

KNOW THYSELF?

Self- and other-ratings of a manager's work-related personality and their relation to the occupational well-being of subordinates

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Master's thesis
Psychology
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December 2013

AUVINEN, ELINA & YLI-PÄRRI, KAISA: Know thyself? Self- and other-ratings of a manager's work-related personality and their relation to the occupational well-being of subordinates

Master's thesis, 62 pages, 4 appendix pages
Supervisor: Ulla Kinnunen
Psychology
December 2013

In our study, we examined the relations between a manager's work-related personality and the occupational well-being of subordinates. A manager's work-related personality was assessed by a manager him-/herself (*self-rating*) and his/her subordinates (*other-ratings*) by using Working Personality Inventory (WOPI). In addition to studying the direct relations between the ratings and subordinates' occupational well-being, we examined the phenomenon of *self-other rating agreement* (SOA). We explored whether SOA (i.e., agreement or disagreement on ratings) on a manager's work-related personality was related to the occupational well-being of subordinates. Furthermore, we studied the relations between demographic factors (a manager's age and gender) and self- and other-ratings of a manager's work-related personality. Our theoretical framework was the model of self-other rating agreement (Atwater & Yammarino, 1992; 1997). The measures of subordinates' occupational well-being (work-related positive emotions, high team spirit and low work-related strain) were based on a multidimensional model of occupational well-being (Van Horn, Taris, Schaufeli, & Schreurs, 2004).

Data were collected in a Finnish public funded expert organization in 2006. Data collection was carried out as a part of a broader personnel survey. The response rate in the personnel survey was 74.4%. The complete data in our study included 144 managers and 702 subordinates ($N = 846$). All the subordinates' responses were analyzed as mean scores at a team level, and average team size was 4.94. From those managers who reported their gender, 33 out of 122 managers were women and 89 were men. The average age of the managers was 44 years. The research questions were examined through polynomial regression analysis, response surface tests and multivariate analysis of variance (MANOVA).

Our results revealed two rating tendencies of the manager's work-related personality that were relevant to the subordinates' occupational well-being: direction of discrepancy and agreement on the ratings. The right end of WOPI's scale can be described as 'leader-like' (e.g., inspiring, supporting, pursuing ideas), whereas the left end of the scale is more 'expert-like' (e.g., reserved, distant, pursuing facts) description of work-related personality. The subordinates experienced more work-related positive emotions and high team spirit when they assessed their manager's work-related personality close to the right end of WOPI's scale regardless of the manager's own assessment. Occupational well-being was lower when the manager assessed his/her work-related personality close to the right end of the scale, but the subordinates' assessment was the opposite. In addition, agreement on the ratings was related to the subordinates' occupational well-being, but this rating tendency was less frequently relevant than the direction of discrepancy. None of the ratings were related to the subordinates' low work-related strain. Older managers self-assessed their work-related personality more often close to the left end and the younger managers close to the right end of the scale. The subordinates assessed women more often close to the right end and men close to the left end of the scale.

The main results of this study underline the importance of the subordinates' assessments and the manager's self-awareness from the point of view of the subordinates' occupational well-being. The subordinates of the 'leader-like' managers (especially, when the subordinates gave the assessments) experienced more occupational well-being. Overall, our research shed light on the rarely studied association between the manager's work-related personality and the subordinates' occupational well-being. This study has important practical implications for successful recruitment processes and leadership development, for example.

KEYWORDS: Self-other rating agreement (SOA), self-awareness, work-related personality, occupational well-being

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1 INTRODUCTION

1.1. Self-other rating agreement (SOA) as an indicator of self-awareness

Researchers have showed great interest in the identification of the personality traits of a good leader generally based on self-ratings. However, the subordinates' (or in some settings, colleagues' or peers', all considered as "others") way of perceiving their leader's behavior or personality has recently become of increased importance (e.g., Connelly & Ones, 2010). In addition to using self-assessments in the research of a leader's personality, Connelly and Ones (2010) stated that the perspective of others should be considered an important source of added value as regards the personality assessment.

These two rating sources – self-ratings and other-ratings – are combined in self-other rating agreement studies (for a review of the topic, see Fleenor, Smither, Atwater, Braddy, & Sturm, 2010). In *self-other rating agreement (SOA)* studies, the interest is to examine these ratings simultaneously and consider their congruence, i.e., whether a manager's view of him-/herself is similar to his/her subordinates' view. Self-other rating agreement has gained a lot of attention during the past two decades, and the majority of the attraction is based on its supposed relationship with *self-awareness*. Self-awareness seems to be one of the great interests in leadership studies nowadays, although the concept is difficult to define and describe. Among all, self-awareness has been linked to authentic leadership and authenticity, as an authentic person is described as being aware of one's strengths and weaknesses, ambiguities, inconsistencies and limits of self-knowledge and acting in tune with his or her true self (Luthans & Avolio, 2003). Capability to self-observe one's behavior or performance and comparing these observations to the feedback given, for example, from colleagues, can be understood as self-awareness (Wicklund, 1975). SOA has been seen as an indicator and a way of operationalizing self-awareness (Fleenor et al., 2010).

Somewhat recently, the interest of research has shifted from not only assessing the congruence between the self-ratings and other-ratings but also to examining SOA's relations to behavioral outcomes. The earlier research tradition has mostly concentrated on the agreement on leader effectiveness or performance and the relations to behavioral outcomes (Fleenor et al., 2010). Although *SOA on personality* (i.e., rating congruence) is a widely-studied topic, the number of SOA studies on personality and its relations to behavioral and other outcomes is very limited. In this study, the main aim was to examine self- and other-ratings and SOA on a manager's work-related personality and its relation to subordinates' occupational well-being as an outcome. We also wanted

to find out whether demographic factors (age and gender of a manager) played a role in managers' and subordinates' rating tendencies.

1.2. A model of self-other rating agreement

Atwater and Yammarino (1997) proposed that self-aware individuals (i.e., individuals who see themselves as others see them) provide more accurate self-ratings, which is based on their competence in self-observation and self-reflection. The same authors (1992, 1997) created a model of self-other rating agreement (see Figure 1) which is a fundamental model in the research of SOA. Even though the model is not entirely applicable in the present personality related study, it provides a good insight into the topic of SOA.

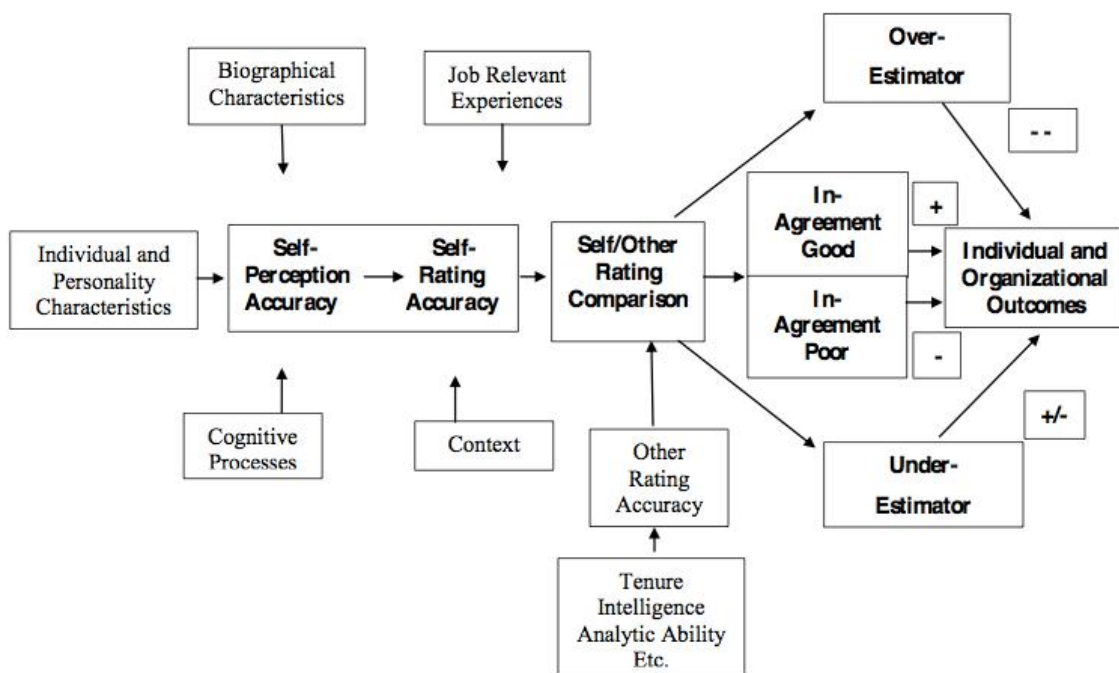


FIGURE 1. A model of self-other rating agreement (modified by authors from Atwater & Yammarino, 1997)

In the model of SOA (Atwater & Yammarino, 1992, 1997), an individual's self-assessments are compared to ratings from relevant others, for example, peers or subordinates. In their model, Atwater

and Yammarino named three categories of agreement. First, if an individual's ratings fall into an in-agreement-category, the individual's self-observations are in agreement with others' perceptions. Second, two categories were named for a situation in which an individual perceives him-/herself in a different way compared to other-ratings. These categories were labeled as over-estimators (an individual's ratings are superior compared to other-ratings) and under-estimators (an individual's ratings are inferior compared to other-ratings).

In SOA research, the level of congruence between self- and other-ratings and its relation to the outcomes is the primary focus (Yammarino & Atwater, 1993). Yammarino and Atwater state that the number of positive outcomes at individual and organizational level increases when self-perception is accurate and decreases when self-perception is exaggerated. The number of positive outcomes can either increase or decrease when self-perception is underestimated. Individuals with positive and accurate ratings (in-agreement/good) should be good performers with similar views about themselves with the others. However, individuals with negative but accurate ratings (in-agreement/poor) are more likely to be linked to negative outcomes, as they are seen as poor performers who are aware of their low level performance, but not willing or able to change. The above-presented model (in Figure 1) includes antecedents of differentiating self and other ratings. For instance, cognitive processes, job experience, biographical information, personality characteristics, and contextual factors influence self-perception. Also, such factors as tenure and emotional stability are proposed to influence the ratings of others. Altogether, the study of SOA and its relations to individual and organizational outcomes is of great interest for both practitioners and researchers alike (Atwater & Yammarino, 1992).

As stated by Tice and Wallace (2003), individuals mainly base their self-conception on external cues drawn from their social environment, for example, how they present themselves in public and how they are perceived by others. The comparison of these self- and other-perceptions was a cornerstone in our study, and this is why we chose the model from Atwater and Yammarino to be a basis of our research. However, as our research examined managers' work-related personality instead of performance or effectiveness, there were some limitations in the use of the model. The use of the agreement categories is not entirely appropriate in personality research, since personality ratings cannot simply be classified into better or worse ratings. Thus, this study differed from the traditional performance-related studies on SOA, as we were primarily interested in the discrepancies between work-related personality ratings, that is, whether the ratings were in agreement or in disagreement and how the congruence of personality assessments was related to well-being outcomes.

1.3. Self- and other-ratings of personality

1.3.1. Work-related personality as a construct

Due to various ways of approaching personality as a construct, there does not exist a single definition of personality. However, Pervin (2003, p. 414) provided with a summary of what is known about personality: “Personality is the complex organization of cognitions, affects, and behaviors that give direction and pattern (coherence) to the person’s life. Like the body, personality consists of both structures and processes and reflects both nature (genes) and nurture (experience). In addition, personality includes the effects of the past, including memories of the past, as well as constructions of the present and future.” In one of the well-known models of personality (McAdams, 1996, 2009) it is stated, that personality information can be gained from three levels: 1) dispositional traits, 2) characteristic adaptations (e.g., goals, motives, tactics, defenses, values), and 3) integrative life stories (i.e., narrative story of past, present and future). Even though trait approaches have had a dominant role in personality research, McAdams (1996, 2009) states that all the levels are equally worth studying in order to reach a comprehensive view of personality.

In this study, the level of characteristic adaptations was of special interest. Characteristic adaptations are seen as “facets of psychological individuality that speak to motivational, cognitive, and developmental concerns in personality” and they are contextualized in place, time, and/or role (McAdams, 2009, p. 8). To capture these adaptations we used Work Personality Inventory (WOPI), which approaches the construct of personality from a multifactorial angle (Nederström & Niitamo, 2010; WOPI Technical Manual, 2010). It is a relatively new tool developed specifically for working-life settings. The developers emphasize the importance of various personality factors, especially motivational and cognitive ones, in the working life today. WOPI differs from the traditional personality inventories, which mainly relate to observable traits (e.g., Big Five -framework or a general trait conception of personality). However, the WOPI scales have correlated with the Big Five traits. The correlations between 14 WOPI scales and the Big Five traits were examined by using John’s Big Five Inventory (John & Srivastava, 1999) with a relatively small sample of 55 students. Conscientiousness and Extraversion, for instance, significantly correlated with eight different WOPI scales (correlations ranged between $-.42$ and $.64$). The results are presented in WOPI Technical manual (2010) in more detail.

WOPI is based on a construct of five basic work-related *competencies*, which have been defined by using Functional Job Analysis (Fine & Cronshaw, 1999; Nederström & Niitamo, 2010). These competencies are independent action, leadership, cooperation, planning and problem solving, and viewing. The competencies describe both work and the worker, and they are performed in various jobs and organizations all over the world. It is believed that the competencies are driven (i.e., given direction and momentum) by *personality drivers* together with situational factors. WOPI measures three personality drivers of behavior and competency at work: 1) *motives*, 2) *cognitive styles*, and, 3) *attitudes*. It is stated that each of the competencies operates with a certain goal. As an example, the competency of leadership has “leading others” as its main goal, and the driver behind this competency can be either leading other’s behavior or leading other’s thoughts (i.e., leadership motives as drivers).

The theoretical background of WOPI strives from various conceptions of the personality factors (Nederström & Niitamo, 2010; WOPI Technical Manual, 2010). The first three of the competencies (independent action, leadership, cooperation) are associated with goal-oriented, instrumental behavior. *Motives* are seen as a basic personality driver behind them, as they activate and direct human behavior (Cofer, 1985; Madsen, 1959; McClelland, 1987). Murray’s (1938) taxonomy of motivational needs and McClelland’s (1987, 1989) theory on human motivation, especially of implicit and explicit motives, form a basis for the motives as a driver in WOPI. The fourth competency of planning and problem-solving is driven by different *cognitive styles* or ways of thinking, described as individually typical ways of processing information instead of a certain cognitive ability (e.g., McAdams, 2009; Sternberg & Grigorenko, 1997). The cognitive styles as a driver has its basis on the work of Messick (1976, 1984) and Dewey (1910). The fifth competency, an individual’s viewing of the world and oneself, is organized by *attitudes*, which are generally described as an individual’s natural dispositions towards objects or circumstances in the environment or within oneself (Allport, 1935; Eagly & Chaiken, 1993). The groundwork of the attitudes as a driver lies in the work of Frenkel-Brunswik (1949), Scheier and Carver (1985), Crowne and Marlowe (1960) and Paulhus (1984). The theoretical background of all the personality drivers is further discussed in WOPI Technical Manual (2010) and in the article by Nederström and Niitamo (2010).

1.3.2. The principles of personality ratings

To our best knowledge, the majority of the previous studies about SOA on personality has been conducted from the trait perspective. Thus, due to WOPI’s different perspective on personality, it

should be kept in mind, that the trait-related studies presented may not be directly applicable in the context of WOPI, although there exist significant correlations between certain traits and WOPI scales (see WOPI Technical Manual, 2010).

According to Kenrick and Funder (1988), other-raters observing the target in different conditions can give corresponding ratings only if the target's behavior has been consistent in these settings and the raters' interpretations of the target's behavior are similar. Connelly and Ones (2010) have also noted that variety in the ratings may have been caused by differences in situations where raters can observe the target, and this might be a significant contributing factor to the ratings in working life settings, especially. In addition, studies on personality traits have indicated that the observability of trait-relevant behavior seems to be a great predictor of agreement on personality judgments. Thus, more visible personality traits come with greater agreement than less visible traits. (e.g., Allik et al., 2010b; Funder, 2012; John & Robbins, 1993; Paunonen, 1989). It has been found that there exist small differences between self- and other-ratings in WOPI (Nederström & Niitamo, 2010). Generally, the correlations between self- and other-ratings of motives tended to be stronger compared to those of cognitive styles or attitudes. Thus, the raters had stronger agreement on the target's motives than, for example, cognitive styles. Also, certain variance within the scale of attitudes has been detected; for example, the dimension of optimism generally reached a relatively good self-other correlation, while the dimension of self-image was observed with lower agreement.

