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Two sides of the career resources coin: Career adaptability resources and the impostor phenomenon

Mirjam Neureiter *, Eva Traut-Mattausch

Economic and Organizational Psychology, Department of Psychology, University of Salzburg, Hellbrunnerstraße 34, 5020 Salzburg, Austria

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ABSTRACT

Considering the impostor phenomenon (IP) as an important psychological construct in the context of career development requires a theoretical grounding. Using the career construction model of adaptation as a guiding framework, we investigated how the IP is related to adaptive readiness (represented by core self-evaluations), career adaptability resources, and adapting responses, namely, career planning, career decision-making difficulties, career exploration, and occupational self-efficacy. We used parallel multiple mediation modeling to investigate specific indirect effects through concern, control, curiosity, confidence, and the IP. We conducted an online study with 289 university students. Results indicated a positive effect of core self-evaluations on career planning, career exploration, and occupational self-efficacy and a negative effect on career decision-making difficulties through adaptability resources. The IP emerged as a "maladaptability" resource: That is, it might be a hindrance to adaptive coping and behavior and consequently promote maladaptive coping and behavior by decreasing career planning and occupational self-efficacy and increasing career decision-making difficulties. Supplementary negative effects of the IP on adaptability resources are discussed.

1. Introduction

More than 35 years of research on the impostor phenomenon (IP) has provided many insights into its antecedents (e.g., family background, personality traits) and consequences (e.g., depression, general mental health; for an overview see Sakulku & Alexander, 2011). The IP was originally described as the perception of intellectual or professional fraudulence experienced by high-achieving individuals (Clance & Imes, 1978). Despite various achievements suggesting the contrary, such as a high cumulative grade point average, sufferers seem unable to acknowledge and internalize their successful experiences (Clance & Imes, 1978; King & Cooley, 1995). In the last 5 years, researchers have begun to focus on the IP in the context of work and career development (Bechtoldt, 2015; Grubb & McDowell, 2012; Jöstl, Bergsmann, Lüftenegger, Schober, & Spiel, 2012; McDowell, Grubb, & Geho, 2015; Neureiter & Traut-Mattausch, 2016a; Vergauwe, Wille, Feys, De Fruyt, & Anseel, 2015). In the world of work, the IP was found to be negatively related to several career-relevant variables such as self-efficacy beliefs (Jöstl et al., 2012; McDowell et al., 2015), organizational citizenship behavior, and affective commitment, as well as job satisfaction and perceived organizational support in working professionals (Grubb & McDowell, 2012; McDowell et al., 2015; Vergauwe et al., 2015). Moreover, an investigation of the IP in managers showed that having negative views of their own abilities and perceiving themselves as impostors in their jobs biased the managers' task-delegation decisions (Bechtoldt, 2015). In addition, the IP was shown to reduce

* Corresponding author.
E-mail addresses: mirjam.neureiter@sbg.ac.at (M. Neureiter), eva.traut-mattausch@sbg.ac.at (E. Traut-Mattausch).

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career planning, career striving, and the motivation to lead in students as well as in working people (Neureiter & Traut-Mattausch, 2016a). Given this preliminary evidence of the IP's negative effects in the context of career development, a theoretical grounding is needed to fully understand its impact. Therefore, we aimed to design a general framework model of the IP in the context of career development that could incorporate both the consequences already identified and those yet to be explored.

Career construction theory is widely used in the field of career development (Savickas, 2002; Savickas & Porfeli, 2012). This theory functions well as a guiding framework because "instead of measuring personality traits as realist concepts and trying to prove construct validity, the theory focuses on how individuals use what they have" to construct their careers (Savickas, 2005a, p. 2). Impostors may construct their careers on the basis of false beliefs about their abilities and competences. Savickas (2005a) emphasized looking at the interplay of personality and the process of adaptation to capture "the dynamics that integrate personality and adaptability into a self-defined whole" (p. 3), which would be missed if the variables were investigated independently. Therefore, we looked at the IP as a career or life theme that guides expressions of personality and adaptation. In this context, adaptation follows a sequence ranging from adaptive readiness to so-called adaptability resources and adapting responses that lead to goodness of fit or adaptation results[1] (Savickas & Porfeli, 2012; see Fig. 1). As shown in Fig. 1, these adaptation variables can be measured using multiple operational indicators. *Adaptive readiness* refers to a psychological trait of flexibility or willingness to meet unfamiliar, complex problems that arise as part of vocational development tasks and change processes. Adaptive readiness can be evaluated by measures of proactivity and cognitive flexibility or the Big Five personality items (Savickas & Porfeli, 2012). Empirical research has suggested that extraversion, openness, agreeableness, and conscientiousness are indicators of high adaptive readiness as they are positively related to career adaptability; neuroticism may be an indicator of low adaptive readiness as it is negatively related (Rossier, Zecca, Stauffer, Maggiori, & Dauwalder, 2012; Rottinghaus, Day, & Borgen, 2005; Teixeira, Bardagi, Lassance, Magalhães, & Duarte, 2012; van Vianen, Klehe, Koen, & Dries, 2012; Zacher, 2014). Recent research used two personal characteristics—high core self-evaluations and proactivity—as indicator of high adaptive readiness (Hirschi, Herrmann, & Keller, 2015; Hirschi & Valero, 2015). *Core self-evaluations* (CSEs) represent the "basic, fundamental appraisal of one's worthiness, effectiveness, and capability as a person" (Judge, Erez, Bono, & Thoreson, 2003, p. 304). CSEs seem to be especially appropriate as an indicator because they have been assumed to be important for coping with organizational change and managing boundaryless careers (Judge & Kammeyer-Mueller, 2011).

Regarding the thoughts and behaviors that are used to address career development tasks and changing work and career conditions, the *adapting responses*, we focused on those proposed and investigated in recent research (Hirschi & Valero, 2015; Hirschi et al., 2015): career planning, career decision-making difficulties, career exploration, and occupational self-efficacy. Adapting responses are in general conceptualized as adaptive behaviors that address changing conditions, such as career exploration, career planning, or career decision making. *Career planning* is the ability to actively think about future career developments and formulate steps and plans to achieve one's own career goals; it has been shown to be an influential aspect of successful career development (Gould, 1979; May, 2005; Orpen, 1994). *Career decision making* applies to decisions regarding career opportunities and goals. *Career exploration* concerns the extent to which an individual explores opportunities and different career options. *Self-efficacy* beliefs are defined as people's judgments of their abilities to organize, plan, and perform the actions necessary to achieve their individual goals or to succeed and attain a given level of performance (e.g., Bandura, 1977). We investigated these variables because we support the assumption that they are adapting behaviors that are useful for mastering vocational development tasks, transitions, and traumas (Hirschi et al., 2015). We would argue that these behaviors have adaptive functions needed for orientation, exploration, establishment, management, and disengagement. For instance, people investigate in career planning for orientation or in career exploration when they explore requirements, routines, and rewards of a work role. People need occupational self-efficacy to become established in their role and manage it properly. In times of disengagement people may have career decision-making difficulties if they have to decide whether to stay in their current position or change jobs (cf., Savickas & Porfeli, 2012).

