



**Do CEOs' Personal Values Affect Employees' Innovative Work Behavior?  
Opening Up the 'Black Box' of Upper Echelons Theory**

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### **Abstract**

The majority of empirical studies focusing on Upper echelons theory have used top managers' demographical characteristics as proxies for their personal characteristics and values, in order to investigate their influences on organizational outcomes. The aim of the present study was to directly measure the effects of CEOs' personal value preferences (openness to change, conservation, and self-enhancement) on their employees' innovative work behavior. The moderating effect of authentic leadership on these relationships was also investigated. Participants were 18 CEOs and 141 employees of small and medium-sized enterprises in the Netherlands. CEOs participated in preliminary interviews on the topic of innovation and, subsequently, indicated their value preferences in an online questionnaire, while employees responded to questions about their innovative work behavior and rated the degree to which they viewed their CEO to be authentic. Hierarchical linear modeling indicated that CEOs' openness to change was positively related to their employees' innovative work behavior, while CEOs' self-enhancement was negatively related to it. CEOs' conservation was not a significant predictor of employees' innovative work behavior. Similarly, the moderating effect of authentic leadership was not confirmed in any of the hypothesized relationships. The results support the view that CEOs' personal values influence organizational outcomes and stress the need to direct more attention to investigating the not readily available characteristics of top managers instead of using proxies.

*Keywords:* personal value orientations, openness to change, conservation, self-enhancement, innovative work behavior, authentic leadership

## **Do CEOs' Personal Values Affect Employees' Innovative Work Behavior?**

### **Opening Up the 'Black Box' of Upper Echelons Theory**

The ability to continuously develop innovative processes, products and services has long been recognized to be a vital factor in remaining competitive in the market (e.g., Hoffman & Hegarty, 1993; Humphreys, McAdam, & Leckey, 2005; Papadakis & Bourantas, 1998). In recent years a severe global financial crisis has led to economic downturn in most countries across the world. Consequently, it has become a great challenge for many organizations to remain profitable and to survive in their markets. Particularly, during times of operating in the shadow of a paralyzed international financial system, the crucial importance of organizations to stay innovative cannot be stressed highly enough.

For *small and medium-sized enterprises* (SMEs), this often presents a challenge. On the one hand, they hold several advantages for stimulating innovations. For example, they are usually in direct contact with their customers, due to their small size and flat hierarchical structures, which enables them to quickly catch sight on and react to their customers' needs and wishes (Tiwari & Buse, 2007). On the other hand, they are confronted with several barriers that prevent them from drawing on their full innovation potential. They tend to suffer from limited access to finance, lack of suitable personnel, and they are not able to invest as much into R&D activities as compared to their larger competitors (OECD, 2010). The European Commission states that, as the key business sector in most economies, SMEs provide the largest percentage of employment (EC, 2006), and supporting them to continuously stay innovative is thus essential for economic recovery (EC, 2007). Viewed from a research perspective, it is of great interest to gain more insight on the determining factors behind possessing an innovative workforce within this sector.

One category of these determining factors was introduced by Hambrick and Mason's (1984) Upper echelons theory, in which they stated that top managers' personal characteristics and values play a key role in influencing organizational outcomes. The basic thought behind this theory is that the most powerful people in organizations are affected by their personal characteristics and values when they interpret and act in business situations, ultimately shaping organizational outcomes. Hambrick and Mason (1984) urged researchers to use top managers' directly observable demographic characteristics as proxies for their personal characteristics and values, as the latter are not readily accessible features. This 'workaround' has yielded considerable theoretical and empirical work ever since. Top managers' demographics, such as functional expertise, gender, race, educational background, and firm tenure have been extensively analyzed as potential predictors of organizational

outcomes (for comprehensive review see Carpenter, Geletkanycz, & Sanders, 2004). However, Hambrick (2007) stated in an update on his initial article on Upper echelons theory, that “the psychological and social processes by which executive profiles are converted into strategic choices still remain largely a mystery – the proverbial black box” (p. 337). With this statement, he is referring to a common issue that occurs when using demographic indicators as proxies for psychological constructs. In doing so, researchers do not get to the core of the actual constructs of interest, which is formally known as the ‘black box problem’. There is strong demand in organizational research to go beyond solely using top managers’ demographics and to, instead, tackle their values and personal characteristics, based on which they interpret and ultimately affect organizational outcomes.

The present research attempts to shed more light on this black box problem by investigating a potential link between *chief executive officers’* (CEOs’) personal value orientations and their employees’ innovative work behavior, based on data collected within 18 Dutch SMEs. Additionally, this research explores whether these links are moderated by the degree to which employees believe their CEO to be an authentic leader. In what follows, we first provide theoretical frameworks of the outcome (employees’ innovative work behavior), predictor (personal values), and potential moderator (authentic leadership) variable. After describing the methods we used, we present statistical results on the theorized relationships between CEOs’ personal values and employees’ innovative work behavior. Subsequently, we discuss these results, along with implications, limitations, and suggestions for future research.

## **Theoretical Background**

### **Innovative Work Behavior**

The concept of organizational innovation received substantial interest in recent decades (Frambach & Schillewaert, 2002). Especially, during harsh economic times, it can be seen as “the bread and butter for organizational health” (O’Connor, 2012, p. 361). Over the course of time, innovation research increasingly diverged across many different disciplines and was conducted at different levels of analysis, making it difficult to combine ideas, findings and theories. Accordingly, there is strong need to reach a more non-fragmented and cumulative innovation literature (Sears & Baba, 2011). In virtue of the vast amount of literature, there are countless different definitions of innovation provided and in use. For the purpose of this article, we adopt the definition given by West and Farr (1990) that innovation is “the intentional introduction and application within a role, group or organization, of ideas,

processes, products or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, group, organization or wider society” (p. 16).

Similar to questioning which definition may be the most comprehensive and fitting of the term innovation, there is also a debate regarding the very structure of it. One question which is frequently discussed among scholars within innovation research is whether innovation should be seen as an one-dimensional or a multilevel construct. Kozlowski and Klein (2000) proposed that organizations, by definition, should be acknowledged as multilevel systems and therefore should be studied from a multilevel perspective. They urged researchers to establish a more integrated picture of the phenomena that occur across different organizational levels because focusing on single-level relations and treating them as being unaffected by other levels results in “incomplete and misspecified models” (p. 8). The idea of viewing organizational innovation as a multilevel structure was first formalized by Amabile (1988) in her so-called Model of creativity and innovation. She described how an organization’s work environment affects individual and team creativity, and how these, in turn, influence innovation at the organizational level. Specifically, she stated that there are three core individual and group-level components of creativity: task motivation, skills, and expertise, which each influence three core components of innovation on the organizational level: motivation to innovate, resources in the task domain, and skills in innovation management (Amabile, 1996). Ever since Amabile (1988) laid the ground work, several more multilevel models have emerged. Sears and Baba (2011) state that the majority of these models specialize on specific parts of the innovative process, one example being Ford’s (1996) model in which he described how different forms of distress within an organization (e.g., budget deficiencies) lead to different types of innovation (e.g., product innovation), ultimately generating a variety of positive and negative innovation outcomes. Sears and Baba (2011) decided to combine and extend on these rather specific models in an attempt to move toward a more comprehensive and uniform multilevel model of innovation. Their model is based on several underlying thoughts. Firstly, they envision innovation to be a multilevel construct, containing four levels: individual, group, organizational and societal innovation. Innovation at one level may ‘cross-over’ and influence innovation at other levels. Secondly, they suggest that innovation should be seen as an ongoing process, rather than an outcome. Specifically, they propose that innovation consists of discrete and sequential outcomes at each level of the organization. Lastly, they base their model on the premise that “individuals’ thoughts and actions provide the ‘raw materials’ for innovation to occur at higher levels of analysis” (p. 359). Consistent with the above premises, we adopt the idea that innovation

should be seen and studied as a multilevel construct and treated as a continuous process, which is initiated by individuals' thoughts and behaviors.

In line with the notion that individuals are the source of innovation at higher organizational levels is the philosophy that the responsibility of generating new innovative ideas needs to be pushed down in the organization, according to the motto, described by Birkinsaw, Bouquet, and Barsoux (2011), "let 1000 flowers bloom" (p. 49). The reasoning behind this idea is that top managers are often not close enough to daily operations, making it difficult for them to come up with and implement innovations. Indeed, one finds considerable empirical work which suggests that organizations need to place more emphasis on their employees' innovative work behavior (e.g., de Jong & den Hartog, 2007; Janssen, 2000; Pratoom & Savatsomboon, 2010; Scott & Bruce, 1994). Thus, the question of interest is: What exactly does innovative work behavior entail? De Jong and den Hartog (2007) stated that most recent research on this construct has mainly treated it as a two-step process, containing the 'idea generation' and the 'application behavior' stage. They define the idea generation stage as the production of novel and useful ideas. During this stage employees engage in behaviors such as exploring different options, identifying performance discrepancies or producing solutions for problems. Specifically, idea generation is largely about spotting things that do not fit expected patterns (e.g., issues in current working methods, unsatisfied customers). During the application stage, the employee has to then not only be persuasive and convince others of the idea's value, but has to also produce a model or a prototype of the idea. The latter requires more application-oriented behavior in that the employee has to emphasize on developing, testing and advertizing the idea. The scholars further postulate that "in order to realize a continuous flow of innovations, employees need to be both willing and able to innovate" (p. 41). Evidently, this willingness and capability to be innovative does not evolve out of nowhere. The question that is thus raised is: What is it that stimulates innovative work behavior in employees?

Innovative work behavior has been proposed to be impacted by various individual, group and organizational factors (West & Farr, 1990). As for individual factors, innovative work behavior is often used as a synonym for creativity (Miron, Erez, & Naveh, 2004). The distinction between these two terms can be blurry and it is important to recognize the difference between them. Firstly, creative actions are not necessarily intended to produce any kind of benefit. Innovative actions, however, are aimed to result in some form of innovative output (de Jong & den Hartog, 2007). Secondly, Gurteen (1998) explains that "creativity is about divergent thinking. Innovation is about convergent thinking. Put simply, creativity is

about the generation of ideas, and innovation is about putting them into action” (p. 6). We adopt these latter views that creativity and innovative work behavior should not be equated and that creativity should rather be seen as one part of the innovative process, specifically, as a sub-process of the idea generation stage during which it is essential to generate creative solutions after recognizing problems or performance gaps. Along with creativity, other individual characteristics which have been connected to employees’ innovativeness are possessing high levels of domain-relevant knowledge and intrinsic motivation (Amabile, 1996), not being too conscientious in nature (Harrison, Neff, Schwall, & Zhao, 2006) and taking personal initiative when faced with barriers (Frese, Garst, & Fay, 2007).

