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Running head: THE IMPOSTOR PHENOMENON

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Abstract

Purpose – The Impostor Phenomenon (IP) refers to the intense feelings of intellectual fraudulence, often experienced by high achieving individuals. The purpose of this study is threefold: (1) examine the trait-relatedness of the IP; (2) investigate the potential impact of impostor tendencies on relevant work attitudes (i.e., job satisfaction and organizational commitment) and organizational citizenship behavior (OCB); and (3) explore whether workplace social support can buffer the potential harmful effects of impostor tendencies.

Design/methodology/approach – Belgian employees (N=201) from three different sectors participated in a cross-sectional survey study.

Findings – Hierarchical regressions revealed that Big Five personality traits, core self-evaluations, and maladaptive perfectionism explain large proportions of the variance in impostor tendencies ($\Delta R^2=.59$). A relative weight analysis indicated self-efficacy as the most important predictor, followed by maladaptive perfectionism and Neuroticism. Further, results showed that employees with stronger impostor tendencies indicate lower levels of job satisfaction, higher continuance commitment, and less OCB's. However, workplace social support buffered the negative effects of impostor tendencies on job satisfaction and OCB.

Implications – Employees hampered by impostor tendencies could benefit from coaching programs that focus on the enhancement of self-efficacy and the alleviation of maladaptive perfectionistic concerns. Impostor tendencies have an impact on certain career attitudes and organizational behavior. Therefore, extra attention could be devoted to the assessment of this specific trait constellation in selection or development contexts. Interventions designed to increase social support are particularly relevant in this regard.

Originality/value – Despite its relevance for contemporary work settings, the IP has barely been investigated in adult working samples.

Keywords: impostor phenomenon; personality; job satisfaction; organizational commitment; organizational citizenship behavior; workplace social support

"Bluffing" their way through life – as they see it –, they are haunted by the constant fear of exposure. With every success, they think, "I was lucky this time, fooling everyone, but will my luck hold? When will people discover that I'm not up to the job?" (Kets de Vries, 2005, p. 110)

Under the influence of positive psychology, the 'bright side' of employees and their behavior at work has dominated applied research in the past decades. However, the past few years the Industrial/Organizational (I/O) psychology literature has also witnessed an increased attention for the 'dark side' of behavior at work as well, including studies on leadership derailment (e.g., Kaiser & Hogan, 2011), the 'dark triad' (O'Boyle, Forsyth, Banks, & McDaniel, 2012), and aberrant personality tendencies (Wille, De Fruyt, & De Clercq, 2013). It is in this context of dysfunctional or maladaptive patterns of employee feelings, thoughts, and behaviors that the Impostor Phenomenon (IP) can be brought to the fore. The IP was first introduced by Clance and Imes (1978) to describe the intense feelings of intellectual and professional fraudulence, experienced by high achieving individuals. Despite the accumulation of objective evidence suggesting the contrary, such as remarkable academic achievements and a successful career history, these persons are unable to internalize and accept successful experiences. Individuals experiencing impostor tendencies are convinced that others overestimate their capacities and will eventually discover that they are not truly efficacious, but go through life as 'impostors'. As a consequence, they are haunted by the perpetual fear of being exposed as incompetent. Further, they have persisting doubts of their own abilities, and repeated successful experiences fail to weaken these feelings of fraud (cf. the 'impostor cycle'; Clance, 1985).

Clearly, the IP may have detrimental effects on people's personal well-being, inducing feelings of depression (e.g., McGregor, Gee, & Posey, 2008) and overall poorer mental health (Sonnak & Towell, 2001). Moreover, impostor tendencies may be detrimental for people's

potential for career advancement, for example by acting as an internal barrier to move up to a more senior level (Kets de Vries, 2005). However, to date the IP is still poorly understood, despite its potential relevance in contemporary work settings. For instance, data from the Global Workforce Study (Towers Watson, 2012), covering more than 32 000 full-time employees from 29 countries, revealed that with the growing global competition, workers around the world experience an excessive pressure on the job and are increasingly anxious, risk averse and security-minded. In this increasingly achievement-oriented environment, for many people failing is just not an option, and career advancement helps to ensure employment security in these economically difficult times. The adverse outcomes of such a climate are now clearly visible, with burnout and stress-related problems booming in many of the industrialized countries across the globe (Maslach, 2012). It is not unthinkable that for a certain category of employees who are prone to feelings of fear and incompetence, this economic climate may also constitute a breeding ground for dysfunctional thoughts and feelings associated with the IP. Presuming that the IP may manifest more often than we think and that it might be related to adverse work-related outcomes, we believe that additional research on this topic is now timely and warranted.

The general objectives of this study are to improve our understanding of the IP, and to explore its relevance in the work context. To this end, we will first focus on the dispositional basis of this construct, investigating a broad range of personality constructs (i.e., Big Five personality traits, core self-evaluations, and perfectionism) that are potentially associated with the IP. Second, despite the fact that the IP could be a highly relevant construct in contemporary work settings, the IP has mainly been studied in student samples and real-life organizational outcomes have been largely ignored so far. To the best of our knowledge, only one study has suggested theoretical relationships between the IP and work-related outcomes (McDowell, Boyd, & Bowler, 2007), although these propositions have never been tested

empirically. The current study addresses the need for additional research on the IP in a working context, and represents one of the first to evaluate the relevance of the IP against a selection of organizationally relevant outcomes, including job satisfaction, organizational commitment, and organizational citizenship behavior (OCB). Finally, we will explore how environmental features, in particular workplace social support, may moderate the potential negative effects of this phenomenon on work-related criteria. In summary, the current study is centered around three main research questions:

- (1) *How is the IP related to a broad range of personality traits?*
- (2) *How is the IP related to relevant work-related outcomes?*
- (3) *Can workplace social support buffer the potential harmful effects of the IP?*

The Trait-Relatedness of the Imposter Phenomenon

Although Clance and Imes (1978) initially emphasized environmental influences in the development and sustaining of impostor tendencies, more recently researchers have also started to consider personality variables in this context (e.g., Bernard, Dollinger, & Ramaniah, 2002). However, most if not all of the existing studies have addressed this issue in student populations and/or very specific research samples (e.g., Korean Catholics; Chae, Piedmont, Estadt, & Wicks, 1995). Moreover, the scope of personality variables that have been considered is limited. We sought to extend previous findings for the IP and personality by (a) examining a broader trait spectrum and (b) addressing this topic in a sample of working adults.

Personality traits refer to "*dimensions of individual differences in tendencies to show consistent patterns of thoughts, feelings, and actions*" (McCrae & Costa, 2003, p. 25). Given that the IP is defined in terms of pervasive patterns of dysfunctional thoughts and feelings, we strongly support the interpretation of Ross and Krukowski (2003), describing the IP as a maladaptive personality style, which itself can be seen as the product of a combination of traits, including the Big Five traits (e.g., Watson, 2012). Based on an extensive review of the

IP literature, we have made a careful selection of personality variables that can be argued to be conceptually related to this specific dysfunctional personality tendency. By taking into account a wide array of personality variables, we aim to facilitate the definition and sharpen our understanding of the IP as a maladaptive personality style. What exactly are the personality building blocks that constitute this fear of being exposed? Is it about fear, self-perceived incompetence, or maybe the pursuit and cherishing of unrealistic goals? In the present study, this trait-relatedness of the IP will be evaluated against (1) a broad and comprehensive taxonomy of personality: the five-factor model (FFM); (2) a higher-order construct related to the self-concept, clearly relevant to feelings and cognitions of being an intellectual fraud: core self-evaluations (CSE); and (3) a more narrow trait with some conceptual overlap with the IP: perfectionism.