As adaptive readiness alone is insufficient to support adaptive responses, self-regulatory *career adaptability resources* are needed to cope with changing situations. Career adaptability resources refer to psychological strengths that influence self-regulation in coping with tasks, transitions, and traumas (Savickas & Porfeli, 2012). In the context of career development, these resources have been shown to be particularly important for the transition from school to work, as they have a positive effect on various career-related outcomes such as job search self-efficacy, employment status, and person–environment fit perceptions (Guan et al., 2013, 2014; Johnston, Luciano, Maggiori, Ruch, & Rossier, 2013; Pouyaud, Vignoli, Dosnon, & Lallemand, 2012; Rossier et al., 2012; Zacher, 2015). Moreover, an increase in career adaptability resources has been found to raise the chances of finding a qualitatively good job (Koen, Klehe, & van Vianen, 2012), improve positive job performance ratings (Ohme & Zacher, 2015), and increase a sense of power as well as life satisfaction (Hirschi, 2009).

The higher order construct of career adaptability resources can be further subdivided into the "four Cs": *concern*, *control*, *curiosity*, and *confidence* (Savickas & Porfeli, 2012). These four dimensions are not interchangeable, as they have been shown to differ in relation to predictors as well as outcomes (e.g., Guan et al., 2013; Hirschi & Valero, 2015; Hirschi et al., 2015; Rossier et al., 2012). Consequently, researchers have called for exploring both the higher order construct and its dimensions (e.g., Hirschi & Valero, 2015). To increase our understanding of what drives the relationship between adaptive readiness, the IP, career adaptability resources, and adapting responses, we investigated the impact of the dimensions one at a time.

[1] As we are interested in the IP as factor in career development, we investigated our hypothesis in a student sample. As they had not yet fully entered the working world, adaptation results such as career success or satisfaction could not be assessed within this group.

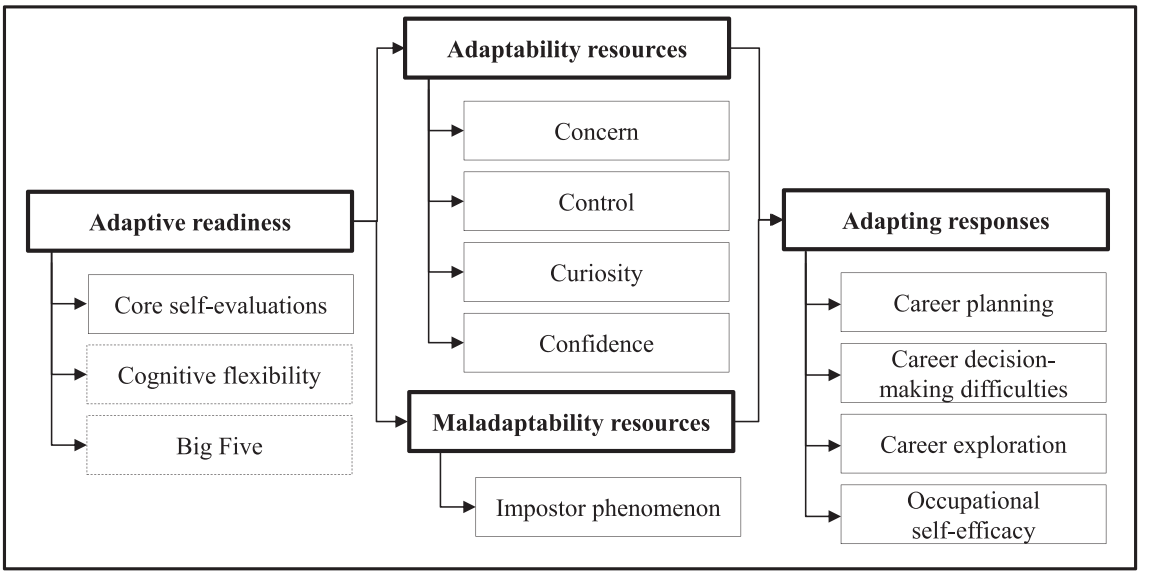

Fig. 1. Career construction model of adaptation with indicators and the "maladaptability" resources represented by the impostor phenomenon. Variables in dashed outlines were not specifically investigated in this study.

Concern is often considered the most important dimension (e.g., Öncel, 2014). In career construction theory, concern is used to "encompass a variety of highly-related constructs in the vocational psychology literature, namely time perspective, planfulness, anticipation, orientation, involvement, and optimism about the achievability of future goals" (Öncel, 2014, p. 14). As Savickas and Porfeli (2012) explained, concern about the future helps individuals look ahead and prepare for what might come next, an important psychological component of planning a vocational future. Empirical investigations of this assumption have revealed that concern is related to the future time perspective (Öncel, 2014). Moreover, concern had an additive effect on career planning, which was predicted by future work self (Taber & Blankemeyer, 2015). Concern was also shown to mediate the effect of adaptive readiness on career decision-making difficulties, career exploration, and occupational self-efficacy (Hirschi et al., 2015).

Control has been described as a component that "enables individuals to become responsible for shaping themselves and their environments to meet what comes next by using self-discipline, effort, and persistence" (Savickas & Porfeli, 2012, p. 663). It comprises variables such as decision-making ability, locus of control, and positive effort attribution. Career indecision is seen as a lack of career control (Savickas, 2005b). Consequently, we expected an inverse relation of control and career decision-making difficulties. Control has also been shown to foster career planning (Hirschi et al., 2015).

Curiosity is defined as the tendency to explore one's environment; curious people can imagine themselves in various situations and roles, which is needed for career exploration. Finally, confidence refers to one's belief in the ability to overcome challenges and barriers that may occur while pursuing career aspirations.

These adaptability resources are followed by adapting responses (Hirschi et al., 2015; Urbanaviciute, Kairys, Pociute, & Liniauskaite, 2014). Hirschi et al. (2015) showed that adaptability resources and adapting responses are in fact theoretically and empirically distinct second-order constructs, with adaptability resources functioning as partial mediators between adaptive readiness and adapting responses, creating a link between traits and actual beliefs and executed behaviors. Rossier et al. (2012) confirmed adaptability as a process variable, finding that adaptability resources mediate the relationship between personality and work engagement. On the basis of these theoretical assumptions and previous research, we formulated our first hypothesis:

Hypothesis 1. There is a positive indirect effect of adaptive readiness (represented by CSE) on the adapting responses career planning, career exploration, and occupational self-efficacy and a negative effect on career decision-making difficulties through adaptability resources (concern, control, curiosity, and confidence).

Our goal was to integrate the IP into this career construction model of adaptation. In general, the IP describes an internal experience of intellectual phoniness, which a person experiences despite having obtained external success (Clance & Imes, 1978). Sufferers of this phenomenon—so-called impostors—have intense, secret feelings of fraudulence when facing achievement tasks or challenging situations. Theoretical assumptions have been further supported by empirical results indicating, for example, a negative relationship between the IP and academic self-concept (Cokley et al., 2015). The notion that impostors believe that they have to perform extraordinarily well all the time to prevent others from discovering their incompetence (Clance & Imes, 1978) has been supported by research finding that the IP is related to self-evaluative perfectionism and is best predicted by the need for approval and the organization and rumination dimensions of perfectionism (Dudău, 2014). Hence the IP can be seen as a maladaptive phenomenon, a psychological weakness that incorporates a set of cognitive features (e.g., Neureiter & Traut-Mattausch,

2016a; Ross & Krukowski, 2003; Vergauwe et al., 2015) that limits people's potential in successful career construction, possibly by hindering functioning and performance in adaptation.