As for the impact of group factors on being innovative, research has mainly focused on investigating team characteristics. For example, Anderson & West (1998) found that team innovation increases if members have the feeling that their ideas are encouraged, and if they feel safe to openly voice them. Teams which are heterogeneous in gender, attitude, and educational background, have also been found to be more innovative (Shin & Zhou, 2007). Furthermore, being able to actively participate in decision-making within one’s team, was found to increase generation of new ideas and to also strengthen commitment to apply these ideas (Burningham & West, 1995). Due to the fact that innovative work behavior has largely been studied focusing on creativity, most empirical work has emphasized on the idea generation stage, while the behavior application stage has been neglected (de Jong & den Hartog, 2007). The latter stage heavily relies on the support of others. In other words, while a person may be able to generate ideas in isolation, these ideas can only be successfully implemented with approval, support and resources from others. Consequently, group and organizational factors are believed to have more influence on the application behavior stage than on the idea generation phase (Axtell et al., 2000).

The majority of extant research focusing on organizational factors and their influence on innovative work behavior has been concerned with the effects of different leadership styles and the quality of relationships between leaders and their employees. For example, a transformational leadership style was found to promote employees’ creativity (Kahai, Sosik, & Avolio, 2003), while the participative leadership style was connected to individual innovation (Judge, Fryxell, & Dooley, 1997). Similarly, de Jong and den Hartog (2007) suggested that leaders exert influence on their employees’ innovativeness and found 13 leadership behaviors (e.g., innovative role modeling, delegating and providing vision) that significantly influenced either the idea generation or the implementation stage in the innovative process. Further, Janssen (2005) found that employees engage in more innovative



activities if they perceive their leader to be supportive of innovation. Lastly, based on Leader-Member-Theory (Yukl & Chavez, 2002), which suggests that the quality of the relationship between a leader and an employee influences organizational outcomes (e.g., job satisfaction), Tierney (1999) found that employees who have high quality relationships with their leaders also show increased innovative behavior activities.

So far, no specific models explaining the influences of leaders' personal value orientations on employees' innovative work behavior have been put forward. Thus, much variation regarding the driving factors behind innovative work behavior remains unexplained. As already stated in the introduction, it is time to explore these not readily accessible characteristics of leaders which are hidden in the black box of Upper echelons theory. In the next section, we introduce value theory and, subsequently, integrate it into employees' innovative work behavior.

### **Personal Values**

The concept of personal values has received considerable theoretical and empirical work over the past decades within the fields of sociology, psychology, anthropology and other related disciplines as well. Values are used to analyze individuals' underlying motivations of certain attitudes and behaviors, to identify societal orientations and to map out change over time (Schwartz, 2006). A basic way of thinking about values is that they express what is important to people in their lives. Every person naturally holds a set of several values, each varying in their degree of importance. While a particular value may be extremely important to one person, it can be completely trivial to another person (Bardi & Schwartz, 2003).

In 1983, Quinn and Rohrbaugh first popularized the importance of values to the world of Business and Management when they introduced the so-called *competing values framework* (CVF). Their model is made up of two sets of competing value orientations and was originally established to explain the underlying values that experts use in order to make sense of organizational effectiveness criteria (O'Neill & Quinn, 1993). The first dimension of the CVF differentiates between placing emphasis on flexibility and discretion and placing emphasis on control and stability. The second dimension distinguishes between the preference for internal focus and integration and the preference for external focus and differentiation (Lincoln, 2010). Drawing the two continua out on a vertical and a horizontal axis, four quadrants are created. Each one of them represents a model, that stands for a certain "theory, a philosophy or an outlook on the process of organizing" (O'Neill & Quinn, 1993, p. 1). Over the years, the CVF has been used as a tool for multiple purposes, such as diagnosing an

organization's current and desired culture and creating road maps for changing organizational culture (Brown & Dodd, 1998). Hart and Quinn (1993) also applied the CVF model to different leadership styles. Within each quadrant, they placed two leadership roles. The most effective leaders are those whose natural leadership styles match their organizations' cultures. Furthermore, effective managers should be able to take on multiple roles depending on the situation. Even if they are, by definition, competing roles, managers need to be capable of dealing with the competing demands that each role brings with it (Lincoln, 2010). The CVF is still in the top 40 most used Business models and has been employed as a tool in numerous large organizations (Mohnot, 2007). It is a prime example of how values are used as a basis to analyze and direct organizational outcomes.

Due to the widespread application of value concepts, such as the CVF, a vast amount of different theories has developed over time. Accordingly, there was need to establish a common conception of a universally agreed-upon set of values along with valid measures for conducting empirical research on them (Hitlin & Piliavin, 2004). Nowadays, the most rigorously used value theory in empirical research was established by Schwartz (1992). He defined values as "desirable, trans-situational goals, varying in importance, that serve as guiding principles in people's lives" (Schwartz, 1996, p. 122). Specifically, he defined five features of values by stating that they "are (1) concepts or beliefs, (2) pertain to desirable end states or behaviors, (3) transcend specific situations, (4) guide selection or evaluation of behavior and events, and (5) are ordered by relative importance" (Schwartz, 1992, p. 4).

As Biber, Hupfeld, and Meier (2008) describe, Schwartz established ten basic value types that are conceptually distinct from one another: *self-direction*, *universalism*, *benevolence*, *tradition*, *conformity*, *security*, *power*, *achievement*, *hedonism* and *stimulation*. Each value is unique in that it expresses a distinct set of underlying goals and motivations. According to Schwartz (1992), without embracing certain values, people are unable to cope with three universal needs that all humans are confronted with: the need for survival, the need for coordinated social interaction, and the need for group survival and well-being.

All value types are dynamically related to each other in that the overt behaviors which they are linked to are either compatible or conflicting with each other. In order to illustrate the values' relations better, Schwartz (1992) arranged the ten types into a circular structure (see Figure 1). The closer two value types are located on the circle, the more compatible they are with each other. Likewise, the more distant they are, the more contradicting they are from each other. Additionally, the ten value types can be divided into four broader value domains that are placed on two bipolar dimensions. The value types stimulation and self-direction are

combined into the higher-order domain ‘openness to change’ and stand in direct opposite to the value types security, conformity and tradition, which are summarized under the broader domain ‘conservation’. Furthermore, the value types power and achievement fall under the higher domain ‘self-enhancement’ and stand in direct opposite to the value types universalism and benevolence, which fall under the domain ‘self-transcendence’. The value type hedonism is not quite as easily classifiable because it shares properties with the openness to change and the self-enhancement domain (Biber et al., 2008). The ten universal value types, as well as their circular arrangement, have been investigated in more than 60 countries. In the majority of samples their distinctiveness and structural arrangement was confirmed (Schwartz, 2003a).

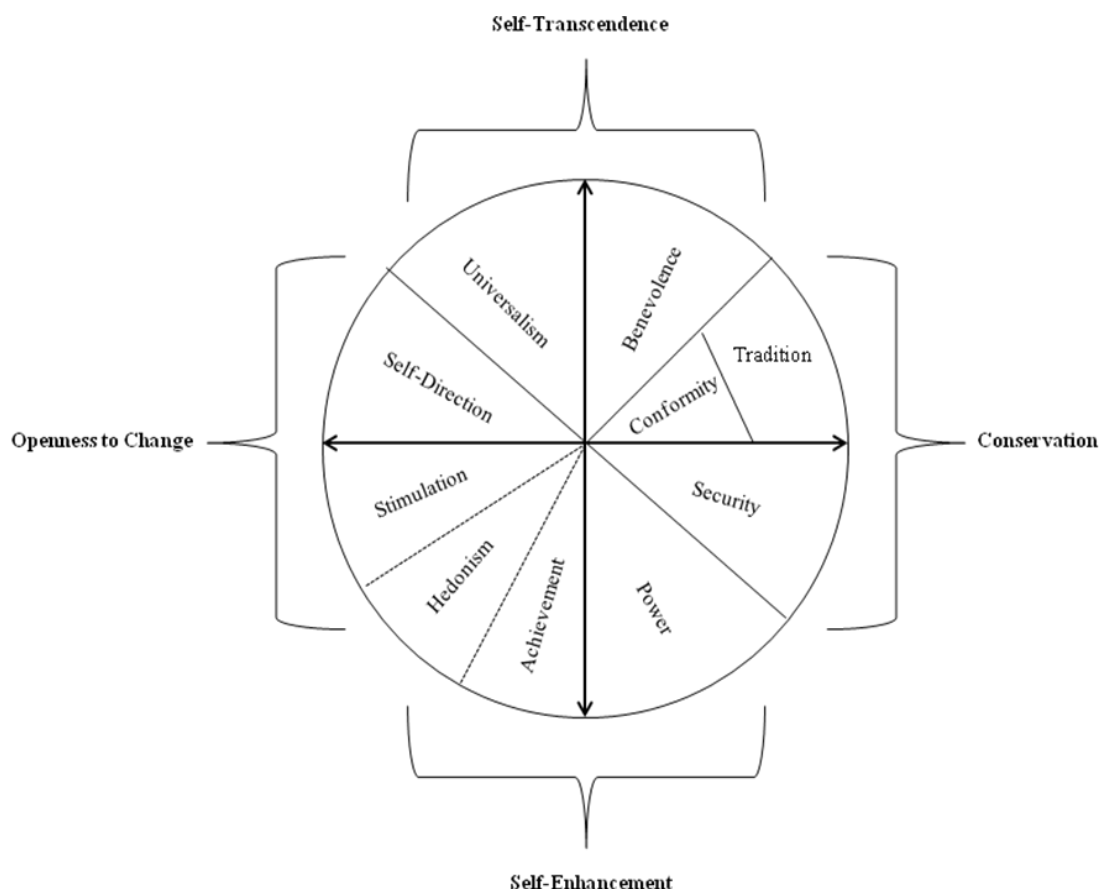


Figure 1. Circular arrangement of Schwartz's (1992) ten universal personal values. Adapted from Schwartz (2006).