Five-Factor Model traits. The Five-Factor model of personality is currently the most widely used framework for investigating the trait-relatedness of organizational phenomena. To date, however, only a small number of studies have tried to unravel the IP using this comprehensive framework of traits. Studies investigating student samples have consistently found a positive correlation with Neuroticism and a negative correlation with Conscientiousness (Bernard et al., 2002; Chae et al., 1995; Ross, Stewart, Mugge, & Fultz, 2001). Also, some of this research has indicated a negative relationship with Extraversion and/or Agreeableness (e.g., Chae et al., 1995; Ross et al., 2001), although these associations are generally much weaker and inconsistent across studies. For reasons of generalizability, it is crucial that these associations between the IP and traits of the FFM obtained in students are replicated in settings where stakes are much higher, such as the work context. A comparison of how personality is related to the IP in workers (this study) versus students (previous research) is further warranted given that the effects of personality on attitudes and behavior

have been shown to depend on the specific stage of career development that one is in (Woods, Lievens, De Fruyt, & Wille, 2013).

Clearly, the ongoing fear of being exposed as incompetent is a prominent emotion in the IP. Besides the central role of anxiety (e.g., Oriel, Plane, & Mundt, 2004), associations with other facets of *Neuroticism*, such as depression (McGregor et al., 2008) and shame (Cowman & Ferrari, 2002), substantiate the importance of Neuroticism as a dispositional source of workers' impostor tendencies. Individuals high in *Conscientiousness* can be described as reliable, organized, ambitious and thoughtful. Furthermore, they are characterized by strong feelings of competence, reflecting their belief in personal effectiveness (Hoekstra, Ormel, & De Fruyt, 2007). This final asset of conscientious individuals is exactly what impostors seem to lack (e.g., Clance & Imes, 1978). The persistent feelings of incompetence, which reside at the heart of the impostor construct, suggest a negative relationship between workers' impostor tendencies and Conscientiousness. Concerning the association with *Extraversion*, there have been no equivocal results in the literature; either a modest negative relationship was found (Chae et al., 1995; Ross et al., 2001) or no significant relationship was found (Bernard et al., 2002). However, assuming that interpersonal contacts make it more likely to be exposed as an impostor, impostors can be expected to be more introverted. Moreover, extraverts are inclined to be more cheerful and optimistic (i.e., the facet Positive Emotions), which is opposite to the impostor profile, characterized by generalized negative affect (e.g., worried, less optimistic and relaxed; Leary, Patton, Orlando, & Wagoner Funk, 2000). Concerning *Openness to experience* and *Agreeableness* there are less clear conceptual reasons to expect an association with the IP. Moreover, except for Chae et al. (1995), who found a weak but significant relationship between the IP and Agreeableness, no significant associations have been reported previously. Although no relationships are expected a priori with these personality traits, these

Opmerking [J1]: Moeten we hier niet op terug komen in de discussie?

variables are nevertheless taken into account because we aim to explore the relationship with the complete FFM of personality in the present study. This leads to the following hypothesis:

Hypothesis 1: Regarding Big Five personality traits, workers' impostor tendencies are expected to be positively related to Neuroticism (1a), and negatively to Extraversion (1b) and Conscientiousness (1c).

Core self-evaluations. According to Judge and colleagues, individuals with positive CSE appraise themselves in a consistently positive manner across situations, see themselves as capable, worthy and in control of their lives (Judge & Kammeyer-Mueller, 2012). In contrast, individuals with impostor tendencies are characterized by low self-appraisals and general negative affect (e.g., Leary et al., 2000). Clearly, the CSE construct could be a highly relevant predisposition to investigate in relationship to the impostor construct. However, the two have not been related empirically.

More specifically, Judge, Locke and Durham (1997) described core self-evaluations (CSE) as a higher-order latent construct that captures four core personality traits: self-esteem, generalized self-efficacy, emotional stability (low neuroticism) and locus of control (LOC). In order to answer our first research question, we consider it to be useful to investigate the relationship between impostor tendencies and CSE at both (1) the higher-order level and (2) the facet level. According to Judge and Kammeyer-Mueller (2012), it can be relevant to study the individual core traits – whether or not complementary to the higher-order construct – because there may be specific-factor variance that can be attributed to each of the core traits. A hybrid approach, considering both broad and narrow measures, might hence be the best choice for a better understanding of what predisposes impostor tendencies.

Although *self-esteem* has been reported to be a significant negative correlate of the IP (e.g., Sonnak & Towell, 2001), others found no significant relationship (e.g., Garwick, Ford, & Hughes, 2011). However, assuming that feelings associated with the IP, such as self-doubt and self-criticism (e.g., Clance, 1985; Thompson, Davis, & Davidson, 1998), must affect the

value one places on oneself in a work context, we do expect a negative association in the current study. Moreover, we expect impostors to score lower on *emotional stability*, as we argued above (cf. high Neuroticism in FFM), and there are also strong reasons to believe that *self-efficacy* and *LOC* play a considerable role in the IP. Clance and Imes (1978) argue that impostors typically lack self-confidence and they experience a lasting sense of intellectual inauthenticity, despite repeated successful performance. As a result, impostors' judgments of their capabilities to execute given levels of **performance** (i.e., self-efficacy) are expected to be low. Furthermore, impostors clearly have difficulty internalizing their success. They attribute their achievements to external factors such as luck, charm, knowing the right people, or working much harder than others to accomplish the same results, rather than to their own abilities (Clance & O'Tool, 1988). The following hypothesis can be formulated:

Hypothesis 2: Workers' impostor tendencies are negatively related to core self-evaluations. More specifically, this means that more intense impostor tendencies will be related to lower levels of self-esteem (2a), lower generalized self-efficacy (2b), lower emotional stability (2c) and an external locus of control (2d).

Perfectionism. In addition to the FFM traits and CSE, a review of the IP literature also identifies perfectionism as a final trait relevant for understanding this dysfunctional personality pattern (Clance, 1985; Thompson, Foreman, & Martin, 2000). Although perfectionism has long been defined as an essentially negative construct (e.g., Hollender, 1978), accumulated evidence now shows that perfectionism can better be considered as multifaceted (e.g., Stumpf & Parker, 2000). Hamachek (1978) was one of the first researchers who made a distinction between "normal" and "neurotic" forms of perfectionism. He described normal or adaptive perfectionists as those who set high expectations and standards for themselves, but also experience a sense of pleasure and pride when those expectations are met. Neurotic or maladaptive perfectionists, on the other hand, are those who set high standards, but never seem to feel a sense of accomplishment, even when their high standards

Opmerking [f2]: Wat bedoel je met given levels of performance?

are met (Kearns, Forbes, Gardiner, & Marshall, 2008). While the first type of perfectionism generally shows positive correlations with indicators of good adaptation, such as positive affect, life satisfaction and an active coping style; the second - maladaptive perfectionism - is associated with indicators of maladjustment, such as negative affect, life dissatisfaction, depression, anxiety, and low self-esteem (Stoeber & Otto, 2006). The present study is the first to consider this distinction between adaptive and maladaptive perfectionism in the context of impostor tendencies at work. The following hypothesis is proposed:

Hypothesis 3: Workers' impostor tendencies are expected to be positively related to maladaptive perfectionism (3a) and negatively to adaptive perfectionism (3b).

Work-related Outcomes associated with the Impostor Phenomenon

Although prevalence rates among working samples are lacking, the relatively high prevalence rate of the IP among students (e.g., 43% in Sonnak & Towell, 2001), might indicate that the IP is more common than we suspect, and may leave its marks in the workplace. In line with Ross and Krukowski (2003), we believe that the IP represents a maladaptive and pervasive style of interacting in the world, which not only limits one's potential in educational contexts, but also hinders one's functioning and performance at work. However, to the best of our knowledge, only one conceptual paper (McDowell et al., 2007) has tried to relate the IP to organizational outcomes, more particularly to organizational commitment and OCB. In addition, these authors also highlighted the need for further investigations of the associations between the IP and other relevant outcomes, including job satisfaction. Building on the conceptual work of McDowell et al. (2007), the current study will investigate the empirical relations between the IP and two relevant work attitudes (i.e., job satisfaction and organizational commitment) and one facet of work performance (i.e., OCB). Before we build our arguments considering the expected relationships between impostor tendencies and the organizational outcomes, we will briefly discuss how the investigated personality variables

(e.g., Big Five traits) relate to the outcomes. As we believe the IP to be a constellation of personality traits, the individual dispositional variables can be considered as a part of the IP construct. Therefore, knowledge about how the personality variables relate to the organizational outcomes, might give a preliminary indication about the expected relationships between the IP and the outcomes. Moreover, we will also argue why we believe that impostor tendencies – through its own mechanisms like the ‘impostor cycle’ – can be related to the organizational outcomes.