The IP can be integrated into the career construction model of adaptation by focusing on the operationalization of the adaptation variables (readiness, resources, responses). Regarding adaptive readiness, indicators of high adaptive readiness have been shown to be negatively related to the IP. The IP has been shown to be negatively related to extraversion and conscientiousness and positively to neuroticism (Bernard, Dollinger, & Ramaniah, 2002; Chae, Piedmont, Estadt, & Wicks, 1995; Ross, Stewart, Mugge, & Fultz, 2001; Vergauwe et al., 2015). Also CSE is highly negatively related to the IP ($r = -0.71$), as an investigation about personality characteristics and the IP with 201 working professionals revealed (Vergauwe et al., 2015). CSE even accounted for 49% of the variance in impostor tendencies. Unlike people with high CSE, people with high impostor tendencies tend to exhibit low self-esteem (Chrisman, Pieper, Clance, Holland, & Glickauf-Hughes, 1995; Neureiter & Traut-Mattausch, 2016a; Peteet, Brown, Lige, & Lanaway, 2014; Sonnak & Towell, 2001; Thompson, Davis, & Davidson, 1998; Vergauwe et al., 2015), low performance expectancies (Cozzarelli & Major, 1990), and low self-perceptions of ability (Leary, Patton, Orlando, & Wagoner Funk, 2000). Consequently, we would expect a negative relation of adaptive readiness and the IP.

Moreover, we expected the IP to reduce the adapting responses career planning, career exploration, and occupational self-efficacy and to increase career decision-making difficulties. The reducing effect of the IP on career planning has already been documented, in students and working professionals (Neureiter & Traut-Mattausch, 2016a). We also expected that impostors who are unaware of their competences (Clance & Imes, 1978) would have difficulties in making career decisions because they do not know which occupation might fit their talents. For instance, people with more impostor feelings were found to be less likely to pursue a leadership position or strive for a higher position in general and within their company (Neureiter & Traut-Mattausch, 2016a). That impostors are less aware of their strengths and competences leads to less career exploration. Impostors are convinced that their job opportunities are the result of just being in the right place or knowing the right people or being lucky (Clance & Imes, 1978) and they therefore show less proactive career exploration. Furthermore, previous research has indicated that the IP might affect occupational self-efficacy. For example, Jöstl et al. (2012) found a negative association of the IP with research self-efficacy in doctoral students—a kind of self-efficacy especially needed for their successful career development. Investigators found a moderate negative relationship of the IP and self-efficacy in 588 employees, concluding that these may not be opposing constructs even if they appear that way (McDowell et al., 2015). Thus we expected a negative relation of the IP with these indicators of adapting responses—career planning, career exploration, and occupational self-efficacy—and a positive relation with career decision-making difficulties.

Adaptability resources have been shown to function as a positive factor in the relation between adaptive readiness and adapting responses (Hirschi et al., 2015). Instead of being core traits of an individual, as the CSE is, these resources are seen as psychosocial constructs that "reside as the intersection of person-in-environment" (Porfeli & Savickas, 2012, p. 749). The IP could also be considered such a psychosocial construct or characteristic adaptation as it has been shown to be related to some traits, such as the personality traits high neuroticism and low extraversion (e.g., Vergauwe et al., 2015), and influenced by social dynamics, for instance, family dynamics and attitudes such as high achievement orientation (e.g., King & Cooley, 1995). Moreover, some believe the IP is fostered by today's competitive, achievement-oriented society and occurs when people are facing achievement situations (e.g., Langford & Clance, 1993). Consequently, the IP should be located in the middle of our theoretical model (see Fig. 1). However, we expected that instead of functioning as an adaptability resource that has a positive effect, the IP would function as a "maladaptability resource" that has a negative effect: It might be a hindrance to adaptive coping and behavior and consequently promote maladaptive coping and behavior. This assumption is also in line with findings that the IP functions as an inner barrier to successful career development (Neureiter & Traut-Mattausch, 2016a) and that career adaptability resources are negatively related to perceived internal barriers (Soresi, Nota, & Ferrari, 2012; Urbanaviciute, Pociute, Kairys, & Liniauskaite, 2016) and the IP (Neureiter & Traut-Mattausch, 2016b). Furthermore, general anxiety and state anxiety in the form of fear of failure, constructs that were shown to be strongly positively related to the IP (Bernard et al., 2002; Fried-Buchalter, 1997; Jöstl et al., 2012; Neureiter & Traut-Mattausch, 2016a), were shown to be negatively related to global career adaptability (Pouyaud et al., 2012).

The IP seems to be negatively related to the four Cs: concern, control, curiosity, and confidence. For instance, because impostors think that things happen only because they are in the right place or know the right people (Clance & Imes, 1978), they are not actively concerned about their future. Furthermore, as previous research has shown that impostors have an external locus of control (Sightler & Wilson, 2001) and that this is negatively related to career planning (Neureiter & Traut-Mattausch, 2016a), we expected that impostor feelings would be negatively related to career planning and positively related to career decision-making difficulties, which might be explained by lower levels of control. That impostors have difficulties imaging themselves in other, maybe even more successful work roles (Neureiter & Traut-Mattausch, 2016a) is understandable given they think they are just pretending to be confident about what they do. Impostors have also been found to show more continuance commitment, indicating that they want to remain in their current job because they do not see (better) alternatives (Vergauwe et al., 2015). Hence, impostors are expected to show less career exploration due to lower levels of curiosity. Additionally, impostors do not attribute their success to internal abilities because they are not aware of their competences (Bernard et al., 2002), which inhibits growth in feelings of confidence. But well-developed feelings of confidence are needed to strengthen self-efficacy beliefs (Öncel, 2014). Considering the potential associations of the IP with the variables of the career construction model of adaptation, we formulated our second hypothesis:

Hypothesis 2. There is a negative indirect effect of adaptive readiness (represented by CSE) on the adapting responses career planning, career exploration, and occupational self-efficacy and a positive effect on career decision-making difficulties through maladaptability resources (represented by the IP).

To evaluate our proposed hypotheses, we conducted a study with university students, as they have to be concerned about career development to successfully transition from school or university to work, as has been assumed and empirically investigated in previous research (Hirschi, Lee, Porfeli, & Vondracek, 2013; Hirschi et al., 2015).