There is general consensus amongst academic scholars that personal values influence the way people view and interpret their environmental surroundings (e.g., Rokeach, 1973). Furthermore, based on Festinger's (1957) cognitive dissonance theory, people are inclined to align their values and overt behaviors, in order to minimize cognitive conflict (Sosik, 2005). People's values can be seen as their internalized code of conduct and failing to act in accordance with this code of conduct creates negative feelings, such as guilt, shame, and self-depreciation (Meglino & Ravlin, 1998).

In line with the notion that people's behaviors are naturally guided by the set of personal values that they embrace, is the idea of Upper echelons theory that top managers shape their organizations based on their personal values. As mentioned in the introduction, this theory has found great support in organizational research. However, the majority of empirical work has analyzed managers' demographic characteristics rather than their personal values. Thus, it remains largely unanswered whether we can predict certain organizational outcomes, in our case employees' innovative work behavior, by finding out which value types or domains are of highest importance to CEOs. In the next section we connect the value framework with innovative work behavior, by drawing on the scarce research that has been conducted up until now and generate our hypotheses.

### **Personal Values and Innovative Work Behavior**

Extant research that attempted to gain more insight into the Upper echelons' black box mostly focused on CEOs' personality characteristics. For example, Miller, Kets de Vries, and Toulouse (1982) suggested that CEOs with an internal locus of control were found to lead organizations that take greater risks and are more innovative. Ling, Zhao, and Baron (2007) highlighted the notion that it is essential to clearly distinguish between personality characteristics and values. While personality characteristics can be seen as pertaining to consistent patterns in someone's behavior, values describe what a person actually believes to be right or appropriate behavior. In more simple terms, a person can be introverted (personality characteristic) toward others, while actually holding the internal value that being friendly and outgoing is important and desirable (value). Further, Baron and Shane (2007) stated that leaders' personality characteristics mostly influence their own behaviors, while their values are deeply imprinted in their employees and the overall organizational culture.

The aim of the present study is to shift attention away from investigating CEOs' personality characteristics, and to instead investigate their personal values, in order to further open up Upper echelons' black box. In the sections below, we introduce findings from previous research that specifically focused on personal values and innovative behavior, or components of it. Values are grouped within their broader domains: openness to change, conservation, self-enhancement and self-transcendence. For simplification, hedonism is left out due to its shared properties with the openness to change and self-enhancement values.

*Openness to change values and innovative work behavior.* The openness to change domain combines the value types self-direction and stimulation. Self-direction is linked to the underlying motivational goals of "independent thought and action – choosing, creating,

exploring” (Schwartz, 1992, p. 5), while stimulation is linked to seeking “excitement, novelty, and challenge in life” (p. 6). In sum, this domain captures values that embrace independent thoughts, actions and feelings, as well as eagerness for change (Schwartz, 2003a). Previous research has connected both value types to innovative behavior related constructs. For example, in their study on the relationships between CEOs’ value systems and organizational culture, Berson, Oreg, and Dvir (2007) found that CEOs’ self-directive values are linked to more innovation-driven cultures. Similarly, both self-direction and stimulation (along with universalism) were found to positively influence individuals’ creativity (Kasof, Chen, Himsel, & Greenberger, 2007), a necessary component of idea generation during innovative work behavior. Findings on both value orientations provide grounds for hypothesizing that CEOs who give high priority to them will positively influence innovative work behavior among employees. Thus, we suggest the following:

*Hypothesis 1:* CEOs’ openness to change will be positively associated with their employees’ innovative work behavior.

*Conservation values and innovative work behavior.* The polar opposite of the openness to change domain on Schwartz’ circular structure is the conservation domain. Within this domain lie the value types security, conformity, and tradition. Security represents the underlying goal to strive for “safety, harmony, and stability of society, of relationships, and of self” (Schwartz, 1992, p. 9). Conformity entails “restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms” (p. 9), while tradition stresses “respect, commitment, and acceptance of the customs and ideas that one’s culture or religion impose on the individual” (p. 10). Overall, this domain captures placing emphasis on order, self-restriction, conservation of the past, and change resistance (Schwartz, 2003a). Previous research found that individuals attached to the conservation values were less innovative in adopting online services than those who valued self-direction, stimulation or achievement (Lam, Lim, Ho, & Sia, 2003). Berson et al. (2007) further found that CEOs’ security values were connected to more bureaucratic cultures, while Dollinger (2007) found that individuals giving higher priority to conservation values had less creative accomplishments. Based on these findings, we adopt the view that CEOs’ conservation values are incongruent with employees’ innovative work behavior because order, self-restriction, conservation of the past, and change resistance stand in direct opposite to embracing independent thoughts, actions, and feelings, and change eagerness. Thus, we hypothesize that

CEOs giving high priority to conservation values will stimulate less innovative work behavior among their employees.

*Hypothesis 2:* CEOs' conservation values will be negatively associated with their employees' innovative work behavior.

*Self-enhancing values and innovative work behavior.* The value types power and achievement are combined within the self-enhancing domain. The power value indicates striving for "attainment of social status and prestige, and control or dominance over people and resources" (Schwartz, 1992, p. 9), while achievement represents striving for "personal success through demonstrating competence according to social standards" (p. 8). In sum, this domain reflects the pursuit of individual interests, as well as success and dominance over others (Schwartz, 2003a). Previous findings on these value types and their influence on innovativeness, or aspects of it, are inconsistent. Helson (1996) found that an individuals' power motivation is important for their creative accomplishments, while Dollinger, Burke, and Gump (2007) found it to have negative effects on creativity. Gorgievski, Ascalon, and Stephan (2011) found that power and achievement orientations of small-business owners were connected to emphasizing the success criteria growth, innovation, profitability, and longevity of the business. Achievement by itself was further found to be linked to creativity, innovation, and change (Morris, Schindehutte, & Lesser, 2002). In line with the latter finding, Lam et al. (2003) proposed that achievement may have similar effects as self-direction, due to their close proximity on Schwartz's circular structure. At first sight, especially, the power value may not seem to be plausibly related to stimulating innovative work behavior. We believe that CEOs embracing values of the self-enhancing domain might not place direct emphasis on innovative aspects (such as creativity), unlike CEOs who fall within the openness to change domain. Nonetheless, CEOs embracing self-enhancement value types have the underlying goal to be successful. They are ambitious and strive for accomplishment. We thus hypothesize that CEOs within this domain can have a positive influence on their employees' innovativeness, because they view being innovative as a means to their firm's success and therefore try to stimulate it.

*Hypothesis 3:* CEOs' self-enhancing values will be positively associated with their employees' innovative work behavior.

*Self-transcending values and innovative work behavior.* The self-transcending domain, including universalism and benevolence, primarily reflects showing concern for the well-being and interest of others (Schwartz, 2003a). Universalism has the underlying goal of “understanding, appreciation, tolerance, and protection for the welfare of *all* people and for nature” (Schwartz, 1992, p. 12), while benevolence strives for “preservation and enhancement of the welfare of people with whom one is in frequent contact” (p. 11). Previous research has found universalism (along with self-direction and stimulation) to be positively linked to creativity, a precursor of innovativeness (Kasof et al., 2007). Benevolence was linked to more supportive, rather than innovative, cultures in the study of Berson et al. (2007). We posit that the self-transcending values are not necessarily incongruent (as we believe is the case with conservation) with stimulating innovative work behaviors. However, we believe that there should be no significant relationship because their underlying goals and motivations neither oppose nor indicate the desire to stimulate innovation. Therefore, we believe that CEOs’ self-transcending value orientations will not influence their employees’ innovative work behavior.

### **Potential Moderating Effects of Authentic Leadership**

Similar to the small number of empirical studies that have directly measured CEOs’ values and their effects on organizational outcomes, there is also scarcity in regards to identifying potential moderators of this relationship. One study that did investigate moderating effects of the relation between CEOs’ values and organizational outcomes was conducted by Ling et al. (2007). They found that firms’ age and size moderated the relationship between CEOs who embraced the value collectivism and post-start-up firm performance. Specifically, CEOs’ collectivism positively related to performance in older firms, and negatively related to firms of younger age. Moreover, CEOs’ collectivism had a larger impact on performance in larger than in smaller firms. The value novelty was found to have a larger impact on younger and smaller than on older and larger firms. The present study attempts to extend the list of moderating variables within Upper echelons research. In the following section, we provide an overview of authentic leadership and elaborate on why we believe that this construct should be investigated as a moderator on the relationships between CEOs’ value domain preferences and employees’ innovative work behavior.

The concept of authenticity emerged from Greek philosophy and expresses the idea “to be true to oneself” (e.g., Avolio & Gardner, 2005). Rather than viewing it as a construct per se, it should be thought of as a continuum which expresses the degree to which people

“remain true to their core values, identities, preferences and emotions” (Avolio, Gardner, Walumbwa, Luthans, & May, 2004, p. 802).

Authenticity was first integrated into the concept of leadership within the fields of education and sociology in the 1990s (Ladkin & Taylor, 2010). While the single term ‘authenticity’ describes being true to oneself, leadership naturally always involves relations to followers (Avolio & Gardner, 2005). Some scholars believe that both, authenticity and authentic leadership, do not rely on perceptions of others (e.g., George, Sims, McLean, & Mayer, 2007), while others take on the view that authentic leadership has to be seen as a multilevel construct, and that proper assessment of it logically requires to collect the judgments of the leaders’ followers (e.g., Harvey, Martinko, & Gardner, 2006). We employ the multidimensional view on authentic leadership and believe that a leader cannot solely describe him or herself to be authentic, but has to be described as such by employees who are in contact with him or her.