Job satisfaction. Meta-analyses on job satisfaction revealed associations with dispositional variables such as Neuroticism ($r = -.29$; Judge, Heller & Mount, 2002) and self-esteem ($r = .26$; Judge & Bono, 2001) in the opposite direction as the associations that have been found with the IP in student samples (e.g., $r = .52$ for Neuroticism; Bernard et al., 2002; e.g., $r = -.67$ for self-esteem; Sonnak & Towell, 2001). More recently, Lemelle and Scielzo (2012) meta-analytically showed a positive relationship between job satisfaction and core self-evaluations. Therefore, we presume that impostor tendencies will be negatively related to job satisfaction. In addition, characteristic for the IP is the inability to break the impostor cycle. When an achievement-related task is assigned to them, impostors are usually plagued with worry, self-doubt and anxiety. In order to deal with these feelings, they either extremely over-prepare a task, or initially procrastinate followed by frenzied preparation. Mostly, they succeed and they experience temporary feelings of elation and relief. However, their success reinforces the feelings of fraudulence rather than weakening them, because in their mind this success does not reflect true ability. Once a new task is assigned, feelings of anxiety and self-doubt reoccur (Clance, 1985; Thompson et al., 1998). In the work environment, achievement-related tasks are common, and there are hence reasons to believe that an employee who is stuck in an impostor cycle and who fears to be exposed will not have strong feelings of overall satisfaction in his job.

Organizational citizenship behavior. OCB is an aspect of job performance and can be described as “*individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and in the aggregate promotes the efficient and effective functioning of the organization*” (Organ, Podsakoff, & MacKenzie, 2006, p. 3). Drawing on equity theory (Adams, 1963), McDowell et al. (2007) initially proposed a positive relationship between impostor tendencies and OCB. They specifically argued that impostors would respond to the situation of perceived over-reward by engaging in citizenship behaviors, with the main purpose of restoring equity. However, there are compelling arguments to expect an association in the opposite direction. First, Podsakoff, MacKenzie, Paine and Bachrach (2000) illustrate in a review article that of the dispositional variables that have been related to OCB, Conscientiousness, Agreeableness, and positive affectivity have the strongest (positive) effects. In contrast, the scarce IP literature suggests negative associations with Conscientiousness and positive affect (e.g., Leary et al., 2000; Ross et al., 2001). Further, core self-evaluations and adaptive perfectionism are also positively related to OCB (Beauregard, 2012; Bowling & Wang, 2012). Together, the associations between the individual personality variables -that we expect to be underlying the IP- and OCB point in the direction of impostor tendencies being negatively related to OCB. In addition, it can be expected that due to the fear of being exposed, impostors become so obsessed with their own tasks and performance that there remains less energy for tasks that are not part of their job description. Presuming that high personal achievement is the ultimate cover for their self-perceived fraudulence, and that personal resources are restricted, we expect impostors to be less inclined to engage in OCB.

Organizational commitment. Allen and Meyer (1990) developed the three-component model of commitment which differentiates between affective, normative and continuance commitment. Affective commitment reflects an emotional attachment to, identification with, and involvement in the organization. Normative commitment is experienced as a sense of

obligation to remain, and continuance commitment reflects the perceived costs associated with leaving (Meyer et al., 2012). In the current study, we focus on two of these components, affective and continuance commitment, because they are most distinguishable from each other and it has been demonstrated that they show different patterns of correlations with antecedent and consequence variables, in contrast to normative commitment, that strongly relates to affective commitment and has similar correlation patterns with other variables (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002).

Opmerking [J3]: Deze redenering werd ook genomen in JAP paper Luchak & Gellatly (2007). Meerwaarde om dit erbij te vermelden?

The positive relationships between continuance commitment and Neuroticism (Erdheim, Wang, & Zickar, 2006), and between affective commitment and core self-evaluations (Stumpp, Hülshager, Muck, & Maier, 2009), and self-efficacy (van Vuuren, de Jong, & Seydel, 2008) are in line with what has been theorized by McDowell, Boyd, and Bowler (2007); that the IP would be positively related to continuance commitment and negatively to affective commitment. With regard to continuance commitment, they argued that impostors think that they are selected into jobs that are at higher levels of responsibility and salary than they deserve. In case that they would leave their current job, they would feel that they are not able to find a job at the same level (McDowell et al., 2007). This is also in line with Powell and Meyer (2004) who found a positive relation between ‘perceived lack of alternative employment opportunities’ and continuance commitment. McDowell et al. (2007) indicate that impostors’ fear of failure is not expected to outweigh the cost of leaving the position. Concerning affective commitment, they argue that impostors’ intense feelings of self-doubt and their difficulties to internalize success could hinder the development of an emotional bond with the organization. Although McDowell et al. (2007) restrict their propositions concerning the IP to situations of over-reward, we believe that the perception of over-reward is rather inherent to impostors’ cognitions. The following hypothesis is proposed concerning workers’ impostor tendencies and work-related outcomes:

Hypothesis 4: With regard to work-related outcomes, impostor tendencies are expected to be negatively related to job satisfaction (4a), OCB (4b), and affective commitment (4c); and positively related to continuance commitment (4d).

Workplace Social Support as a Buffering Mechanism

In the present study, for the first time in the IP-literature, it is empirically investigated whether workplace social support alleviates the potential negative outcomes associated with employees' impostor tendencies. Understanding the situational characteristics that might mitigate the potential negative effects of IP tendencies may hold benefits for both the employee and the organization. Whitman and Shanine (2012) recently posited that the ongoing thoughts and feelings within an impostor cycle may eventually result in a persistent state of physical and emotional depletion, which could form a threat for individuals' well-being and that of the organization. In order to continue functioning effectively, these authors argue that impostors must engage in behaviors that mitigate these feelings of exhaustion. More specifically, they suggest that social support could moderate the type of coping mechanism that exhausted impostors use. Impostors who perceive higher social support may choose to engage in active coping strategies and may be more effective in addressing the source of the stress. Impostors experiencing less social support, in contrast, may rather choose to engage in avoidant coping strategies to deal with the exhaustion. Although the co-workers and superiors do not represent the true source of the threat, an impostors' fear that these people will expose him or her as inadequate, render them as threatening for the employee with impostor tendencies. By avoiding the source of the stress as a means of coping, the latter type of impostors could "*enter a loss spiral that subsequently leads to greater exhaustion*" (Whitman & Shanine, 2012, p.193). We propose that the perception of high support enables impostors to cope more adequately with their impostor tendencies, protecting them from negative organizational outcomes as compared to impostors with a low support perception. Following hypothesis is proposed:

Hypothesis 5: The negative relationships between workers' impostor tendencies and job satisfaction (5a), OCB (5b) and affective commitment (5c); and the positive relationship between impostor tendencies and continuance commitment (5d) are expected to be moderated by workplace social support, in such a way that social support will weaken these relationships.

Method

Design and Participants

Dutch-speaking Belgian white-collar workers ($N = 201$; 58% female) participated voluntarily in this study. The mean age of the sample was 36.11 years ($SD = 10.18$). Table 1, detailing the demographic characteristics of the sample, further shows that participants were recruited from three different employment sectors: Finance & Accounting ($N = 62$), HRM ($N = 63$) and Education ($N = 76$). Among the participating organizations were an international accountancy firm, several HR-consultancy firms and three schools. After the management had expressed their commitment to participate, they informed their employees about the investigation by email, including a friendly, noncommittal request to participate through a link that directed participants to an online survey. Employees from different organizational levels could be included in this study and most of them held a master's (40%) or a professional bachelor's (28%) degree.

