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The Relationship between the Impostor Phenomenon,
Gender-Role Orientation, and Self-Compassion

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Abstract

Considering the research gap in the relation between the impostor phenomenon (IP), gender-role orientation, and self-compassion, this study aimed to bridge this gap in examining this relationship in 459 university freshman students (315 female) in Vienna. As 86.5 percent of this sample suffered from at least moderate impostor feelings, the impostor phenomenon which refers to high-achievers who doubt their capability and thus are afraid of getting unmasked as unintelligent is highly relevant for university freshman students. Female and feminine freshman students suffered more from impostor feelings and were less likely to be self-compassionate than male or masculine freshman students. Furthermore, higher scores of self-compassion are associated with lower intensity of IP feelings. Thus, self-compassion might be a resilience factor for the impostor phenomenon. Applying this result in clinical contexts can help IP sufferers to overcome their impostor feelings. Especially female and feminine freshman students might benefit from self-compassion interventions. Implications tailored to female and feminine freshman students are discussed.

Zusammenfassung

Um die Forschungslücke in dem Zusammenhang zwischen Impostor Phänomen, selbstbezogenem Mitgefühl und Geschlechterrollenorientierung zu schließen, untersuchte die vorliegende Studie diesen Zusammenhang bei 459 Studierenden in ihrem ersten Studienjahr (315 weibliche) an Wiener Universitäten. Da 86,5 Prozent der TeilnehmerInnen unter zumindest moderaten Impostor Gefühlen litten, besitzt das Impostor Phänomen, das sich auf erfolgreiche, intelligente Personen bezieht, die ihre Fähigkeiten anzweifeln und somit fürchten als unintelligent entlarvt zu werden, höchste Relevanz für StudienanfängerInnen. Weibliche und feminine Studierende litten mehr unter dem Impostor Phänomen und verfügten über geringeres selbstbezogenes Mitgefühl als männliche oder maskuline Studierende. Außerdem war ein stärker ausgeprägtes selbstbezogenes

Mitgefühl mit geringerer Intensität des Impostor Phänomens verbunden. Folglich könnte selbstbezogenes Mitgefühl einen Resilienz Faktor für das Impostor Phänomen darstellen. Der Transfer dieser Ergebnisse in klinisch-psychologische Kontexte könnte Betroffene dabei unterstützen ihre Impostor Gefühle zu überwinden. Es scheint plausibel, dass besonders weibliche und feminine Studierende von Interventionen zur Förderung von selbstbezogenem Mitgefühl profitieren. Umsetzungsmöglichkeiten, speziell für weibliche und feminine Studierende, werden diskutiert.

Introduction

Beginning to study at a university is an exciting venture for freshman students. However, becoming familiar with universities as complex learning environments is difficult and exacerbates orientation in this new environment. Additionally, university students are required to study autonomously which is greatly different from their habitual learning situation in school. This makes the transition from secondary to tertiary education a great challenge and as a result can lead to drop-outs. Numerous factors such as poor school grades, low ability to study autonomously, low achievement motivation and low self-efficiency influence drop-out rates of freshman students (Heublein & Wolter, 2011). But also motivated freshman students with excellent grades can drop out. Especially freshman students suffering from the impostor phenomenon (IP) might be vulnerable to university drop-outs. IP sufferers are high-achievers who do not believe in their capability and therefore feel like impostors. This makes them feel like they do not deserve their success and must be on the hide not to get unmasked as unintelligent (Clance, 1985). This fear leads IP sufferers to drop-out in order to reduce the chance of getting unmasked by others. Furthermore, climbing the career ladder forms an “leaky pipeline” for female university careers (Jöstl, Bergsmann, Lüftenegger, Schober, & Spiel, 2012). One reason for this phenomenon is that women suffer from gender-stereotypical constraints such as the fear of losing their femininity when being successful (Clance & Imes, 1978). Moreover, women suffer more from the impostor phenomenon (Clance & O’Toole, 1987; Jöstl et al., 2012; McGregor, Gee, & Posey, 2008) but so far, gender differences have been just examined on the superficial biological sex and not on a more differentiated level such as gender-role orientation.

An opportunity to support freshman students maintaining university careers is to facilitate their self-compassion. Self-compassion is part of the personality and explains how understanding and kind individuals treat themselves when facing failure (Neff, 2003). As an effective emotion regulation strategy, self-compassion,

can contribute towards mastering challenges in study as well as helping IP sufferers to overcome their impostor feelings. There are good theoretical reasons to believe that there is an inverse link between self-compassion and the impostor phenomenon. Moreover, men are more likely to be self-compassionate than women (Neff, 2003; Neff, Hsieh, & Dejittthirat, 2005), but there are observable connections between self-compassion and gender-role orientation (Smeets, Neff, Alberts, & Peters, 2014). However, there is a research gap between the impostor phenomenon, gender-role orientation, and self-compassion. The aim of the present study is to bridge this gap by investigating the relation between the impostor phenomenon, gender-role orientation, and self-compassion in university freshman students.

The Impostor Phenomenon

Due to their work as psychotherapists, P. Clance and S. Imes recognized a similarity in some of their clients: Successful young women are suffering from bad feelings about their success. They do not believe in their abilities and therefore think they do not deserve their success (Clance, 1985). To find a convenient treatment for these people, Clance and Imes examined this phenomenon by extracting main aspects and symptoms which represent this phenomenon. In 1978 they first presented this phenomenon as the impostor phenomenon.

Definition

People suffering from the impostor phenomenon are intelligent, competent and actual high-achievers. But when they are successful, they are convinced that it comes from any reason, for instance luck, fortuitousness, or effort, except their own abilities, even if there is objective evidence. Additionally, they do not feel as capable as they expect themselves to be, or as others. For them it is like concealing their incapability with a mask and always be on the watch not to get caught (Clance, 1985).

The Profile of the Impostor Phenomenon

Clance (1985) develops a profile to characterize the impostor phenomenon. She reduces six components which describe feelings and behaviors of people suffering from the impostor phenomenon. For suffering from IP, it is not necessary to experience all components. It is sufficient for the diagnosis to suffer at least from two or three of them (Clance, 1985). The more components are experienced by IP sufferers, the greater their impostor feelings.