Initial research conducted on authentic leadership mostly focused on the characteristics of inauthentic leaders. Scholars then shifted their attention away from investigating inauthentic leaders and toward analyzing what constitutes authentic leaders (Avolio & Gardner, 2005). Due to authenticity being a relative newcomer to leadership literature, there is no single and agreed-upon definition provided (Ladkin & Taylor, 2010). One of the most widely adopted approaches to the construct of authentic leadership was put forth by Walumbwa, Avolio, Gardner, Wernsing, and Peterson (2008) who stated that there are four underlying dimensions that constitute authentic leadership: self-awareness, relational transparency, balanced processing and internalized moral perspective. Self-awareness presents the leaders’ understanding of how they derive and make sense of the world. Further, it entails the awareness of own strengths, limitations, and how the latter are seen by and how they impact others. Relational transparency refers to the degree to which leaders present their authentic self to others (as opposed to a fake self), how they openly share information, and express true thoughts and feelings toward others. Balanced processing pertains to the degree to which leaders show that they objectively look at problems before coming to a decision. Further, it constitutes soliciting views that challenge the leaders’ deeply held position. Lastly, having an internalized moral perspective entails that authentic leaders set high standards for moral and ethical codes and guide actions based on internal moral standards and values against group, organizational, and societal pressures. Additionally, their decision-making and overt behaviors are congruent with these internalized values (Rego, Sousa, Marques, & Pina e Cunha, 2012).



After having introduced the four common dimensions attributed to authentic leadership, the question of how authentic and inauthentic leaders actually affect their employees remains. Authentic leaders are commonly described as leading by example (e.g., Avolio et al., 2004). Through the process of positive modeling, authentic leaders are able to affect their employees in a way that the employees personally identify with the leaders' beliefs and values. Thus, leaders' and followers' values and beliefs become more similar to one another (Avolio et al., 2004). A considerable amount of empirical work further suggests that authentic leaders also generate positive psychological capital (self-efficacy, optimism, hope and resilience) in their employees (e.g., Avolio et al., 2004; Avolio & Gardner, 2005; Rego et al., 2012). Inauthentic leaders, on the contrary, are often struggling to find balance between internal and external values. Novicevic, Harvey, Buckley, Brown, and Evans (2006) explain that when the personal values of top executives collide with organizational values, maintaining authenticity becomes increasingly more difficult. The inability to cope with organizational demands and, at the same time, stick to one's moral code may lead to 'failure of executive authenticity', characterized by moral deterioration (frustration, indecisiveness, withdrawal, conflict and responsibility avoidance). Lastly, it is also important to add that it is not necessarily self-evident that a leader who is true to him or herself will automatically communicate his or her moral code well to followers and thus stimulate personal identification (Ladkin & Taylor, 2010). In other words, leaders can be true to themselves and would describe themselves as being authentic, but fail to effectively convey their values to employees, who view them to be inauthentic as a result. The latter reasoning leads us to expect that employees' perspectives on their CEOs' degree of authenticity are more important than the CEOs' assessment of themselves.

Integrating these thoughts into our theorized relationships between CEOs' personal value domains and employees' innovative work behavior, this suggests that the more authentic a leader comes across to his or her employees, the stronger his or her true self becomes apparent to employees (Gardner, Avolio, Luthans, May, & Walumbwa, 2005). As a result, employees of authentic leaders should know their leaders' values and, throughout personal identification, also embrace these values. For example, an authentic CEO embracing openness to change values should stimulate more innovative work behavior among employees than an inauthentic CEO embracing the same values, because the authentic CEO is better able to spread his or her personal values (stimulation, self-direction) across the organization and affect employees throughout positive modeling. Consequently, we elaborate on Hypothesis 1, and suggest the following:

*Hypothesis 4:* Authentic leadership will positively moderate the relationship between CEOs' openness to change and employees' innovative work behavior.

We further proposed a negative relationship between CEOs' conservation value preference and employees' innovative work behavior. A CEO who scores high in this domain and is judged to be an authentic leader should theoretically express his or her preferences for security, tradition or conformity more overtly and genuinely towards employees than a more inauthentic CEO. Thus, we posit the following:

*Hypothesis 5:* Authentic leadership will positively moderate the relationship between CEOs' conservation and employees' innovative work behavior.

Similarly to the openness to change domain, CEOs who show a preference for the self-enhancing domain and are viewed to be authentic leaders, should stimulate more innovative work behavior among their employees than inauthentic CEOs. We believe that authentic CEOs who give high priority to self-enhancing values will better be able to spread the importance of being successful and competent to their employees. In hypothesis 3 we posited that these CEOs may see innovation as a means to gain power and success. Throughout positive modeling and personal identification, these employees should thus be more likely to take on the latter view as well.

*Hypothesis 6:* Authentic leadership will positively moderate the relationship between CEOs' self-enhancing orientation and employees' innovative work behavior.

Lastly, we proposed that self-transcending values will have no effect on employees' innovative work behavior. Consequently, authentic leadership is not analyzed as a potential moderator on this relationship.

## **Method**

### **Sample and Procedure**

Data for this study on the effects of CEOs' personal values on their employees' innovative work behavior were collected as part of a larger research project investigating

CEOs' characteristics (e.g., Power distance, positive orientation, and general trust) and their influence on employee outcomes (e.g., self-efficacy, job satisfaction, and personal initiative).

In cooperation with AAVN, the General Employers' Association of the Netherlands, we contacted 45 SMEs, mainly operating within the paint and ink sector in the Netherlands. This sector was specifically chosen by AAVN because of joint desire to generate an overview of their market standing regarding innovative behavior. Initial contact was made via email, in which the research study's aim, time frame, efforts and returns were introduced. Participation was encouraged and follow-up phone calls were announced. During these follow-up calls, CEOs were asked for their willingness to schedule preliminary personal interviews with us for the purpose of receiving more detailed information about the study and for providing us with general information about innovation within their companies. Due to the fact that top managers and executives are often reluctant to reveal information about their personal characteristics (Hambrick & Mason, 1984), the aim of conducting these preliminary personal interviews was not only to identify general attitudes toward and processes of innovation within these SMEs, but to also gain the CEOs' trust, thus raising the likelihood of their participation. Out of the initially contacted SMEs, 29 were willing to be interviewed by us.

Each interview lasted approximately one hour and was voice recorded in consent with the participant for the purpose of future qualitative analysis. Interviews were semi-structured. They started out with a brief introduction (see Appendix A), followed by questions about basic facts about the respective company, such as number of employees, hierarchical levels and means of internal communication. Next, CEOs were asked about their perceptions on the concept of innovation in general. Subsequently, questions about specific innovation processes and outcomes within their companies were posed (for an overview of all interview questions see Appendix B). General patterns of common barriers to innovate were found across interviews. Especially, CEOs of smaller companies often named limited time and resources as reasons for not being able to focus on innovation as much as they would like to. Additionally, strict government regulations on the paint and ink sector were a recurrent theme in preventing them from drawing on their full innovation potential.

After each interview, we asked CEOs for their willingness to participate in the quantitative phase of the study and, upon their consent, familiarized them with the exact procedure. Next, two online links were sent out to each CEO via email immediately after the interview. One link led to the 'CEO questionnaire' and the other one led to the 'employee questionnaire'. The latter questionnaire was also available in paper form, facilitating data collection amongst employees without access to the Internet. In order to get a representative

picture of employees per company, we asked CEOs to forward the employee link to at least eight of their employees, preferably from different departments.

With the expectation that retrieving a sufficient sample of CEOs was going to present a challenge, we employed two other methods of data collection: so-called snowballing sampling and information letters followed by warm acquisition calls. Applying the snowballing method, we asked all CEOs with whom we had conducted interviews, if they could refer any other companies to us, which they believe might be interested in participating. Snowballing has been shown to be an effective method in improving data collection when groups of interest (in our case CEOs) are rather hard-to-reach (Sadler, Lee, Lim, & Fullerton, 2010). In total, we received the contacts of 17 companies throughout these chain referrals. Out of these, we were able to conduct interviews with nine. Additionally, based on a generated list from the Dutch Chamber of Commerce, we sent out approximately 120 letters to SMEs operating in the Netherlands, providing them with information about the study and encouraging participation. After approximately two weeks, we followed up with phone calls, during which we asked if letters were received and if there was desire for participation. None of these SMEs contacted by letter were interested in participating.

By the end of a 12 week data collection period we had sent out questionnaire links to 38 CEOs. Out of these, 24 CEOs and 199 employees filled out the respective questionnaires. Eligible for analysis were only those companies from which we had received 'full profiles', meaning that we had to have data from both the CEO and at least eight of his or her employees. If a given company had less than 20 employees in total and we had received the CEOs data, as well as data from five employees, we decided to also consider them to be a full profile. Ultimately, we ended up with 18 profiles to be used in our statistical analyses.

Within this final sample, 50% of the companies operated in the Production/Manufacturing sector, 17% operated in Services and Trade, and 33% worked in other branches (Aerospace, Food industry, Chemicals, Product Development and Corporate Services). On average they had 36 full-time employees ( $SD = 35.33$ ). The youngest company had been in Business for four years, while the oldest one had been operating for 132 years ( $M = 52.33$ ,  $SD = 48.54$ ).

All 18 CEOs were of Dutch nationality. Their ages ranged from 27 to 65 years ( $M = 44.67$ ,  $SD = 10.49$ ). Out of these, 17% were female, and 56% had received a university education (PHD, Master's, or Bachelor's degree). Further, 41% were either the sole or co-founder of their company.

Allocated across these 18 CEOs were 145 employees. Out of the latter, 141 finished the entire questionnaire and were eligible for analysis. Employee age ranged from 19 to 61 years ( $M = 37.38$ ,  $SD = 11.16$ ). Ninety-six percent were of Dutch nationality, 35% were female, and 54% had received a university education. On average they had already worked for their company for nine years ( $SD = 8.78$ ), and 70% of them had full-time contracts. Additionally, 44% reported to have daily contact with their CEO, 23% reported to be in contact a few times a week, and 8% stated to be in contact once a week. The remaining 25% indicated to have personal contact with their CEOs a few times a month or less.