As for SOA on personality, the self- and other-ratings generally correlate with each other. Connolly, Kavanagh, and Viswesvaran (2007) showed that the correlations between self- and other-ratings of personality were rather strong. With Big Five personality measures, the mean correlations between self- and other-ratings tended to be .40–.45 or higher at least among the rater-ratee-dyads with frequent, intimate contact (e.g., Connolly et al., 2007). The correlations of self and other-ratings of WOPI were studied as a part of WOPI's criterion validity studies (Nederström & Niitamo, 2010). Two kinds of other-raters, work-colleagues and spouses (or individuals with spouse-like relationship), assessed the personality of the target individual by using a 10-point graphical rating scale. In both groups, substantial correlations between self- and other-ratings were detected, as 13 out of 14 self-other correlations of WOPI scales reached a level of statistical significance ($p < .01$) and the magnitude of the correlations are comparable to those detected with more established personality trait measures (see, for example, Funder & Colvin, 1988; John & Robins, 1993; Paunonen, 1989).

Connelly and Ones (2010) underline that the nature of interaction between the target and the observer is of great matter: the quality of interaction seems to be a more important factor than the quantity of interaction, as regards to the accuracy of ratings. Thus, studies have found that a family member or a friend often gives more accurate ratings than a co-worker or a stranger because of the

intimacy component in their interaction. Work-colleague ratings have had significantly lower correlations with self-ratings, for example, corrected self-single other correlations ranged from .18 to .31 in Connelly and Ones' (2010) study. In fact, they were only a little stronger than other-ratings by strangers. However, slightly controversial results have been found with work-related personality (Nederström & Niitamo, 2010). The level of acquaintanceship – that is, how frequently and intimately the target and the observer were in contact – seemed to have an effect on the differences that emerged between the two groups of observers (i.e., work-colleagues and spouses). Compared to self-ratings, work-colleagues' ratings had stronger correlations with self-ratings than the ratings of spouses. This finding seems rather logical, as work-colleagues share the working context with the target individual, which probably highlights certain work-related behavior (e.g., leadership) that might be easier to detect at work. Thus, the general notion of the lower correlations between work colleagues' ratings and self-ratings seems not to be the case, when WOPI is used.

1.3.3. The added value of other-ratings in personality research

According to Morgeson et al. (2007), who have provided a review of the use of self-reports on personality assessment, individuals are only moderately capable of self-assessing even the most stable personality traits. This is due to several reasons, of which self-enhancement, social desirability and lack of self-knowledge are examples. In a similar way, John and Robins (1993) pointed out that evaluativeness of the trait or personality attribute (i.e., whether a trait is considered socially desirable or undesirable: e.g., “understanding” versus “arrogant”) seems to have an effect on self-ratings. They discovered the self-peer correlations to be lower compared to peer-peer correlations with personality traits regarded as evaluative. The authors presumed that it is more “ego-involving” to self-rate one's own personality on evaluative traits compared to more neutral traits or compared to rating someone else's personality on the same evaluative trait. Also, Connelly and Ones (2010) set forth a concern regarding self-assessments: self-raters may misrepresent themselves in their ratings, and this may decrease these measures' predictive validity. As other-raters are expected to be free of this bias, their ratings might have even greater predictive validity than self-assessments. However, self-raters obviously have the best access to their inner world, which is also a basic problem with other-ratings of personality.

Connelly and Ones (2010) underline that personality ratings based on an other-rater should predict ratings made by another other-rater (i.e., inter-rater reliability), self-ratings (i.e., self-other

correlations), and behaviors and outcomes (i.e., criterion-related validity). To increase the inter-rater reliability, the researchers suggest that other-ratings from intimate observers should be collected from a minimum of five individuals. If other-raters are colleagues or other individuals that are considered as a less accurate rating source, a minimum of seven or eight raters are recommended to ensure that the inter-rater reliability is high enough. However, since the results indicated that colleagues have greater agreement with self-ratings in work-related personality ratings, the greater amount of other-raters may not be such an issue with WOPI. Of the mentioned research areas presented by Connelly and Ones (2010), most of the studies have concentrated on inter-rater reliability and self-other correlations. Instead, there is less research available on ratings' relation to behavioral and other outcomes. In the previous studies other-ratings have been proved to be relatively accurate measures of a target's personality and it has been argued that, instead of examining the accuracy of other-ratings, researchers should focus on examining, how much their ratings matter and for which factors of personality. In our study, we aimed at reaching the less studied level of ratings' relations to outcomes by studying self- and other-ratings of work-related personality and their relations to the outcomes of occupational well-being of subordinates

Connelly and Ones (2010) have summarized the few studies of the accuracy of other-ratings of personality in predicting behavioral outcomes in their meta-analysis. They found three areas in which other-ratings of personality and their relations to behavioral outcomes have been studied: trait first impressions (i.e., how other-ratings correspond to ratings by strangers), academic achievement (i.e., usually measured with grades) and job performance (i.e., contribution to organizational effectiveness). In order to avoid common method bias, it was required that the behavioral outcomes were evaluated by an independent source. The main conclusion was that other-ratings of personality traits were at least equally good predictors of the outcomes as self-ratings in most of the cases. Of the Big Five traits, Openness had the strongest validity for both ratings when trait first impression was an outcome. Emotional Stability and Conscientiousness were the most important traits in predicting academic achievement. In addition, other-ratings of Extraversion had a strong relation to academic achievement, whereas in self-ratings the trait had lower validity. Both self- and other-ratings of Conscientiousness predicted job performance, but other-ratings were stronger predictors. Other-ratings of Agreeableness, Openness and Emotional Stability also predicted job performance. It is of special interest that other-ratings were even more accurate predictors of academic achievement and job performance than self-ratings. In addition, when self-rating and one other-rating were combined, there was typically a considerable increase in validity. The researchers emphasize the importance of other-ratings in predicting behavioral outcomes and they strongly encourage further studies in this area.

1.4. Demographic factors and personality ratings

In addition to factors mentioned above (see Atwater & Yammarino, 1997; Fleenor et al., 2010; Funder, 1995), various qualities of a ratee influence the ratings. In this study, we were able to further examine the demographic factors of *age* and *gender* of a ratee (manager) and their relations to the work-related personality ratings of managers (*self-ratings*) and subordinates (*other-ratings*).

Age of the target in the ratings of personality. Previous studies suggest that there might be personality changes with aging (e.g., Gutierrez, Jimenez, Hernandez, & Puente, 2005). For example, researchers have found out that certain self-rated Big Five traits (e.g., Openness) decrease with age (e.g., Donnellan & Lucas, 2008; Srivastava, John, Gosling, & Potter, 2003). However, in a Finnish longitudinal study Rantanen, Metsäpelto, Feldt, Kokko and Pulkkinen (2007) found out opposite results – Openness, for example, increased with age. In the studies where other-ratings were used, there were changes in self-ratings but not in other-ratings with aging of the target (McCrae et al., 2000). However, in another study, age associations found in self-ratings were replicated in some of the other-ratings (McCrae et al., 2004). In a large, multicultural study of self- and other-ratings of personality (assessed through NEO-PI-R), it was discovered that the amount of change in age differences varied from trait to trait (McCrae et al., 2005). In the same study, the researchers also found out that the prevalence of some traits declined in self-ratings and simultaneously increased in other-ratings. Thus, we may conclude on the basis of earlier studies that it is likely that personality changes with aging, but there have been controversial results from trait to trait and whether they increase or decrease. In addition, the changes in self-ratings have not been replicated in other-ratings in all studies and sometimes the direction of change in other-ratings has even been the opposite to self-ratings.

Gender of the target in the ratings of personality. Costa, Terracciano and McCrae (2001) state that gender differences in personality traits are minor compared to individual differences within gender. However, they found out gender differences in self-rated Big Five traits (e.g., women scored higher in Neuroticism and Agreeableness) and the same indication was discovered in Feingold's (1994) study. Twenge (1997) found out that women have reported an increase in masculine traits (by using BSRI and PAQ inventories) during the observed 20-year period, but men did not report an increase in feminine-stereotyped traits. Twenge's (2001) cross-temporal meta-analysis from 1931 to 1993 concentrated on a core leadership trait, assertiveness, and she found out that women have reported increasing similarity in self-assessed assertiveness with men over years. She suggested that sociocultural changes (e.g., possibilities for women's education) have had an effect on women's

personalities, as correlations showed that assertiveness is related to women's status and roles. It is speculated that personality traits are less constrained and more able to become differentiated in well-developed nations due to greater possibilities for gender equality, for example. McCrae et al.'s (2005) large multicultural study showed that others gave different Big Five -ratings for men than for women and the differences were again highlighted in wealthier and more equal countries. In addition, Schmitt, Realo, Voracek and Allik (2008) had similar findings regarding self-reported personality and gender differences: gender differences among self-reported Big Five -traits existed and they were highlighted in well-developed nations. The previous studies suggest that men and women may be rated differently, but again a clear picture of these differences seems to be lacking.

It is crucial to remember that the above-presented results are based on the studies in which personality trait inventories were used. However, even though the trait approach differs from the multifactorial personality approach behind WOPI, which is used in this study, the trait studies may give some indications of the relations between demographic factors and self- and other-rating tendencies. The studies of the links between demographic factors and rating tendencies on WOPI are very limited. However, in the development of WOPI, special attention was paid to the creation of items that treat individuals with different age and gender fairly (WOPI Technical Manual, 2010). WOPI's reliability and descriptive statistics show that the gender differences in self-ratings were minor. There were only two dimensions out of 14, which had significantly different average scores for men and women. Women tended to show greater reliance and dependency on others. They also had a tendency to report more intuitive thinking, whereas men reported more analytical and logical thinking. The sub-scales (i.e., motives, cognitive styles, and attitudes), which are the focus of this study, have not been studied earlier in this regard.

1.5. Personality and occupational well-being

Although the role of personality in occupational well-being has received a lot of research attention (see Alarcon, Eschleman, & Bowling, 2009; Mäkikangas, Feldt, Kinnunen, & Mauno, 2013, for reviews), to our best knowledge, the direct relation between a manager's personality and subordinates' occupational well-being has not been widely studied before. In this section, we discuss the possible paths for the aforementioned relation and the aspects researchers have explored so far. We start with defining what is meant by occupational well-being.

1.5.1. *Multidimensional model of occupational well-being*

Skakon, Nielsen, Borg, and Guzman (2010) addressed in their review on the relations of leadership behavior and subordinates' occupational well-being that in many studies the content of well-being was not clearly specified. That is, the studies lacked a clear model of occupational well-being. Van Horn, Taris, Schaufeli, and Schreurs (2004) have presented a *multidimensional model of occupational well-being* in which well-being is conceptualized as a positive evaluation of an individual's work-related aspects. The model includes dimensions of affective, cognitive, professional, social, and psychosomatic well-being, and it incorporates ideas from Warr's (1994) and Ryff's (1989) models of well-being. The researchers highlight the importance of studying multidimensional well-being instead of concentrating only on affective dimensions, as this helps to gain broader understanding of the nature, causes and consequences of occupational well-being. As a result, we aimed at reaching several dimensions of the model in our study. More specifically, we were able to adopt this view by focusing on the affective and social dimensions of well-being in the model.

Of the five dimensions, *affective well-being* has been seen as the most central one (Daniels 2000; Diener & Larsen, 1993; Skakon et al., 2010; Van Horn et al., 2004; Warr, 1994). Affective well-being is defined as a frequent experience of positive affects (e.g., pleasure, enthusiasm, vigor) and infrequent experiences of negative affects (e.g., anger, anxiety, tiredness) (Diener & Larsen, 1993). It has been stressed that it is important to equally assess both positive and negative affects, and it may occasionally be useful to measure these two factors instead of the five, more detailed aspects of affective well-being (*anxiety-comfort, pleasure-displeasure, boredom-enthusiasm, tiredness-vigour and anger-placidity*) proposed by Daniels (2000). Also, Warr (1994) has – even earlier – presented very similar detailed dimensions. *Social well-being* indicates both negative attitude towards co-workers (Maslach, 1993) and the extent to which an individual functions well in work-related social relations. The importance of social well-being has been proved in many studies. Nyberg, Bernin, and Theorell (2005) sum up the studies that show that social support – in forms of emotional (e.g., empathy, caring, and trust), instrumental (e.g., help with practical needs), and informational (e.g., help to self-help) support – indicates occupational well-being. Among the other dimensions of the model, *cognitive well-being* refers to employees' cognitive functioning (e.g., ability to take up new information, ability to concentrate on work), *professional well-being* refers to work-related motivation, achievement, self-efficacy and ambition (Van Horn et al., 2004) and *psychosomatic well-being* refers to possible psychosomatic symptoms (e.g., stomach pain).

1.5.2. The relation between one's personality and occupational well-being

As was already stated, the relationship between personality and subjective well-being is a thoroughly studied field, and it has gained a lot of interest since the “rise of positive psychology” in the 2000s. In a recent meta-analytical study, Steel, Schmidt and Schultz (2008) expressed that the relationship – either direct or indirect – between personality and subjective well-being is strong. Like personality, subjective well-being is also said to be stable over time. These findings seem to be solid and, also, result from other factors (e.g., biological and genetic) than the construct similarities alone: Based on Big five -framework, traits of Neuroticism and Extraversion are almost identical with the two elements of subjective well-being, negative and positive affectivity, respectively. Also, Diener, Oishi and Lucas (2003) came up with similar conclusions about the strong link between personality and well-being. It should be kept in mind, though, that the great majority of the studies between personality and well-being have been conducted from a trait perspective. The researchers also point out that “non-trait” features of personality may be linked with subjective well-being and should be studied as well.

As regards occupational well-being, Mäkikangas et al. (2013) showed in their qualitative review on the relation between personality and subjective occupational well-being (work engagement), that the most (75%) of the personality measures used were based on the trait approach. Of the studies, 64% indicated that personality was directly related to work engagement. For instance, self-efficacy, extraversion and conscientiousness were positively related to work engagement (i.e., occupational well-being outcome). Also, the recent meta-analysis of burnout studies revealed that the personality of an employee was related to the three dimensions of burnout – emotional exhaustion, depersonalization and personal accomplishment (Alarcon et al., 2009). More specifically, four of the Big Five-dimensions (Emotional Stability, Extraversion, Conscientiousness and Agreeableness) were negatively related to the dimensions of burnout. The researchers, however, emphasize that the theoretical link between personality and burnout needs further research. Also, it is important to examine possible moderator mechanisms in the personality-burnout-relationship to determine, for example, whether personality has a specific association to burnout in some settings. As a result, it seems that personality is related to both general well-being and occupational well-being, even though the mechanisms by which this relationship occurs may vary.

1.5.3. Two paths from a manager's personality to subordinates' well-being

Thus far it is clear that one's personality and well-being are very likely related, but how is a manager's personality linked with his/her subordinates' well-being? We introduce two possible paths. The first one relates to the crossover of experiences between persons and the second one to the relationship between personality and leadership behavior.

Crossover perspective. Crossover refers to a process in which emotional states transfer from one person to another in a face-to-face interaction (Bolger, DeLongis, Kessler, & Wethington, 1989; Tel Brummelhuis, Bakker, & Euwema, 2010). Three mechanisms explaining this phenomenon have been presented (Westman, 2001). First, the contagion of emotions can happen directly from an individual to another via an automatic, unconscious empathetic reaction and spontaneous modeling of facial expressions (Barsade, 2002; Westman, 2001). Second, crossover can happen as a result of a process in which an individual is attuned to another person's emotions consciously and empathetically (Westman, 2001). Third, the indirect mechanisms are also possible explanations: the emotional state of an individual can have an effect on his/her social behavior and, thus, have a positive or negative effect on the emotions and well-being of his/her close, intimate individuals (see, e.g., Westman, 2001).

Adopting the crossover perspective to our study, it is possible that a manager's personality is related first to his/her own occupational well-being, which is further related – via a crossover process – to the subordinates' occupational well-being. The few studies conducted about the crossover of well-being experiences in work context have shown, for example, that work engagement can spread and transfer from an individual to another in a team (Bakker, Van Emmerik, & Euwema, 2006). It is worth noting that in our study we have not examined managers' well-being; therefore, the above claim remains a speculative explanation for possible relationships.

Leadership styles and occupational well-being. It is known that the personality of a leader and the leadership style are related (de Vries, 2012; Hogan & Kaiser, 2005; Judge, Bono, Illies, & Gerhardt, 2002). Most of the studies connecting the personality of a leader with his/her leadership style have been conducted in the Big Five framework. Having studied the relation of the self- and other-ratings of personality and leadership styles, de Vries (2012) stated that it is possible to make discoveries about an individual's leadership style by assessing his or her personality. He even put an emphasis on assessing personality instead of leadership style: leadership style assessments attained lower consensus among subordinates (other-raters) and weaker leader-subordinate agreement compared to personality assessments. This research supports the findings from Hogan and Kaiser (2005), who,

among others, have also highlighted the relationship between personality and leadership style. They even presented a model suggesting that, via leadership style, the personality of a leader eventually predicts organizational performance, employee attitudes and team functioning.