The Impostor Cycle is a vicious circle wherein Impostor sufferers are trapped. IP sufferers perceive challenges as fearsome situations. At one hand, they are convinced not to master the challenge and on the other hand, this situation is dangerous for them because they might get unmasked by others. Consequently, people suffering from the IP are afraid of challenges and try to avoid them. In this anxiety, they typically react in two ways. They either try to avoid the challenge by procrastination and then excessive preparation, once they realize the inevitability of the challenge or they react immediately with extreme preparation and effort. When they are successful with this behavior, they find excuses for their success. People who procrastinated first attribute their success to luck or fortuitousness, while those who immediately started with excessive preparation believe their success is due to their great effort and diligence. Both are excuses for their capability and strengthen their feeling as fraud. As long as they believe luck or effort are the reasons for their success, they do not feel prepared for the next challenge and as a result the impostor cycle (visualized in Figure 1) starts over again. The impostor cycle is so hard to break because IP sufferers are convinced that maintaining the cycle is their only chance to master challenges (Clance, 1985).

The need to be special, to be the very best is deep-seated in IP sufferers. It is not enough to succeed in any task, IP sufferers want to be outstanding. In their childhood or adolescence, they internalize the importance of being special. Therefore, they feel like losers if they can not maintain to be the very best. This

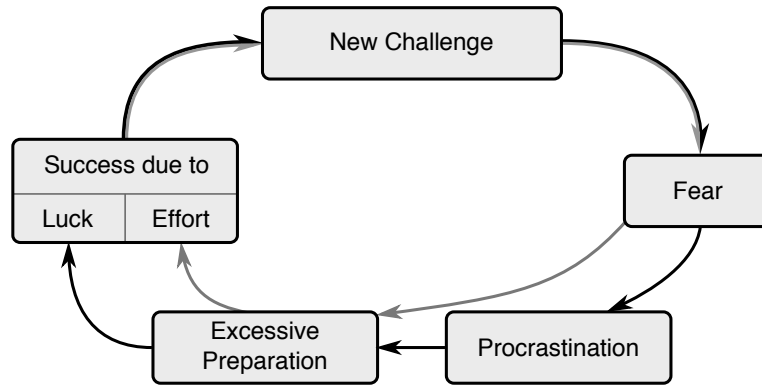


Figure 1. The Impostor Cycle according to Clance (1985)

is also a reason for IP sufferers' reduced perception of their capabilities. The experience that they are not the only marvelous person, is very hard for them to bear and thus causes a great amount of stress and self-doubt.

Superwoman/Superman aspects are nearly impossible to achieve, but an intention of IP sufferers. People who carry superwomen or superman aspects inside, do not just expect themselves to be outstanding, the effort must be negligibly. Further, their expectations to be the best and at the same time show no tolerance for doing any mistakes, is unrealistic. To achieve this unrealistic goal and, not enough, achieve this goal with ease is impossible. But IP sufferers do not realize that their goals are too high to reach. Thus, they are disappointed and feel like fraud when they can not comply with their unreachable expectancies.

Fear of failure is one of the greatest anxieties, people with IP suffer from. IP sufferers are strict to themselves, pursue ambitious goals, want to appear capable at any time while feeling like a fraud and at the same time fearing any kind of failure. This fear fosters in their self-doubts and the belief in their incapability. As IP sufferers are perfectionistic, it is unacceptable for them to make a mistake. But what is much more threatening to them, is making mistakes in public. To err is human but for IP sufferers it triggers deep anxiety and shame. Hence, IP sufferers bring up desperate efforts to avoid any kind of failure.

Denial of competence and discounting praise is a characteristic of IP sufferers which can be observed frequently. When they receive praise, they seem

to act with false modesty, because they eschew positive feedback. They are very creative in finding other reasons for their success other than their abilities or intelligence. Therefore, these people attribute their success to external factors like luck or effort and do not believe in their own abilities.

Fear of and guilt about success is a seemingly contradicting characteristic of IP sufferers. How can they aspire to be the best while fearing success? The reason is, that it is not exactly success they are fearing. They are afraid of the consequences success implicates. When they are successful, people believe in their capability and expect them to repeat the success. This causes great stress for IP sufferers, because they are certain they will not be able to comply with this expectancies and at the same time do not want to disappoint others.

Consequences of the Impostor Phenomenon

As described before, sufferers from the impostor phenomenon can experience diverse impostor feelings. The similarity in all people with IP is that they behave antithetic to their feelings (Clance, 1985). This makes them feel like impostors. Never being able to behave naturally is extremely hard to bear. But that is not all, people suffering from IP constantly question themselves and whatever they do, they can not be pleasant with their achievements. It is not astonishing that the impostor phenomenon can entail extensive consequences, such as increased well-being, self-esteem and self-efficiency as well as misery, anxiety, and depression (Bernard, Dollinger, & Ramaniah, 2002; Clance & Imes, 1978; Clance, 1985; Flett & Hewitt, 2002; Jöstl et al., 2012; McGregor et al., 2008; September, McCarrey, Baranowsky, Parent, & Schindler, 2001).

Moreover, suffering from the impostor phenomenon forms an “internal barrier” for IP sufferers (Clance & O’Toole, 1987). Aspects such as externalization of success, denial of positive feedback, and feeling like a phony, hinder IP sufferers of perceiving themselves as capable and consequently, they are working under their full potential. Especially fears involved in IP are related with

self-handicapping behavior (Cowman & J. S. Ferrari, 2002; Leary, Patton, Orlando, & Wagoner Funk, 2000). Fear of failure, IP sufferers experience, can intensify to such an extent, that they relinquish their goals and dreams in favor of decreasing the anxiety. That hinders them of accomplishing their dreams, especially concerning their careers. While climbing the career ladder, IP sufferers fear every next step because of the increasing likelihood of failure. This causes not only great stress for IP sufferers, but also can lead to drop from the career ladder early (Clance, 1985). Consequently, potential leaders are doing jobs which are far from what they are capable of.