After finishing our data collection and running statistical analyses, tailored profiles for each company were created. Additionally, all participating CEOs were invited to join a series of learning networks during which recurrent topics of interest from the qualitative interviews were discussed, together with guest speakers and other participating companies. These networks serve as a way of exchanging concerns, ideas and experiences. Empirical research has shown that entrepreneurs who engage with each other can increase competitive advantage throughout shared learning (Kiely & Armistead, 2005).

## Measures

Two questionnaires (one CEO questionnaire and one employee questionnaire) were created by combining all scales of interest and translating them into the Dutch language, in order to avoid that respondents would struggle with language barriers when reading and answering questions. Appendices C and D portray the initial instructions given to respondents and outline the scales that were used in the present study, respectively.

*Personal Values.* CEO values were measured using Schwartz's (2003a) Portrait Value Questionnaire (PVQ). This is a shortened version of the original 40-item Schwartz values survey (SVS), developed by Schwartz et al. (2001). The 21-item PVQ is more precise and less cognitively challenging, but has shown to have comparable properties to the SVS (Lindemann & Verkasalo, 2005). It provides short verbal statements of 21 people, each one describing a person's goal that is linked to one of the ten personal values. For each statement, CEOs reported how much the given person is like them by rating the items from 1 (*not like me at all*) to 7 (*very much like me*) on a 7-point Likert scale. In total, nine out of the ten personal value types are each represented by two items on the questionnaire, while the value type universalism is represented by three items. An example item aiming at the self-direction value is "Thinking up new ideas and being creative is important to him. He likes to do things in his own original way". While the original 40-item questionnaire provides more abstract

items, by phrasing items in this manner, the PVQ allows for a more implicit approach to values (Schwartz, 2003a).

Cronbach's alphas for the value domains were .67 for openness to change, .52 for conservatism, and .83 for self-enhancement. According to Schwartz (2003a), the low to moderate alphas can be explained by several reasons. First, the items for each value type were chosen, in order to mask over the value types' different components, instead of simply measuring a single concept redundantly. Second, each value type is represented by solely two, in the case of universalism three, items. In light of the above reasoning, these reliabilities are appropriate.

Due to the fact that respondents may systematically differ in reporting how important values are to them, it is necessary to first correct for their answering tendencies (Schwartz, 2003b). These corrections were done by initially calculating the overall mean (MRAT) of all items per CEO, then calculating a corrected score for each value by subtracting the MRAT from each item. Lastly, items were combined into the three value domains: openness to change, conservation, and self-enhancement.

*Authentic Leadership.* Employees' perceptions of their CEOs' authentic leadership were measured using the 16-item Authentic Leadership questionnaire, in short ALQ (Walumbwa et al., 2008). The questionnaire measures the four dimensions self-awareness, relative transparency, internalized moral perspective, and balanced processing. Confirmatory factor analysis has shown that all four dimensions load on one higher order factor, so that using one overall authentic leadership score is justified (Walumbwa et al., 2008). Cronbach's alpha of the overall scale was .94. The ALQ presents employees with short statements describing a supervisor's behaviors and attitudes. Employees then rate the extent to which their supervisor adopts each of the listed behaviors/attitudes on a 5-point Likert scale, ranging from 1 (*not at all*) to 5 (*frequently*). Example items from the AQL are "seeks feedback to improve interactions with others" or "demonstrates beliefs that are consistent with actions".

*Innovative Work Behavior.* Employees' innovative work behavior was measured by administering a short version of Scott and Bruce's (1994) Innovative Work behavior scale. On the 6-item scale respondents were asked to respond to brief statements, an example being "I think of new tools, techniques and instruments". They rated each statement on a 5-point Likert scale, ranging from 1 (*never*) to 5 (*frequently*). Cronbach's alpha for this scale was .91.

### **Control Variables**

In our analyses, we controlled for the effects of age and education among employees. Regarding age, previous research suggests that older employees who have worked within a company for long periods of time are less innovative in their work behavior because they have the tendency to be set in their ways already (Janssen, 2004). Age was measured as a continuous variable ( $M = 37.38$ ,  $SD = 11.16$ ). As for educational level, previous research indicates a positive correlation between education and innovative work behavior (Janssen, 2000). Educational level (1 = Primary/High school without diploma, 2 = Vocational School, 3 = Secondary school, 4 = High school, 5 = University/Bachelor, 6 = University/Master, 7 = University/PHD, 8 = others) was also measured as a continuous variable ( $M = 4.87$ ,  $SD = 11.16$ ).

### **Analyses**

Our data constituted two levels: employees (level 1) were nested within their respective organization (level 2). The most appropriate way to assess such nested data is throughout hierarchical linear modeling (HLM), as this technique, unlike simple linear regression analysis, takes into account shared variance in hierarchical data (Woltman, Feldstain, MacKay, & Rocchi, 2012). To initially examine whether HLM was appropriate to apply for analyzing our data, we created two models with innovative work behavior as the dependent variable, using the statistical software IBM SPSS Statistics 20. The first model assumed no hierarchical data structure in the data (fixed intercept only), while the second one did (including random intercept). We then compared the two models, based on examining the difference in their  $-2 \times \log$  likelihoods, which indicated that the latter model fit our data significantly better ( $\Delta -2 \times \log = 17.86$ ,  $df = 3$ ,  $p < 0.001$ ). Additionally, since innovative work behavior is thought to be a construct that is shared among employees within a given organization, we calculated its intraclass-correlation coefficient (ICC), a measure that describes the degree to which respondents “share common experiences due to closeness in space and/or time” (Kreft & de Leeuw, 1998, p. 9). The ICC provides insight on the degree of relatedness among respondents within a given unit by indicating the ratio of between-group and total variance, thus displaying the proportion of variance that is accounted for by group membership (Bliese, 2000). The resulting ICC value of innovative work behavior was 0.27 ( $F = 938.21$ ,  $p < .001$ ). According to Bliese (2000), ICC scores within applied field research typically range between 0.05 and 0.20. Thus, our result suggested that HLM was the appropriate method to employ for analyzing our data.

## Results

### Descriptive Results

In the present study, authentic leadership and innovative work behavior represent the within-individual variables (level 1), while CEOs' personal value domain orientations constitute the between-individual variable (level 2). Table 1 presents means, standard deviations and intercorrelations among all variables assessed. Descriptive statistics and correlations below the diagonal line were measured within the aggregated data set ( $N = 18$ ), while those above the diagonal line were measured within the disaggregated data set ( $N = 141$ ). Of note is the moderate negative correlation between the value domains openness to change and conservation. Schwartz (1994) stated that the more similar two value types are, the more they will positively correlate. Likewise, the more dissimilar they are, the more they will negatively correlate. Openness to change and conservation are bipolar opposites on Schwartz's circular structure (see Figure 1). Thus, their negative correlation is justified.

Table 1

*Means, Standard Deviations, and Intercorrelations among assessed Variables*

Measure	1	2	3	4	5	6	7	<i>M</i>	<i>SD</i>
<i>CEO Level 2</i>									
1. Openness to Change		-.50**	-.49**	.22*	.29**	.10	.15	-.75	0.58
2. Conservation	-.52*		-.40**	.05	-.09	-.34**	-.06	.64	0.51
3. Self-Enhancement	.44	-.41		-.22**	-.25**	.24**	-.08	.58	0.68
<i>Employee Level 1</i>									
4. Authentic Leadership	.37	.12	-.37		.150	.11	.02	3.28	0.73
5. Innovative Work Behavior	.43	-.15	-.39	.36		.08	.03	3.38	0.77
6. Age	.26	-.50*	.26	-.27	.10		-.21*	37.38	11.16
7. Educational Level	.28	.10	-.15	.47	.20	-.42		4.87	1.69
<i>M</i>	-.81	.61	.68	3.33	3.23	38.16	4.81		
<i>SD</i>	0.60	0.54	0.69	0.38	0.45	7.81	0.99		

*Note.* Intercorrelations for disaggregated data on the Employee level ( $N = 141$ ) are presented above the diagonal. Intercorrelations for aggregated data on the CEO level ( $N = 18$ ) are presented below the diagonal. Means and standard deviations for aggregated data are presented in horizontal columns. Means and standard deviations for disaggregated data are presented in vertical columns.

\* $p < .05$ . \*\* $p < .01$ .

### Test of Assumptions and Procedure

We initially checked our dataset for outliers and influential cases by calculating Cook's and Mahalanobis distances, as well as leverage values. Examining the latter statistics, no cases had to be removed. Next, we tested the following statistical assumptions that need to be met prior to conducting regression analyses, based on a framework provided by Field's



(2009): (1) predictor variables are measured at the interval level or categorical, while the outcome variable is also measured at interval, continuous and unbounded; (2) predictor variables show non-zero variances (3) there is no perfect multicollinearity between two or more of the predictors; (4) predictors do not correlate with external variables; (5) variances of residual terms are constant at all levels of the predictor variables (homoscedasticity); (6) residual terms do not correlate for any given two observations; (7) residuals are random and normally distributed with a mean of zero; (8) all values of the outcome variable are independent; and (9) the relationships between variables under study are linear. All of the latter assumptions were met within our data set. Field (2009) further named two additional assumptions which specifically apply to HLM. Firstly, intercepts in a random intercept model should be normally distributed around the overall model. Secondly, there should be no multicollinearity between variables at different levels of the data hierarchy. Despite our efforts to test these latter assumptions, we were unable to properly inspect them with the statistical software at hand and carried on with our analysis based on the nine basic regression assumptions.

As described previously in the Method section, we corrected the personal value scores for respondents' answering tendency and combined them into their respective domains, as a prerequisite for conducting HLM. It is not only advisable to use centered value scores when conducting regression analyses, but to also avoid adding more than eight single value types into a model at the same time, as this could result in inaccurate regression coefficients and multicollinearity (Schwartz, 2003b). When we tested our hypotheses, the three assessed value domains were not entered simultaneously. Instead, we ran three separate analyses, thus meeting the above requirement. We further centered authentic leadership scores on each individual's mean. According to Hofmann and Gavin (1998), this type of centering removes the between-individual variance from level 1 predictors. In this manner, it can be ensured that within-individual relationships are not confounded by any individual differences. Furthermore, based on Aiken and West's (1991) suggestions, we used the centered scores of those variables that were used as components of interaction terms (each value domain and authentic leadership) when combining them into the three cross-products. In doing so, the occurrence of multicollinearity between the component variables in interaction terms is minimized.

