the increased prevalence of executive coaching and the use of managerial assessment, research on the impact of individual differences on managerial behaviour is highly relevant (Berr *et al.*, 2000). Moreover, as cognitive styles are considered to be fairly stable characteristics of people, the importance of understanding cognitive style differences can not be underestimated. However, this may not lead to a fatalistic attitude ("I can not do anything about it"), as people might be trained to adopt strategies that overcome the weaknesses of their styles in specific situations (Armstrong and Sadler-Smith, 2006; Hayes and Allinson, 1994; Sadler-Smith and Badger, 1998).

Managerial implications

Understanding the interplay between your preferences (*i.e.*, cognitive style) and your day-to-day workplace behaviour is crucial for designing and implementing effective individual development efforts (Berr *et al.*, 2000). According to George (2003), to be authentic in your

management behaviour means that you have to develop your own style in accordance with your personality and character. Knowing your strengths and weaknesses and having insight into your preferred way of handling tasks and dealing with people is highly relevant as people tend to develop those areas in their job they like. On the contrary, people try to avoid those aspects in their job they dislike or those elements they are not that good at. Leonard and Straus (1997) report that people effectively tend to choose professions that reward their own style. Research also found that people will learn more effectively in learning environments that match their cognitive styles (Hayes and Allinson, 1994). Importantly, no style is inherently better than another, but increased attention for person-organisation fit might lead to better performance (Chan, 1996; Kirton, 1994).

To be successful, managers should not only be aware of their own cognitive style. To effectively manage the people that surround them, they should also know the cognitive styles of their people. Effective management implies matching people's capabilities and skills with the requirements of the job (Rowe and Mason, 1987). George (2003) considers dealing with different types of people and in different types of environments as an important developmental task for managers. Good management also implies being able to deal with the demands of the situation. To be effective in today's fast-moving, highly competitive business environment, managers need to adapt their styles to the immediate situation. Whetten *et al.* (2000) emphasise the importance of intrapersonal skills for effective managing. This means in their perspective developing self-awareness through an analysis of one's strengths and weaknesses. People can only be effective in managing others as they first understand themselves. In this regard, we have identified some relevant action points for each of the cognitive styles to become more effective as a manager (Table 4). This way, we want to provide managers in practice with relevant, concrete, and useful managerial applications of our study.

Table 4. Managing with style: managerial implications

Knowing style	Planning style	Creating style
Task-oriented behaviour		
Speed of decision making: do not try to gather all possible information. Speed is as important as the quality of a decision.	Flexibility and change: not everything can be planned beforehand, learn to be flexible and to be open for unforeseen situations, changes, and innovations.	Project finalisation: a project includes a conceptualisation and an implementation phase: commit yourself also to the implementation phase.
Effective Decision = Quality x Acceptance: work on 'selling' your decision. It is not enough to have the 'right' decision. People also need to be convinced that it is the right one.	Action! Stop planning, rethinking the planning, restructuring the planning of the planning,…: focus and go for it.	Effective Decision = Quality x Acceptance: check the underlying facts before moving on with an idea.
Stimulate your creativity: do not directly ask for proof, give ideas a chance.	Stimulate your creativity: learn to think more out-of-the-box, give ideas a chance.	Balance your creativity: check your ideas for their feasibility with someone else.
People-oriented behaviour		
Empathy: not everyone thinks in the same rational, logical way as you – learn to understand other people's 'logic'.	Empathy: learn to be less demanding for yourself and for others. Open up for other approaches, even if you would have done it differently.	Empathy: learn to have comprehension for people who need more time, who need more details, who want to put everything in procedures,… as you need them to realise your ideas.
Try to balance your direct, no-nonsense, rational communication and interaction style with more emotional connection.	Relax! Let yourself go from time to time, just enjoy.	Be open for the ideas of others. Listen. Don't impose your ideas.

Research implications

However, some limitations of our study also need to be taken into account. Although qualitative research is widely promoted in organisational studies, practical and accessibility problems limit the research methods that can be used (Spector, 2001). One of the biggest challenges facing advocates of qualitative methods in the domain of work and organisational psychology implies making an effective contribution for organisational practice, while also

retaining rigour and credibility (King, 2000). Continuous compromises need to be made between strong methodology and practical limitations. According to Spector (2001), every study is a compromise between what should be done from a scientific point of view to examine the question of interest and what can be done from an ethical and practical standpoint. As for every research project, our conclusions can not be generalised to all managers with a certain style. Given its exploratory and inductive nature, the findings of our study are an indication of some trends in the qualitative data. Our study is a first step in the direction of enhanced qualitative understanding of cognitive style differences. However, to increase the relevance and rigor of our findings, further research will be needed.

A necessary next step will be observing people in organisations. This study is based on written testimonies, without taking into account organisationally relevant elements, like sector differences, type of organisation,… . We have included a wide variety of managers in our study, but could not take into account differences with regard to level, function,… in our analyses. Recently, much attention has been devoted to the importance of the organisational context in organisational studies (Chatman and Flynn, 2005; Johns, 2006). Further research should integrate this organisational context.

Additionally, by integrating organisational context elements in future research, it will also be possible to take managerial performance and effectiveness into account. Currently, there is an interest in the assessment of managerial performance and the development of managerial competency models (*e.g.*, Batram, 2004; Tett *et al.*, 2000). Our study has not examined the influence of preferred managerial styles on effectiveness. A next logical step will be the link with performance. Knowing what your cognitive style is and how it influences your managerial behaviour is one thing. However, making the link to how this implicates your performance as a manager is another thing.

Furthermore, it can also be of interest to study managerial styles from the perspective of co-workers (being subordinates, peers, supervisors). Although we have included descriptions from others in our study, they were not always from co-workers. However, in this stage no differences were found between self- and other-reports with regard to behavioural descriptions. Additionally, we have not included ratings of cognitive styles by others in our study either. Further research needs to include assessments from co-workers, as they are in a unique position to provide valuable behavioural assessments for two reasons (Berr *et al.*, 2000). On the one hand, colleagues are often affected by the consequences of the focal manager's actions. On the other hand, they can observe this behaviour over time and in a

variety of situations. To conclude, it is important to consider the findings of this study in the light of these limitations.

Notes

[1] We are grateful to the management and MBA students who helped us with collecting the testimonies and completed questionnaires of this diverse sample of employees.

[2] The code behind the exemplary quotes refers to the number of the primary document in the qualitative coding program (ATLAS.ti).

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