Clance and O'Toole (1987) explains the development of internal barriers as a combination of external variables and internal conflicts. People are determined by expectations of their family, teachers, and the whole society. Particularly nowadays in this achievement-oriented society there is a great pressure to succeed. Internal conflicts arise when the aim to be successful is contradicting with other phenomena, for instance the fear of success. An important aspect of this fear is the desire to avoid disappointing others by not satisfying their expectations. Thus, fear of success is also affected by society. Interesting is, that mostly women seem to suffer from this component of the IP (Clance, 1985; Jöstl et al., 2012). They fear success because it is unlikely for women to be successful. This forms another internal conflict and causes great pressure for high-achieving women, including female IP sufferers. In an investigation of Austrian doctoral students, Jöstl et al. (2012) determines the impostor phenomenon as a psychological barrier for female university careers.

Clance and Imes (1978) present the impostor phenomenon originally as a predominant female construct as they observe this phenomenon in high-achieving women. In a later study, Clance and O'Toole (1987) also investigate men and find that they do not differ from women in the frequency of experiencing the impostor phenomenon, but the intensity of IP feelings is higher in female than in male IP sufferers. These findings are supported by numerous

studies (Jöstl et al., 2012; Kumar & Jagacinski, 2006; McGregor et al., 2008).

There are also contrary opinions in the research community. Topping (1983) find that men suffering more from the impostor phenomenon than women. However, the author explains the lesser suffering of women with the sample of university faculty members. Women have to overcome their impostor feelings in order to become faculty member. This assumption, however, does not explain the high suffering of men. Assumptions that women and men are equally affected by the impostor phenomenon are also made (Bernard et al., 2002; J. R. Ferrari & Thompson, 2005).

Gender-Role Orientation

Not only regarding the impostor phenomenon there are several differences between women and men. Especially in case of profession, sex differences become obvious (Abele, 2003). Even nowadays a trend is observable that women are more likely to choose female-dominated professions and man mostly select male-dominated professions. Women are not only underrepresented in STEM fields (Sciences, Technology, Engineering, and Mathematics), but also in top levels of academic career (Hausmann & Schober, 2012). As there is no biological explanation for these observed sex differences, how do these differences emerge? Learning from the direct social environment is part of socialization. Thus, these specific environment transfers knowledge, behaviors, and attitudes to the child, but provides also expectations about the child's behavior and attitude. To explain sex differences, the environments' gender specific expectations (gender-stereotypes) are particularly interesting. Family, teachers, and the whole society have specific notions about how boys and girls should be. Thus, perceived characteristics which are socially desirable for man and those which are socially desirable for women exist in society and are deeply rooted in every person.

Definition

Gender-role orientation emerges from these socially desirable behaviors which are separated for each sex in a gender-stereotypic manner. Gender-role orientation distances from the view that gender is a biologically determined construct.

Rather believes that gender is formed in social contexts are involved. Thus, every individual finds the best fitting gender-role by self-assessing characteristics which are either gender-stereotypically for women or men. These two domains are labeled as *feminine* (gender-stereotypic for women) and *masculine* (gender-stereotypic for man) (Bem, 1974). The understanding of gender has changed over time. In the past gender was supposed to be unidimensional with two opposite poles, femininity and masculinity (Hathaway & McKinley, 1943; Strong, 1936). However, this assumption changed in the 1970s as femininity and masculinity were considered as two independent dimensions (Bem, 1974; J. T. Spence, Helmreich, & Stapp, 1975).

Dimensions of Gender-Role Orientation

Bem (1974) developed the Bem Sex-Role-Inventory to measure gender with these independent dimensions. She suggests that an integration of femininity and masculinity within one person forms another dimension: androgynous. For her, gender-role orientation can take the following forms:

- feminine
- masculine
- androgynous

J. T. Spence et al. (1975) assume that the dimension androgynous must be divided in *androgynous* and *undifferentiated*. According to J. T. Spence et al. (1975) androgynous includes high characteristics of both, feminine and masculine aspects of a person, while undifferentiated contains low characteristics of

femininity and masculinity. This supplementation allows a more differentiated view on gender-role orientation.

In order to get an even more precise view on gender-role orientation, it is necessary to focus on women and men separately. Thus, a distinction between traditional and non-traditional gender-role orientation is possible. A traditional gender-role orientation can either be a feminine oriented woman or a masculine oriented man. Feminine men, masculine women, as well as androgynous and undifferentiated individuals are viewed as non-traditional gender-role orientations.

Consequences

Bem, Martyna, and Watson (1976) investigate the difference between traditional and non-traditional gender-role orientation and assume that a traditional gender-role orientation forms a disadvantage compared to non-traditional gender-role orientations. Non-traditional gender-role oriented individuals are less constrained by gender-stereotypes and therefore have a greater action space (Ziegler, Heller, Schober, & Dresel, 2006).

Moreover, androgynous aspects seem to be more beneficial than the other dimensions of gender-role orientation. Androgynous individuals possess higher levels of self-esteem (J. T. Spence et al., 1975) and androgynous women display higher wellness than non-androgynous women (Reagan, Baird, & Towson, 2009). Additionally, androgynous and masculine individuals are found to have more psychological resources than undifferentiated or feminine individuals (Lipinska-Grobelny, 2010). Compared to the other dimensions, undifferentiated and feminine characteristics seem to comprise most disadvantages.

Undifferentiated aspects are associated with low self-esteem, anxiety and depression (J. T. Spence et al., 1975; Thornton & Leo, 1992). Femininity is assumed to be the most constricting dimension (Bem et al., 1976). These constraints are related to behavior and attitudes of feminine women and men.

While androgynous individuals unify characteristics and behaviors of both feminine and masculine, the action repertoire of feminine individuals even compared with those of masculines is smaller. Also a relation between femininity, anxiety, and depression is presented by Thornton and Leo (1992).