Next, we tested our models. In total, we conducted three HLM analyses, in which we regressed innovative work behavior on each of the three value domains and authentic leadership. Specifically, each analysis constituted of four subsequent steps that we carried out

within the MIXED models command of the IBM SPSS Statistics 20 software. For estimating our parameters, we used the maximum likelihood estimation (MLE). In the first step, we created the basic model (Model 0), with innovative work behavior as the dependent variable (this served for calculating the ICC, as described in the Method section). Secondly, we added the control variables, age and educational level (Model 1). Thirdly, we introduced the predictor variables, the respective value domain and authentic leadership (Model 2). Lastly, we added the interaction term between each of the value domains and authentic leadership (Model 3). For each step, we compared a fixed effect model with a random effect model and decided on which one of the two indicated the better fit, based on the change in  $-2 \times \log$  likelihoods.

### **Test of Main Effects**

In order to test our hypothesized main effects (Hypothesis 1-3), we regressed the level 1 outcome innovative work behavior on each of the corrected value domains and the centered authentic leadership score. In hypothesis 1, we predicted that CEOs' openness to change would be positively associated with employees' innovative work behavior. Supporting hypothesis 1, Model 2 in Table 2 shows that openness to change is significantly and positively related to innovative work behavior ( $\beta = 0.38, p < .05$ ). In hypothesis 2, we predicted that CEOs' conservation would be negatively related to employees' innovative work behavior, due to this domain being the polar opposite of openness to change. Rejecting hypothesis 2, Model 2 in Table 3 indicates that CEOs' conservation is not related to innovative work behavior ( $\beta = -0.08, ns$ ). Lastly, in hypothesis 3, we proposed that CEOs' self-enhancement would be positively related to employees' innovative work behavior. Rejecting hypothesis 3, Model 2 in Table 4 shows that CEOs' self-enhancement is significantly and negatively related to employees' innovative work behavior ( $\beta = -0.30, p < .05$ ).

### **Test of Moderating Effects**

In Hypotheses 4-6, we hypothesized that authentic leadership, measured from the employees' perspective, would positively moderate the relationships between, on the one hand, CEOs' openness to change (hypothesis 4), conservation (hypothesis 5), and self-enhancement (hypothesis 6) and, on the other hand, their employees' innovative work behavior. In order to test these hypotheses, we entered the centered interaction term of each value domain and authentic leadership score in step four of each analysis. Rejecting

hypothesis 4, Model 3 in Table 2 shows that there is no moderating effect of authentic leadership on the relationship between openness to change and innovative work behavior ( $\gamma = 0.17$ , ns). Similarly, rejecting hypothesis 5, Model 3 in Table 3 shows that there is no moderating effect of authentic leadership on the relationship between conservation and innovative work behavior ( $\gamma = 0.05$ , ns). Lastly, rejecting hypothesis 6, Model 3 in Table 4 shows that there is also no moderating effect of authentic leadership on the relationship between self-enhancement and innovative work behavior ( $\gamma = -0.15$ , ns)

Table 2

*HLM of Employees' Innovative Work Behavior on CEOs Openness to Change and Employees' Perceptions on Authentic Leadership*

Parameter	Model 0	Model 1	Model 2	Model 3
Intercept	3.24 (.11)***	2.96 (.32)***	3.28 (.37)***	3.26 (.37)***
Educational Level		-.02 (.04)	-.02 (.04)	-.02 (.04)
Age		.01 (.01)	.01 (.01)	.01 (.01)
Openness to Change			.38 (.16)*	.36 (.16)*
Authentic Leadership			.07 (.08)	.08 (.08)
Openness to Change x Authentic Leadership				.17 (.13)
<i>Model fit</i>				
2 x log	298.11	273.80	267.55	265.91
$\Delta$ 2 x log	17.86**	24.31**	6.25	1.64
df	3	5	7	8
UV Individual	0.41 (74.55%)	0.39 (73.58%)	0.38 (77.55%)	0.38 (79.17%)
UV Group	0.14 (25.45%)	0.14 (26.42%)	0.11 (22.45%)	0.10 (20.83%)
UV Total	0.55 (100.00%)	0.53 (100.00%)	0.49 (100.00%)	0.48 (100.00%)

*Note.* Standard errors, if relevant, are presented in parentheses. UV = Unexplained Variance. N = 141. Fixed effects are reported. For Openness to Change, the random effect is reported.

\*\* $p < .05$ . \*\*\* $p < .001$ .

Table 3

*HLM of Employees' Innovative Work Behavior on CEOs Conservation and Employees' Perceptions on Authentic Leadership*

Parameter	Model 0	Model 1	Model 2	Model 3
Intercept	3.24 (.11)***	2.96 (.32)***	3.02 (.37)***	3.00 (.37)***
Educational Level		-.02 (.04)	-.01 (.04)	-.01 (.04)
Age		.01 (.01)	.01 (.01)	.01 (.01)
Conservation			-.08 (.20)	-.08 (.21)
Authentic Leadership			.08 (.08)	.09 (.08)
Conservation x Authentic Leadership				.05 (.17)
<i>Model fit</i>				
2 x log	298.11	273.80	270.33	270.25
$\Delta$ 2 x log	17.86**	24.31**	3.50	0.08
df	3	5	7	8
UV Individual	0.41 (74.55%)	0.39 (73.58%)	0.38 (73.08%)	0.38 (73.08%)
UV Group	0.14 (25.45%)	0.14 (26.42%)	0.14 (26.92%)	0.14 (26.92%)
UV Total	0.55 (100.00%)	0.53 (100.00%)	0.52 (100.00%)	0.52 (100.00%)

*Note.* Standard errors, if relevant, are presented in parentheses. UV = Unexplained Variance. N = 141. Fixed effects are reported.

\*\* $p < .05$ . \*\*\* $p < .001$ .

Table 4

*HLM of Employees' Innovative Work Behavior on CEOs Self-Enhancement and Employees' Perceptions on Authentic Leadership*

Parameter	Model 0	Model 1	Model 2	Model 3
Intercept	3.24 (.11)***	2.96 (.32)***	3.10 (.32)***	3.08 (.32)***
Educational Level		-.02 (.04)	-.01 (.04)	-.01 (.04)
Age		.01 (.01)	.01 (.01)	.01 (.01)
Self-Enhancement			-.30 (.14)*	-.30 (.14)*
Authentic Leadership			.07 (.08)	.09 (.08)
Self-Enhancement x Authentic Leadership				-.15 (.12)
<i>Model fit</i>				
2 x log	298.11	273.80	266.50	265.02
$\Delta$ 2 x log	17.86**	24.31**	4.30	1.48
df	3	5	7	8
UV Individual	0.41 (74.55%)	0.39 (73.58%)	0.38 (79.17%)	0.38 (79.17%)
UV Group	0.14 (25.45%)	0.14 (26.42%)	0.10 (20.83%)	0.10 (20.83%)
		0.53	0.48	0.48
UV Total	0.55 (100.00%)	(100.00%)	(100.00%)	(100.00%)

*Note.* Standard errors, if relevant, are presented in parentheses. UV = Unexplained Variance. N = 141. Fixed effects are reported.

\*\* $p < .05$ . \*\*\* $p < .001$ .

### Additional Analysis

When generating our hypotheses, we mentioned that we believe the self-transcendence domain to have no effect on employees' innovative work behavior. Consequently, no

hypothesis was generated concerning the effect of CEOs' self-transcendence. Nonetheless, we decided to run an extra analysis, in order to see if this was the case and, indeed, found that there was no significant main effect of self-transcendence on innovative work behavior ( $\beta = 0.59$ , ns). Further, we also did not find a moderating effect of authentic leadership in this relationship ( $\gamma = -0.06$ , ns).

### Discussion

The aim of this study was to investigate how CEOs' value preferences influence their employees' innovative work behavior. Specifically, we investigated the effects of CEOs' value preferences for openness to change, conservation, and self-enhancement on their employees' innovative work behavior. Moreover, the degree to which employees view their CEOs to be authentic leaders was examined as a potential moderator of these relationships. CEOs' openness to change and self-enhancement preferences showed significant (positive and negative, respectively) main effects on employees' innovative behavior, while conservation was not significantly related to the outcome measure. Additionally, authentic leadership did not hold up to our expectations of being a moderator in any of the proposed relationships. In what follows, we will discuss each finding in more depth and, subsequently, provide theoretical and practical implications.

In hypothesis 1, we proposed that CEOs giving preference to the openness to change value domain (including the value types self-direction and stimulation) would positively stimulate their employees' innovative work behavior. The HLM analysis showed that this was, indeed, the case. Furthermore, we found openness to change to have a random effect, meaning that there was variance in the strength of the relationship between the different SMEs in our sample. Specifically, this variance suggests that CEOs' openness to change had a stronger effect on employees' innovative work behavior in some companies than in others. One explanation for this finding could be the fact that we did not control for the number of managerial levels within the companies in our sample. While we aimed to solely include companies with only one management layer, some CEOs mentioned during their qualitative interviews that they actually had more than one hierarchical layer. It is possible that in those companies with more than one layer, CEOs' openness to change had a weaker effect on employees because this effect, literally speaking, "diffused" through the additional management layers.

In hypothesis 2, we projected that CEOs giving preference to the conservation value domain (including the value types security, tradition, and conformity) would be negatively

related to their employees' innovative work behavior. Results yielded by HLM did not confirm this hypothesis, as we found no significant main effect. This result suggests that the underlying goals of the values that make up the conservation domain are neither congruent nor incongruent with stimulating innovation. CEOs who embrace conservation values tend to strive for stable and harmonious relationships, as well as for commitment and acceptance of customs and ideas. They further try to refrain from any actions that are likely to upset others (Schwartz, 1992). It is possible that such CEOs might attempt to suppress the latter motivations in situations when they are aware that new innovations must be introduced.