It has been shown that certain Big Five -traits are related to leadership styles. For instance, Agreeableness and Extraversion were in a positive relationship with transformational leadership (Judge & Bono, 2000). Transformational leaders are charismatic and inspiring: they provide meaning and understanding, stimulate their followers intellectually and support them, to mention a few key attributes (Bass & Riggio, 2006). Transformational leadership style is of special interest to us, since there are certain similarities between the dimensions of WOPI (e.g., inspiration, empathy) and transformational leadership style. Because personality and transformational leadership have already been linked, the link between transformational leadership and subordinate well-being is also within our scope.

Transformational leadership has been linked with well-being at workplaces (see Skakon et al., 2010). For example, Voon, Lo, Ngui and Ayob (2011) found out that the transformational leadership style is positively related to employees' job satisfaction. The relationship between transformational leadership and well-being outcomes is said to be partly or fully mediated with several factors of which trust in leader and self-efficacy (Liu, Siu, & Shi, 2010), followers' perception of their work characteristics (Nielsen, Randall, Yarker, & Brenner, 2008; Nielsen, Yarker, Brenner, Randall, & Borg, 2008) and perceptions of meaningful work (Arnold, Turner, Barling, Kelloway, & McKee, 2007) are examples. In these studies, job satisfaction and the psychological well-being of subordinates were studied as well-being outcomes.

Summary. Thus, based on previous research, we can speculate that a specific leadership style (i.e., in this case transformational leadership), which is related to one's personality, generates experiences of well-being among the subordinates. Because we examined work-related personality, it can be expected that there is correspondence between WOPI and transformational leadership (e.g., empathy and inspiration). However, it should be kept in mind that we examined the three areas of WOPI (i.e., motives, cognitive styles, attitudes) instead of each dimension separately. Since the area of motives has the strongest connections to transformational leadership, special attention will be paid to this area. Thus, we expected that, of the three areas of WOPI, motives might have the strongest relationship with subordinates' well-being.

In our study – besides that we studied individual relations between self- and other-ratings of a manager's work-related personality and occupational well-being of subordinates – we also focused on self-other rating agreement (SOA) on the personality ratings and its relation to occupational well-being. This enabled us to compare whether SOA on personality has more relevance to subordinates'

well-being outcomes than either of the ratings alone. As was said earlier, the issue of self-ratings and other-ratings of personality and their relations to various work-related outcomes has not received much research attention. However, there are some “soft signs” indicating that SOA and its relations to other than performance-related outcomes might be worth studying as well. Atwater, Ostroff, Yammarino and Fleenor (1998) have argued that SOA might matter the most in relation to the outcomes involving “human perception” (p. 595) and be less relevant with more objective measures and outcomes (e.g., performance or productivity measures). They even propose that “lack of self-awareness is more likely to impact interpersonal relationships than meeting productivity goals”. We want to emphasize that our research setting (i.e., SOA and its relation to subordinates’ well-being) has not been studied before and, as a result, we can only present conservative estimates for the possible explanations between SOA and occupational well-being.

In conclusion, it seems clear that there may be links between the personality of a manager and the occupational well-being of subordinates, for example, via the paths discussed above. In addition, it is possible that other-ratings might have even stronger predictive value than self-ratings, but this hypothesis is based on studies with outcomes different from our study (see Connelly & Ones, 2010). As we examine subordinates’ well-being, it might be natural that other-rating (i.e., subordinate’s own rating) has a more powerful role in explaining subordinates’ well-being. The least known area is SOA and its relation to the occupational well-being of subordinates. As SOA has been seen as an indicator of self-awareness, it can be speculated if SOA (i.e., agreement on ratings) predicts better occupational well-being than individual ratings. One explanation could be that the view of a manager’s personality is shared and a manager acts according to subordinates’ expectations.

1.6. Research questions

In our first research question, we clarified whether a manager’s gender and age were related to a manager’s (self) and subordinates’ (other) ratings of a manager’s work-related personality (RQ1). In the following two research questions, we examined self- and other-ratings and SOA on a manager’s work-related personality and their relations to occupational well-being of subordinates. More specifically, we examined whether the personality ratings of a manager’s work-related personality as a whole (RQ2) and its three separate areas (RQ3) were related to the occupational well-being of subordinates at a team level. Although we could not set specific hypotheses, we have posed speculative expectations about the potential results on the basis of earlier research literature. The

occupational well-being outcomes aimed at capturing the aspects of affective well-being and social well-being which have been presented in Van Horn et al.'s (2004) multidimensional model of occupational well-being.

In our study, the main research questions were formulated as follows:

- 1a) Is a manager's age related to a manager's (self) and subordinates' (other) ratings of a manager's work-related personality?
- 1b) Is a manager's gender related to a manager's (self) and subordinates' (other) ratings of a manager's work-related personality?

Previous studies have indicated that personality changes with age (e.g., Gutierrez et al., 2005), but the changes have not always been replicated in both self- and other-ratings. In addition, some researchers have discovered differences between men and women in personality ratings (e.g., Costa et al., 2001; McCrae et al., 2005). However, WOPI's reliability and descriptive statistics show that gender differences in self-ratings were minor. Since previous studies of age's and gender's relations to personality ratings have not had parallel results, it can be expected that there might be controversial ratings between a manager's and subordinates' ratings in our study as well.

- 2a) Is a manager's self-rating of his/her work-related personality related to subordinates' occupational well-being?
- 2b) Is subordinates' other-ratings of their manager's work-related personality related to their own occupational well-being?
- 2c) Is self-other rating agreement (SOA) on a manager's work-related personality related to subordinates' occupational well-being?

- 3a) Is a manager's self-rating of the three areas of his/her work-related personality (i.e., motives, cognitive styles, and attitudes) separately related to subordinates' occupational well-being?
- 3b) Is subordinates' other-ratings of the three areas of their manager's work-related personality (i.e., motives, cognitive styles, and attitudes) separately related to their own

occupational well-being?

3c) Is self-other rating agreement (SOA) on the three areas of a manager's work-related personality (i.e., motives, cognitive styles, and attitudes) separately related to subordinates' occupational well-being?

Even though this research setting has not been studied before, we discuss hypothetical views based on theory and similar studies. Based on the model of self-other rating agreement (Atwater & Yammarino, 1997), it can be expected that agreement on a manager's work-related personality ratings is related to subordinates' occupational well-being. It can also be expected that subordinates' ratings of a manager's work-related personality have good and even greater predictive value for subordinates' occupational well-being outcomes compared to a manager's self-ratings (e.g., Connelly & Ones, 2010). The expected relationships can be explained, for example, by a crossover hypothesis, according to which emotions (i.e., well-being) can transfer from managers to subordinates (e.g., Bolger et al., 1989; Tel Brummelhuis et al., 2010), or by the link between a manager's personality and his/her leadership style (de Vries, 2012; Hogan & Kaiser, 2005; Judge et al., 2002). Of the areas of WOPI, motives are of special interest, since the area has many similarities with transformational leadership style, which is known to be related to subordinates' occupational well-being (e.g., Skakon et al., 2010).

2 METHODS

2.1. Participants and procedure

Data were collected in 2006 by a Finnish HR-consulting company (Psycon Corp.) in a Finnish public funded expert organization. Data collection was carried out as a part of a broader personnel survey, which aimed to examine the organizational climate and functioning in the organization. All of the personnel received an online invitation to participate in the survey. The invitation included a link to the personnel questionnaire. The answers were automatically collected in Psycon's network server. The personnel were also provided with the possibility to fill in a paper form of the questionnaire. This alternative was only used by three participants. In 2006, 2780 people altogether worked in the organization, a number of which 2067 individuals participated in the personnel survey, yielding a response rate of 74.4%. The participants represented different organizational levels and units. Even though total sampling was used, participation in the study was voluntary.

The research setting is described in Figure 2 in more detail. First, both managers and subordinates filled in the personnel survey, but in the present study only the subordinates' responses were analyzed. After filling in the personnel survey, a work-related personality of each manager was evaluated by the manager and by his or her subordinates. Managers filled in the full version of work-related personality inventory (WOPI). The subordinates were asked to evaluate their manager's work-related personality with a short version of WOPI which was added to the end of the personnel survey. Thus, every respondent ($N = 2067$) who filled in the personnel survey was asked to fill in the WOPI assessment of his or her manager.

There were certain exclusion criteria in this study. First, there were 55 managers out of 372 managers who were not included in the study because of the lack of their subordinates' personnel survey responses. Second, 137 managers did not fill in the WOPI self-assessment. Third, there were 36 teams with less than three team members, and these teams were excluded from the study in order to have more reliable ratings (Connelly & Ones, 2010). Thus, complete data in our study were available from 846 participants of which 144 were managers and 702 subordinates. Each manager directed a team of 3–12 subordinates, and the average team size was 4.94. All the subordinates' responses were analyzed as mean scores at a team level. The focus in this study was in evaluating subordinates' WOPI assessments of their manager and their own well-being at a team level.

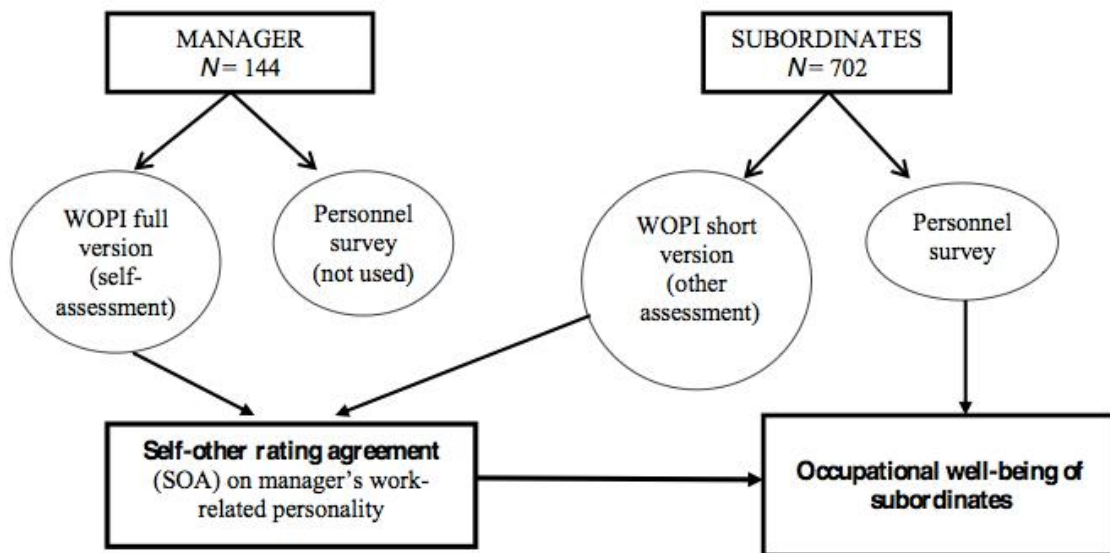


FIGURE 2. The research setting

From those participants who reported their gender, 33 out of 122 managers were women and 89 were men. The average age of the managers was 44 years (46 years for women, 44 years for men). Background information about the subordinates were not available in our data. Because of the limited background information about the participants, the evaluation of the representativeness of the data is challenging. However, the relatively high response rate indicates that the data are fairly representative of this Finnish expert organization.

2.2. Measures and variables

Work-related personality of a manager was assessed through Working Personality Inventory (WOPI), which is a standardized self-report questionnaire (WOPI Technical Manual, 2010). In total, there are 14 sub-scales, which include 7 sub-scales for motives, 4 sub-scales for cognitive styles and 3 sub-scales for attitudes (WOPI Technical Manual, 2010; WOPI dimension scales, see Table 1).

Managers filled in a full version of WOPI. There were 224 respondent-descriptive item statements based on the aforementioned 14 sub-scales and, hence, there were 16 items for each sub-scale. Statements (e.g., leadership: "I like to give orders and get things going", "In the company of another person, I usually make the decisions", "I am very demanding towards others") were answered on a dichotomous (true-false) scale (1 = true, 0 = false).

TABLE 1. WOPI dimension scales – competency drivers (modified from WOPI Technical Manual, 2010)

<u>WOPI dimension scales – competency drivers</u>	
<u>Low score --- High score</u>	
Achievement motives (steer independent performance)	
1. Persistence	Less persistent --- Very persistent
2. Competition	Less competitive --- Very competitive, results oriented
Leadership motives (steer leadership-influencing)	
3. Leadership	Not leading of others --- Strongly leading of others
4. Inspiration	Reserved, unassuming --- Presentational, inspiring of others
Interaction motives (steer direct cooperation)	
5. Sociability	Solitary, withdrawing --- seeks contacts, communicates
6. Empathy	Distant, remote --- supports, advices others
7. Reliance	Autonomous, self-sufficient --- relies on, listens to others
Cognitive styles (shape planning & problem solving)	
8. Orientation	Pursues facts --- pursues ideas
9. Perception	Concrete perception --- abstract perception
10. Thinking	Analytical, logical thinking --- intuitive, instinctive thinking
11. Decision making	Cautious, controlled decisions --- quick, risk-taking decisions
Attitudes (shape viewing of the world and self)	
12. Ambiguity – change	Prefers clarity, stability --- prefers novelty, change
13. Optimism	Less optimism --- much optimism
14. Self-reflection	Realistic self-perception --- less realistic self-perception

For each item that was answered to be true, the participant got one point and, thus, the maximum score per dimension was 16 points (range 0–16). A low score on a dimension indicated that the manager assessed his/her personality in this dimension on the left end of the scale (see Table 1). A high score on each dimension indicated that the manager assessed his/her personality in this dimension on the right end of the scale. For instance, in Ambiguity – Change -dimension “High

scorers (novelty-seekers) prefer to work in mobile work environments offering variety and change. Low scorers (clarity-seekers) prefer to work in stable work environments which remain unchanged” (WOPI Technical Manual, 2010, p. 6). All WOPI brief scale definitions are presented in Appendix 1.

A mean score was calculated for the analysis and it represents all of the WOPI dimensions scores together ($M = 115.58$, $SD = 18.31$). The higher the mean score, the higher the evaluations in the 14 dimensions overall (i.e., the WOPI profile reaches more the right end of the scale). In order to have a more elaborate investigation of SOA on WOPI, a mean score was calculated for each sub-scale (i.e., motives, cognitive styles, and attitudes), as well (Motives: $M = 58.06$, $SD = 12.01$; Cognitive styles: $M = 31.56$, $SD = 9.07$; Attitudes: $M = 25.95$, $SD = 7.03$). For the analysis, the mean scores were standardized ($M = 0$, $SD = 1$). The dimensions have had a median internal consistency of .77 (KR-20) and median stability (retest-reliability) coefficient of .85 (WOPI Technical Manual, 2010). WOPI’s criterion and construct validity have also turned out to be good. Criterion validity included a research concerning external ratings of personality as well as observer ratings of predicted behavior. Construct validity included a research on relations to a wide set of personality, work and organizational measures.

A short version of WOPI for subordinates included the corresponding 14 dimensions, and each dimension was measured by one item. The subordinates evaluated their manager by using a 10-point scale (range 1–10). The opposite ends of the scales were verbally described (e.g., leadership: 1 = not willing to lead, withdraws, unwilling to take the initiative, soft, not actively in charge, 10 = willing to lead, directive, leads the way, initiator, decision-maker; translated by authors). A single mean score at a team level was calculated to describe the subordinates’ aggregated evaluations of their manager’s work-related personality assessment as a whole ($M = 86.50$, $SD = 10.30$). The same procedure was done for each sub-scale (Motives: $M = 46.70$, $SD = 5.78$; Cognitive styles: $M = 22.42$, $SD = 3.90$; Attitudes: $M = 17.39$, $SD = 2.69$). For the analysis, the mean scores were standardized ($M = 0$, $SD = 1$). Reliability of the short version of WOPI was examined by calculating the Cronbach’s alpha, which was relatively high ($\alpha = .83$) for the whole inventory. The Cronbach’s alpha was also calculated for each sub-scale: motives ($\alpha = .79$), cognitive styles ($\alpha = .65$), and attitudes ($\alpha = .48$). The Cronbach’s α -values for motives and cognitive styles were relatively high, but the value remained low for attitudes.

From this point onwards, we refer to WOPI scales presented in Table 1 (in this study) by indicating that certain score (*low* or *high*) on WOPI or its sub-scale locates a manager’s work-related personality in either more in the *left* or *right* end of the scale. A total score on WOPI included all the sub-scales and, thus, gives a suggestive, overall description of a manager’s work-related personality (i.e., whether the profile is located more in left or right end of the WOPI scale). By examining the scores

on the areas of WOPI (motives, cognitive styles, and attitudes) separately, it was possible to get more detailed descriptions of a manager's work-related personality.