Measures

Except for the demographic and control measures, respondents were asked to endorse all survey-items on a 5-point Likert scale; ranging from 1 (*not at all true*) to 5 (*very true*) for the impostor- and perfectionism scale, and ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) for the other measures. All non-Dutch instruments were translated to Dutch using back-translation procedures as described by Brislin (1970).

Demographic variables. Sex, age, employment sector, educational-, and organizational level were selected as relevant control variables. Because of their categorical nature, dummy

variables were created for sex (one dummy with male = 0 and female = 1) and for sector (two dummies with Finance & Accounting being the reference category).

Impostor phenomenon. Impostor tendencies were assessed using the 16-item Clance Impostor Phenomenon Scale (CIPS; Clance, 1985). A validation study of the CIPS demonstrated that the IP was related to, but substantially different from measures of depression, self-esteem, social anxiety, and self-monitoring (Chrisman, Pieper, Clance, Holland, & Glickauf-Hughes, 1995). A more recent study revealed that the internal consistency reliability and item discrimination were satisfactory (French, Ullrich-French, & Follman, 2008). However, these authors advised to use the total score of the CIPS because the confirmatory factor analysis results for the original theoretical model (i.e., with three subscales *Fake*, *Discount* and *Luck*; Clance, 1985) were unsatisfactory (French et al., 2008). Although the CIPS originally contained 20 items, four items were eliminated due to low inter-item correlations (French et al., 2008; Kertay, Clance, & Holland, 1991). Example items of the final scale are “*I’m afraid people important to me may find out that I’m not as capable as they think I am*” and “*When people praise me for something I’ve accomplished, I’m afraid I won’t be able to live up to their expectations of me in the future*”. Cronbach’s alpha of the impostor scale was .93.

It is important to note that in contrast to most of the prior IP studies (e.g., Ferrari, 2005; Oriel et al., 2004; Sonnak & Towell, 2001; Thompson et al., 2000), we adopted a dimensional approach to measure impostor tendencies instead of the categorical approach that distinguishes ‘impostors’ from ‘non-impostors’. Unlike the categorical approach, which uses – often arbitrary – cut-offs to differentiate between only two ‘types’, the dimensional assessment considers the full range of scores on an underlying dimension of impostor tendencies. Such a dimensional perspective is more consistent with the way personality tendencies, adaptive and maladaptive, are distributed in the population (e.g., Campbell &

Miller, 2011). Distributions of IP tendencies (means and standard deviations) in the entire sample and within different demographical subsamples are presented in Table 1. However, in order to enable comparisons with prior studies, a categorical variable was also created to provide base rate information of categorized ‘impostors’ in addition to the distributions of IP continua. Using a cut-off score of 50 out of 80 (see Note below Table 1; cf. Holmes, Kertay, Adamson, Holland, & Clance, 1993), 20% of our adult working sample is categorized as an ‘impostor’ ($M = 57.93$, $SD = 6.96$), and 80% as ‘non-impostor’ ($M = 34.42$, $SD = 8.48$).

Big Five traits. Big Five personality traits were assessed using the Dutch/Flemish version of the 60-item NEO Five Factor Inventory (NEO-FFI; Hoekstra et al., 2007). The internal consistencies of the five personality domains are acceptable to good, ranging between .70 (Openness to experience) and .87 (Neuroticism).

Core self-evaluations. The Dutch/Flemish version of the CSE scale (De Pater, Schinkel, & Nijstad, 2007) by Judge, Erez, Bono, and Thoresen (2003) was used to assess participants’ core self-evaluations. To avoid item-overlap, we eliminated the neuroticism/emotional stability subscale from this instrument because this trait was already covered by the NEO-FFI. The three remaining facets of the CSE scale were each surveyed by means of three items: self-esteem (e.g., “*Overall, I am satisfied with myself*”), generalized self-efficacy (e.g., “*When I try, I generally succeed*”), and LOC (e.g., “*I determine what will happen in my life*”). A higher score on LOC represents an internal locus of control. To obtain a score of the higher-order CSE construct, we combined the three CSE subscales with the 12-item Neuroticism scale (reversed), as measured with the NEO-FFI. Because of the item imbalance between the CSE components (i.e., three items for self-esteem, self-efficacy and LOC versus 12 items for emotional stability), the aggregate CSE score represents the mean of the four subscale scores instead of the mean of the 21 items. The internal consistency of the entire CSE scale - including emotional stability - was good ($\alpha = .91$). The Cronbach alpha’s

for the separate subscales were somewhat lower: $\alpha = .71$ for self-esteem, $\alpha = .60$ for self-efficacy, $\alpha = .87$ for emotional stability, and $\alpha = .67$ for LOC; but still acceptable given the relatively small number of items (Robinson, Shaver, Wrightsman, & Andrews, 1991).

Opmerking [J4]: is dit niet in contrast met onze limitatie-sectie?

Perfectionism. The validated Dutch perfectionism instrument by Soenens Vansteenkiste, Luyten, Duriez, and Goossens (2005) was used, measuring three scales of the Frost Multidimensional Perfectionism Scale (Frost, Marten, Lahart, & Rosenblate, 1990): Personal Standards (7 items; e.g., “*I set higher goals than most people*”), Concern over Mistakes (9 items; e.g., “*I should be upset when I make a mistake*”), and Doubts about Actions (4 items; e.g., “*Even when I do something very carefully, I often feel that it is not quite right*”). Previous research has identified the subscale Personal Standards as an indicator of adaptive perfectionism and the other two subscales as indicators of maladaptive perfectionism (Frost et al., 1990). To obtain a measure of adaptive perfectionism, the items of the subscale Personal Standards were averaged. A score on maladaptive perfectionism was obtained in a similar way, namely by averaging the scores on the subscales Concern over Mistakes and Doubts about Actions. Cronbach's alpha was .80 for adaptive- and .92 for maladaptive perfectionism.

Job satisfaction. The three-item scale from the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh, 1979) was used to measure overall job satisfaction (e.g., “*All in all, I am satisfied with my job*”). Cronbach's alpha was .92.

Organizational citizenship behavior. The Dutch translation of the OCB questionnaire by Podsakoff, MacKenzie, Moorman and Fetter (1990) was adopted from De Clercq and Fontaine (2007). This self-report instrument consists of 24 items that cover Organ's (1988) five OCB dimensions (i.e., altruism, conscientiousness, civic virtue, courtesy and sportsmanship). Lepine, Erez and Johnson (2002) found in their meta-analysis that the different OCB dimensions are strongly interrelated and that they are not differentially related

to the most commonly studied antecedents. Therefore, only the aggregate OCB-construct will be taken into account in the present study ($\alpha = .87$). Sample items are “*I help others who have heavy workloads*” and “*I attend meetings that are not mandatory, but considered important*”.

Organizational commitment. The revised six-item versions of the commitment scales of Meyer and Allen (1997) were used. In the context of this study, only affective- (e.g., “*This organization has a great deal of personal meaning for me*”) and continuance commitment (e.g., “*I feel that I have very few options to consider leaving this organization*”) are considered. The affective commitment scale had a good internal consistency ($\alpha = .82$). Cronbach’s alpha for the continuance commitment scale was lower ($\alpha = .62$) but still acceptable for use in in exploratory research (e.g., Hair, Black, Babin, & Anderson, 2010; Robinson et al., 1991).

Opmerking [J5]: idem

Workplace social support. Participants completed the 15-item Mentoring and Communication Support Scale (Hill, Bahniuk, Dobos, & Rouner, 1989), which measures four types of social support at work, namely social support from colleagues, task support, career mentoring and coaching. Examples of items are “*Someone of a higher rank frequently devotes extra time and consideration to me*” and “*My associates and I assist each other in accomplishing assigned tasks*”. Cronbach’s alpha of the composite scale was .84.