In hypothesis 3, we proposed that CEOs giving preference to the self-enhancement value domain (including the value types power and achievement) would be positively related to their employees' innovative work behavior. Contrary to the openness to change domain, whose single value types directly point towards components of innovative work behavior, we suggested that CEOs who are self-enhancement oriented would still "indirectly" stimulate innovativeness among their employees. The reasoning behind this was that self-enhancement driven CEOs strive for power, social status and prestige (Schwartz, 1992). We posited that they are likely to view innovation as a means of achieving these goals. The HLM indicated the opposite by showing a significant and negative effect of CEOs' self-enhancement and employees' innovative work behavior. One possible explanation for this result is that CEOs in our sample actually put more emphasis on the power than on the achievement value. Because the power value is more distant to the openness to change values (stimulation and self-direction) on Schwartz's circular structure, its underlying motivations are more dissimilar from openness to change than the underlying motivations of achievement are (Schwartz, 1992). We looked at the individual means of both, achievement and power, and found that the power mean was, indeed, higher than the achievement mean ( $M = 0.80$ ,  $M = 0.51$ , respectively). While both values hold the goal of being successful, the achievement orientation implies the demonstration of competence to get there, while the power orientation represents achieving success through having control and dominance over people and resources (Schwartz, 1992). Our results are comparable to the findings of Dollinger et al. (2007) who suggested that the underlying goals of power oriented individuals are incompatible with most acts of creativity (an important factor in the idea generation phase of innovation). They reasoned that these individuals tend to be more concerned with maintaining their control than with pursuing creative accomplishments. It is possible that CEOs who give higher preference to the power value actually intimidate or restrict their employees to draw from their full innovation potential because they exert tight control over them.

We further suggested that authentic leadership, measured from the perspective of employees, would positively moderate the relationships between CEOs' value domains and employees' innovative work behavior (hypotheses 4-7). HLM showed that no moderating effects of authentic leadership were present in the relationships of the three value domains and innovative work behavior. This suggests that the degree to which employees' viewed their leaders to be authentic did not exert any influence on the way their leaders' values increased, or decreased, innovative work behavior among them. One explanation for this non-significant finding is that the construct of authentic leadership was solely measured from the employees' perspective. It is possible that this manner of assessing authentic leadership did not provide us with an objective rating on leaders' authentic leadership, thus obscuring our results on its moderating effects.

The importance of SMEs to stay continuously innovative in order to survive in today's economy has been repeatedly stated throughout this study. Our results yield several implications for scholars and practitioners. As already described, research on opening up Upper Echelon's black box by directly measuring CEOs' personal values instead of using demographical proxies is still growing and, so far, findings have been rather inconsistent. One example is the power value orientation which was reported to have positive influences on creativity in some studies, while exerting negative effects on creativity in the findings of others. Evidently, more research needs to be dedicated towards investigating top managers' personal values and their influences in order to establish preliminary theoretical models that researchers can gradually build on.

Applying our findings to current CEOs leading SMEs, we propose that it is necessary to try to maximize the congruence between CEOs' value systems and the stimulation of innovative work behavior. There are several possible scenarios that can be encountered. First, there are those CEOs who are naturally guided by openness to change values, thus facilitating the stimulation of innovation among employees. On the contrary, we encounter CEOs who give more preference to conservation values while leading companies who may be in desperate need of increasing innovations. Similarly, we see CEOs who are more oriented towards self-enhancement values which, according to our findings, can actually decrease their employees' innovative behavior. Regarding the latter two scenarios, there are several options on how to deal with this incongruence between CEOs' value sets and their firms' need to innovate. In line with the reasoning of Berson et al. (2007), CEOs need to be aware of their personal value systems. We see this as a necessary prerequisite for attempting to make any adjustments regarding the stimulation of innovation. Once aware of the discrepancy between

one's personal value system and the need to stimulate innovation, CEOs need to choose between being willing to adapt their behaviors toward enhancing innovative behaviors or carrying on in their set ways. The willingness to adapt one's behaviors can take on two forms. One option is to modify a CEOs' natural set of values, so that values and behaviors are "made" congruent. However, Ling et al. (2007) state, that changing CEOs' deeply rooted value systems is a rather difficult process. The other option would be to solely modify behavior, potentially creating value-behavior incongruence, which according to Meglino and Ravlin (1998) can generate feelings of guilt, shame, and self-depreciation. Both options would require the consultation of third parties (e.g., external consultants), in order to intervene and "re-direct" the CEO. If CEOs choose to ignore apparent discrepancies between their natural value systems and their firm's need to innovate altogether, they might eventually face detrimental business situation which severely jeopardize their firm's survival, possibly even leading them to withdraw from their positions (Ling et al., 2007).

The philosophy of attaining the highest match possible between CEOs' value systems and stimulating innovative behavior is further important to consider in the selection processes of SMEs that are searching for candidates to fill open CEO vacancies. Especially, in the case of highly innovative firms, it is advisable to incorporate personal value questionnaires in the selection process, as a filter that can identify those candidates who are naturally inclined to stimulate firm innovation due to their value sets.

### **Limitations**

A main limitation of this study is its sample size. Despite our efforts to increase our response rate by employing snowballing sampling, our response rate of 18 CEOs remained rather small. In the field of organizational research, obtaining data from CEOs is one of the most difficult tasks to accomplish, particularly, when CEOs are required to provide information on their personal characteristics (Berson et al., 2007). There are multiple perspectives about what the perfect sample size should be when conducting HLM. Most sources suggest that there should be at least 50 respondents at the level 2 variable (e.g., Maas & Hox, 2005). Conducting studies with small sample sizes can result in obtaining instable parameter estimates, thus increasing the chance of making false inferences when analyzing such data (Hollenbeck, DeRue, & Mannor, 2006). It is essential for future research to not retract to continuing to use demographics as proxies for personal values, due to thinking that CEOs will be more open to provide demographical information. Instead, research needs to



gradually collect more data on CEOs' values and their effect on organizational outcomes in order to establish preliminary theoretical models which can then be built upon.

Another limitation of this study concerns Schwartz's shortened form of the Value inventory. The items of particular concern are the tradition items. In a review of the shortened form of Schwartz PVQ, it was found that the tradition item "Religious belief is important to him. He tries hard to do what his religion requires", is not an attractive item for measuring the concept of tradition (Knoppen & Saris, 2009). When we conducted preliminary reliability analyses, we found that the reliability of this item was enormously low, in line with the above suggestion. This caveat might have obscured our findings in regards to CEOs' conservation orientation, as tradition was combined with security and conformity. The validity of this item should be reviewed.

An additional limitation pertains to the manner in which CEOs distributed questionnaires to their employees. As described in the Method section, we asked CEOs to get at least eight of their employees to participate, preferably from different departments and positions. However, we cannot be certain to how exactly CEOs chose which employees should participate. They might have purposely picked employees with whom they have better relationships, or they might have chosen employees mostly working within the same department. Such biased recruitment could have potentially decreased the representativeness in our sample per company. For example, it would not be correct to compare employees from one company who mostly work within Production with employees from another company who mostly come from the Marketing or Sales department, due to the different facets of their jobs. Future research should try to formalize and enforce the ways in which employees are chosen per company.

As already insinuated in the Discussion, we see another limitation of the present study in the manner in which authentic leadership was measured as a potential moderator in the relationship between CEOs' values and employees' innovative work behavior. When we introduced the theory behind authentic leadership, we proposed that measuring it from the employees' perspective would be more valuable than collecting CEOs' ratings on their authenticity. The reasoning behind this thought was that some CEOs might be authentic (as in true to themselves), and also describe themselves as such, but actually fail to convey their authenticity to their employees. In such scenarios, CEOs' authenticity is very well present within the CEOs, but it does not affect their employees in any way because they are not recognizing it to be there in the first place. However, by measuring authentic leadership solely from the employees' perspective, we ultimately did not treat it as a multilevel construct. Of

interest for future research would be to measure CEOs' as well as employees' perspectives on authentic leadership, to investigate the discrepancy between the two ratings, and to then re-examine its moderating effects. It could be the case that authentic leadership does exert moderating effects in those cases in which the discrepancy between the two ratings is low.

Lastly, although we aimed at only including companies into our sample which had no multiple management layers, there ended up being a few exceptions to this rule, as already mentioned in the Discussion. During the qualitative interviews, we inquired that seven out of the 18 participating companies had more than just one management layer. Data from companies with multiple management layers might be obscured, as employees on lower levels probably have primary contact with their manager on the next level, rather than with the CEO who is on top of the hierarchy. It might have thus been particularly difficult for these employees to accurately judge the CEO of their company. They might have also based their ratings on their direct manager, in which case our premise to investigate CEOs would have been violated. Future research should therefore make sure that the hierarchical structures of companies in the sample are equal, in order to make accurate comparisons.

### **Conclusion**

This study attempted to further open up the black box of Upper echelons theory by investigating the influence of CEOs' personal value orientations on their employees' innovative work behavior. Results indicated that CEOs who embrace openness to change values significantly and positively influence their employees' innovative work behavior, while CEOs who give preference to self-enhancement values significantly and negatively influence their employees' innovative work behavior. These findings have implications for future research and practice. In order to shed more light on Upper echelons theory, further empirical work needs to be conducted that investigates links between CEOs' personal values (rather than demographical proxies of them) and organizational outcomes, such as employees' innovative work behavior. Because CEOs represent a rather difficult-to-reach target group, scholars need to make increased efforts to access them, to directly measure their personal values and to investigate their influences on employees' innovative work behavior. This is the only way of finding consistency in relationships and to eventually establish firm theoretical models. As staying continuously innovative is one of the driving factors behind surviving in today's market, it is beneficial for SMEs to analyze their current or future CEOs' value orientations, as this can give important insight on whether or not they embrace values that are congruent with stimulating innovation.

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## Appendix A

### Qualitative Phase - Introduction to the Semi-Structured Interviews

#### 1. Background information:

- Introduction:
  - Names (the person who is calling, or the people who are conducting the interview).
  - Research team from EUR in cooperation with AWWN.
  - Part of an international study (3 countries – The Netherlands, Spain, Poland).
- Purpose:
  - To learn more about innovation.
  - Particularly interested in how entrepreneurs (their values and personality characteristics) influence innovation among their employees.
  - Interaction process between entrepreneur and employee.
- Why we chose the particular respondent:
  - Particularly interested in small to medium-sized companies (limited research was conducted on this topic in the past).
  - Paint & Ink branch – It is in the interest of the entire sector that all companies participate.
- How we got their contact details:
  - Snowballing method
  - Vereniging van Verf- en Drukinkfabrikanten (VVF)
- Recordings:
  - Will be used only for our purposes.
  - Main reason – to be able to qualitatively analyze it later on.
  - Only the entrepreneur and interviewers should be present.
  - Analysis will be done anonymously and no information will be given away to third parties.
  - 2<sup>nd</sup> stage: Quantitative data collection (1 questionnaire for the CEO and at least eight employees to fill out the ‘employee questionnaire’).