2. Method

2.1. Participants and procedure

We contacted university students enrolled in an Austrian university by e-mail. E-mail recipients were invited to complete an online questionnaire containing measures of CSE, the Career Adapt-Abilities Scale (CAAS; measuring concern, control, curiosity, confidence), measures of the IP, and items regarding the adapting responses (career planning, career decision-making difficulties, career exploration, and occupational self-efficacy). We also collected demographic data. The study was approved by the ethics board of the university and carried out in accordance with their recommendations. All participants gave informed consent in accordance with the ethical standards of the American Psychological Association. The participants were informed about the voluntary nature of their participation and the confidential use of data. They were further informed that there were no right or wrong answers to the questions and that no personal information could be obtained from the questionnaire. To ensure anonymity, we did not ask for information that would allow inferences to be made about the participants (e.g., names). Participants were free to withdraw at any time. Participants were also provided with the name and e-mail address of the responsible investigators. Two hundred eighty-nine participants (75% female, 25% male; $M_{age} = 24.57$ years, $SD = 6.49$) completed the questionnaire. Nationalities reported were 60% German, 30% Austrian, 6% other European countries (four from Russia, three from Italy, three from Turkey, one from France, one from Switzerland, one from Latvia, one from Luxemburg, one from the Netherlands), and 1% non-European countries (one from Nigeria, one from Venezuela). Three percent did not state their nationality. The Austrian university from which participants were solicited is located in the middle of Europe. Around 2800 employees working in science, education, and administration serve 18,000 students, offering bachelor's, master's, and doctoral degrees. Participants were enrolled in different majors, with the largest groups studying natural science (53%, including 28% in psychology), humanities (18%), social sciences (17%), and law or legal sciences (12%). Participants' mean length of study at the university was 4.79 semesters ($SD = 2.74$). Seventy-two percent reported higher education entrance qualification, 21% a bachelor's degree, and 7% a master's degree as their highest educational achievement. Sixty-three percent reported working part-time while studying. Of these, 60% reported working fewer than 10 h per week, 25% between 10 and 20 h per week, and 15% more than 20 h per week. As a reward for participation, a raffle to win one of three €10 Amazon gift vouchers was offered. Psychology students could in addition receive extra course credit as an incentive for their participation. E-mail addresses participants provided for the raffle as well as codes for receiving extra course credit were deleted when the investigation was completed.

2.2. Measures

Cronbach's alpha was used to establish the reliability of the scales used in our investigation. The coefficient alphas were well above the recommended reliability coefficient of 0.75. Unless stated otherwise, we used a 5-point scale ranging from 1 (*strongly disagree/not at all true*) to 5 (*strongly agree/absolutely true*).

2.2.1. Adaptive readiness

Adaptive readiness represented by CSE was assessed using the 12-item German version of the Core Self-Evaluation Scale (CSES; Judge et al., 2003; Stumpp, Muck, Hülsheger, Judge, & Maier, 2010). The scale is supposed to measure the broad higher order construct CSE that represents the conceptual and empirical overlap of four dispositional traits, namely, neuroticism, self-esteem, self-efficacy, and internal locus of control (Judge, Erez, Bono, & Thoresen, 2002). A validation study of the German CSES (Stumpp et al., 2010) replicated the one-factor structure (GFI: 0.90 to 0.94; CFI: 0.91 to 0.93; TLI: 0.88 to 0.91; RMSEA: 0.06 to 0.08) in three different samples ($N = 158$; 199; 118). The internal consistency reliability was $\alpha = 0.86$ for the first sample, $\alpha = 0.83$ for the second, and $\alpha = 0.81$ for the third. The test–retest reliability measured using the first sample was 0.82.

Convergent validity was shown by moderate to strong correlations between CSE and the four core traits: neuroticism (−0.71), self-esteem (0.71), generalized self-efficacy (0.62), and locus of control (0.41). The test proposed by Meng, Rosenthal, and Rubin (1992) revealed that the correlations between CSE and the core traits were higher than those between CSE and traits distinct from CSE, thereby supporting discriminant validity. Moreover, the results revealed that the CSES explained a small incremental amount of variance (1–5%) above the core traits and the remaining Big Five traits, as well as dispositional affectivity. Regarding predictive validity, results showed that the scores of the CSES collected before job entry explained small to moderate amounts of variance in job satisfaction (5%), organizational commitment (10%), and life satisfaction (18%) approximately 4 months after job entry (Stumpp et al., 2010). One example item is “I determine what will happen in my life.”

2.2.2. Adaptability resources

Adaptability resources represented by the four career adaptability dimensions (the four Cs) were assessed with the German version of the CAAS (international form 2.0; Johnston et al., 2013; Savickas & Porfeli, 2012). The scale consists of 24 items divided equally among the dimensions of concern (e.g., “thinking about what my future will be like”), control (e.g., “counting on myself”), curiosity (e.g., “becoming curious about new opportunities”), and confidence (e.g., “overcoming obstacles”) and was developed to

specifically assess adaptability. A validation study of the German CAAS demonstrated high levels of model fit for the conceptual structure and good Cronbach's alpha indices ranging from 0.86 to 0.88 for the subscales (Johnston et al., 2013). Moreover, CAAS scores were negatively related to work stress and positively related to orientations to happiness. The participants answered the items on a 5-point scale ranging from 1 (*I don't have the ability to…/This is not a resource for me…*) to 5 (*I have a very strong ability to…/This is a very important resource for me…*).

2.2.3. Maladaptability resources

Maladaptability resources represented by the IP were assessed with the 20-item German version of the Clance Impostor Phenomenon Scale (CIPS), originally developed by Clance and Imes (Clance & Imes, 1978; Klinkhammer & Saul-Soprun, 2009) and used by permission.[2] CIPS scores have been found to have satisfactory internal consistency reliability as indicated by a coefficient alpha of 0.92 (French, Ullrich-French, & Follman, 2008). Discriminant validity can be assumed, as another validation study of the CIPS demonstrated that the IP was related to but substantially discriminable from measures of depression, self-esteem, social anxiety, and self-monitoring (Chrisman et al., 1995). Another recent validation study of the German-language CIPS (Brauer & Wolf, 2016) replicated its good reliability ($\alpha = 0.87$; 0.89) in two independent samples ($N = 151$; 149). One example item is "I can give the impression that I'm more competent than I really am."

2.2.4. Adapting responses

2.2.4.1. Career planning. We used the six items that directly concern career planning (e.g., "I have a strategy for reaching my career goals") of the nine-item Career Management Scale developed by Gould (1979) and translated into German by Rowold (2004) to assess career planning. We dropped the three items that address adaptability (e.g., "I adapt easily to changes in my job") to avoid an overlap between measures. Abele and Wiese (2008) found good reliability of the scale (Cronbach's alpha = 0.86) and a positive relation with career success in a large German-speaking sample ($N = 1185$).

2.2.4.2. Career decision-making difficulties. The 12-item subscale sureness/decidedness in job preparation and job decision making of the German questionnaire Attitudes Towards Career Choices and Professional Work (Stangl & Seifert, 1986) was used to assess career decision-making difficulties. Stangl and Seifert (1986) found good reliability (Cronbach's alpha = 0.83) and intercorrelations with other subscales measuring engagement and occupational orientation, information seeking and flexibility, and personal initiative and autonomy. The measurement is especially useful for assessing career decision-making difficulties as 10 of the 12 items are formulated to bring out difficulties instead of decidedness, such as the item "I really don't know for what occupations I am most suited."

2.2.4.3. Career exploration. The German 10-item Career Exploration Scale developed by Hirschi (2009) was used to assess career exploration. The scale captures self-evaluation (4 items, e.g., reflecting about vocational interests) as well as environment exploration (6 items "collecting information about different vocational options"), which can be combined to a total score for career exploration. Answers related to how often a certain behavior (e.g., "gathering information about interesting career paths") was shown in the last 3 months and were made on a 5-point scale ranging from 1 (*seldom*) to 5 (*very often*). Cronbach's alphas were reported to be between 0.84 and 0.90 and it was shown that the measure correlates positively with other measures of career exploration, career decidedness, career planning, and career choice congruence (Hirschi, 2009, 2010, 2011a, 2011b, 2012; Hirschi, Niles, & Akos, 2011).