As undifferentiated and feminine gender-role orientation form obviously the most discriminatory characteristics, undifferentiated and feminine individuals tend to have a great interest to stem these gender-roles (Lenton, Bruder, & Sedikides, 2009). However, it is not easy to breach them, especially when they are gender typed. Feminine women, for instance, risk social contempt and disadvantages when they behave contrary to their traditional gender-role (Lemus, Spears, Bukowski, Moya, & J., 2013). Although it is an improvement for feminine women to behave in a masculine manner, they feel uncomfortable while acting counter-stereotypical (Lemus et al., 2013). This conflict plays also an important role in the origins of the impostor phenomenon.

Gender-Role Orientation and the Impostor Phenomenon

The IP is founded on external variables and internal conflicts as explained in a previous section. Society, especially gender-role socialization, pressures individuals to act conform with gender types. Indeed, it is a challenge for women to be feminine in a predominant male-focused society. This is also an explanation for the fact that women are suffering from IP more intensive than men, while experiencing it at the same frequency (Clance & O'Toole, 1987). In addition, it is gender-stereotypically for men to go for success, while women suffer from gender-stereotypes, such as being less competent than men and unlikely to be a high-achiever or in a top career level (Clance & O'Toole, 1987). On the one hand, our achievement oriented society requires women to be successful, while on the other hand, they have to be feminine and act conform with female gender-stereotypes which convey them not to succeed in society. This is incompatible and therefore can explain why high-achieving women feel

like impostors. Moreover, femininity of successful women is questioned and as a result it is a “fearsome venture” for women to be successful (Clance & Imes, 1978). According to Clance, Dingman, Reviere, and Stober (1995), Eagly and Karau (2002), gender-role socialization as well as gender-role stereotyping form a “catalyst” for the development of the impostor phenomenon.

She further assumed, femininity and autonomy are two incompatible constructs (Clance & O’Toole, 1987). In addition, nurturing, which is deep rooted in women via female gender socialization, is conflicting with independence. How can individuals break these gender types and release themselves from societal gender discrimination? Besides inverting activation of stereotypes (Lemus et al., 2013), facilitation of feminine autonomy and self-determination contributes towards overcoming gender specific constrains. These aspects are contained in the construct *self-compassion* which forms an resilience factor for negative events and offers promising treatment approaches (Hupfeld & Ruffieux, 2011; Gilbert & Procter, 2006; Neff & Germer, 2013).

Self-Compassion

Self-compassion is a construct which is based on Buddhist psychology and is first described by Neff (2003). This construct is part of the personality that influences individual coping in situations of failure or in regard of ones’ own inadequacies.

Definition

Self-compassion is embedded in the more general construct *compassion*. Feeling compassion for others includes openness and awareness of their suffering as well as being kind and care for this persons’ health and well-being. Whereas self-compassion depends on ones’ own thoughts and feelings. However, this does not include selfish or egoistic behavior. Self-compassion explains more how understanding individuals treat themselves when they fail or in face of ones’ own inadequacy. Thus, feeling self-compassion entails caring for ones’ own health and well-being instead of punish oneself by being harsh and self-critical (Neff, 2003).

Components of Self-Compassion

Due to the development of the Self-Compassion Scale (see upcoming chapter)

Neff (2003) identifies three basic components of self-compassion:

- self-kindness rather than self-judgment
- common humanity rather than isolation
- mindfulness rather than over-identification

Self-kindness includes understanding for and acceptance of ones' own inadequacies. Individuals with high levels of self-kindness treat themselves friendly and patient instead of harsh self-criticism and self-judgment when they do not achieve a goal or make a mistake. The believe that failure is part of humanity like "to err is human" is included in the component *common humanity* and antithetic to the view that failure is a specific characteristic of one own which distinguishes between oneself and society. The last component of self-compassion, *mindfulness*, includes being aware of negative emotions. These emotions are perceived in a natural, interested but realistic manner without avoidance or over-identification. The information about negative emotions can be used to direct thoughts and set appropriate actions (Neff, 2003). Due to the neutralization of negative emotions and positive aspects such as self-kindness, self-compassion forms an effective emotional regulation strategy (Neff et al., 2005).

Consequences

Individuals who are highly self-compassionate experience numerous positive consequences of self-compassion. They not only report higher well-being and mental health (Neff & McGehee, 2010; Neff & Vonk, 2009) compared to low self-compassionate individuals, self-compassion is also a predictor of happiness, hopefulness and a positive affect (Neff, Kirkpatrick, & Rude, 2007). These are not only passive outcomes of high self-compassion levels, those individuals are

actively contributing towards maintaining or increasing their well-being as well as their potential (Neff et al., 2005). For instance the component *mindfulness* includes awareness of one's own feelings and conditions. It works like a monitoring system which alerts themselves when well-being is at risk and thus leads self-compassionate individuals to intervene. Moreover, self-compassion can be seen as an emotional resilience factor which helps individuals to cope with failure (Neff et al., 2005). According to MacBeth and Gumley (2012) self-compassion is associated with a decreased probability to experience stress, anxiety, or depression. Although, self-compassion is associated with self-esteem, which is not surprising because Neff (2011) suggests self-compassion as an alternative for self-esteem.

As self-compassion engenders numerous positive effects and fosters mental health, well-being, as well as resilience, its' facilitation forms an promising opportunity for training programs. The program *Mindful Self-Compassion*, developed by Neff and Germer (2013) to facilitate self-compassion within a eight-week group intervention. After six month and a follow up after one year, participants of the program report higher self-compassion, compassion for others, mindfulness and an increase of several well-being outcomes, such as life satisfaction. Gilbert and Procter (2006) tailor the program *Compassionate Mind Training* to individuals suffering from intense feelings of shame and harsh self-criticism. Within weekly workshops, participating in this training program not only leads to increased self-compassion but also decreases self-criticism, shame, feelings of inferiority, and depression. Smeets et al. (2014) assume that especially female college students benefit from interventions targeted at self-compassion. Thus, a brief self-compassion program was designed especially for female college students by those authors. In three weeks, this program results in an increase of self-compassion, mindfulness, self-efficiency, optimism as well as a decrease of rumination.