Occupational well-being of subordinates was assessed through the personnel survey. In total, the personnel survey included 77 items that covered six themes. The themes ranged from evaluating one's own job-related aspects and the functioning of the team to assessing the management style of one's own manager and the corporate image. All the items were answered on a five-point scale where the opposite ends of the scales were verbally described (e.g., "Team spirit in our team is 1 = bad ... 5 = good"; "My workload is 1 = excessive ... 5 = reasonable"; "I feel enthusiasm and joy at work 1 = very rarely ... 5 = almost always"). The respondents were instructed to use the whole range of the response scale. The original personnel survey was designed to cover various themes that were not central in our study and, for instance, we excluded many organization-related items (e.g., organizational image). We chose 28 items out of 77 based on analyzing the contents of the items. These items concerned one's evaluation of job-related aspects and the functioning of the team and were seen as reflecting the dimensions of affective and social well-being in the multidimensional model of occupational well-being (Van Horn et al., 2004).

In total, these 28 questions of the personnel survey were analyzed with explorative factor analysis using Principle Axis Factoring as an extraction method and Promax with Kaiser Normalization - rotation in order to explore the underlying factors. Promax-rotation was chosen as it overcomes the problem of intercorrelations between the observations. Explorative factor analysis produced six factors (having eigenvalue > 1) and they explained altogether 69.61% of the variance. The original factor pattern matrix is presented in Table 1 in Appendix 2. Three of the produced six factors were selected for further analysis after examining their factor loadings and conceptual adequacy for this study (see Table 2). The factors that were not selected either consisted of items that had loadings on several factors or were not directly appropriate for occupational well-being related study (see Appendix 2, Table 1 for the original factor analysis results). The items of the chosen factors were then recoded into mean sum variables (range 1–5) and labeled after the head variable which had the highest factor loading. We labeled factors as "Work-related Positive Emotions" ($M = 3.73$, $SD = 0.42$), "Low Work-related Strain" ($M = 3.16$, $SD = 0.43$) and "High Team Spirit" ($M = 4.08$, $SD = 0.48$). The factors of Work-related Positive Emotions explained 31.85% of the variance, Low Work-related Strain explained 6.05% and High Team Spirit explained 10.16% of the variance. Among the six produced factors, the chosen three factors had the lowest intercorrelations (see Appendix 1, Table 2). The Cronbach's alphas for these sum variables were relatively high ranging from .80 to .88. Factor loadings, communalities and the Cronbach's alphas are presented in Table 2.

2.3. Data analysis

The relationship between the demographic variables (age and gender) of a manager and the rating tendencies on work-related personality (RQ1a & RQ1b) was examined through multivariate analysis of variance (MANOVA). Accordingly, in MANOVA a manager's and subordinates' ratings were analyzed both jointly and separately. A similar procedure has been used in corresponding studies earlier (e.g., Edwards, 1995; Ostroff, Atwater, & Feinberg, 2004). In this procedure, self- and other-ratings are not collapsed into a single index but the two components are retained separately and tested jointly. If the relationship between a demographic variable and the ratings was discovered, further examinations were conducted by drawing figures to illustrate the relationships. As age was treated as a continuous variable in this study, we categorized the age into three classes: low ($n = 22$), mediate ($n = 74$) and high ($n = 26$). Low and high values were ± 1 *SD* from the mean, ranging from 29–37 for low, 38–52 for mediate and 53–61 for high age group.

We used polynomial regression analysis and response surface tests to answer research questions 2a and 2b. There are several ways to operationalize SOA, and the one used in the present study is considered a self-insight approach (Fleenor et al., 2010). In this method, the self-ratings of a target individual are compared to the relevant others' ratings of the target (Kwan et al., 2004). Self-insight method is grounded on Allport's (1937) work, and the method has been popular in the studies about SOA and multi-source ratings. It is also considered the best way of analyzing this kind of data as it overcomes methodological problems (e.g., related to using difference scores) concerned with earlier research on SOA (Fleenor et al., 2010). Thus, the analysis procedure consisted of polynomial regression analysis followed by response surface analysis, which graphs polynomial regression analysis results in a three-dimensional space (e.g., Edwards, 1994; Edwards & Parry, 1993). By using this procedure, one can investigate how two predictor variables and, especially, the discrepancy between them (i.e., one's self-rating, the other-rating and their discrepancy), relate to an outcome variable (i.e., the occupational well-being of subordinates in the present study) (Shanock et al., 2010). As the two ratings are kept separate, the computing of higher-order terms makes it possible to examine linear and non-linear relations.

TABLE 2. Results of the explorative factor analysis of occupational well-being items: Factor loadings (>. 30), communalities and the Cronbach's alphas

Items	Factor 1: Work-related Positive Emotions	Factor 2: High Team Spirit	Factor 3: Low Work- related Strain	Communality
Interesting and challenging duties	.90			.77
Work-related enthusiasm and joy	.77			.72
Significance of the duty for the organization	.52			.59
Finding fulfillment in job	.83			.81
Utilization of "know-how" in job	.80			.57
Opportunities for professional progress in the organization	.58			.70
Modesty of the work-load			.85	.74
Coping at work ¹	.38		.60	.67
Balance between work and leisure time			.70	.53
Control over working time			.51	.49
Satisfaction with workload			.66	.46
Balance between authority and responsibility			.37	.67
Solidarity, team spirit in the team		.75		.69
Sharing of the know-how and knowledge in the team		.73		.55
Getting assistance in the team		.71		.51
Eigenvalue	8.92	2.84	1.69	
% of total variance	30.65	9.00	4.62	
<i>M</i>	3.73	4.08	3.15	
<i>SD</i>	0.42	0.48	0.43	
Chronbach's alpha	.88	.82	.80	

¹ Included in Factor 3 in this study

Mean sum variables based on the factor analysis presented above were used as dependent variables (subordinates' work-related positive emotions, low work-related strain, and high team spirit) in this study. First, intercorrelations between the variables were examined. Second, polynomial regression analyses were conducted between all independent variables (SOA on WOPI as a whole, and SOA on motives, cognitive styles, and attitudes) and each dependent variable. The general equation for polynomial regression analysis is $Z = b_0 + b_1X + b_2Y + b_3X^2 + b_4XY + b_5Y^2 + e$ (Shanock et al., 2010), where Z is a dependent variable, X is an independent variable 1 (subordinates' rating) and Y is an independent variable 2 (manager's rating). In polynomial regression analysis, the dependent variable (Z) is regressed on each independent variable (X and Y), the interaction between the independent variables ($X \times Y$) and the squared terms for the independent variables (X^2 and Y^2). Thus, three new variables were made for each analysis: the square of the centered subordinates' rating, the cross-product of the centered subordinates' and manager's rating, and the square of the centered manager's rating. Next, polynomial regression analyses were conducted by regressing the dependent variables on the centered independent variables, the product of the centered independent variables, the centered subordinates' rating squared, and the centered manager's rating squared terms.

In the response analysis graph, the slope and the curvature of two lines illustrate the phenomenon (Shanock et al., 2010). Surface pattern includes different lines that can be examined (see an example graph in Figure 3). First, we can see the slope of the line of *perfect agreement* ($X = Y$), which illustrates how agreement between the independent variables (subordinates' rating and manager's rating) relates to the dependent variable (i.e., occupational well-being of subordinates). In addition, a curvature along the line of perfect agreement shows whether or not the relationship between in-agreement ratings and the dependent variable is nonlinear. The line of *incongruence* ($X = -Y$) represents a situation where X and Y are not in agreement. A significant curvature along the line shows how the degree of discrepancy between the independent variables relates to the dependent variable. Furthermore, the slope along the line of incongruence indicates the direction of the discrepancy which shows us that the dependent variable can be influenced more when the discrepancy is in one direction ($X > Y$ or $X < Y$).

If R^2 (explanation rate) significantly differed from zero, polynomial regression results were further examined with four response surface test values (a_1, a_2, a_3, a_4) that are also noted in Figure 3. From the results, three questions can be formed: 1) how does the agreement between the independent variables relate to the dependent variable, 2) how does the degree of discrepancy between the independent variables relate to the dependent variable, and 3) how does the direction of the discrepancy between the independent variables relate to the dependent variable (Shanock et al., 2010).

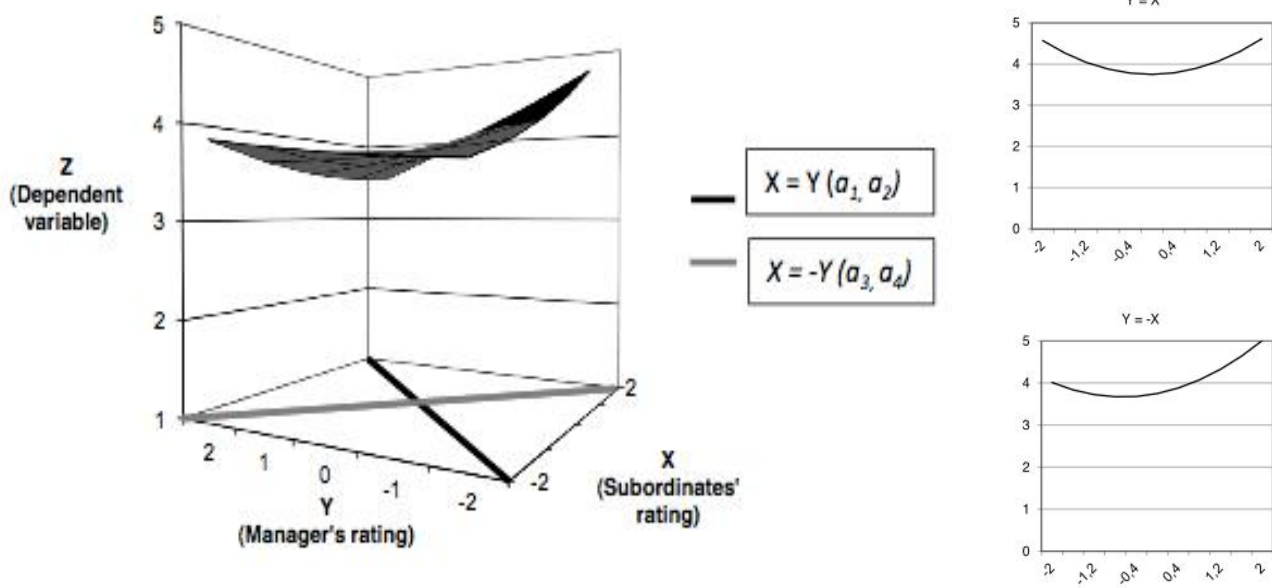


FIGURE 3. An example of a response surface graph

Value a_1 describes the slope of the line of perfect agreement as related to the dependent variable. Value a_2 describes the curvature along the line of perfect agreement as related to the dependent variable (i.e., whether the relationship between the independent and the dependent variables is non-linear). Value a_3 shows the slope of the line of incongruence as related to the dependent variable, and it describes the direction of the discrepancy. Value a_4 shows the curvature of the line of incongruence as related to the dependent variable (i.e., non-linear relationship). Each surface value and its statistical significance can be calculated with the help of Excel spreadsheet (available from Shanock et al., 2010). In the same spreadsheet, three-dimensional response surface graphs can be drawn to help the interpretation of the results. Two dimensional pictures of the line of perfect agreement ($X = Y$) related to values a_1 and a_2 and the line of incongruence ($X = -Y$) related to values a_3 and a_4 were also added to illustrate the results in a simpler way. For more detailed interpretation instructions, see the article of Shanock et al. (2010).

3 RESULTS

3.1. Descriptive results

The intercorrelations between all independent and dependent variables are presented in Table 3. First, we can see that of the demographic variables (age and gender) of the manager, only age had a weak negative relationship to his/her self-assessment of the total WOPI and on the sub-scale of motives (RQ1). Thus, the older the manager was, the lower his/her self-assessment scores (i.e., they were located more on the left end of the WOPI scale, see Table 1) were on WOPI as a whole and separately on motives as a subscale. Age and gender of the manager did not correlate with subordinates' ratings of the manager's work-related personality.

In addition, there was a moderate positive correlation between the *manager's self-assessment and the subordinates' assessment of the manager* on WOPI, which made it reasonable to further investigate the relations between the manager's and subordinates' ratings' to the outcome variables. All correlations between the manager's and his/her subordinates' assessments of the areas of WOPI were positive but the strength differed: for motives the correlation was weak, for cognitive styles it was strong and for attitudes there was no significant correlation.

There were some significant correlations between the *WOPI assessments and the outcome variables* which give first insights into the WOPI assessments' relations to the outcome variables (RQ2a). The manager's self-assessment of WOPI had a weak negative relationship to the high team spirit of subordinates, which means that when the manager rated his or her work-related personality more on the right end of the rating scale (high score), his/her subordinates' team spirit was low. The manager's self-assessment of WOPI did not correlate with work-related positive emotions or low work-related strain among the subordinates. Subordinates' own WOPI assessment of their manager had a weak positive relationship with both work-related positive emotions and high team spirit, that is, the higher the scores were on WOPI, the higher the occupational well-being was among subordinates.

There were also significant correlations between the *assessments of different areas of WOPI and the outcome variables* (RQ2b). The manager's self-assessment of *motives* as a sub-scale did not have a significant correlation to any outcome variable. Instead, the subordinates' ratings of the manager's motives had a weak positive relationship to their work-related positive emotions and a strong positive relationship to high team spirit.

TABLE 3. Intercorrelations between the study variables

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
<u>Manager</u>												
1. Age	–											
2. Gender ¹⁾	.11	–										
3. WOPI	–.20*	.03	–									
4. Motives	–.22*	.08	.78**	–								
5. Cognitive styles	–.11	–.06	.62**	.18*	–							
6. Attitudes	.02	.03	.45**	.08	.02	–						
<u>Subordinates' evaluations (team level)</u>												
7. WOPI	–.11	.14	.30**	.22**	.31**	–.01	–					
8. Motives	–.09	.16	.17*	.19*	.11	–.03	.82**	–				
9. Cognitive styles	–.08	.02	.37**	.22**	.48**	.00	.83**	.41**	–			
10. Attitudes	–.11	.15	.22**	.12	.26**	.02	.79**	.37**	.77**	–		
11. Work-related positive emotions	.11	–.06	.03	.08	–.11	.07	.25**	.29**	.16	.10	–	
12. Low work-related strain	–.12	–.06	–.11	–.07	–.09	–.05	.08	.08	.06	.04	.17*	–
13. High team spirit	–.01	–.06	–.20*	–.12	–.17*	–.10	.21*	.40**	–.03	–.03	.27**	.26**

Note: $N = 144$ for all variables except *Gender* ($N = 142$) and *Age* ($N = 122$).

¹⁾ Gender: 1 = *male*, 2 = *female*.

* $p < .05$, ** $p < .01$

The manager's self-rating of the sub-scale of *cognitive styles* had a weak negative relationship to the high team spirit of the subordinates but not to their work-related positive emotions or low work-related strain. Subordinates' ratings of the manager's cognitive styles did not correlate with any outcome variable. Neither the manager's nor subordinates' assessments of the manager's *attitudes* correlated with any outcome variable.

3.2. Demographic variables and ratings of the manager's work-related personality

Demographic variables (age and gender) of the manager and ratings of the manager's work-related personality (WOPI as a whole). The relations between age and gender of the manager and the manager's and subordinates' ratings of the manager's work-related personality are presented in Table 3 in Appendix 3. The analysis revealed that when the manager's and subordinates' ratings were analyzed jointly, age or gender did not explain the variance in the manager's work-related personality ratings. When the ratings were analyzed separately, the result was the same: age or gender did not explain the variance in the manager's work-related personality ratings, either (see Table 3 in Appendix 3).

Demographic variables (age and gender) of the manager and ratings of the manager's motives. As can be seen from Table 4, the manager's *age* did explain the variance in the manager's work-related motive ratings when the manager's and subordinates' ratings were analyzed jointly. When the ratings were analyzed separately, the manager's age was related to his or her self-evaluations on motives (i.e., managers at different ages had different self-ratings). As can be seen from Figure 4a, the older the manager, the lower the self-rating score was (i.e., it was located more on the left end of the WOPI scale), reflecting lower achievement, leadership and interaction motives. However, the manager's age was not related to subordinates' ratings of manager's motives. The *gender* of the manager was not related to the manager's and subordinates' ratings of motives when the ratings were analyzed jointly. However, when the ratings were analyzed separately, the gender of the manager was found out to be related to subordinates' ratings of the manager's motives: subordinates rated female and male managers differently. More specifically, subordinates gave higher rating scores for motives for female managers, which indicates that they rated female managers more on the right end of the WOPI scale compared to male managers (see Figure 4b). In sum, a manager's age was related to his or her self-ratings but not to subordinates' ratings (RQ1a). A manager's gender was related to subordinates' ratings but not to a manager's self-ratings (RQ1b).