Results

Preliminary Analyses

With regard to the mean impostor tendencies, shown in Table 1, a *t*-test first indicated no significant sex differences in mean impostor tendencies, $t(199) = -1.48, p > .05$. Moreover, an analysis of variance test showed that there were no significant differences in mean IP tendencies between the three sectors, $F(2,198) = .21, p > .05$.

All descriptive statistics, variable intercorrelations, and internal consistencies are reported in Table 2. The results first show that impostor tendencies are highly correlated with

a number of personality constructs. Both the higher-order CSE construct ($r = -.71, p < .01$) and the facets of CSE are strongly associated with impostor tendencies, with self-efficacy showing the strongest relation ($r = -.71, p < .01$), followed by emotional stability, LOC and self-esteem ($r = -.64, r = -.56$ and $r = -.55$ respectively, $p < .01$). Further, maladaptive perfectionism ($r = .62, p < .01$) and the Big Five personality domains Neuroticism ($r = .64, p < .01$), Conscientiousness ($r = -.41, p < .01$) and Extraversion ($r = -.43, p < .01$) also show relatively strong correlations with impostor tendencies, and a smaller but significant relationship was found with Agreeableness ($r = -.18, p < .05$). Regarding the associations between impostor tendencies and the work-related outcomes, significant relationships were found with job satisfaction ($r = -.30, p < .01$), OCB ($r = -.36, p < .01$), and continuance commitment ($r = .23, p < .01$).

Personality Variables associated with Impostor Tendencies

The hypotheses concerning the trait-relatedness of the IP were first investigated by means of a series of four hierarchical regression analyses that each examine the effects of one personality framework (FFM, CSE, and perfectionism) separately. In each of these regression models, control variables were entered in a first step, followed by the personality variables in a second step (see Table 3, Models 1 to 3). In line with our hybrid approach regarding CSE, we conducted two separate regression analyses for this construct: one with the higher-order CSE-construct as a predictor of impostor tendencies (Model 2a), and one with its components (Model 2b).

Consistent with our expectations regarding the Big Five traits (Hypothesis 1), impostor tendencies are positively related to Neuroticism and negatively to Conscientiousness ($\beta = .51$ and $-.13$ respectively, $p < .001$). No significant relationships were observed between impostor tendencies and Openness or Agreeableness ($\beta = -.04$ and $-.07$ respectively, $p > .05$). Finally, the expected negative relationship with Extraversion (Hypothesis 1b) failed to reach

significance when the Big Five traits were entered as a set ($\beta = -.12, p > .05$). Together, the Big Five traits explained up to 43% of the variance in impostor tendencies, above and beyond the control variables, $F(5,189) = 30.32, p < .001$.

The results of the subsequent regression models (Model 2a and 2b) partially supported our expectations concerning core self-evaluations (Hypothesis 2). Model 2a confirms the expected negative association between CSE and impostor tendencies ($\beta = -.71, p < .001$). As a higher-order construct, CSE accounted for 49% of the variance in impostor tendencies, over and above control variables, $F(1,193) = 195.86, p < .001$. When we take a closer look at the CSE components (Model 2b), we can see that the expected negative association was confirmed for self-efficacy ($\beta = -.50, p < .001$) and emotional stability ($\beta = -.25, p < .01$), but not for LOC and self-esteem ($\beta = -.13$ and $.04$ respectively, $p > .05$). Moreover, the four CSE traits accounted for 54% of the variance in impostor tendencies, $F(4,190) = 60.10, p < .001$.

Consistent with our expectations (Hypothesis 3), Model 3 shows that impostor tendencies are positively related to maladaptive perfectionism ($\beta = .74, p < .001$) and negatively to adaptive perfectionism, ($\beta = -.28, p < .001$). Together, both perfectionism scales account for 42% of the variance in impostor tendencies, $F(2,192) = 75.28, p < .001$.

In a second step, the associations of all personality variables with impostor tendencies were investigated simultaneously, taking into account the interrelations between the personality constructs (see Model 4 in Table 3). The results first indicate that the entire set of personality traits accounted for 59% of the variance in impostor tendencies, over and above the variance accounted for by control variables. Moreover, only two individual traits, namely self-efficacy ($\beta = -.40, p < .001$) and maladaptive perfectionism ($\beta = .28, p < .001$), remained significantly associated with impostor tendencies in this model. In order to determine the relative importance of each of the correlated personality traits for predicting impostor tendencies, a relative weight analysis (Tonidandel & LeBreton, 2011) was also conducted (see

column 3 in Model 4). In the presence of multicollinearity, relative weights supply meaningful estimates of variable importance, while standardized regression weights and other traditional statistics are inadequate in such circumstances (Tonidandel & LeBreton, 2011). The reported percentages give an indication of the contribution that each personality trait makes to the R^2 in the presence of the other correlated traits. The results confirm that self-efficacy (24.1%) had the highest relative importance among the investigated predictors, followed by maladaptive perfectionism (19.9%) and Neuroticism/emotional stability (15.7%). Openness was identified as the least important predictor (0.7%). For these analyses (Model 4), we chose to include the four individual core self-evaluation traits. We believe that this “narrow” approach better fits the aim to sharpen our understanding of the IP as a maladaptive personality style, as it enables us to explore the unique value of each of the self-evaluations in predicting the IP.

Finally, in order to demonstrate the distinctiveness and the unique contribution of the investigated personality variables, we additionally conducted a hierarchical regression analysis in four steps. Controls were entered (Step 1) followed by Big Five traits (Step 2), higher-order CSE (Step 3), and perfectionism (Step 4). Incremental validities obtained from this analysis show that CSE add significantly to the prediction of impostor tendencies ($\Delta R^2 = .07$) beyond Big Five traits, and perfectionism adds significantly over and above Big Five traits and CSE ($\Delta R^2 = .06$).

Work-related Outcomes Associated with Impostor Tendencies

Next, a series of four hierarchical regression analyses were conducted to investigate the associations between impostor tendencies and each of the four work-related outcomes. In each of these regression models, control variables were entered in a first step, followed by impostor tendencies in a second step. The results presented in Table 4 partially confirmed our expectations (Hypothesis 4). Specifically, impostor tendencies are negatively related to job

satisfaction and OCB ($\beta = -.29$ and $-.35$ respectively, $p < .001$), and positively to continuance commitment ($\beta = .22$, $p < .01$). The expected negative association with affective commitment (Hypothesis 4c) was not significant.

Buffering Effect of Workplace Social Support

Hierarchical regression analyses were used to test the moderation hypotheses. To reduce the problem of multicollinearity as much as possible and to make the interpretation of the regression coefficients more meaningful, centered values were calculated for the moderator variable and the independent variable prior to the analyses. The control variables (i.e., sex, age, education, organizational level and employment sector) were entered in a first step, followed by the centered independent variable (i.e., impostor tendencies) and moderator variable (i.e., workplace social support) in a second step, and the interaction term of the centered independent variable and moderator in a third and final step.

The buffering hypothesis (Hypothesis 5) was partially confirmed. Significant moderation effects were found in the present study for job satisfaction (Hypothesis 5a; $b = .30$, $p < .001$) and OCB (Hypothesis 5b; $b = .15$, $p < .01$). Figure 1 illustrates that when social support is low, strong impostor tendencies are associated with low job satisfaction and less OCB. In contrast, when social support is high, impostor tendencies do not have a negative effect on either job satisfaction or OCB. For affective and continuance commitment (Hypotheses 5c and 5d), these moderation effects were nonsignificant ($b = .12$ and $b = .06$ respectively, $p > .05$).