2.2.4.4. Occupational self-efficacy. The 10-item short version of the German Occupational Self-Efficacy Scale (Schyns & Collani, 2002, 2014) was used to assess occupational self-efficacy. Schyns and Collani (2014) presented good reliability (Cronbach's alpha = 0.88) and highly significant correlations with other scales measuring self-efficacy (such as the SWE; Sherer et al., 1982) or work-related self-efficacy (Speier & Frese, 1997). One example item is "When I make plans concerning my occupational future, I can make them work."

2.2.5. Demographics

Each participant had to state his or her sex, age, nationality, field of study, their current semester of study, highest educational achievement, employment status, and if employed, the number of hours worked per week.

2.3. Analysis

Mediation models were assessed to investigate the proposed hypotheses. We used the bootstrapping approach proposed by Preacher and Hayes (2004, 2008) with the recommended 5000 samples to obtain a point estimate of the indirect effect of the independent variable *X* (CSE) on the dependent variable(s) *Y* (adapting responses) through the mediator variable(s) *MV* (adaptability resources, the IP) as well as the bias-corrected 95% confidence interval (CI) for this estimate. In mediation analysis, several pathways are considered: pathway *c* (the total effect of *X* on *Y*), pathway *a* (*X* predicts *MV*), pathway *b* (*MV* predicts *Y*), and pathway *c'* (the direct effect of *X* on *Y*, when *MV* is controlled). The product of pathways *a* and *b* (*ab*) represents the indirect effect of *X* and *Y* through *MV*. As criteria to justify a mediation effect, the pathways *c*, *a*, *b*, and the indirect effect should be significant. All the pathways can be calculated with the PROCESS macro produced and offered by Hayes (2013). See Fig. 2 for an illustration of this simple mediation model.

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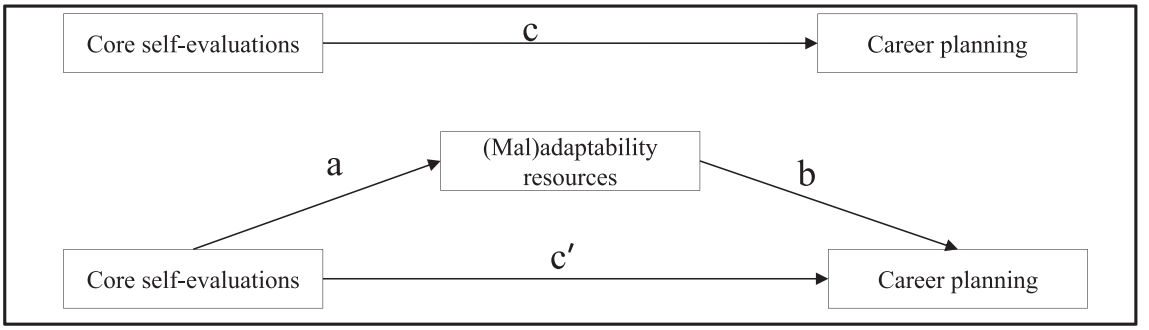

Fig. 2. Simple mediation model with career adaptability and "maladaptability" resources as mediators between CSE and career planning (adapted from Hayes, 2013; Preacher & Hayes, 2004).

3. Results

3.1. Bivariate correlations among the assessed constructs

Table 1 shows the means, standard deviations, Cronbach's alpha reliability coefficients, and correlations among all main study variables. All correlations between CSE and the adapting responses were significant ($ps < 0.05$). Concerning adapting responses, the highest correlation was found between CSE and occupational self-efficacy ($r = 0.60$, $p < 0.001$). CSE correlated positively with career planning and career exploration and negatively with career decision-making difficulties ($ps < 0.05$). Furthermore, CSE correlated highly significantly with career adaptability resources in a positive direction ($ps < 0.01$) and with maladaptability resources represented by the IP in a negative direction ($p < 0.001$). The relations between the main study variables indicate that it will be beneficial to conduct further mediation analyses. CSE is related to all four adapting responses, namely, career planning, career decision-making difficulties, career exploration, and occupational self-efficacy, and the proposed mediators (mal)adaptability (i.e., adaptability and maladaptability) resources are related to both CSE and the adapting responses. Regarding the effects of the IP, correlations between the IP and the adapting responses were highly significant ($ps < 0.001$), except for career exploration ($p > 0.05$). The highest correlation was found between the IP and occupational self-efficacy ($r = -0.55$, $p < 0.001$). Furthermore, the IP correlated highly significantly with three (concern, control, confidence) of the four dimensions of career adaptability resources ($ps < 0.01$). The relation to curiosity failed to reach significance ($p = 0.051$). We tested mediation models to clarify the relationship between the specific variables and we analyzed all adapting responses (including career exploration) because it is still possible to test for indirect effects in the absence of a significant total effect (pathway *c*; Hayes, 2009; Preacher & Hayes, 2004).

3.2. Mediating effects of (mal)adaptability resources

To test Hypotheses 1 and 2, that the (mal)adaptability resources mediate the effects of CSE (adaptive readiness) on adapting responses, namely, career planning, career decision-making difficulties, career exploration, and occupational self-efficacy, we conducted mediation analyses using Model 4 of the PROCESS macro offered by Hayes (2013). We calculated indirect effects using 5000 bootstrap iterations. If the bias-corrected 95% CI does not contain zero, the indirect effect is considered to be significant. The indirect effects as stated in Hypotheses 1 and 2 could be investigated by testing either simple mediation models[3] (see Fig. 2) or parallel multiple mediation models (including all potential mediators simultaneously). Hayes (2013) reported an advantage of using parallel multiple mediation modeling because it could result in a power boost for tests of indirect effects and it makes it possible to compare the sizes of the indirect effects through different mediators. Using this strategy for analysis provides further insights concerning relevant mediating processes and it enabled us to draw assumptions about relevant mediating dimensions of (mal)adaptability resources by looking at the specific indirect effects. Therefore, we set up the models as above, resulting in one multiple mediator model for each career adapting response. Table 2 contains the results of these analyses.

Supporting Hypothesis 1, results suggest the adaptability resource concern as a mediator of the relation between CSE and all the adapting responses (see Table 2). However, inspection of the CIs of the indirect effect (*ab*) shows that concern is primarily a significant mediator for career planning, career decision-making difficulties, and career exploration, as their CIs do not contain zero. The career adaptability resource control does not mediate the relationship between CSE and any of the adapting responses. The analyses reveal that CSE is associated with career exploration through curiosity in addition to concern. The relation between CSE and occupational self-efficacy is significantly mediated by the adaptability resource confidence, due to the CI that does not contain zero.

Supporting Hypothesis 2, for career planning, career decision-making difficulties, and occupational self-efficacy, results show that the IP mediated the effect of CSE on these adapting responses in a negative way. Hence, we found support for the postulated paths of this hypothesis except for the one on career exploration.

[3] For comparison, simple mediation models were calculated in addition; results are displayed in Appendix Table A1.

Table 1
Means, standard deviations, and correlations of the main variables.