One reason for the assumption that women benefit more from facilitation of

self-compassion is that women are less self-compassionate than men (Neff, Pisitsungkagarn, & Hsieh, 2008; Neff & McGehee, 2010). This is also conform with the gender stereotype that men are less vulnerable than women. Another explanation lies in the experienced consequences involved in self-compassion. For instance, women are more suffering from anxiety and depression than men (Faravell, Scarpato, & Lo Sauro, 2013), whereas men report higher levels of self-esteem (Diseth, Meland, & Breidablik, 2014).

Self-Compassion and the Impostor Phenomenon

Due to the engagement with self-compassion, it becomes obvious how close the link between this construct and the impostor phenomenon is. So far, there has been no research about the link between those constructs, even though there are good theoretical reasons to believe that there is an inverse relation between self-compassion and the impostor phenomenon.

While women suffer more from the impostor phenomenon, they report lower levels of self-compassion. Whereas men seem to be more self-compassionate and less vulnerable to suffering from the impostor phenomenon. In addition, the consequences of both constructs are the same or very similar, such as well-being, self-efficiency, self-esteem, anxiety, or depression. However, the relation is inverse. IP sufferers report low well-being, self-efficiency, and mental health, while self-compassionate individuals show high levels of well-being, self-efficiency, and mental health. Additionally, self-compassionate individuals are not likely to experience anxiety or depression. The impostor phenomenon however, can be accompanied by anxiety or depression. Furthermore, self-compassionate individuals are associated with perceiving themselves as competent and self-efficient (Neff et al., 2005; Turner, Husman, & Schallert, 2002). IP sufferers have huge problems with perceiving themselves as competent. They do not believe in their capability and therefore feel like impostors who do not deserve their success. They are driven by the fear of getting unmasked by others so they

avoid any kind of failure. For IP sufferers failure, especially when others observe this situation is accompanied with anxiety, self-doubts, and harsh self-criticism. Self-compassionate individuals however, are able to cope with failure due to emotional resiliency of self-compassion (Neff et al., 2005). Failure is no threat for them, they use it as a learning opportunity and are motivated to try again (Neff & Vonk, 2009). Moreover, individuals with high self-compassion treat themselves understanding and kind, without isolation or over-identification with ones' own inadequacies when facing failure. They have the ability to positively reinterpret a situation afterwards, that helps them overcoming negative thoughts and react appropriately (Neff et al., 2005). Fear of failure as well as fear and avoidance of new challenges are characteristics of the impostor cycle and reasons why it is so hard to break through. Might self-compassion help IP sufferers to break the impostor cycle? As the facilitation of self-compassion forms an effective way to support individuals, suffering from negative self-view, fosters the ability to cope with failure, and reduce self-doubts, it is a promising opportunity to help IP sufferers in overcoming their impostor feelings (Neff & McGehee, 2010).

Research Questions and Goals of the Present Study

The aim of the present study is to bridge the research gap between regarding the relationship between the impostor phenomenon, gender-role orientation, and self-compassion. The first two research questions arise from the conflicting findings in the research community regarding sex differences in suffering from the impostor phenomenon (Bernard et al., 2002; J. R. Ferrari & Thompson, 2005; Jöstl et al., 2012; Kumar & Jagacinski, 2006; McGregor et al., 2008; Topping, 1983). With focus on gender-role orientation a better understanding about these differences should be achieved. The investigation of the relationship between the impostor phenomenon and self-compassion should illustrate the connection between these constructs and might be a hint for an appropriate method to help IP sufferers in overcoming their impostor feelings or prevent individuals at risk

to suffer from the IP. As there has been no research on the relationship between the impostor phenomenon, gender-role orientation, and self-compassion, the present study should reveal this relation by testing a theoretically derived model comprising these constructs.

In the framework of research question one (Is there a relationship between sex and the impostor phenomenon?), it should be investigated, whether or not women and men differ from each other in suffering from the impostor phenomenon. There are conflicting assumptions in the research community about sex differences regarding the impostor phenomenon (Bernard et al., 2002; J. R. Ferrari & Thompson, 2005; Jöstl et al., 2012; Kumar & Jagacinski, 2006; McGregor et al., 2008; Topping, 1983). However, there has been done no research yet, focusing on sex differences in suffering from the IP of university freshman students in Vienna. Thus, this question should be answered for university freshman students in Vienna. Due to the parallels between the barriers built by the impostor phenomenon and stereotypical constraints women suffer from (Clance & O'Toole, 1987; Eagly & Karau, 2002), it is hypothesized that female freshman students suffer more from the IP than male freshman students.

The conflict regarding sex differences in IP suffering might be answered by investigating these differences on a less superficial level, for instance with focus on gender-role orientation. Gender-role orientation allows a more differentiated view on gender differences in suffering from the impostor phenomenon. They not only comprise four dimensions but also are chosen by the individuals themselves due to their attitudes and behaviors (Bem, 1974; J. T. Spence et al., 1975).

Therefore, gender-role orientation allows a more realistic view on gender differences and the question *Is there a relationship between the impostor phenomenon and gender-role orientation?* (research question two) arises.

As there are theoretical reasons to believe androgynous and masculine gender-roles are more beneficial than feminine and undifferentiated aspects (Bem et al., 1976; Lipinska-Grobelny, 2010; Reagan et al., 2009; J. T. Spence et al.,

1975; Thornton & Leo, 1992), it is hypothesized that androgynous and masculine individuals are less likely to suffer from the IP than feminine or undifferentiated individuals.

In the framework of research question three (Is there a relationship between the impostor phenomenon and self-compassion?), the relationship between the impostor phenomenon and self-compassion should be investigated. As this has not been researched yet, this study should allow new insights. Moreover, self-compassion is a construct which is promising for interventions and contribute towards maintaining well-being and mental-health (Gilbert & Procter, 2006; MacBeth & Gumley, 2012; Neff, 2011; Neff et al., 2007; Neff & McGehee, 2010; Neff & Vonk, 2009; Smeets et al., 2014). As described in a previous chapter there are numerous similarities observable between the impostor phenomenon and self-compassion. It seems, there is a inverse link between these two constructs. Thus, an inverse relation between the impostor phenomenon and self-compassion is hypothesized.