#### 2. Returns:

- Profiles for entrepreneurs and personal feedback (in form of reports).
- Learning network meetings.
- Discussion of the reports and definition of possible interventions.
- Final report (the final results of the study) – may be used for educational purposes, training, or development of employees.
- Employee and leadership development.

#### 3. Costs:

- Entrepreneur:
  - 1 hour - interview
  - 0,5 hours – questionnaire
- Employees:

- 0,5 hours – questionnaire
- Anonymity is assured.
- Only the research team will have access to the notes, recordings, etc.

## Appendix B

### Qualitative Phase - Topic List for the Semi-Structured Interviews

#### 1. General questions about the company:

We would first like to start with asking a few general questions about your company.

- What does your organization earn its money with?
- What are the main products of your organization?
- What is the organizational structure?
- What are the three most frequently used ways of communication in your organization?
- What types of communication do you usually use to talk to your employees?
- Do you have any regularly scheduled meetings with your employees? If yes, how many times per week/month?

#### 2. Definition of innovation:

The next few questions will focus more on your point of view concerning innovation.

- What does the concept of innovation mean to you?
- How important is innovation for your company? Could you please explain?
- In your point of view, what are the essential elements of innovation?

#### 3. Innovation and the organization:

The next set of questions will be specifically concerned with innovation in your company.

- Do you stimulate innovation in your company?
- If so, could you please elaborate on that? How do you stimulate the process of innovation within your organization?

#### 4. Outcomes of the actions taken to increase innovation:

The purpose of the last few questions will be to shed light on how the actions that you have taken in order to stimulate innovation have worked out in the past.

- How satisfied were you with the outcome of the actions that were taken to stimulate innovation? Please elaborate, give examples.
- What is easy and not so easy in managing innovation?



## **Appendix C**

### **Quantitative Phase - Instructions to respondents**

#### **‘CEO Questionnaire’**

Voor u ligt de vragenlijst voor werkgevers, die deel uitmaakt van het onderzoek "innoveren met medewerkers" dat de AWWN uitvoert in samenwerking met de Erasmus Universiteit Rotterdam. Dit onderzoek brengt in kaart hoe directie en medewerkers van bedrijven met innovatie omgaan. We zijn erg verheugd dat u mee wilt werken. Wilt u, als vervolg op het persoonlijk interview, de navolgende vragen invullen? In deze vragenlijst worden vragen gesteld naar uw waardering voor en ervaringen met uw organisatie in Nederland. Ook vragen wij naar een aantal ondernemerskenmerken. Wilt u per uitspraak uw visie of ervaring geven?

Vanzelfsprekend worden de antwoorden die u geeft vertrouwelijk behandeld. Er zijn geen goede of foute antwoorden. Denk niet te lang na, uw eerste gedachte is meestal de beste. Per vraag kunt u met de muis of het toetsenbord steeds een antwoord aanklikken, tenzij anders aangegeven. Het invullen kost circa 30 minuten. Zodra de vragenlijst helemaal is ingevuld worden uw antwoorden vanzelf opgeslagen.

Hartelijk dank voor de medewerking!

Het EUR-AWWN onderzoeksteam

#### **‘Employee Questionnaire’**

Voor u ligt de vragenlijst voor het onderzoek "innoveren met medewerkers" dat de AWWN uitvoert in samenwerking met de Erasmus Universiteit Rotterdam. Dit onderzoek brengt in kaart hoe directie en medewerkers van bedrijven met innovatie omgaan.

In deze vragenlijst worden vragen gesteld naar de manier waarop u uw werk beleeft. Vanzelfsprekend worden de antwoorden die u geeft vertrouwelijk behandeld. Er zijn geen goede of foute antwoorden. Denk niet te lang na, uw eerste gedachte is meestal de beste. Per vraag kunt u met de muis of het toetsenbord steeds een antwoord aanklikken, tenzij anders aangegeven. Het invullen kost circa 20 minuten. Zodra de vragenlijst helemaal is ingevuld, worden uw antwoorden vanzelf opgeslagen.

Hartelijk dank voor de medewerking!

Het EUR-AWWN onderzoeksteam

## Appendix D

### Quantitative Phase – Questionnaires

#### CEOs' Personal Value Orientations

Hier beschrijven we kort enkele personen. Lees alstublieft elke beschrijving en bepaal in hoeverre elke persoon wel of niet op u lijkt. Klik het vakje aan dat aangeeft in hoeverre de persoon in de beschrijving op u lijkt.

In hoeverre lijkt deze persoon op u?

1. Nieuwe ideeën bedenken en creatief zijn is belangrijk voor haar. Zij houdt ervan dingen op haar eigen originele manier te doen.
2. Het is belangrijk voor haar om rijk te zijn. Zij wil veel geld en kostbare dingen hebben.
3. Zij vindt het belangrijk dat iedere persoon in de wereld gelijk behandeld wordt. Zij gelooft dat iedereen gelijke kansen moet hebben in het leven.
4. Het is zeer belangrijk voor haar haar vaardigheden te tonen. Zij wil dat mensen bewonderen wat zij doet.
5. Het is voor haar belangrijk in een veilige omgeving te wonen. Zij vermijdt alles wat haar veiligheid in gevaar kan brengen.
6. Zij houdt van verrassingen en zoekt altijd nieuwe dingen om te doen. Het is belangrijk voor haar veel verschillende dingen te doen in het leven.
7. Zij gelooft dat mensen moeten doen wat hen gezegd wordt. Zij vindt dat mensen de regels te allen tijde moeten volgen, zelfs als niemand het ziet.
8. Het is belangrijk voor haar naar mensen te luisteren die anders zijn dan zij. Zelfs als zij het niet met hen eens is, wil zij hen begrijpen.
9. Het is belangrijk voor haar bescheiden te zijn. Zij probeert om de aandacht niet op zichzelf te vestigen.
10. Een goede tijd hebben is belangrijk voor haar. Zij houdt er van zichzelf te verwennen.
11. Het is belangrijk voor haar om zelf te beslissen wat zij doet. Zij vindt het fijn om vrij en onafhankelijk te zijn in het plannen en kiezen van haar activiteiten.
12. Het is zeer belangrijk voor haar de mensen om haar heen te helpen. Zij wil voor hun welzijn zorgen.
13. Zeer succesvol zijn is belangrijk voor haar. Zij wil graag indruk maken op andere mensen.
14. Het is zeer belangrijk voor haar dat de regering veiligheid kan garanderen tegen alle bedreigingen. Zij wil een sterke staat die zijn onderdanen kan beschermen.
15. Zij zoekt avontuur en neemt graag risico's. Zij wil een opwindend leven.
16. Het is belangrijk voor haar zich altijd netjes te gedragen. Zij wil vermijden dat zij ook maar iets doet, waarvan mensen zouden zeggen dat het verkeerd is.
17. Het is belangrijk voor haar respect af te dwingen van anderen. Zij wil dat anderen doen wat zij zegt.
18. Het is belangrijk voor haar loyaal te zijn aan haar vrienden. Zij wil toegewijd zijn aan mensen die dicht bij haar staan.

19. Zij gelooft sterk dat mensen moeten zorgen voor de natuur. Zorg dragen voor het milieu is belangrijk voor haar.
20. Culturele traditie is belangrijk voor haar. Zij doet erg haar best te doen wat haar geloof en haar familie verlangen.
21. Zij zoekt naar elke gelegenheid plezier te hebben. Genieten van de genoegens van het leven is belangrijk voor haar.

### **Authentic Leadership Questionnaire**

De volgende vragen gaan over de manier waarop uw DIRECT leidinggevende leiding geeft. Geef a.u.b. aan in welke mate elke bewering het beste uw ervaring weergeeft. Mijn leidinggevende ...

1. ... zegt precies wat hij of zij bedoelt.
2. ... geeft het toe als er fouten gemaakt zijn.
3. ... moedigt iedereen aan om te zeggen wat hij/ zij denkt.
4. ... vertelt je de harde waarheid.
5. ... laat zien wat hij of zij voelt.
6. ... verkondigt een mening die in lijn is met zijn/ haar acties.
7. ... neemt beslissingen gebaseerd op zijn/ haar kernwaarden.
8. ... vraagt je om te gaan staan voor je belangrijkste ideeën.
9. ... neemt moeilijke beslissingen op basis van een hoge ethische norm.
10. ... vraagt om ideeën die zijn/ haar vaste overtuiging uitdagen.
11. ... bestudeert relevante informatie voordat hij/ zij een beslissing neemt.
12. ... luistert aandachtig naar verschillende standpunten voordat hij/ zij conclusies trekt.
13. ... zoekt feedback om zijn/ haar omgang en communicatie met anderen te verbeteren.
14. ... kan correct beschrijven hoe anderen zijn/haar bekwaamheden beoordelen.
15. ... weet wanneer het tijd is om zijn/haar standpunten over belangrijke onderwerpen opnieuw te bezien.
16. ... laat zien dat hij/ zij begrijpt hoe specifieke acties invloed hebben op andere mensen.

### **Employees' Innovative Work Behavior**

Hieronder staan dingen die u kunt doen die te maken hebben met het ontwikkelen van nieuwe ideeën. Geef alstublieft aan hoe vaak u dit doet.

1. Ik bedenk nieuwe werkwijzen, technieken of instrumenten.
2. Ik bedenk originele oplossingen voor werkproblemen.
3. Ik draag nieuwe ideeën aan voor anderen.
4. Ik werk innovatieve ideeën uit tot werkbare toepassing.
5. Ik voer vernieuwende ideeën planmatig in.
6. Ik ben innovatief.