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10
1 Core self-evaluations	3.47	0.47	(0.85)									
2 Career planning	3.31	0.84	0.30***	(0.85)								
3 Career decision-making difficulties	2.31	0.80	−0.31***	−0.72***	(0.90)							
4 Career exploration	3.17	0.83	0.14*	0.30***	−0.22***	(0.88)						
5 Occupational self-efficacy	3.82	0.56	0.60***	0.50***	−0.54***	0.17**	(0.82)					
6 Concern	3.56	0.74	0.27***	0.52***	−0.26***	0.41***	0.37***	(0.82)				
7 Control	3.85	0.76	0.60**	0.32***	−0.30***	0.18**	0.51***	0.37***	(0.85)			
8 Curiosity	3.65	0.66	0.20**	0.20**	−0.14*	0.28***	0.31***	0.34***	0.51***	(0.77)		
9 Confidence	3.98	0.65	0.47***	0.38***	−0.26***	0.30***	0.57***	0.51***	0.60***	0.51***	(0.86)	
10 Impostor phenomenon	2.78	0.65	−0.60***	−0.29***	−0.32***	−0.07	−0.55***	−0.18**	−0.50***	−0.12	−0.35***	(0.89)

Note. $N = 289$. Scales ranged from 1 to 5. Entries in parentheses on the diagonal are Cronbach's alpha reliability coefficients.
* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

In sum, the direct effects of the CSE on career planning, career decision-making difficulties, and career exploration (Pathway *c*') are no longer significant, indicating that full mediation occurred. In the case of occupational self-efficacy the direct effect diminished but remains significant, indicating partial mediation. These mediating effects can be considered significant because the bias-corrected 95% CIs for the indirect effects (*ab*) do not include zero.

4. Discussion

As theoretically expected, (mal)adaptability resources mediated the effect of adaptive readiness (represented by CSE) on adapting responses, namely, career planning, decision-making difficulties, career exploration, and occupational self-efficacy. This was shown by significant correlations in the expected way and was further supported by regressions between adaptive readiness, (mal)adaptability resources, and adapting responses during mediation analyses, as we found consistently significant indirect effects. In line with the career construction model of adaptation and previous research, adaptability resources emerged as important

Table 2
Mediating effects of career adaptability dimensions and the imposter phenomenon (*MV*) in the relationship between core self-evaluation (*X*) and career adapting responses (*Y*).

Variable			Effects of *X* on *MV* (Pathway *a*)	Effects of *MV* on *Y* (Pathway *b*)	Total effect (Pathway *c*)	Direct effect (Pathway *c*')	Indirect effect (*ab*)	95% CI
X	*MV*	*Y*						
CSE	Concern	CP	0.42***	0.49***	0.52***	0.08	**0.21**	**[0.11, 0.33]**
CSE	Control		0.95***	0.02			0.02	[−0.16, 0.17]
CSE	Curiosity		0.28***	−0.03			−0.01	[−0.06, 0.03]
CSE	Confidence		0.65***	0.11			0.07	[−0.04, 0.19]
CSE	IP		−0.83***	−0.20*			**0.17**	**[0.03, 0.31]**
CSE	Concern	CDMD	0.42***	−0.17*	−0.52***	−0.16	**−0.07**	**[−0.15, −0.01]**
CSE	Control		0.95***	−0.09			−0.08	[−0.26, 0.10]
CSE	Curiosity		0.28***	0.00			0.00	[−0.05, 0.05]
CSE	Confidence		0.65***	−0.03			−0.02	[−0.13, 0.10]
CSE	IP		−0.83***	0.23**			**−0.19**	**[−0.35, −0.05]**
CSE	Concern	CE	0.42***	0.38***	0.24*	0.07	**0.16**	**[0.08, 0.28]**
CSE	Control		0.95***	−0.11			−0.11	[−0.28, 0.05]
CSE	Curiosity		0.28***	0.21*			**0.06**	**[0.01, 0.14]**
CSE	Confidence		0.65***	0.12			0.08	[−0.05, 0.23]
CSE	IP		−0.83***	0.02			−0.02	[−0.16, 0.12]
CSE	Concern	OSE	0.42***	0.08*	0.71***	0.34***	0.03	[−0.00, 0.08]
CSE	Control		0.95***	−0.03			−0.03	[−0.13, 0.07]
CSE	Curiosity		0.28***	0.05			0.02	[−0.01, 0.05]
CSE	Confidence		0.65***	0.24***			**0.16**	**[0.09, 0.24]**
CSE	IP		−0.83***	−0.24***			**0.20**	**[0.11, 0.29]**

Note. $N = 289$. *X* = independent variable; *MV* = mediating variable; *Y* = dependent variable; CSE = core self-evaluation; IP = impostor phenomenon; CP = career planning; CDMD = career decision-making difficulties; CE = career exploration; OSE = occupational self-efficacy; CI = confidence interval. Significant specific indirect effects are in boldface.
* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

mediators of the effects of adaptive readiness on the adapting responses in a positive way, whereas maladaptability resources represented by the IP did so in a negative way, supporting the idea that these variables represent two sides the career resources coin.

To gain more specific information about which dimensions of the (mal)adaptability resources are particularly effective, we conducted parallel multiple mediation analyses that enabled us to compare the specific indirect effects. These analyses showed that in the relation between CSE and career planning, concern is a positive mediator in that more concern fosters more career planning. Because concern is directed to the future and connected with the consideration of upcoming tasks and challenges, it is reasonable that it would have an impact on the extent of career planning and to be the most prominent mediator in this relationship. Our results are therefore theoretically reasonable as well as in line with previous research (Hirschi et al., 2015). On the other side, the IP emerged as a negative mediating variable. In detail, and in line with previous research (Neureiter & Traut-Mattausch, 2016a), the IP was shown to have a strong effect on career planning, such that as more impostor feelings occurred, less career planning was reported. Moreover, the IP and concern were negatively related to each other as well. Hence, the negative effect of the IP on career planning can be partially reinforced through a reduction in the necessary adaptability resource concern. By exploratively testing this consideration in our data, results supported the additional negative effect of the IP on career planning through reduced concern (see Appendix Table A2). Thus, the assumption that the IP prompts successful people to neglect concern about their vocational future, which is strongly needed for effective career planning and in turn fosters career success, is supported.

Concern and the IP emerged as significant mediators of the effect of CSE on career decision-making difficulties as well, when both adaptability and maladaptability resources were included simultaneously. However, and contrary to our theoretical assumptions—that this effect would be mediated by control and that control might mediate the relation to career planning—control did not emerge as a significant mediator in any relation. Building on previous research, we had expected that control would lead to more career planning and less career decision-making difficulties. Although these effects have been found in the correlation analysis, the significant indirect effect was diminished in the parallel multiple mediation analysis. When we calculated a simple mediation model (see Table A1), the hypothesized mediating effects through control turned out to be significant, as indicated by the CIs that did not contain zero, thereby supporting our theoretical assumptions. This indicates that control lost its unique ability to function as a mediator in the presence of concern (Preacher & Hayes, 2008). When mediators are correlated (as is the case in our data), the unique effects of each variable may be suppressed (Preacher & Hayes, 2008), which may explain why control is no longer a significant mediator. Future research should therefore be very cautious when drawing conclusions when only simple mediation modeling can be applied. We recommend that—if possible—future researchers should conduct parallel multiple mediation modeling to gain information about the most prominent variables that intervene in the relation of an independent and a dependent variable in general, and regarding dimensions of (mal)adaptability resources in particular.