To investigate the relationship between the impostor phenomenon, gender-role orientation, and self-compassion a model is derived from theoretical backgrounds of these constructs to model the relation between all constructs.

As described above, masculine individuals are assumed to score higher on self-compassion and are less affected by the impostor phenomenon than female individuals (Jöstl et al., 2012; Kumar & Jagacinski, 2006; McGregor et al., 2008; Neff & McGehee, 2010; Neff et al., 2008). Self-compassion is expected to be inverse related to the impostor phenomenon. Due to the fact that self-compassion is accompanied by numerous positive effects such as mental-health, well-being, and less psychological distress (Neff & McGehee, 2010; Neff & Vonk, 2009; MacBeth & Gumley, 2012), it might be a resilience factor for the impostor phenomenon. Thus, beside the direct effects between all constructs, an indirect effect with self-compassion as mediator between gender-role orientation and the impostor phenomenon is hypothesized. In the framework of

research question four (Is self-compassion as mediator between gender-role orientation and the impostor phenomenon?) it should be investigated, if self-compassion mediates between gender-role orientation and the impostor phenomenon.

Methods

Study Design

The present survey was designed as cross section online survey of undergraduates in their first year of study. The questionnaire was implemented in the online survey tool *Unipark*. To assure the quality of the questionnaire, it was tested by three psychology students and three students of other fields, in the framework of a pretest investigation. The feedback of this pretest investigation was integrated in the questionnaire.

The survey was started on January 28, 2014 and ended on February 28, 2014.

The link which lead to the questionnaire was sent by e-mail to all freshman students in Vienna, enrolled in winter term 2013. In total 945 people began to answer the questionnaire. With a completion rate of 72 percent, 676 people completely answered the questionnaire.

Sample

From 676 participants, 438 were women (65 percent) and 238 were men (35 percent), and the age ranged between 17 and 65 years ($Md = 20$, $SD = 5.80$).

As the entire sample included not only IP sufferers but also real impostors who are not subject of the present study, those were deleted from the sample. To make sure that people, scoring high in the Clance Impostor Phenomenon Scale (described below) are high-achievers (which is a necessary requirement for being affected by the IP), the grades of the school leaving examination were asked and a grade point average (median) was calculated over these grades. In the following sample, only students with a grade point average less than or equal 2.0

were retained. Additionally, only undergraduates studying in their first year of study at a University in Vienna were selected.

The resulting sample was the foundation of the following analysis and included 459 students. 315 (69 percent) of them were female and 144 (31 percent) were male students who were 17 to 65 years old ($Md = 19$, $SD = 5.60$). Most of the freshman students (330) studied at the University of Vienna, while 70 were enrolled at the Technical University of Vienna and 32 at the Vienna University of Economics and Business. Twenty-two students studied at the Medical University of Vienna and the remaining five undergraduates studied at other universities in Vienna.

The branches of study were categorized by the International Standard Classification of Education (ISCED 97), published by UNESCO (1997) which is visualized in Table 1.

Table 1

Branches of study categorized by ISCED 97 according to UNESCO (1997).

branch of study	number of students	percentage of students
agriculture	1	0
education	60	13.1
engineering	16	3.5
health and welfare	26	5.7
humanities and arts	93	20.3
natural sciences	102	22.2
social sciences, economy and law	157	34.2
other	4	1.0

The high percentage of women in the sample was not astonishing. Most of the participants studied at the University of Vienna, where 64.27 percent of freshman students enrolled in winter term 2013/2014 were female (Bundesministerium für Wissenschaft, Forschung und Wirtschaft, 2015).

In order to visualize the relevance of the impostor phenomenon for the present sample, participants were categorized in four groups of IP intensity, according to Clance (1985). The allocation of the sample in these categories are illustrated in Table 2.

Table 2

IP intensity experienced by the present sample, categorized according to Clance (1985).

	IP intensity			
	low	moderate	frequent	strong
number of students	62	213	142	42
percentage of students	13.5	46.4	30.9	9.2

Gender-role orientations of participants of the present sample are illustrated in Table 3. Those were allocated to four dimensions of gender-role orientation: androgynous, feminine, masculine and undifferentiated, using the median-split method (described below) according to J. T.T. Spence and Helmreich (1972). Self-compassion was reported as shown in Table 4. Taking in consideration, that scores can range between zero and four as the instrument to measure self-compassion had to be answered on a five-point scale as described below.

Survey Instruments

The questionnaire (appendix 1) comprised 14 pages and started with welcoming the participants and a briefly explanation about the main contents. Afterwards, questions about socio-demographical variables, including personal variables (age, gender, highest educational attainment, origins, and mother tongue) as well as variables addressing the study context, such as the university currently enrolled at, major and current semester. The scales described below were used to operationalize the constructs: impostor phenomenon, self-compassion and gender-role orientation.

Table 3
Gender-role orientations of the present sample categorized by median-split according to J. T.T. Spence and Helmreich (1972)

	gender-role orientation			
	androgynous	feminine	masculine	undifferentiated
all participants (%)	16.3	27.0	27.5	29.2
female participants (%)	17.1	29.5	24.8	28.6
male participants (%)	14.6	21.5	33.3	30.6

The items in all scales had to be answered on a five-point-scale from 1 "not at all true" ["überhaupt nicht zutreffend"] to 5 "very true" ["absolut zutreffend"]. To avoid order effects, the scales as well as all included items were presented to the participants in random order.

The questionnaire ended with a self-estimation on the participants' academic achievement and the optional question on the grades in their school leaving examination.

Clance Impostor Phenomenon Scale. The impostor phenomenon was measured with the German translation of the Clance Impostor Phenomenon Scale (CIPS) (Wiesner, 2011). Within this scale, 20 statements such as "Sometimes I'm afraid others will discover how much knowledge or ability I really lack" ["Manchmal habe ich Angst, dass die Anderen merken, wie wenig ich eigentlich weiß oder kann"] had to be ranked by the participants. In the present study Cronbach's $\alpha = .90$ showed that the CIPS is highly reliable.