TABLE 4. The relation between age and gender of the manager and ratings of the manager's motives

Variable		<i>F</i>	<i>df</i>	<i>p</i>	η^2
<u>Manager's and subordinates' ratings jointly</u>					
Age		3.70	2, 118	.028	.06
Gender		2.93	2, 118	.057	.05
<u>Ratings separately¹</u>					
Age	Manager	6.90	1, 119	.010	.06
	Subordinates	1.52	1, 119	.220	.01
Gender	Manager	1.57	1, 119	.212	.01
	Subordinates	5.22	1, 119	.024	.04

Note: Gender of manager: *N* = 89 for male, *N* = 33 for female

Age of manager: *N* = 22 for low, *N* = 74 for mediate, *N* = 26 for high

¹*p*-level of .025 is required, as the procedure included two separate dependent variables (.05 / 2 = .025)

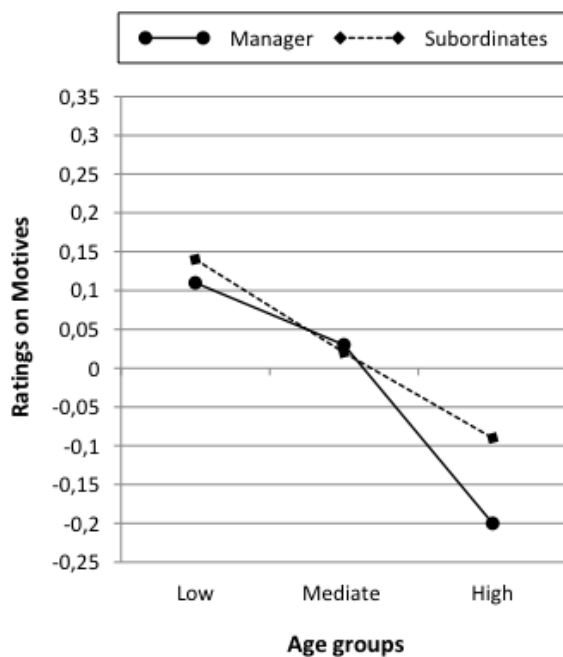


Figure 4a.

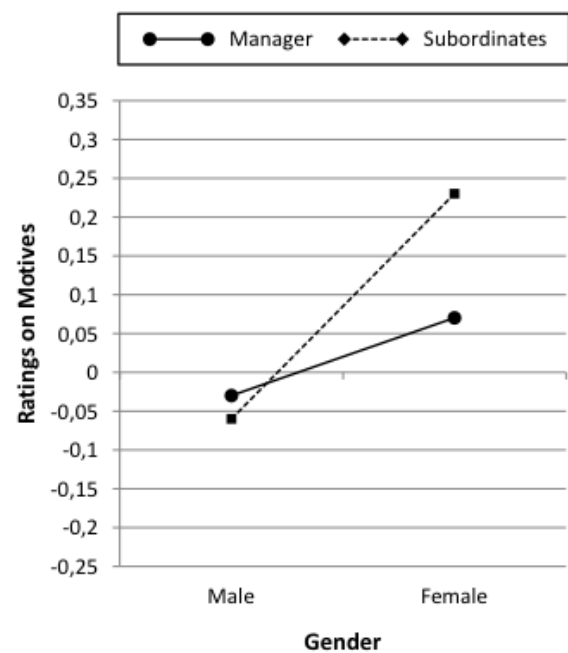


Figure 4b.

FIGURE 4. Demographic variables (4a: age, 4b: gender) and ratings of the manager's motives

Demographic variables (age and gender) of the manager and ratings of the manager's cognitive styles. The relations between age and gender of the manager and manager's and subordinates' ratings of the manager's work-related cognitive styles are presented in Table 4 in Appendix 3. When the manager's and subordinates' ratings were analyzed jointly and separately, age or gender did not explain the variance in the manager's work-related cognitive style ratings.

Demographic variables (age and gender) of the manager and ratings of the manager's attitudes. As can be seen from Table 5, age or gender did not explain the variance in the manager's work-related attitudes ratings when the manager's and subordinates' ratings were analyzed jointly. When the ratings were analyzed separately, age was not related to the manager's or subordinates' ratings (RQ1a). However, the gender of the manager was related to subordinates' ratings but not to the manager's self-ratings (RQ1b). As Figure 5 further illustrates, subordinates rated female managers' attitudes higher (i.e., more on the right end of the scale, e.g. preferring novelty, being more optimistic) compared to the ratings of male managers' attitudes.

TABLE 5. The relation between age and gender of the manager and ratings of the manager's attitudes

Variable		<i>F</i>	<i>df</i>	<i>p</i>	η^2
<u>Manager's and subordinates' ratings jointly</u>					
Age		1.07	2, 118	.348	.02
Gender		2.64	2, 118	.075	.04
<u>Ratings separately</u> ¹					
Age	Manager	0.03	1, 119	.857	.00
	Subordinates	2.08	1, 119	.152	.02
Gender	Manager	0.23	1, 119	.636	.00
	Subordinates	5.21	1, 119	.024	.04

Note: Gender of manager: *N* = 89 for male, *N* = 33 for female

Age of manager: *N* = 22 for low, *N* = 74 for mediate, *N* = 26 for high

¹*p*-level of .025 is required, as the procedure included two separate dependent variables (.05 / 2 = .025)

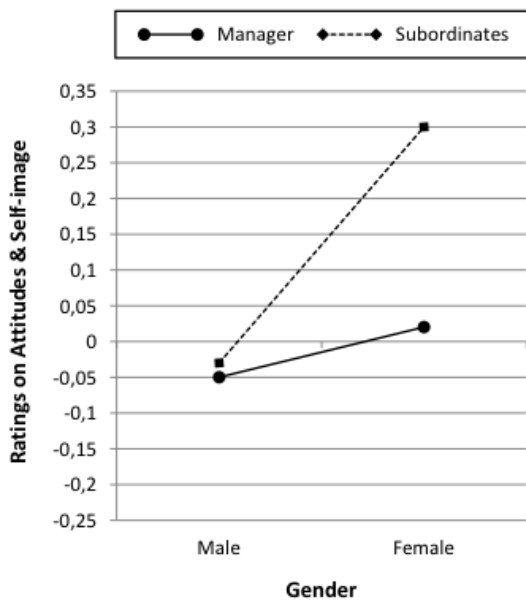


FIGURE 5. Gender of the manager and the ratings of the manager's attitudes

3.3. The relations between self- and other-ratings of the manager's work-related personality (WOPI) and the occupational well-being of subordinates

3.3.1. *WOPI and the outcome variables (work-related positive emotions, low work-related strain and high team spirit)*

The polynomial regression analysis results for self- and other-ratings of WOPI and all outcome variables are presented in Table 6. From the table, we can see that the ratings of WOPI significantly predicted subordinates' work-related positive emotions ($F [5, 138] = 3.72, p < .01$) and high team spirit ($F [5, 138] = 4.92, p < .001$), but not low work-related strain ($F [5, 138] = 1.77, p = .122$). The ratings of WOPI explained 12% of work-related positive emotions and 15% of high team spirit. The results were parallel with the intercorrelations between the ratings and the outcome variables presented earlier (Table 3). Subordinates' ratings were related to work-related positive emotions and both the manager's and subordinates' ratings were related to high team spirit. Response surface analyses were conducted for SOA's relation to work-related positive emotions and high team spirit in order to further examine the relations. The results are presented in Figures 6 and 7.

TABLE 6. The relation between ratings of WOPI and the outcome variables

Variable	Ratings and work-related positive emotions	Ratings and low work-related strain	Ratings and high team spirit
	<i>B (se)</i>	<i>B (se)</i>	<i>B (se)</i>
Constant	3.73 (.05)**	3.20 (.05)**	4.15 (.05)**
Self (manager)	-.09 (.09)	-.12 (.10)	-.35 (.10)**
Other (subordinates)	.22 (.06)**	.05 (.07)	.24 (.07)**
Self sq.	-.32 (.19)	-.04 (.20)	-.48 (.21)**
Self × other	-.13 (.17)	.26 (.19)	.01 (.20)
Other sq.	.17 (.08)*	-.18 (.08)*	.00 (.09)
$R^2 (R_a^2)$.12** (.09)	.06 (.03)	.15** (.12)
Surface tests:			
a_1	.13		-.11
a_2	-.28		-.47*
a_3	.31*		.59**
a_4	-.02		-.49

Note: $N = 144$

B = unstandardized regression coefficient, se = standard error

* $p < .05$, ** $p < .01$

Ratings of the manager's work-related personality (WOPI) and the subordinates' work-related positive emotions. The result of the polynomial regression analysis indicated that subordinates' ratings were positively related to their work-related positive emotions (Table 6) and this was illustrated by drawing a response surface analysis graph. The relation between SOA on WOPI and work-related positive emotions of subordinates is presented graphically in Figure 6. The slope of the line of incongruence (a_3) as related to work-related positive emotions was significant (see Table 6). Value a_3 indicates the direction of the discrepancy and, thus, a positive a_3 indicated that work-related positive emotions were more frequent when the discrepancy was such that subordinates rated their manager's work-related personality with higher scores than the managers themselves; more specifically, subordinates' evaluations were located more on the right end of the scale (for more details of the scale, see Table 1). In Figure 6, the two dimensional picture ($Y = -X$) below also illustrates the slope of the line of incongruence as related to work-related positive emotions.

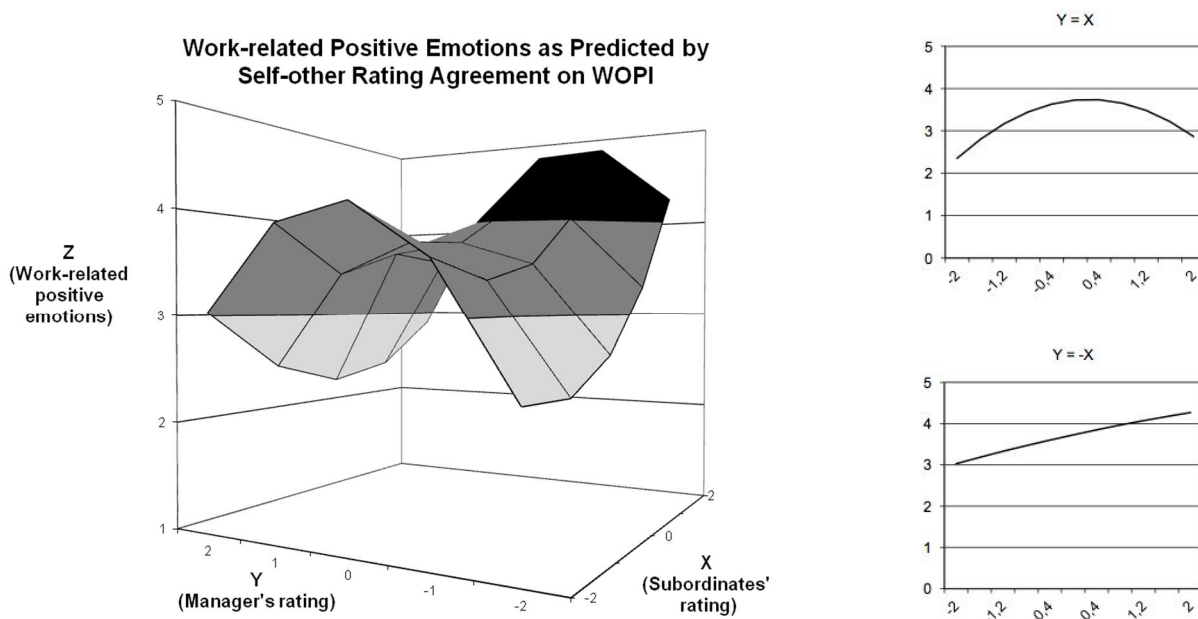


FIGURE 6. Relationship between SOA on WOPI and work-related positive emotions

Ratings of the manager's work-related personality (WOPI) and high team spirit evaluated by the subordinates. In Table 6, it can be seen that the manager's self-ratings and the square of self-ratings were in a negative relationship with subordinates' experience of high team spirit, whereas subordinates' ratings were in a positive relationship with subordinates' experience of high team spirit. As can be further seen from Table 6, both values a_2 and a_3 were significant. A significant a_2 illustrates a nonlinear, curvature line of perfect agreement and, thus, SOA on WOPI was related to high team spirit in a nonlinear way. The combination of negative and positive relationships between the manager's and subordinates' ratings and the subordinates' experience of high team spirit (Table 6) was further illustrated by drawing response surface analysis graphs. The relation between SOA on WOPI and high team spirit is presented graphically in Figure 7. Because value a_2 was significant and negative, the amount of high team spirit experiences dropped at an increasing rate when both ratings approached the either ends of the personality rating scale. Hence, team spirit seemed to be high (in other words, experienced more often) when the ratings were in agreement and average (i.e., between the left and right ends of the scale, see Table 1). The two-dimensional picture ($Y = X$) on the top in Figure 7 clarifies the curvilinear relation between SOA on WOPI and high team spirit. A significant and positive a_3 illustrated that amount of high team spirit experiences was greater when the discrepancy between the ratings was such that subordinates rated their manager's work-related

personality with higher scores than managers themselves: that is, subordinates' evaluations were located more on the right end of the scale.

In Figure 7, the black areas especially show an interesting phenomenon of the ratings that were in disagreement. Team spirit was the highest when subordinates rated their manager on the right end of the scale, even though the ratings of the manager and subordinates were in disagreement. However, team spirit was the lowest when managers themselves rated their personality on the right end of the scale, and the subordinates rating was located on the opposite, left end of the scale. The two-dimensional picture ($Y = -X$) underneath in Figure 7 also illustrates the slope of the line of incongruence as related to high team spirit.

To sum up, the amount of high team spirit experiences was substantial 1) when the ratings were in-agreement and average, and 2) when the subordinates rated their manager's work-related personality on the right end of the scale, even though the ratings were in disagreement. The amount of high team spirit experiences was lowest when the manager rated his or her personality on the right end of the scale, but subordinates' rating was the opposite (i.e., in disagreement). The discrepancy in the ratings seemed to be less harmful to team spirit when subordinates' rating was on the right end of the scale, even though the manager's rating was in disagreement.

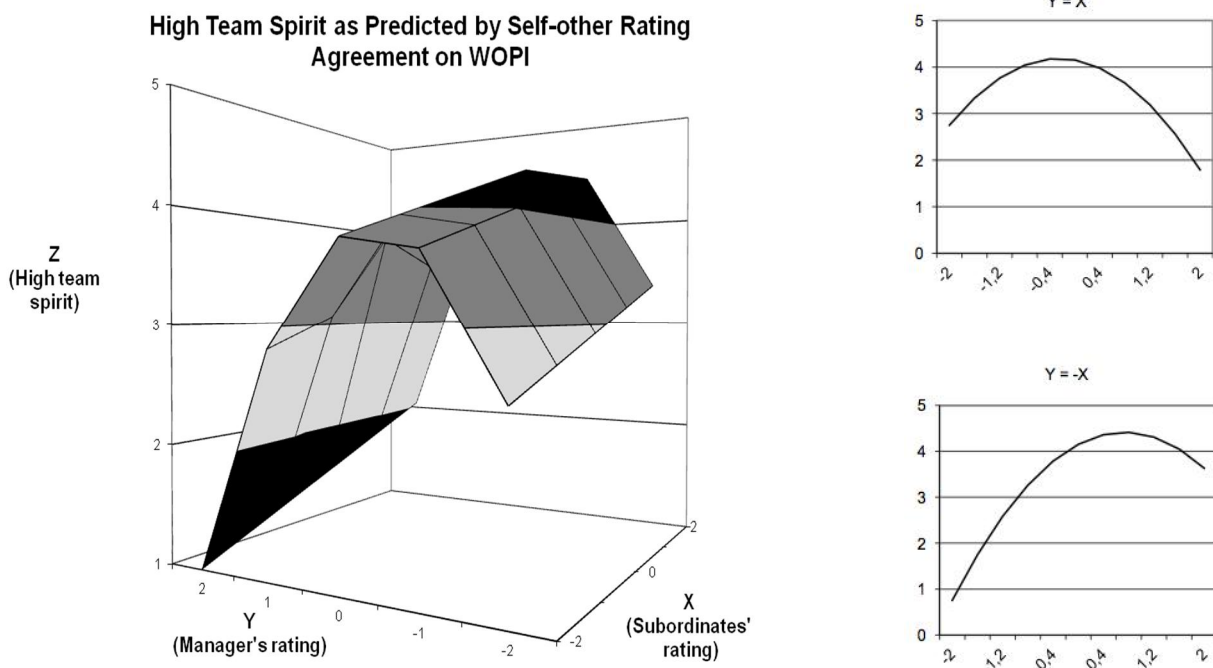


FIGURE 7. Relationship between SOA on WOPI and high team spirit

3.4. The relations between self- and other-ratings of the manager's work-related motives, cognitive styles, and attitudes and the occupational well-being of subordinates

3.4.1. *Motives and the outcome variables (work-related positive emotions, low work-related strain and high team spirit)*

The results of the relations discovered between ratings of motives and all outcome variables are presented in Table 7. They show that ratings of motives predicted significantly subordinates' work-related positive emotions ($F [5, 138] = 3.72, p < .01$) and high team spirit ($F [5, 138] = 7.44, p < .001$). Ratings of motives explained 12% of the variance in work-related positive emotions and 21% of team spirit. Ratings of motives did not predict subordinates' low work-related strain ($F [5, 138] = 1.30, p = .271$) and, therefore, further response surface procedures were not needed. The results were mostly parallel with the intercorrelations between the variables (Table 3). Again, subordinates' ratings were strongly positively related to work-related positive emotions and high team spirit. The manager's ratings of motives did not significantly correlate with high team spirit, but when the relationship was examined in polynomial regression analysis together with other variables, the coefficient was discovered to be significant. Response surface analyses were conducted for SOA's relation to subordinates' work-related positive emotions and high team spirit, and the graphs are presented in Figures 8 and 9.