However, taking the characteristics of concern into account, its impact on the extent of career planning as well as on career decision-making difficulties was substantiated. Moreover, as concern has been proposed as the most important dimension of career adaptability (e.g., Öncel, 2014), our results are theoretically reasonable and are again in line with previous research (Hirschi et al., 2015). The use of parallel multiple mediation modeling further enabled us to discover that supplementary to curiosity, concern emerged as a significant mediator on career exploration—also slightly reducing the effect of curiosity in comparison with the results of the simple mediation model. This indicates that career exploration needs concern in addition to curiosity, which both seem to be reduced by impostor feelings (see Table A2). That the negative effect of the IP occurs only indirectly suggests that although impostors are expected to show less career exploration in theory, empirically they just show fewer of the career adaptability resources that are necessary for career exploration. Also in line with our hypothesis, the path between CSE and occupational self-efficacy was mediated by confidence and the IP. Individuals who reported higher confidence also reported higher occupational self-efficacy. On the other hand, individuals who reported higher levels of impostor feelings tended to report lower levels of occupational self-efficacy beliefs, which is in line with previous research (Grubb & McDowell, 2012; Jöstl et al., 2012). Again our supplementary analyses showed an effect of the IP, suggesting that impostor feelings reduce perceived confidence, which is crucial for strong self-efficacy beliefs. All findings are illustrated in Fig. 3.

On a more general level, our results support the proposed importance of the IP for career construction and development, specifically regarding different forms of adapting responses and adaptability resources. Our findings support the overall approach that looking at the IP from a perspective of established theories could be quite beneficial. Although the career construction model of adaptation necessarily looks at the IP in the context of career development, other theories could be used as guiding frameworks in other contexts. Established theories also provide ideas for potential mediating variables that operate in a positive as well as a negative way.

Regarding the positive way, our mediation analyses showed that the adaptability resource concern emerged as the most significant mediator in the relationship between adaptive readiness and adapting responses, as it mediated the effect of CSE on career planning, career decision-making difficulties, and career exploration. Moreover, we found that CSE is positively related to curiosity, which is also necessary for career exploration, as well as to confidence, which is needed for occupational self-efficacy. Hence, when looking at the career construction theory of adaptation, our results suggest that although the dimensions of career adaptability resources have commonalities, they play different roles in predicting career-related outcomes and even suppress each other when considered in parallel. This supports the inclusion of specific, theoretically guided dimensions of adaptability for specific adapting responses, especially when using simple mediation modeling. Otherwise only parallel multiple mediation analysis should be conducted.

Regarding the negative way, the IP turned out to be a strong maladaptability resource as it also affected three of the four potential mediation paths. Therefore, our mediation analyses based on implications provided by an existing theory gave us further insights into the functioning of the IP. Furthermore, by integrating the IP in the career construction model of adaptation, an important factor of maladaptability resources as well as one that additionally reduces adaptability resources was identified. This is

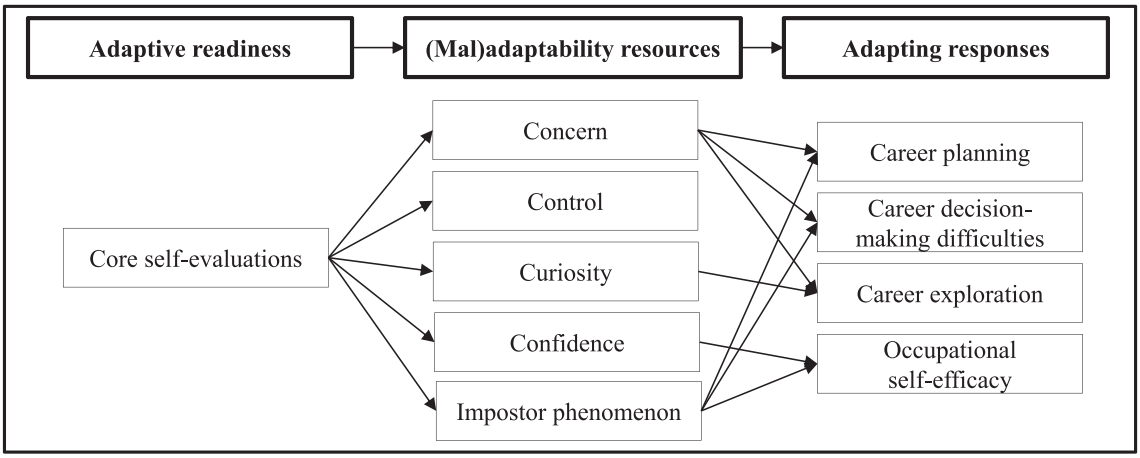

Fig. 3. Illustration of the significant indirect effects using parallel multiple mediation modeling from adaptive readiness to adapting responses.

especially important as some indicators of adaptability resources have already been identified (concern, control, curiosity, confidence), but less research has investigated mechanisms or phenomena that have a negative effect, what we have called maladaptability resources. These considerations can be further expanded, as the findings concerning the IP can be transferred to the career construction model of adaptation. For example, aspects that are relevant for the IP, such as fear of success (Jöstl et al., 2012; Neureiter & Traut-Mattausch, 2016a) or self-handicapping (Cowman & Ferrari, 2002; Ferrari & Thompson, 2006; Want & Kleitman, 2006), might also play an important role in decreasing adapting responses as they may prevent individuals from using their adaptability resources. On the other side, as process variables in the relation of impostor feelings have received little attention until now, further research investigating mediating variables is required. For example, career adaptability resources in general and career concern in particular could, in addition to affecting career planning, mediate the negative effect of the IP on career striving and the motivation to lead (Neureiter & Traut-Mattausch, 2016a).

5. Limitations and future research

Although the results are as we expected, the mediation effect of adaptive readiness on occupational self-efficacy occurred only partially. Hence, it is conceivable that other mediators aside from those investigated herein contribute to the effects on adapting responses. It might be fruitful and enrich our understanding of the processes underlying the strong effect to integrate additional variables in parallel multiple mediation analyses in future research. Another limitation of our study is that we relied on a sample of European university students, which prevented us from investigating career adaptation results. Future research should use our proposed and tested framework in a sample of working professionals to investigate adaptation results such as career success, job satisfaction, and development. Furthermore, the model should be tested in samples from different countries with different cultures to expand generalizability. Moreover, we applied self-report measures, which can induce shared method bias that might have affected the observed relationships between the applied measures (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Some might think that there is overlap between the items operationalizing adaptability resources and adapting responses. However, in addition to the conceptual distinction, Hirschi et al. (2015) investigated the empirical distinctiveness of adaptability resources and adapting responses. Through their comparison of a four- and an eight-factor model they showed that the constructs are significantly related to yet empirically distinct from each other. As we also used the investigated indicators and found support for the hypothesized effects, we would argue that it is unlikely that method bias was the main driver of the observed relations. Nevertheless, to avoid this limitation in future research, adaptability resources and adapting responses could be assessed at separate time points or by the use of different sources. Shared method bias could also affect the results concerning the IP. Previous research of Neureiter and Traut-Mattausch (2016a) indicated that the IP affected differently by observable and nonobservable variables. Participants showed higher career striving when another person was able to recognize what they were doing. When they were on their own, less career striving was exhibited. Therefore, the self-report measures reported in our study should be complemented by observable variables in future research, for example, salary scales to operationalize career success.