Discussion

This study aimed to increase our knowledge about the nature of the IP, and to gain an understanding of how this phenomenon could be relevant in the work context. To this end, we addressed three central research questions: (1) How is the IP related to a broad range of personality traits?; (2) How is the IP related to relevant work-related outcomes?; and (3) Can

workplace social support buffer the potential harmful effects of impostor tendencies? In order to address these questions accurately, we abandoned the categorical approach to the IP (differentiating between impostors and non-impostors) and used a dimensional perspective on impostor tendencies instead. This shift aligns with the more general trend of conceptualizing adaptive *and* maladaptive personality functioning as continua rather than as separate categories (e.g., Wille & De Fruyt, 2014). A person is not either a narcissist or not (Campbell & Miller, 2011), but can more accurately be described in terms of his or her score on an underlying dimension of narcissistic tendencies. Similarly, there exists a wide range of impostor tendencies in the population; variability that is largely ignored when a categorical approach is used. This dimensional perspective on dysfunctional personality is particularly useful for research in organizational contexts, where most individuals have middle-level scores on these tendencies instead of extreme low or high scores. However, for ease of comparison with prior work we also created a dichotomous variable, and found a base rate of 20% ‘categorized’ impostors in our adult working sample, which is -although still substantial- noticeably lower than the prevalence rates obtained in student samples, using the conventional cut-off score (e.g., 43% in Sonnak & Towell, 2001). By itself this finding already suggests that our knowledge about the IP derived from research in student samples might not automatically apply to workers’ impostor tendencies, and that future research in this area is warranted. The present study was one of the first to investigate how impostor tendencies operate in actual work contexts.

Trait-relatedness. This study first showed that the trait-relatedness of workers’ impostor tendencies is considerable and cannot be overlooked. Big Five personality traits, CSE, and perfectionism are important dispositional factors that give form to the impostor construct, explaining large proportions of its variance ($\Delta R^2 = .59$). A relative weight analysis further indicated self-efficacy to be the most important personality trait related to impostor

tendencies, followed by maladaptive perfectionism and Neuroticism. Interestingly, among the entire scope of personality traits considered in this study, the more narrow constructs seemed to play a more prominent role in the IP, relatively to the general Big Five traits.

With regard to the Big Five traits, stronger impostor tendencies are associated with higher scores on Neuroticism and with lower scores on Conscientiousness. Although we found a relatively high correlation between IP tendencies and Extraversion, this association failed to reach significance when considered along with the other Big Five traits.

Interestingly, we replicated the negative relationship between impostor tendencies and Conscientiousness. Given that the IP is used to describe people who deliver superior work, this negative association does not seem obvious at first sight. However, we argued that this could reflect a lower score on the Conscientiousness-facet Competence, which deals with individuals' believed coping ability. Importantly, however, Bernard and colleagues (2002) found impostors to score lower on other Conscientiousness-facets as well, including Self-Discipline, indicating that low Competence perceptions alone cannot fully account for this negative association between impostor tendencies and Conscientiousness. We recommend future researchers to use the complete NEO-PI-R for the assessment of the FFM traits, in order to further disentangle the trait-relatedness of the IP, and particularly the complex effects of Conscientiousness and its facets.

Furthermore, we found core self-evaluations to be strongly related to impostor tendencies. Specifically, individuals with impostor tendencies are inclined to have negative CSE, where they appraise themselves in a consistently negative manner across situations. Regarding the CSE facets, we did not find a significant association between impostor tendencies and self-esteem and LOC, at least not when it was considered along with the other self-evaluations. Our findings might suggest that, compared to emotional stability and especially self-efficacy, general self-esteem is too broad to capture aspects of workers'

impostor tendencies. When using a more differentiated measure of self-esteem, it is possible that impostors report a satisfactory self-esteem on most components, such as lovability and body appearance, but report lower levels on components that appeal to work-related functioning, such as competence. Regarding LOC, the association with IP tendencies also failed to reach significance when considered along with the other core self-evaluations. Besides the conceptual resemblance between self-efficacy and the IP, the current study provides some empirical evidence that both constructs have a substantial overlap and, therefore, we believe that a low self-efficacy judgment resides at the core of the IP. However, we do not believe that the IP can be reduced to a low self-efficacy judgment. The IP, as understood as a maladaptive personality *style*, incorporates more than a (set of) cognitive self-evaluation(s). Other cognitive features such as maladaptive perfectionistic concerns, along with emotional and behavioral features such as fear of being exposed and over-preparing tasks also nourish the phenomenon, above a low self-efficacy judgment. It is the complex co-occurrence of these different but interrelated personality manifestations that form the breeding ground of impostor tendencies, a phenomenon that -despite its underlying complicatedness- is readily observable in the work context.

With regard to perfectionism, our results indicated that impostor tendencies are positively associated with maladaptive perfectionistic tendencies, while a negative association was found with the adaptive dimension of perfectionism. We therefore recommend future investigators to take this differentiation into account.

Work Outcomes. The present study was the first to investigate the relationships between the IP and work-related outcomes, and revealed that employees with strong IP tendencies (i) are rather dissatisfied with their jobs, (ii) report less OCB, and (iii) express a stronger intention to stay in the organization because the monetary, social and psychological costs associated with leaving the organization are perceived as too high. The negative

association with OCB is in contrast with the propositions in the theoretical framework by McDowell et al. (2007) and can be explained by referring to a scarcity of personal resources. Specifically, we argued that impostors become so preoccupied with their own tasks and performance to prevent being exposed, that less energy can be invested in tasks that are not part of their job description. In this regard, future research could deepen our understanding of this negative association between IP tendencies and OCB by including a measure of in-role performance next to the assessment of extra-role behavior. Regarding organizational commitment, we found that employees with strong IP tendencies are inclined to report stronger continuance commitment, but they are not necessarily less emotionally connected with their organization. It is possible that they are highly engaged in their job, to prevent them from being exposed as incompetent, which could make their identification with their organization stronger in the long term. Saks (2006) for example found that job engagement is positively related to affective organizational commitment. Future research could investigate whether IP tendencies are indeed positively associated with levels of engagement, and whether this mediates affective commitment.

Considering that personality traits themselves have proven to be an important predictor of work-related outcomes (e.g., Barrick & Mount, 2005), one can properly note that the significant effects of impostor tendencies on the investigated outcomes fade away once personality variables are controlled for. Nevertheless, our results are meaningful from an applied and assessment perspective, because this *specific constellation of personality traits gets meaning and recognizability through its specific labelling*. The identification and labelling of such trait constellations and their manifestation at work facilitates communication among assessors, is helpful to design follow-up and intervention strategies, and can further be the subject of theory building. Conceptually-speaking, the IP is like the 'entrepreneurship-prone personality profile' (Obschonka, Schmitt-Rodermund, Silbereisen, Gosling, & Potter,

2013), both referring to a constellation of personality traits with relevance to understand behavior at work. This kind of multidimensional constructs gain extra meaning and significance when considered holistically, rather than considered as a bunch of single personality variables. The results of the present study show that the IP can be conceptualized as a specific trait-configuration of low self-efficacy (i.e., self-doubt), maladaptive perfectionism (i.e., unrealistic goal setting) and neuroticism (i.e., fear and worry); and that this constellation of traits is related to relevant attitudinal outcomes, such as job satisfaction, organizational commitment and OCB.

Social support as a buffer. A final aim of this study was to investigate the moderating role of workplace social support in the relationships between impostor tendencies and work outcomes. Our results indicated that, to a certain extent, social support can indeed act as a buffering variable in these relationships. We specifically found that, when social support is high, the negative relationships between impostor tendencies and satisfaction and OCB disappear. This suggests that perceptions of strong workplace social support could be the key to temper some of the negative effects of impostorism. We support Whitman and Shanine's (2012) proposition that this buffering effect could be due to the more adaptive coping mechanisms impostors use in case of a high social support perception. Although we also expected social support to act as a buffer in the relationship between impostor tendencies and continuance commitment, this could not be confirmed. We found that high IP tendencies are associated with higher continuance commitment, regardless of the level of social support at work. Impostors' feeling that they are not able to find a similar job when leaving their current job, might be so strong that no buffering effect of social support occurs. Future research is warranted that explores other potential conditions under which impostor tendencies could be triggered or tempered, for instance using trait-activation theory (Tett & Burnett, 2003) as a guiding framework.