Ratings of the manager's motives and subordinates' work-related positive emotions. The relation between SOA on motives and work-related positive emotions is presented graphically in Figure 8. In Table 7 it can be observed that the subordinates' rating was positively related to their work-related positive emotions, and value a_1 was significant and positive. A significant and positive a_1 indicates a slope in the line of perfect agreement and, thus, a linear relationship. Positive a_1 indicated that the amount of work-related positive emotions was higher when the scores on personality ratings were in agreement, and the scores were higher in both the manager's and subordinates' ratings. As the black area in the Figure 8 shows, the amount of work-related positive emotions was higher when personality rating scores were higher and in agreement and, thus, personality was rated towards the right end of the scale (e.g., manager was seen as persistent, inspirational and supportive, to mention a few attributes). The closer the in-agreement ratings were to the right end of the scale, the higher the amount of the subordinates' work-related positive emotions. The two-dimensional picture on the top in Figure 8 also illustrates the slope in the line of perfect agreement.

TABLE 7. The relation between ratings of motives and the outcome variables

	Ratings and work-related positive emotions	Ratings and low work-related strain	Ratings and high team spirit
Variable	<i>B</i> (<i>se</i>)	<i>B</i> (<i>se</i>)	<i>B</i> (<i>se</i>)
Constant	3.76 (.05)**	3.20 (.05)**	4.13 (.05)**
Self (manager)	.03 (.07)	-.06 (.07)	-.18 (.07)*
Other (subordinates)	.18 (.05)**	.04 (.06)	.32 (.06)**
Self sq.	-.17 (.09)	-.03 (.10)	-.12 (.10)
Self × other	.15 (.10)	.19 (.11)	-.01 (.11)
Other sq.	.02 (.06)	-.12 (.07)	-.04 (.07)
R^2 (R_a^2)	.12** (.09)	.05 (.01)	.21** (.18)
Surface tests:			
a_1	.21**		.14
a_2	.00		-.17
a_3	.15		.50**
a_4	-.30		-.15

Note: $N = 144$

B = unstandardized regression coefficient, se = standard error

* $p < .05$, ** $p < .01$

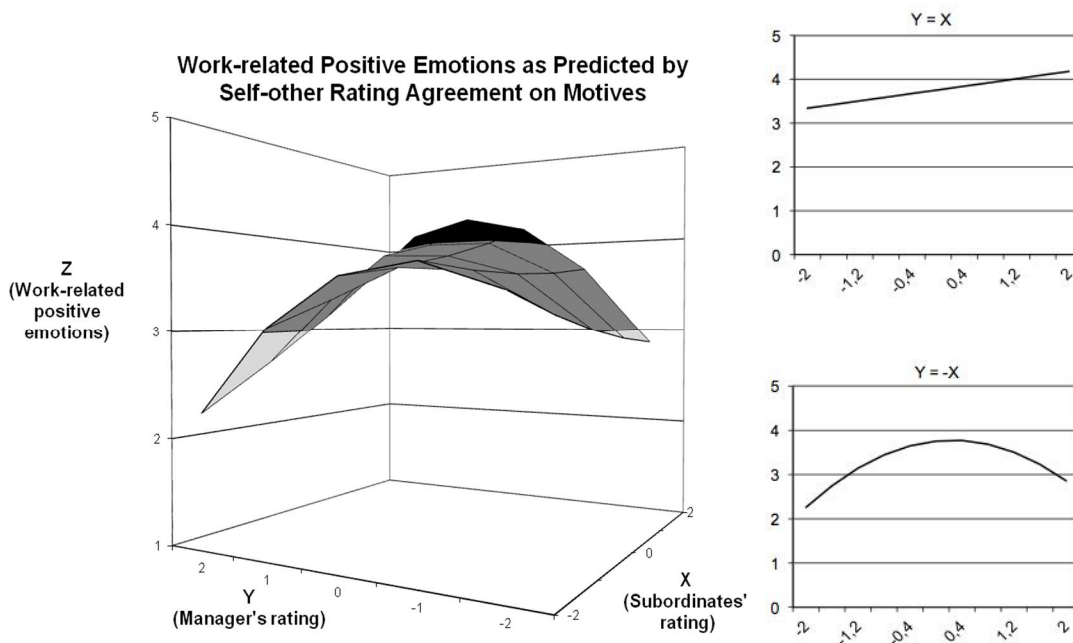


FIGURE 8. Relationship between SOA on the manager's motives and work-related positive emotions

Ratings of the manager's motives and high team spirit evaluated by the subordinates. The relation between SOA on motives and high team spirit is visualized in Figure 9. As shown in Table 7, a_3 was significant and positive. Value a_3 indicates the direction of the discrepancy and, thus, a positive a_3 indicated that the amount of high team spirit experiences was higher when the discrepancy was such that subordinates rated their manager's work-related personality with higher scores. Thus, team spirit was higher when subordinates' rating of the manager's motives on WOPI was located more the right end of the rating scale (example attributes described above), even though the manager's and subordinates' ratings were in disagreement. The amount of high team spirit experiences of the subordinates was lowest when the manager rated his or her motives on WOPI on the right end of the scale, and the subordinates rating was located on the opposite, left end of the scale. The result was parallel with the findings from the relation between SOA on whole WOPI and high team spirit. The slope of the line of incongruence as related to high team spirit can also be seen in the two-dimensional picture underneath in Figure 9.

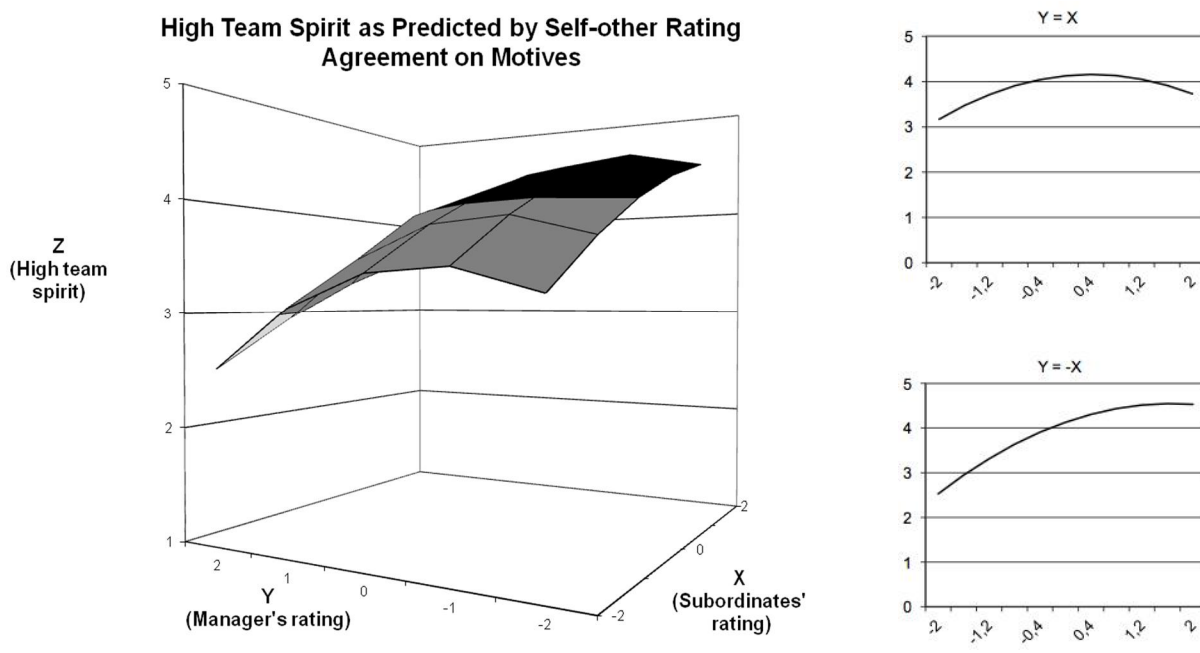


FIGURE 9. Relationship between SOA on the manager's motives high team spirit

3.4.2. *Cognitive styles and the outcome variables (work-related positive emotions, low work-related strain & high team spirit)*

Results demonstrated (see Table 8) that ratings of cognitive styles significantly predicted work-related positive emotions ($F [5, 138] = 2.60, p < .05$) by explaining 9% of work-related positive emotions. Intercorrelations between the manager's or subordinates' ratings and work-related positive emotions were not significant (see Table 3), but the coefficients in polynomial regression analysis were significant. Both the manager's and subordinates' ratings were related to work-related positive emotions. Ratings of cognitive styles did not predict low work-related strain ($F [5, 138] = 1.41, p = .226$) or high team spirit ($F [5, 138] = 1.82, p = .112$) and, therefore, further response surface procedures were not needed in these cases.

TABLE 8. The relation between ratings of cognitive styles and the outcome variables

	Ratings and work-related positive emotions	Ratings and low work-related strain	Ratings and high team spirit
Variable	<i>B (se)</i>	<i>B (se)</i>	<i>B (se)</i>
Constant	3.75 (.05)**	3.18 (.05)**	4.13 (.06)**
Self (manager)	-.12 (.06)*	-.10 (.06)	-.13 (.07)
Other (subordinates)	.13 (.05)*	.09 (.05)	.04 (.06)
Self sq.	-.10 (.07)	.03 (.08)	-.13 (.08)
Self × other	.01 (.10)	.04 (.10)	.23 (.11)*
Other sq.	.04 (.05)	-.08 (.05)	-.07 (.05)
$R^2 (R_a^2)$.09* (.05)	.05 (.01)	.06 (.03)
Surface tests:			
a_1	.01		
a_2	-.05		
a_3	.25**		
a_4	-.07		

Note: $N = 144$

B = unstandardized regression coefficient, se = standard error

* $p < .05$, ** $p < .01$

Ratings of the manager's cognitive styles and the subordinates' work-related positive emotions.

The relation between SOA on the manager's cognitive styles and work-related positive emotions of subordinates is presented graphically in Figure 10. As can be seen from Table 8, a manager's ratings were in a negative relationship with work-related positive emotions, and subordinates' ratings were in a positive relationship with work-related positive emotions. None of the squared terms were significant, which indicated only linear relationships. Value a_3 was significant and it refers to the slope of the line of incongruence. Positive a_3 indicated that the amount of work-related positive emotions was higher when the discrepancy of ratings was such that subordinates rated their manager's work-related personality with higher scores compared to the managers themselves (i.e., the ratings were in disagreement). Thus, the amount of subordinates' work-related positive emotions were higher when their rating of manager's cognitive styles on WOPI settled on the right end of the rating scale (e.g., when subordinates evaluated that the manager pursues ideas, prefers abstract perception, intuitive thinking and is a quick decision maker), even though the manager rated his or her cognitive style more on the left end of the scale. The two-dimensional picture below in Figure 10 also describes the slope of the line of incongruence.

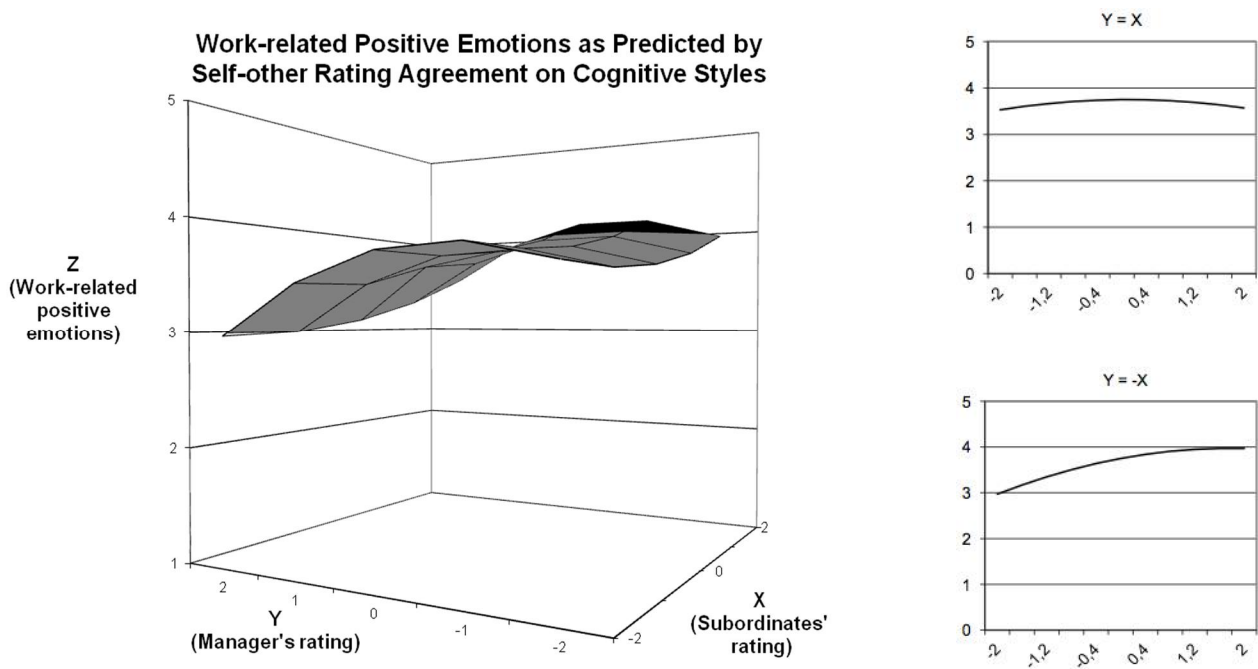


FIGURE 10. Relationship between SOA on the manager's cognitive styles and the subordinates' work-related positive emotions

3.4.3. Attitudes and the outcome variables (work-related positive emotions, low work-related strain and high team spirit)

As can be seen from Table 9, ratings of attitudes did not predict work-related positive emotions ($F [5, 138] = 1.03, p = .405$), low work-related strain ($F [5, 138] = .30, p = .915$) or high team spirit ($F [5, 138] = .74, p = .592$) and, therefore, further response surface procedures were not needed in any of these cases.

TABLE 9. The relation between ratings of attitudes and the outcome variables

	Ratings and work-related positive emotions	Ratings and low work-related strain	Ratings and high team spirit
Variable	$B (se)$	$B (se)$	$B (se)$
Constant	3.70(.05)**	3.18 (.06)**	4.12**
Self (manager)	.04 (.05)	-.03 (.05)	-.07 (.06)
Other (subordinates)	.06 (.05)	.02 (.05)	-.01 (.05)
Self sq.	.02 (.07)	-.02 (.08)	-.04 (.08)
Self × other	-.08 (.07)	.04 (.07)	-.08 (.08)
Other sq.	.05 (.03)	-.03 (.03)	-.03 (.03)
$R^2 (R_a^2)$.04 (.00)	.01 (-.03)	.03 (-.01)

Note: $N = 144$

B = unstandardized regression coefficient, se = standard error

* $p < .05$, ** $p < .01$

4 DISCUSSION

The main purpose of this study was to examine whether self-ratings, other-ratings and self-other rating agreement (SOA) on the manager's work-related personality (motives, cognitive styles, and attitudes; WOPI Technical Manual, 2010) were associated with the occupational well-being (work-related positive emotions, high team spirit and low work-related strain) of his or her subordinates. In the assessment of the manager's work-related personality, two rating sources were used: the manager's (self) rating and his or her subordinates' (other) ratings at a team level. We used a traditional model of self-other rating agreement (Atwater & Yammarino, 1997) as our theoretical framework completed with recent advances in SOA on personality research (e.g., Connelly & Ones, 2010; Connolly et al., 2007; Morgeson et al., 2007).