The scale classifies the impostor phenomenon in four groups, depending on the reached scores, from low impostor experiences (scores between 20 and 40) over moderate IP characteristics (scores: 40 – 60), frequent impostor feelings (scores: 60 – 80) to suffering from numerous and strong impostor feelings (scores: 80 – 100).

To make the scale more appropriate for freshman students, item nine:

Table 4

Characteristics of self-compassion in the present sample.

	self-compassion		
	all participants	female participants	male participants
<i>M</i>	1.96	1.91	2.07
<i>SD</i>	0.52	0.51	0.54

“Sometimes I feel or believe that my success in my life or in my job has been the result of some kind of error” [“Manchmal glaube ich, dass mein beruflicher Erfolg durch einen Irrtum zustande gekommen ist”] was supplemented by success in school [“... schulischer / beruflicher Erfolg ...”].

Self-Compassion Scale Deutsch. The Self-Compassion Scale Deutsch (Hupfeld & Ruffieux, 2011) is an instrument to measure self-compassion. This scale consists of 26 items such as “I try to be understanding and patient towards those aspects of my personality I don’t like” [“Ich versuche verständnisvoll und geduldig gegenüber jenen Zügen meiner Persönlichkeit zu sein, die ich nicht mag”] which should have been stated by the participants depending on their acceptance or denial. In the present study a high reliability of $\alpha = .89$ was calculated for this instrument. The positive and negative aspects of each component of self-compassion are contrasted by the following six sub-scales:

- self-kindness versus self-judgment [selbstbezogenen Freundlichkeit versus Selbstverurteilung],
- common humanity versus isolation [verbindliche Humanität versus Isolation],
- mindfulness versus over-identification [Achtsamkeit versus Überidentifizierung].

Gender Trait Approach. To operationalize gender-role orientation, the German instrument Gender Trait Approach (Niepel & Kranz, in press) which is

based on the German version of Bem Sex-Role-Inventory short form (BSRI) (Schneider-Düker & Kohler, 1988) was used. As the instrument is more economic and possessed acceptable reliability (Cronbach $\alpha = .78$), this instrument was selected for the present study. Included are 12 characteristics such as “I’m ambitious” [“Ich bin ehrgeizig”] which are either socially desirable for men (sub-scale: masculine) or women (sub-scale: feminine). Those items had to be ranked by the participants.

The scores on each of the two sub-scales were calculated independently. With the median-split-method by J. T.T. Spence and Helmreich (1972) it is possible to allocate the participants to four groups of gender-role orientation: feminine, masculine, androgynous and undifferentiated. For every participant the arithmetic mean was calculated for each of the two sub-scales. The two split-points C_s are then determined by the median value of each sub-scale mean:

$$C_s := \text{median}_j \left\{ \frac{1}{P_s} \sum_{i \in I_s} X_{ij} \right\} \quad s \in \{\text{sub-scale-masculine}, \text{sub-scale-feminine}\} \quad (1)$$

where P_s is the number of items in sub-scale s , I_s is the set of items in sub-scale s , and X_{ij} is participant j ’s score of item i . The allocation to one of the four groups as shown in Table 5 is done by comparing the participant’s sub-scale means with the split points C_s .

Table 5

Gender-role orientations due to the median-split method by J. T.T. Spence and Helmreich (1972).

feminine			
masculine	low		high
	low	undifferentiated	feminine
	high	masculine	androgynous

Analytical Methods

In order to analyze the data and answer the research questions, the following statistical methods were applied with the software environment for statistical computing R: product-moment-correlation, t-test, χ^2 -test, Monte Carlo simulation significance test, Kolmogorov-Smirnov test, ordered linear regression, and path analysis (with bootstrapping).

The hypotheses were tested with a consistent significance level $\alpha = .05$. However according to Cohen (1992), p -values between .05 and .15 are interpreted as trend. Furthermore, effect sizes (Cohen's d , Cohen's ω) were calculated and specified as small, medium, or large effect according to Cohen (1992) (Table 6).

Table 6

Interpretation of effect sizes according to Cohen (1992)

test	index	effect size		
		small	medium	large
χ^2 -test	ω	.10	.30	.50
t-test	d	.20	.50	.80
correlation	r	.10	.30	.50

In order to quantify the goodness of fit of the fitted models for path analysis (see Research Question 4), Akaike information criterion (AIC) as well as Bayesian information criterion (BIC) were used.

Results

Research Question 1: Relationship between sex and the impostor phenomenon

Pearson's χ^2 -Test was used to measure the relationship between sex and IP.

The χ^2 -test is a statistical method for categorical data to test whether two variables are independent (Agresti, 2007, p. 34). In this case the test was used to

juxtapose variables sex and the variable which contains four stages of intensity of impostor feelings. The test statistic $\chi^2(3) = 8.595$ which corresponds to $p\text{-value} = .035$ was calculated. The $p\text{-value}$ is less than the significance level $\alpha = .05$, hence the hypothesis of no relationship is rejected in favor of the alternative hypothesis (“there is a relationship between sex and IP”). Additionally, Cohen’s ω was used to specify the effect size for the χ^2 -test according to Cohen (1992). With $\omega = .138$ the effect size is classified as small effect (Cohen, 1992).

Monte Carlo Simulation Significance Test can be used without any assumptions on the underlying distribution of the test statistic and hence is an alternative to the χ^2 -test, because the test statistic χ^2 is only approximately χ^2 distributed (Hope, 1968). The χ^2 -test-statistic obtained from the original data is compared with χ^2 -test-statistics obtained from numerous different samples randomly drawn from the distribution under the null hypothesis. The $p\text{-value}$ is then the proportion of simulated χ^2 -test-statistics larger than the original $p\text{-value}$. With 5000 simulated samples, Monte Carlo simulation significance test resulted in a similar $p\text{-value}$ of $p = .034$. Thus, the null hypothesis was rejected and the alternative hypothesis was accepted. Thus, sex is associated with the intensity of the impostor phenomenon. As illustrated in Figure 2, female freshman students suffer more from the impostor phenomenon than male freshman students.