6. Implications and conclusion

Regarding the IP, our results especially highlight the important role of the career adaptability resources as increasing factors and the IP as a reducing factor in career adapting responses such as career planning and career exploration. Our results show

that the IP is negatively related to adaptive readiness and functions as a maladapability resource that directly reduces adapting responses. Our conceptual and empirical analyses provide a framework for future research on the IP in the context of career construction.

According to career construction theory (Savickas, 2005b), higher/more adaptation results are expected for those who are willing (adaptive readiness) and able (adaptability resources) to perform behaviors that address changing conditions (adapting responses). The theoretical framework of career construction theory gave important hints of mediating factors in the relation between adaptive readiness and career-related behaviors and outcomes. Whereas including adaptability resources results in a positive indirect effect, including the IP results in a negative one.

Consequently and beyond these theoretical insights, on the practical side it would be useful to provide interventions to emphasize career adaptability and reduce impostor feelings. As career adaptability resources have become increasingly necessary in our current work world, effective interventions that address these resources are strongly needed. As researchers have shown, career adaptability resources could be addressed through training. Koen et al. (2012) showed that trained students had an overall increase in concern, control, curiosity, and confidence as well as higher employment quality a half year after the training. On the other hand, promoters of adaptation in career-concerned individuals should keep the IP in mind, as it seems to serve as a hindering factor. Depending on the amount of impostor feelings reported, individuals should be encouraged to make use of in-depth, long-term psychological treatments. The dysfunctional cognitions should be addressed through cognitive restructuring in a behavioral therapy or through Gestalt work (Clance & O'Toole, 1988; Rohrmann, Bechtoldt, & Leonhardt, 2016). Our results clearly support our theoretical assumption that impostor feelings play an important role in the process of career construction as they reduce career adapting responses. All the strong negative effects reported in this paper should encourage trainers, counselors, recruiters, and human resource managers to take note of the IP and its meaningful impact.

Acknowledgement

We thank Amanda Gareis and Simon Pletzer for their help in collecting data.

Appendix A. Appendix

Table A1
Mediating effects of career adaptability dimensions and the imposter phenomenon (*MV*) in the relationship between core self-evaluation (*X*) and career adapting responses (*Y*) using simple mediation modeling.

Variable			Effects of *X* on *MV* (Pathway *a*)	Effects of *MV* on *Y* (Pathway *b*)	Total effect (Pathway *c*)	Direct effect (Pathway *c*')	Indirect effect (*ab*)	95% CI
X	*MV*	*Y*						
CSE	Concern	CP	0.42***	0.53***	0.52***	0.30**	**0.22**	**[0.13, 0.34]**
CSE	Control		0.95***	0.24**		0.29*	**0.23**	**[0.08, 0.38]**
CSE	Curiosity		0.28***	0.19*		0.47***	**0.05**	**[0.02, 0.12]**
CSE	Confidence		0.65***	0.39***		0.27*	**0.25**	**[0.15, 0.39]**
CSE	IP		−0.83***	−0.23**		0.33**	**0.19**	**[0.04, 0.35]**
CSE	Concern	CDMD	0.42***	−0.20**	−0.52***	−0.43***	**−0.08**	**[−0.16, −0.04]**
CSE	Control		0.95***	−0.19**		−0.33**	**−0.19**	**[−0.32, −0.04]**
CSE	Curiosity		0.28***	−0.11		−0.49***	−0.03	[−0.08, 0.00]
CSE	Confidence		0.65***	−0.18*		−0.40***	**−0.12**	**[−0.23, −0.03]**
CSE	IP		−0.83***	0.26**		−0.30*	**−0.22**	**[−0.37, −0.08]**
CSE	Concern	CE	0.42***	0.46***	0.24*	0.05	**0.19**	**[0.11, 0.30]**
CSE	Control		0.95***	0.17*		0.08	**0.16**	**[0.02, 0.30]**
CSE	Curiosity		0.28***	0.34***		0.15	**0.10**	**[0.03, 0.18]**
CSE	Confidence		0.65***	0.39***		−0.01	**0.25**	**[0.14, 0.39]**
CSE	IP		−0.83***	0.03		0.26*	−0.02	[−0.17, 0.12]
CSE	Concern	OSE	0.42***	0.18***	0.71***	0.64***	**0.07**	**[0.04, 0.13]**
CSE	Control		0.95***	0.18***		0.55***	**0.17**	**[0.07, 0.26]**
CSE	Curiosity		0.28***	0.17***		0.66***	**0.05**	**[0.02, 0.10]**
CSE	Confidence		0.65***	0.32***		0.50***	**0.21**	**[0.14, 0.30]**
CSE	IP		−0.83***	−0.26***		0.50***	**0.21**	**[0.13, 0.30]**

Note. $N = 289$. *X* = independent variable; *MV* = mediating variable; *Y* = dependent variable; IP = impostor phenomenon; CSE = core self-evaluation; CP = career planning; CDMD = career decision-making difficulties; CE = career exploration; OSE = occupational self-efficacy; CI = confidence interval by the use of 1000 bootstrapping samples. Significant specific indirect effects are in boldface.

* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

Table A2
Mediating effects of career adaptability dimensions (*MV*) in the relationship between the imposter phenomenon (*X*) and career adapting responses (*Y*).

Variable			Effects of IP on MV (Pathway *a*)	Effects of MV on Y (Pathway *b*)	Total effect (Pathway *c*)	Direct effect (Pathway *c'*)	Indirect effect (*ab*)	95% CI
X	*MV*	*Y*						
IP	Concern	CP	−0.20**	0.49***	−0.38***	−0.22**	**−0.10**	**[−0.18, −0.04]**
IP	Control		−0.58***	0.03			−0.02	[−0.11, 0.08]
IP	Curiosity		−0.12	−0.04			0.01	[−0.01, 0.04]
IP	Confidence		−0.35***	0.12			−0.04	[−0.10, 0.01]
IP	Concern	CDMD	−0.20**	−0.17*	0.39***	0.27***	**0.04**	**[0.01, 0.08]**
IP	Control		−0.58***	−0.12			0.07	[−0.03, 0.17]
IP	Curiosity		−0.12	0.02			−0.00	[−0.03, 0.02]
IP	Confidence		−0.35***	−0.05			0.02	[−0.05, 0.08]
IP	Concern	CE	−0.20**	0.38***	−0.09	−0.00	**−0.08**	**[−0.15, −0.03]**
IP	Control		−0.58***	−0.10			0.06	[−0.04, 0.16]
IP	Curiosity		−0.12	0.20*			**−0.02**	**[−0.07, −0.00]**
IP	Confidence		−0.35***	0.13			−0.05	[−0.13, 0.02]
IP	Concern	OSE	−0.20**	0.08*	−0.47***	−0.33***	−0.02	[−0.05, 0.00]
IP	Control		−0.58***	0.05			−0.03	[−0.09, 0.03]
IP	Curiosity		−0.12	0.03			−0.00	[−0.02, 0.01]
IP	Confidence		−0.35***	0.29***			**-0.10**	**[−0.16, −0.06]**

Note. $N = 289$. *X* = independent variable; *MV* = mediating variable; *Y* = dependent variable; IP = impostor phenomenon; CP = career planning; CDMD = career decision-making difficulties; CE = career exploration; OSE = occupational self-efficacy; CI = confidence interval. Significant specific indirect effects are in boldface.
* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

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