4.1. Main results

4.1.1. *The role of age and gender of the manager in manager's (self) and subordinates' (other) ratings of the manager's work-related personality*

Overall, our presumption about the opposing assessment tendencies of the manager and the subordinates was proven right. In our study, we found out that the *age* of the manager was related to the manager's self-ratings of motives, but neither to any other self-rated area of the manager's work-related personality (i.e., WOPI as a whole, cognitive styles, and attitudes) nor to any of the subordinates' ratings. Generally, this result according to which changes only occur in self-assessments is in line with earlier studies. For example, changes in certain self-assessed personality traits with aging have been discovered (Donnellan & Lucas, 2008; Gutierrez et al., 2005; Rantanen et al., 2007; Roberts & Mroczek, 2008; Srivastava et al., 2003). Moreover, McCrae et al. (2000) had a similar finding in which changes in self-ratings were not replicated in other-ratings. However, the specific result is more difficult to interpret. According to it, the older managers saw themselves, for example, as less persistent and competitive, more reserved, withdrawing, remote and autonomous (i.e., they located on the left end of the assessment profile), and the younger managers assessed themselves as more persistent and result-oriented, more inspirational, contact-seeking, supportive and

relying on others (i.e., right end of the assessment profile). Nevertheless, it can be speculated whether older managers have more experience and less need to try to fulfil the needs and expectations of the subordinates. Younger managers might face stronger pressure to try to be good leaders and their leadership style might still be forming. Our study suggests that younger managers have many self-rated characteristics of transformational leaders and, thus, it would be interesting to further examine if age is related to transformational leadership. To our best knowledge, these kinds of studies have not been conducted yet.

Overall, the gender of the manager was more often related to the ratings than age, which indicated that the *gender* of the manager was a more substantial factor as far as rating tendencies were considered. The gender of the manager was only related to the subordinates' (other) ratings of the manager's motives and attitudes. Female managers were seen by their subordinates as more persistent, result-oriented, inspirational, communicative and supportive, while male managers were seen as less persistent and competitive, more reserved, withdrawing and remote. Moreover, the subordinates' assessment of attitudes indicated that women were seen as preferring novelty and change, and optimistic, for example, whereas men were seen as less optimistic and preferring clarity. As was already said, such motivational drivers as related to female managers seem to be linked to transformational leadership style. Interestingly, a meta-analytical research shows that female managers' leadership style tends to be more often transformational compared to male managers (Eagly, Johannesen-Schmidt, & Van Engen, 2003), even when male and female leaders hold the same-level leadership position. Even though leadership style was not in the scope of this study, the relation between gender and transformational leadership style might explain our findings about subordinates assessing male and female managers' work-related personality differently. The relation between the gender of the target and the other-ratings of personality has not been widely studied before. However, in a trait-related study, McCrae et al. (2005) found out that other-raters gave different ratings for women and men; this was replicated in the present study with a different perspective on personality.

Thus, it turned out that the gender of the manager was unrelated to the manager's self-ratings of work-related personality. A meta-analytical study (Twenge, 2001) indicates that women reported increasing similarity with men over years in self-assessed assertiveness, a core leadership trait. This might suggest that, in managerial positions, gender differences in the self-ratings of personality would be minor, which would support our findings as well. In addition, a reason for the minor differences in the ratings as a whole might stem from WOPI as an inventory. The developers of WOPI paid special attention to the creation of items that treat people with different age and gender fairly (WOPI Technical Manual, 2010). The inventory's reliability and descriptive statistics showed that men and

women did not differ in most of the self-assessments. We can speculate that managerial positions attract individuals with a certain kind of personality and, thus, male and female managers assess their personalities quite similarly. However, it is indeed interesting that the subordinates see female and male managers from a different angle.

4.1.2. Self-ratings, other-ratings and SOA on the manager's work-related personality and the occupational well-being of subordinates

We discovered certain tendencies regarding the relation between work-related personality assessments and the occupational well-being of subordinates. In sum, we found two phenomena that explain the results: *the direction of discrepancy* and *agreement on the assessments*. First, the direction of discrepancy illustrated that agreement was not always crucial for the subordinates' well-being, but the quality of assessments mattered. More specifically, it was beneficial for the subordinates' well-being that the subordinates assessed the manager's work-related personality towards the right end of the assessment scale, even though the manager's self-assessment was towards the left end of the assessment scale. However, when the assessments were given the other way around (i.e., the subordinates' assessment towards left and the manager's assessment towards right end of the assessment scale), the subordinates experienced less occupational well-being. This points to the importance of assessing the quality of discrepancy: sharing a view is not always needed, but the disagreement on the assessments should be closely reviewed. Second, in certain cases, but less often than the direction of discrepancy, the agreement on the work-related personality assessments was valuable: when the manager and the subordinates had a shared view of the manager's work-related personality, e.g., motives, the subordinates experienced more occupational well-being. Thus, as we speculated earlier based on a model of self-other rating agreement (Atwater & Yammarino, 1997), agreement on the assessments was beneficial for the subordinates' occupational well-being but only in some of the situations. Since we examined a variety of relations, the more detailed results will be discussed one occupational well-being outcome at a time. We have summarized the assessment tendencies in Table 10.

Overall, the subordinates' assessments were most often in a positive relationship and the managers' assessments were in a negative relationship with the occupational well-being outcomes among subordinates, which was further illustrated in the SOA examinations. In addition, in most of the cases, the subordinates' assessments were more strongly related to their occupational well-being

than the manager’s assessments. This also supports our general hypothesis of the greater role of subordinates’ assessments in their occupational well-being outcomes than the managers’ self-assessments.

TABLE 10. Summary of the nature of the relations between work-related personality of the manager and the subordinates’ occupational well-being

Area of WOPI	Work-related positive emotions	High team spirit	Low work-related strain
WOPI as a whole	Direction of discrepancy	Agreement and direction of discrepancy	-
Motives	Agreement	Direction of discrepancy	-
Cognitive styles	Direction of discrepancy	-	-
Attitudes	-	-	-

The manager’s work-related personality and the subordinates’ work-related positive emotions.

Work-related positive emotions as an outcome aimed at covering a part (i.e., experiences of positive affects) of the dimension of affective well-being in the multidimensional model of occupational well-being (Van Horn et al., 2004). Direction of discrepancy and agreement on the work-related personality assessments were crucial when the subordinates’ work-related positive emotions were the target. When the work-related personality of the manager was examined as a whole or the cognitive styles separately, *direction of discrepancy* turned out to be important.

Why is the direction of discrepancy crucial when work-related personality as a whole and cognitive styles are considered? It can be speculated whether WOPI as an indicator of work-related personality can be seen as an illustrator of a leader (i.e., right end assessments) or an expert (i.e., left end assessments) personalities. Many of the employees of this expert organization in question might assess themselves using more often the left end of the assessment scale. However, they might prefer more ‘leader-like’ managers. This preference can be concluded from the positive relation between the location of subordinates’ assessments of the right end of the assessment scale and their high occupational well-being. Thus, in this case, the manager fulfills the subordinates’ leadership needs

better. It is interesting that the subordinates' perceive the manager's work-related personality as 'leader-like' even though the manager him-/herself may have the opposite view (i.e., 'expert-like' personality). From the point of view of the subordinates' well-being, disagreement in this direction was not disadvantageous. On the contrary, in the disagreement cases in which the manager thinks he/she can be described as 'leader-like', but the subordinates see the manager more 'expert-like', disagreement was disadvantageous for the subordinates' well-being. It is possible that the direction of discrepancy illustrates the phenomenon of under- and over-estimating one's leadership characteristics. More specifically, when the subordinates see the manager as 'leader-like' but the manager disagrees, the manager might under-estimate his/her leadership abilities. Alternatively, when the subordinates see the manager more 'expert-like' but the manager has the opposite view, the manager might over-estimate his/her leadership abilities.

Thus, it seems that the subordinates would be able to see behind the leadership role and detect the manager's actual work-related personality tendencies. As a result, they do not perceive the manager as an authentic leader who genuinely promotes well-being. The results of cognitive styles illustrate this interpretation. It seemed to be more beneficial for the subordinates' work-related positive emotions if they perceived the manager as, for example, actively pursuing ideas and having abstract perception, even though the manager saw him-/herself differently (i.e., pursuing facts and having concrete perception). The subordinates' own thinking is possibly more fact-oriented and concrete and they wish that their manager was more actively pursuing new ideas and better in seeing the bigger picture. Therefore, the subordinates' work-related positive emotions are less frequent when the manager has an idealistic view of him/herself as an idea-rich visionary, but the subordinates have a completely opposite view of the manager. We can speculate that individuals might get promoted from an employee position to a managerial position as a result of a long career in an expert organization. However, work experience alone seems not to guarantee suitability for managerial positions. Thus, it is crucial to pay attention to the 'leader-like' characteristics of individuals, when managerial positions are filled.

When the work-related motives of the manager were in the scope of the assessments, *agreement on assessments* was related to the work-related positive emotions of subordinates. Thus, when the assessments of motives were in-agreement and close to the right end of the assessment scale (i.e., the manager was assessed to be persistent, inspirational and supportive; a "leader-like" personality, to mention a few attributes), the amount of work-related positive emotions among the subordinates was high. This indicates that both the subordinates and the manager have a shared view of the manager's work-related personality which most likely reflects the manager's leadership style. This finding suggests that when both the manager and the subordinates agree on the manager's personality and

regard it as having transformational leadership style-like features, the occupational well-being among subordinates is frequent. As we pointed out earlier, there are similarities between the right end dimensions of WOPI (e.g., inspiration, empathy) and transformational leadership style. Keeping in mind the observed link between transformational leadership style and the subordinates' well-being (e.g., Jacobs et al., 2013; Skakon et al., 2010), it is not surprising that the area of motives in particular was related to the subordinates' occupational well-being in the present study.

Agreement on the assessments or having a shared view on the manager's work-related personality might also indicate that the manager is "self-aware" and genuinely enjoys the leadership position. It is interesting to discuss whether crossover hypothesis of experiences is related to the findings. It might be possible that when the manager has many 'leader-like' dispositions and he/she, as a result, enjoys the role as a manager which affects positively his/her own well-being at work. As a result, the manager's own positive emotional states are transferred to the subordinates' well-being (i.e., in this case, positive emotions at work). From previous studies, it is known that work engagement can spread and transfer from an individual to another in a team (Bakker et al., 2006), which provides support to this explanation.

The manager's work-related personality and the subordinates' high team spirit. High team spirit as an outcome aimed at covering the dimension of social well-being in the multidimensional model of occupational well-being (Van Horn et al., 2004). Again, both *direction of discrepancy* and *agreement* on the assessments were crucial. The nature of the relations between WOPI as a whole and motives and high team spirit was very similar and it is further explained below. The team spirit of the subordinates was high when the subordinates assessed their manager's personality (as a whole or motives) on the right end of the assessment scale, even though the manager's self-assessment was the opposite and, thus, the assessments were in disagreement. The disagreement in reverse (i.e., *direction of discrepancy*) was disadvantageous for the subordinates' occupational well-being: the team spirit among the subordinates was low when the manager assessed his or her personality (as a whole or motives) on the right end of the scale, but the subordinates gave the opposite assessment.

The result with WOPI as a whole above is parallel with the results with WOPI as a whole in relation to work-related positive emotions. With motives, the results were not similar, as agreement on motives was beneficial to work-related positive emotions. It can again be speculated, whether these results could be explained by regarding the right end of the assessment profile as a 'leader-like' work-related personality, to which the subordinates seem to have a strong preference. With motives, the right end of the assessment scale has links to transformational leadership. Thus, it seems that the managers who are perceived as having transformational leadership tendencies are team spirit

promoting leaders for the subordinates. Special attention should be paid to the managers who seem to have an overestimated view (compared to that of the subordinates) of their ‘leader-like’ personality.

In addition, if WOPI as a whole was considered alone, the team spirit was high if the ratings were *in-agreement* and average (i.e., close to the middle of the assessment profile). WOPI as a whole gives an overall picture of a manager’s work-related personality which might reflect the individual leadership style (deVries, 2012). Again, as agreement on the assessments played an important role, it might be important that both the manager and the subordinates have a shared view of the manager’s personality. In fact, this was the only case in which the shared assessment, which is located in the middle of the scale, was also beneficial. In addition to this, it should be remembered that team spirit was even higher when the subordinates’ assessments were closer to the right end of the rating scale – despite the manager’s rating. However, the good results for ‘in-agreement and average’ -managers give support to the fact that it is possible to be a team spirit promoting leader even though one’s profile is not completely in the right end of the scale. Thus, it seemed that the manager’s self-awareness and a shared view with the subordinates promotes social well-being in the teams. It is worth noting that the explanation rates were highest for team spirit (at highest 21% when motives were in questions), which may reflect the fact that team spirit can be considered genuinely a team-level construct, although other constructs in the study were also treated at a team level.

As can be seen from Table 10, none of the work-related personality assessments were related to the *low work-related strain* of the subordinates. From earlier studies (see Skakon et al., 2010), we know that transformational leadership is associated especially with positive well-being outcomes – in this light, it is not surprising that there was no relation to work-related strain. Most likely, other work-related issues such as psychosocial working conditions (e.g., Pelfrene et al., 2002) and one’s own personality like internal locus of control (Mäkikangas et al., 2013), are important factors in the subordinates’ well-being. Of the dimensions of work-related personality, the dimension of attitudes did not have any role in relation to subordinates’ occupational well-being. This can result from the fact that the dimension of attitudes had the lowest reliability and the items were somewhat distant to each other.

This was the first study examining the relation between the self- and other-assessments as well as their congruence on a manager’s work-related personality and the occupational well-being of subordinates. Also, the amount of studies based on the relations between SOA on personality (i.e., the trait studies) and the outcomes is limited. Nevertheless, further studies have been recommended (Connelly & Ones, 2010). In a few studies the researchers have found out that other-ratings have been even more accurate predictors of behavioral outcomes at work (e.g., trait first impressions, academic achievement and job performance) than self-ratings. Our study supports this finding: in most of the

cases, the subordinates' assessments were strongly related to well-being compared to the managers' assessments. This is natural as the subordinates' own well-being is in question. In some of the studies, a self-rating together with an other-rating had a better validity in the prediction of the outcomes than the self-ratings alone. Also, in our study, the findings about the *agreement* on the assessments (i.e., self- and other-ratings together) relating to the occupational well-being of subordinates refer to this point. For this part, our study replicates the relationship presented in the model from Atwater and Yammarino (1997), where positive outcomes result from the assessments that fall into "in-agreement" -category. Yet, one has to keep in mind that the model was originally developed on the basis of performance-related, not personality-related, studies.

The findings about the incongruence of the personality assessments were not surprising, as many researchers have stated that people are only moderately capable of assessing their personality (Allik et al., 2010a; Morgeson et al., 2007). In addition, one's personality is not easy to be evaluated by others, either (Connelly & Ones, 2010). Yet, in the present study, as can be seen from the correlations between the assessments, the self- and other assessments of personality reached an adequate agreement (as compared to earlier studies, see for example, Connelly & Ones, 2010; McCrae & Costa, 1989). The previously stated idea (e.g., Atkins & Wood, 2002) about the relationship between SOA and performance being *nonlinear* was interestingly replicated with personality assessments and the occupational well-being outcomes (e.g., the relations between WOPI as a whole and work-related positive emotions or high team spirit).

4.2. Methodological evaluation of the study and needs for further research

This study has certain strengths and also limitations which are discussed next. We pay special attention to the research setting and the measures used. We also present suggestions for research in the future.

The research design. We used a cross-sectional research design, which indicates that special caution is needed when drawing conclusions of causality. Polynomial regression analysis, however, allowed us to examine reliably whether the agreement on the manager's and the subordinates' ratings was associated with the occupational well-being of subordinates. The research setting applied in our study seems to be a standardized procedure when investigating SOA and its relations to different outcomes. We are not familiar with studies which have used longitudinal research designs in the investigation of this topic. However, the longitudinal setting could be used in further investigations.

For example, the possible changes in SOA as a result of training could be examined. More specifically, it would be of great interest to see if training (for example, trying to reach a common view of a manager's work-related personality) among the manager and his/her subordinates' increased agreement on work-related personality and the level of self-awareness, and if it had relations to the occupational well-being of subordinates.

Team level. All the measures of the subordinates represented the team level in this study. To have an adequate illustration of the team level, we excluded teams with less than three members. We were not able to meet the criterion of seven or eight raters set by Connelly and Ones (2010), as an average team size in this study was about five persons. To reach seven or eight raters would have reduced the sample size considerably, and this would have been a threat to the generalizability of the results. In order to increase the reliability of the results, it is crucial to have sufficiently-sized teams. Naturally, when information collected from individuals is combined into team level values, some proportion of the information is lost. However, teams and different work groups were typical working formats of the organization in question and, thus, it was relevant to focus on the subordinates' well-being and their views of their managers at the team level. As a suggestion for further studies, it would be interesting to examine SOA's relation to the occupational well-being at the individual level, also. In this way, it would be possible to detect the variance in the occupational well-being in more detail. As we were provided only with team-level responses (i.e., we could not reach the level of individual subordinates' responses), we were not able to calculate the interrater reliability coefficients and show that the aggregated constructs (e.g., team-level well-being) were justified (Connelly & Ones, 2010; LeBreton & Senter, 2008). Limited background information of the subordinates also makes it difficult to deduce how the characteristics of the assessor affected the ratings, and leaves the question about "accurate assessor" unanswered in this study.