Regarding the implications for practice, this study first revealed the specific traits that form a dispositional risk factor for the development of impostor tendencies. Employees hampered by strong impostor tendencies, could perhaps benefit from individual coaching programs, including cognitive behavior exercises that focus on the alleviation of maladaptive perfectionistic concerns and the enhancement of self-efficacy (Ilkhchi, Poursharifi, & Alilo, 2011; Lo & Abbott, 2013). Further, extra attention could be devoted to the assessment of these trait configurations in employee selection or development contexts. The current study demonstrated that impostor tendencies could have an impact on certain career-relevant attitudes and organizational behavior. These findings could for instance be informative for career counselors. As impostor tendencies can keep someone back from moving on to higher managerial levels (Kets de Vries, 2005) or from moving to another organization (i.e., continuance commitment), career transitions seem for example less likely. Taken into account that individuals with strong impostor tendencies are often high-achieving persons having a successful career history, we do not claim that applicants with impostor tendencies should be excluded from employment consideration. Instead, as this study also highlighted how organizations might buffer potential adverse work outcomes associated with impostor tendencies, the implementation of interventions designed to (a) monitor and (b) enhance employees' perceptions of workplace social support (e.g., through formal and informal feedback programs) seems particularly relevant when stronger impostor tendencies are observed.

Finally, this study also has some limitations. First, a cross-sectional research design is used, which makes it not possible to draw causal conclusions regarding the associations that were observed. Second, and related, all variables in this study were measured using self-reports, which may raise concerns regarding common method bias. More specifically, given the nature of our central research variable (i.e. the IP, which is a tendency to downgrade

oneself), part of our findings could partially reflect *underreporting effects*. Two of our findings deserve some additional attention in this regard. First, the negative association between Conscientiousness and impostor tendencies was interpreted in the present study as a *true effect*, namely that individuals with stronger impostor tendencies *are* less conscientious compared to individuals with less pronounced impostor tendencies. However, an alternative explanation is that impostors *perceive and describe* themselves as lower on conscientiousness, while in reality they are not. Perhaps impostors set very high standards for themselves, and feel that they ‘cannot be conscientious enough’. As another example, it could be that the negative association between impostor tendencies and OCB is also partially the result of impostors discounting or minimizing any extra-role behaviors they engage in. Want and Kleitman (2006), for instance, also suggested that impostors demonstrate a “gap” in the assessment of their abilities and performance. Clearly, in order to empirically disentangle the relative validity of true versus underreporting explanations of these intriguing findings, future research can collect peer ratings of personality and co-worker assessments of (extra-role) performance in addition to self-reports. A third limitation of our study is that three of our scales had relatively low internal consistencies (i.e., LOC, self-efficacy and continuance commitment). Although this could be due to the low number of items (respectively three, three and six items), and some researchers argue that the threshold may decrease to .60 for exploratory research (e.g., Hair et al., 2010; Robinson et al., 1991), we recognize that the internal consistencies are below the commonly-accepted threshold of .70, and that therefore, these results should be interpreted with caution. The most likely implication of these lower reliability estimates are that the associations between these variables and for instance the IP are underestimated. Finally, we acknowledge that the measurement of CSE, combining three facets of the CSE scale with reversed Neuroticism, as measured with the NEO-FFI, is not optimal. However, we believe that the added value of having an operationalization of CSE at

the higher-order level and a Cronbach's alpha of .91 for the aggregated scale should justify our approach.

Nevertheless, the present study contributed to the understanding of the impostor phenomenon by, for the first time in the literature, delving deep into the trait-relatedness of this construct and by investigating potential correlates that are of high relevance in organizational settings. The emerging picture confirmed a substantial dispositional basis, highlighting the most fundamental personality building blocks of this phenomenon. Further, initial evidence was provided for the potentially dysfunctional nature of this fascinating trait configuration, underlining the importance of future research on this topic.

Table 1.

Sample characteristics, distribution of impostor tendencies and percentage categorical 'impostors' of the full sample (N = 201) and within demographic categories of the sample

		Sample size	Distribution of IP tendencies		Percentage 'impostors' ^b
		%	<i>M</i>	<i>SD</i>	%
Full sample		100	39.10	12.47	20
Sex	Male	42	37.59	13.47	22
	Female	58	40.21	11.62	18
Age ^a	20-29	33	41.77	11.98	24
	30-39	27	36.44	12.96	15
	40-49	29	39.32	12.70	32
	50-61	11	37.05	10.97	14
Sector	Finance & Accounting	31	38.26	12.71	23
	HRM	31	39.65	13.35	22
	Education	38	39.33	11.62	16
Educational level	Secondary school	7.5	38.70	13.81	0
	Professional bachelor	28	40.47	10.01	23
	Academic bachelor	13	38.77	12.52	15
	Master	40	38.26	14.19	21
	Advanced Master	11	40.09	14.65	27
Level within organization	PhD	.5	41.00	-	0
	Junior	30	43.44	12.63	27
	Experienced	32	38.06	11.13	16
	Middle management	23	38.60	12.24	21
	Higher management	10	37.50	15.28	20
	Top management	5	33.50	14.48	20

Note. ^aThe mean age of the sample was 36.11 years (*SD* = 10.18). ^bWe used the cut-off value of 50 out of 80 to categorize someone as an 'impostor', based on the conventional cut-off score of 62 (Holmes, Kertay, Adamson, Holland, & Clance, 1993) distinguishing 'impostor' from 'non-impostor' in the 20-item version of the CIPS (i.e., 100 (max. score in 20-item version)/100 x 62 = 62; 80 (max. score in 16-item version)/100 x 62 = 50).

Table 2

Descriptive statistics and variable intercorrelations

	M	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.		
1.Sex ^a	-	-																										
2.Age	36.11	10.18	-.04																									
3.Education ^b	5.16	1.29	-.16*	.01																								
4.Org. level ^c	2.34	1.08	-.23**	.53†	.22**																							
5.Sector dummy 1	-	-	-.24**	-.04	.00	.12																						
6.Sector dummy 2	-	-	.04	-.09	.07	.12	-.45†																					
7.Impostor tendencies ^d	39.10	12.47	.10	-.11	-.02	-.17*	-.05	.03	.93																			
8.Neuroticism	2.53	.68	.12	-.12	-.07	-.21**	-.07	-.03	.64†	.87																		
9.Extraversion	3.73	.54	.04	-.05	.03	.18*	-.05	.14*	-.43†	-.47†	.81																	
10.Openness	3.20	.55	-.01	.09	.22**	.08	-.20**	.08	-.10	-.08	.12	.70																
11.Agreeableness	3.79	.48	.26†	.10	-.01	.11	-.03	-.02	-.18*	-.10	.32†	.04	.75															
12.Conscientiousness	3.94	.54	.05	.10	-.01	.16*	.03	.06	-.41†	-.43†	.39†	-.02	.28†	.82														
13.CSE ^e	3.81	.55	-.02	.09	.02	.16*	-.02	.03	-.71†	-.86†	.56†	.07	.19**	.51†	.91													
14.Self-esteem	3.97	.60	.03	-.02	.01	.07	.03	.06	-.55†	-.64†	.48†	-.06	.17*	.43†	.87†	.71												
15.Self-efficacy	4.05	.57	-.01	.12	.08	.20**	-.11	.05	-.71†	-.66†	.53†	.22**	.21**	.44†	.85†	.69†	.60											
16.Emotional stability ^f	3.47	.68	-.12	.12	.07	.21**	.07	.03	.64†	-1.00†	.47†	.08	.10	.43†	.86†	.64†	.66†	.87										
17.LOC ^g	3.73	.71	.04	.09	-.06	.06	-.06	-.02	-.56†	-.62†	.45†	.00	.19**	.44†	.86†	.68†	.60†	.62†	.67									
18.Adaptive perfectionism	3.11	.72	-.17*	.00	.12	.19**	-.03	.16*	.03	-.03	.13	.07	-.20**	.35†	.10	.13	.12	.03	.08	.80								
19.Maladaptive perfectionism	2.27	.78	.03	-.16*	-.01	-.08	-.01	.05	.62†	.55†	-.35†	-.09	-.23**	-.24†	-.56†	-.41†	-.54†	-.55†	-.43†	.43†	.92							
20.Job satisfaction	4.26	.82	.09	.09	-.01	.13	-.21**	-.03	-.30†	-.25†	.33†	.03	.25†	.27†	.40†	.36†	.37†	.25†	.39†	.09	-.25†	.92						
21.OCB	4.05	.43	.10	.17*	-.03	.22**	-.10	-.01	-.36†	-.41†	.38†	-.01	.40†	.48†	.52†	.48†	.49†	.41†	.43†	.15*	-.29†	.55†	.87					
22.Affective commitment	3.66	.84	.13	.12	.02	.23**	-.19**	.02	-.13	-.11	.27†	-.03	.27†	.23**	.20**	.18*	.21**	.11	.20**	.08	-.03	.71†	.44†	.82				
23.Continuanace commitment	2.62	.74	.06	.06	-.06	-.09	-.02	.00	.23**	.24**	-.24**	-.05	.03	-.10	-.30†	-.22**	-.23**	-.24**	-.32†	-.01	.27†	-.33†	-.14	-.10	.62			
24.Social support	3.26	.62	.05	-.09	.07	.02	-.08	.07	.02	-.03	.24**	.05	.14*	.11	.10	.16*	.11	.03	.06	.22**	.01	.44†	.39†	.41†	-.11	.84		