Data analysis. The chosen methods for statistical analyses (polynomial regression and the response surface tests) can be considered as a major advantage of the present study, as the methods are regarded as widely accepted and sophisticated in illustrating the complex topic of SOA and its relation to different outcomes (Fleenor et al., 2010). This is mainly due to the method's ability to capture the nonlinear effects not present in the widely used difference scores of past researchers. A further advantage of this statistical procedure is that the source of discrepancy of assessments can be traced reliably (Edwards, 1995; Edwards & Parry, 1993; Fleenor et al., 2010; Shanock et al., 2010).

Representativeness of the data. The data, which represent a Finnish expert organization, can be considered both a weakness and a strength of the study. The data collection in one organization operating in a specified field is certainly a challenge and a limitation as far as the generalization of the results in other populations is considered. However, within this organization, a high response rate

(74.4% in the whole personnel survey) and the responses provided by 846 individuals altogether indicate that the data are rather representative of this population. The lack of background information of the participants is a major challenge for the generalization of the results; the only background information that was in our use was the managers' age and gender. In further studies, the research setting should be studied in varying populations (e.g., different workplaces) and the background information (e.g., educational background of the respondents) should be collected more broadly.

Examining work-related personality. The measure of work-related personality, WOPI, was originally developed to assess the work-related personality of a relatively highly educated, "white collar" worker population (WOPI Technical Manual, 2010) and it can be considered as an adequate measurement tool in this population as well. Setting precise hypotheses for this study was challenging, as WOPI is a recently developed inventory and it relies on a different conception of personality compared to the inventories based on the Five Factor Model.

WOPI's untraditional, multifactorial approach to personality which focuses on motivational, cognitive and viewing drivers of personality in the working context has to be accredited as well. Focusing on these basic competence drivers allowed us to gather relevant information for the needs of working life from quite a different angle compared to earlier studies. Thus, examining work-related personality from the multifactorial perspective is recommended in further studies. It can elaborate on the picture of personality stemming from the trait approach and give insights about the value of different personality drivers with relation to leadership and, further, to well-being in organizations. In addition, several researchers (e.g., Mäkikangas et al., 2013) have encouraged the use of other than the most widely used trait measures in personality research in order to gain more comprehensive view of the complex concept of personality.

We recommend further study with WOPI in general and, especially, examining its relations to different outcomes. In addition, it would be interesting to gain even more detailed information about the 14 WOPI-sub-scales' relations to well-being separately, as, in this study, we only examined WOPI as a whole and the three sub-scales separately. Studying the 14 sub-scales separately would be especially interesting from the point of view of the personality driver of motives, which includes various aspects (i.e., interaction, leadership and performance drivers). Of the three areas examined, SOA on the motives of the manager was most often related to the well-being outcomes in the present study. Therefore, it would be valuable to find out if some aspects of motives were more relevant to well-being than others. This could also give more accurate support to our hypothesis of linking motives and transformational leadership. This kind of information could also help in directing the attention to the most important drivers when interventions and recruitment are conducted at workplaces.

Correlations of the manager's (self) and subordinates' (other) assessments generally reached magnitude and p-levels similar to earlier studies (e.g., Connelly & Ones, 2010; McCrae & Costa, 1989). The lowest correlation ($r = .02$) that was found was for attitudes, the sub-scale with the lowest Cronbach's alpha ($\alpha = .48$), too. Otherwise, the Cronbach's alphas were relatively high, even for the short version of the WOPI, which indicates that the measures of work-related personality were consistent enough in the present study. These findings support the use of WOPI as a measure of work-related personality, on the condition that the internal inconsistency of the sub-scale of attitudes is appropriately taken into account. First, it would be valuable to study the three sub-scales of attitudes separately, as they seem to represent fairly distinct entities as compared to motives and cognitive styles. The sub-scale could also be further regenerated by, for example, splitting up the sub-scale in two sections: one could cover the individual's viewing of the world, and the other could cover the self-reflection, or the individual's viewing of the self. The scales of social desirability would be naturally embodied in this latter part of the sub-scale, and both of these sub-scales could be extended to comprise various scales to examine the individual's attitudes towards the world in general and to oneself in special. As Connelly and Ones (2010) expressed, the use of different measures for the target (manager) and others (subordinates) does not pose a problem. Comparable correlations for self- and other-ratings were achieved in their study regardless of the kind of the measure used, that is, whether others filled in a different or an identical version of the questionnaire. In addition, they discovered small differences in correlations, unexpectedly favoring the use of different measures for self- and other-ratings.

Examining occupational well-being. The measures of occupational well-being can be seen as a limitation of the present study. Although we were able to measure both positive and negative components of affective well-being (work-related positive emotions and low work-related strain; Daniels, 2000; Van Horn et al., 2004) together with an aspect of social well-being, all the other aspects of multidimensional model of occupational well-being (cognitive well-being, professional well-being, and psychosomatic well-being; Van Horn et al., 2004) were lacking. Also, a more detailed investigation of all the aspects of affective well-being proposed by Daniels (2000; anxiety-comfort, pleasure-displeasure, boredom-enthusiasm, tiredness-vigour and anger-placidity) was not possible in the present study. Nevertheless, the factor analysis of the personnel survey favored the use of the previously mentioned measures; therefore, the measures of occupational well-being used in this study can be considered quite appropriate. Even though the measures of occupational well-being were conceptualized according to certain models, we suggest that using more established measures in the future (e.g., job exhaustion, work engagement) which are based on widely accepted theories of well-being at work provides a more reliable view on the occupational well-being of subordinates. This also

helps in avoiding the confusion often associated with concept (Skakon et al., 2010). Interestingly, low work-related strain of subordinates was the only outcome that was not related to any personality assessments. This may result from the content of the measure: the measure of low work-related strain was composed of items that were not directly related to the personality drivers of the manager (such as *“balance of work and leisure time”*, *“control over one’s working time”*). It can also be questioned whether work-related strain is a shared phenomenon that can be reliably reflected upon and assessed at the team level.

Measuring subjective well-being bears with it some challenges (see, for example, OECD, 2013, for an intensive report of the topic). This is due to the fact that the measures of subjective well-being can be affected by the way of collecting the data and certain respondent-related characteristics. Using affective states as an indicator of subjective well-being are known to have low reliabilities (OECD, 2013; Stiglitz, Sen, & Fitoussi, 2009) and, for increased validity assessing both overall life satisfaction and affective states has been recommended. Despite these well-known challenges, we considered studying subjective well-being as superior compared to studying objective well-being. This relates to the fact that individuals are generally viewed as best judges of their living conditions (OECD, 2013; Stiglitz, Sen, & Fitoussi, 2009) and of their psychological functioning and emotions in particular. Furthermore, it should be kept in mind that collecting both the other-ratings of work-related personality and the measures of subjective well-being from the same source (from the subordinates) involves a risk of common method bias (Podsakoff et al., 2003).

4.3. Practical implications

Our study provides new, empirically strong evidence on a topic that has not received enough research attention before (see, for example, Connelly & Ones, 2010; Fleenor et al., 2010). Atwater with her colleagues stated as early as in 1998 that SOA might matter the most in relation to outcomes involving “human perception” (p. 595) as compared to more objective measures and outcomes. Despite this statement, studies on the relations between SOA and well-being and other “perceived” outcomes are not yet common. Thus, our study examined this new topic which certainly has a connection to real life and meaningful issues at workplaces.

Our results concerning the role of the manager’s age and gender in relation to his/her work-related personality assessed by the manager and his/her subordinates indicated that the demographic factors had a different significance to the managers and to the subordinates. Overall, our findings help direct

the interventions (e.g., leadership development, psychoeducation) for the managers who should receive support and training, especially. The fact that the age of the manager was only related to the manager's self-ratings and the gender of the manager was only related to the subordinates' ratings is worth paying attention to. Psychoeducation about the benefits of transformational leadership could be a valuable method for older managers and male managers, who self-assessed or were assessed by their subordinates more to the left end of the assessment profile (i.e., having less characteristics connected to transformational leadership style). Since we know that earlier research supports the finding that female managers are more often transformational leaders (Eagly et al., 2003) and this specific leadership style supports the subordinates' occupational well-being (Skakon et al., 2010), it would be valuable to direct interventions to male managers, especially. The high amount of male managers at workplaces makes this topic even more important.

As earlier studies (Connelly & Ones, 2010) also indicate, the subordinates' views of their manager are worth considering. This idea is generally applied in multi-source ratings (e.g., 360-degree ratings) and, in order to be utilized with its full potential, the voice of the subordinates should be heard with a greater respect. Our study strongly supports this idea. Open communication and creating shared views of the driving forces on a manager's work-related personality would help the subordinates understand their manager's work-related behaviors comprehensively. Moreover, asking for the subordinates' opinion can be an intervention itself, since it increases their participation and stresses the significance of their opinions.

The new area of research, relating self-ratings, other-ratings and SOA on a manager's personality to the occupational well-being of subordinates, also provided some tentatively promising results. The results of the significance of listening to the subordinates and the importance of having a 'leader-like' work-related personality can be utilized in an educative manner when the managers are trained in their leadership skills, knowledge and attitudes. It can be expected that actions that aim at increasing the managers' self-awareness of their work-related personality – may it be training, coaching, or some other interventions at workplaces – can be positively associated with the occupational well-being of their subordinates. It is crucial to remember that being in-agreement is not the only condition for occupational well-being. As a matter of fact, the cases in which the direction of discrepancy was central were more frequent than cases with in-agreement. In the cases of disagreement, the subordinates' views of their manager's work-related personality and its driving forces should be considered carefully. A special attention should be paid to managers who assess their personality drivers contrary to their subordinates' views, as the disagreement has significant consequences to the affective and social well-being of the subordinates.

As we speculated earlier, our results may suggest that the managers who are more ‘leader-like’ (i.e., locate on the right end of the assessment scale) might be more well-being promoting at workplaces. All in all, these results should be taken into consideration in the recruitment of new managers, as it is in the whole organization’s interest to recruit managers who enhance the occupational well-being of subordinates and whose personality fits well to the demands of the leadership position and the leadership role. It seems to be critical to be aware of the possibility that a potential manager is self-aware of his/her work-related personality and leadership style. We believe that recruitment professionals benefit from our results in recruitment selections. We also encourage the use of professionals in the recruitment process in order to benefit from choosing high-quality managers in the long run.

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APPENDIXES

Appendix 1

WOPI brief scale definitions (adopted from WOPI Technical Manual, 2010)

(fo) Focused achievement: less focused - very focused, quality-oriented. High scorers strive for quality and perfection even in minor projects. They sustain their focus and want to reach full completion before moving on to new things. Low scorers are not quitting but either not willing to stretch themselves “too much”. Rather, they move on to other things while the high scorers persist.

(co) Competitive achievement: less competitive - very competitive, results-oriented. High scorers strive for quantitative results and winning even at the cost of other things. They want to win, not just participate. Low scorers are not lazy or unindustrious but are satisfied with less competitive or high goals, settling with more attainable, “realistic” goals.

(le) Leadership: not leading of others - strongly leading of others. High scorers want to lead others’ actions by showing direction, giving instructions and getting things going. Low scorers are not necessarily submissive but prefer to leave the initiative and decisions to others and not take responsibility over other people’s actions.

(is) Inspiration: reserved, unassuming - presentational, inspiring of others. High scorers want to lead others’ thoughts by inspiring and persuading them with ideas and presentations. They want to be centers of attention, become seen and heard. Low scorers are uninspiring, conventional and task-oriented. They tend to lack the zeal and outward spirit but not be bad leaders as such.

(so) Sociability: solitary, withdrawing - seeks contacts, communicates. High scorers want to spend time and do things with others rather than alone. They seek and maintain contacts and communicate with others. Low scorers are comfortable alone and don’t actively seek company. They maintain neutral detachment to others and like quieter social events.

(em) Empathy: distant, remote - supports, advises others. High scorers want to support and advise others, particularly those in need. They are often unselfish and empathetic, protecting and responsible. Low scorers are more selective in giving sympathy and often unaware of others’ feelings.

(re) Reliance: autonomous, self-sufficient - relies on, listens to others. High scorers want to rely on, listen and serve others rather than try to do things by themselves. They want to be helped and rely often on stronger, more competent individuals. Low scorers are autonomous, self-directed, self-sufficient and less influenced by others.

(or) Orientation: pursues facts - pursues ideas. High scorers approach things by seeking new ideas which strengthens creative planning & problem solving. Low scorers approach things by emphasis on facts which strengthens operative, practical planning & problem solving.

(pc) Perception: concrete - abstract perception. High scorers define things as complex wholes which strengthens creative planning & problem solving. Low scorers define things in a focused, concrete manner which strengthens operative, practical planning & problem solving.

(th) Thinking: analytical, logical thinking - intuitive, instinctive thinking. High scorers come up with exclusive, situation-sensitive solutions which strengthens creative planning & problem solving. Low scorers come up with generic, standard solutions which strengthens operative, practical planning & problem solving.

(dc) Decision making: cautious, controlled decisions - quick, risk-taking decisions. High scorers implement plans & problem solutions in a quick, risk-taking manner. Low scorers implement plans & problem solutions in a controlled, cautious manner.

(am) Ambiguity-Change: prefers clarity, stability - prefers novelty, change. High scorers (novelty-seekers) prefer to work in mobile work environments that offer variety and change. Low scorers (clarity-seekers) prefer to work in stable work environments which remain unchanged.

(op) Optimism: less optimism - much optimism. High scorers have strong belief in their personal success and about things going right. Low scorers emphasize realism and reervations and may have less belief in their personal success.

(sr) Self-reflection: much self-reflection - less self-reflection. High scorers question less the ethics, morals of their own conduct. Low scorers question more the ethics, morals of their own conduct.

Appendix 2

TABLE 1. The original factor pattern matrix of occupational well-being items including factor loadings > .30

Items	Factor 1 ^a	Factor 2	Factor 3 ^b	Factor 4 ^c	Factor 5	Factor 6
Interesting and challenging duties	.90					
Work-related enthusiasm and joy	.77					
Significance of the duty for the organization	.52	.36				
Finding fulfillment in job	.83					
Appreciation of my work	.31					
Modesty of the work-load				.85		
Coping at work	.38			.60		
Managing with task	.34	.48				-.35
Clarity of the expectations for my performance	.32	.67				
Balance between work and leisure time				.70		

Control over working time		.51		.35
Satisfaction with workload		.66		
Balance between authority and responsibility		.37		.71
Utilization of “know-how” in job	.80			
Opportunities for professional progress in the organization	.58		.30	.35
The sufficiency of feedback		.53		
The definition of profit targets		.37		.55
The clarity of my personal development targets				.86
Planning of the professional development and career				.74
Solidarity, team spirit in the team			.75	
Functionality of the planning meetings		.70		
The clarity of the team’s shared goals		.78		
The follow-up for reaching the team goals		.77		
Evaluation of the team functioning		.60	.32	
Sharing of the know-how and knowledge in the team			.73	
Getting assistance in the team			.71	
Taking responsibility about working as a group			.58	

Note: ^a (Work-related positive emotions)

^b (High team spirit)

^c (Low work-related strain)

Principal Axis Factoring, rotated with Promax with Kaiser Normalization.

TABLE 2. Factor correlations

Factor	1	2	3	4	5
1	-				
2	.46	-			
3	.08	.35	-		
4	.18	.14	.11	-	
5	.35	.46	.42	.07	-
6	.21	.15	.20	.10	.31

Appendix 3

TABLE 3. The relation between demographic variables (age and gender) of the manager and ratings of the manager's work-related personality

Variable		<i>F</i>	<i>df</i>	<i>p</i>	η^2
<u>Manager's and subordinates' ratings jointly</u>					
Age		2.80	2, 118	.065	.05
Gender		2.44	2, 118	.091	.04
<u>Ratings separately ¹</u>					
Age	Manager	5.08	1, 119	.026	.04
	Subordinates	2.17	1, 119	.143	.02
Gender	Manager	0.57	1, 119	.454	.01
	Subordinates	4.93	1, 119	.028	.04

Note: Gender of manager: *N* = 89 for male, *N* = 33 for female

Age of manager: *N* = 22 for low, *N* = 74 for mediate, *N* = 26 for high

¹*p*-level of .025 is required, as the procedure included two separate dependent variables (.05 / 2 = .025)

TABLE 4. The relation between demographic variables (age and gender) of the manager and ratings of the manager's cognitive styles

Variable		<i>F</i>	<i>df</i>	<i>p</i>	η^2
<u>Manager's and subordinates' ratings jointly</u>					
Age		0.78	2, 118	.459	.01
Gender		0.80	2, 118	.453	.01
<u>Ratings separately ¹</u>					
Age	Manager	1.41	1, 119	.238	.01
	Subordinates	0.91	1, 119	.341	.01
Gender	Manager	0.25	1, 119	.616	.00
	Subordinates	0.57	1, 119	.451	.01

Note: Gender of manager: *N* = 89 for male, *N* = 33 for female

Age of manager: *N* = 22 for low, *N* = 74 for mediate, *N* = 26 for high

¹*p*-level of .025 is required, as the procedure included two separate dependent variables (.05 / 2 = .025)