Note. Bold values on the diagonal show the internal consistency of the relevant variable. Org. level = Organizational level; OCB = Organizational citizenship behavior;

^aSex is dummy coded such that 0 = male and 1 = female. ^{bc}In resp. 6 and 5 categories. ^dMaximal score is 80. ^eCSE including Emotional Stability. ^fReversed

Neuroticism, as measured with NEO-FFI. ^gNegative correlations represent an external LOC/ positive correlations an internal LOC. * $p < .05$, ** $p < .01$, † $p < .001$.

Table 3

Summary of hierarchical regression analyses examining the associations between impostor tendencies and personality traits

	<i>Model 1: Big Five traits</i>			<i>Model 2a: higher-order CSE</i>			<i>Model 2b: CSE components</i>			<i>Model 3: Perfectionism</i>			<i>Model 4: All personality traits</i>			
	β	SE (b)	ΔR^2	β	SE (b)	ΔR^2	β	SE (b)	ΔR^2	β	SE (b)	ΔR^2	β	SE (b)	% ^a	ΔR^2
Control variables (Step 1)			.04			.04			.04			.04			3.6 ^b	.04
Big Five traits (Step 2)			.43 [†]													
Neuroticism	.51 [†]	.08											.14	.09	15.7	
Extraversion	-.12	.10											.01	.09	5.6	
Openness	-.04	.08											.01	.07	.7	
Agreeableness	-.07	.10											-.01	.09	1.0	
Conscientiousness	-.13*	.09											-.07	.09	6.4	
Core self-evaluations (Step 2)				-.71 [†]	.07	.49 [†]			.54 [†]							
Self-esteem							.04	.10					.03	.10	9.8	
Self-efficacy							-.50 [†]	.10					-.40 [†]	.11	24.1	
Emotional Stability							-.25**	.08					-.14	.09	15.7	
Locus of control ^c							-.13	.08					-.11	.08	11.1	
Perfectionism (Step 2)												.42 [†]				
Adaptive										-.28 [†]	.07		-.01	.08	2.1	
Maladaptive										.74 [†]	.06		.28 [†]	.07	19.9	
All personality traits (Step 2)																.59 [†]

Note. Control variables, i.e. sex, age, educational level, organizational level and employment sector were entered in the first step of the regressions. For Models 1 to 3, separate analyses were conducted for each personality conceptualization. In Model 4, all personality variables were entered together in step 2 of the hierarchical regression. ^aPercentages give an indication of the relative importance of the independent variables in relation to impostor tendencies. ^bRelative weights of the control variables were summed. ^cNegative coefficients represent an external LOC/ positive coefficients an internal LOC. * $p < .05$, ** $p < .01$, [†] $p < .001$.

Table 4

Hierarchical regression analyses examining the associations between impostor tendencies and work-related outcomes

	Job satisfaction			OCB		
	β	SE (b)	ΔR^2	B	SE (b)	ΔR^2
Step 1						
Sex	.08	.12	.11**	.12	.06	.09**
Age	-.08	.01		.02	.00	
Education	-.04	.05		-.06	.02	
Org. level	.26 [†]	.07		.28 [†]	.04	
Sector dummy 1	-.32 [†]	.14		-.15	.08	
Sector dummy 2	-.22*	.14		-.10	.08	
Step 2						
Impostor tendencies	-.29 [†]	.07	.08 [†]	-.35 [†]	.04	.12 [†]
	Affective commitment			Continuance commitment		
	β	SE (b)	ΔR^2	B	SE (b)	ΔR^2
Step 1						
Sex	.14	.12	.14 [†]	.03	.11	.03
Age	-.10	.01		.16	.01	
Education	-.03	.05		-.02	.04	
Org. level	.37 [†]	.07		-.17	.06	
Sector dummy 1	-.28 [†]	.15		.04	.14	
Sector dummy 2	-.16*	.14		.05	.13	
Step 2						
Impostor tendencies	-.11	.07	.01	.22**	.07	.05**

Note. OCB = Organizational citizenship behavior; Org. level= Organizational level. * $p < .05$, ** $p < .01$, [†] $p < .001$.

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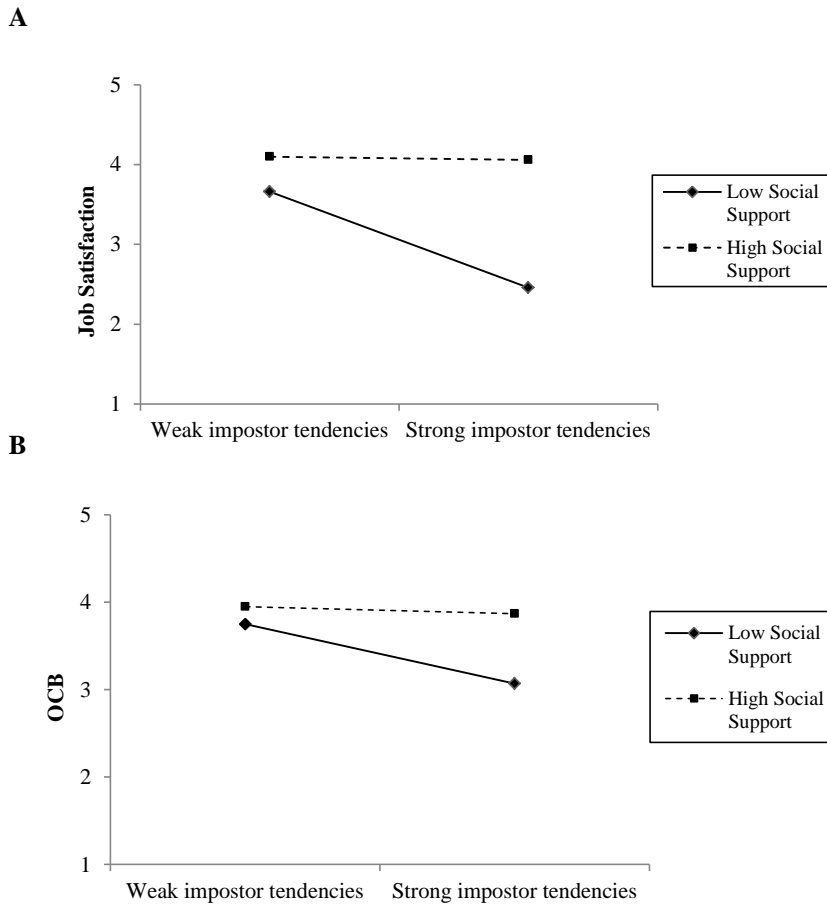


Figure 1. Moderating effect of social support in the relationship between impostor tendencies and job satisfaction (Panel A) and OCB (Panel B).