Research Question 2: Relationship between gender-role orientation and IP

Pearson’s χ^2 -Test was calculated to specify the relationship between the two categorical variables gender-role orientation (feminine, masculine, androgynous, and undifferentiated) and IP intensity. With $\chi^2(9) = 12.941$ and $p = .165$, the null hypothesis, the two variables are independent, is accepted.

Monte Carlo Simulation Significance Test was applied to test the

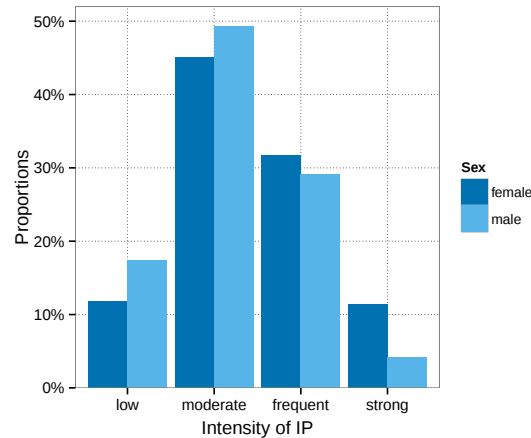


Figure 2. The relationship between sex and the impostor phenomenon

relationship between gender-role orientation and IP intensity without any assumptions on the distribution of the test statistic. With 5000 simulated samples, the p -value was estimated as $p = .1542$. Equal to the result of the χ^2 -test, the p -value is greater than the significance level α and therefore the null hypothesis is accepted. Accordingly, there is no relationship between the four groups of gender-role orientation and the intensity of IP feelings as shown in Figure 3.

Pearson's Product-Moment Correlation is a method to quantify the relation between two interval variables. The relation between the mean of impostor feelings and the mean on the feminine sub-scale ($r = .10$, $p = .027$) respectively the mean on masculine sub-scale ($r = -.18$, $p < .001$) are both classified as significant and small effects (Cohen, 1992). Thus, femininity is positively correlated with the impostor phenomenon while masculinity is negatively associated with the IP.

Research Question 3: Relationship between self-compassion and the impostor phenomenon

Kolmogorov-Smirnov Test is a statistical method to compute the deviation from a hypothesized underlying distribution function to the empirical distribution function observed (Lehmann & Romano, 2005, p. 589). Here, the

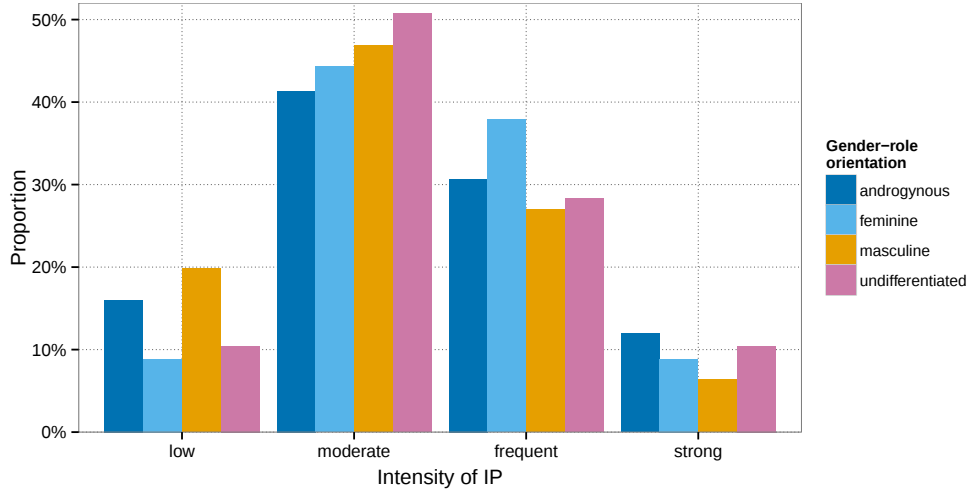


Figure 3. The relationship between gender-role orientation and the impostor phenomenon

Kolmogorov-Smirnov test was used to test whether or not the mean of the self-compassion scale follows a normal distribution for each IP intensity as this is required for validity of the t-test (described below). The resulting test statistics and p -values are presented in Table 7. Because the p -values are all greater than the five percent significance level α the null hypothesis is accepted for each IP intensity. Consequently, the present data is normally distributed and the requirement for the t-test is fulfilled. The estimated density functions of the considered data are visualized in Figure 4, where the density functions are drawn vertically to illustrate the similarity with the Gaussian bell curve and simultaneously the differences between IP intensities.

Boxplots are methods to visualize the difference or similarity between groups, like pictured in Figure 5. Due to the fact that many of the notches are overlapping, a significant difference between the group medians can be assumed.

Welch's t-Tests were conducted to quantify the indicated significant difference between the medians of self-compassion within the four levels of IP intensity. The Welch's t-test is used when the variances in the two groups are unequal. Thus, three t-tests (p-adjusted) were conducted to calculate the difference between the mean of self-compassion for two consecutive levels of IP intensity.

Table 7

Kolmogorov-Sminrov test statistics for the normality test of self-compassion means by different levels of IP intensity

	Intensity of IP			
	low	moderate	frequent	strong
D	0.080	0.035	0.046	0.107
p -value	.826	.960	.923	.719

First, the difference between the mean of self-compassion in the IP levels low and moderate was calculated and resulted in the test statistic $t(106.811) = 4.981$ and $p < .001$ and a medium effect size (Cohen's d) $d = .69$. Because of the p -value being nearly zero, the null hypothesis is rejected and the alternative hypothesis (the mean of self-compassion is greater for low IP intensity) is accepted. The same procedure was used to compare the mean of self-compassion between moderate and frequent ($t(311.371) = 6.210$; $p < .001$, $d = .67$) as well as between frequent and strong IP intensity ($t(60.423) = 5.282$; $p < .001$, $d = 1.00$). The mean of self-compassion is significantly different between the IP intensity groups moderate and frequent with a moderate effect size. Difference in self-compassion mean between frequent and strong IP intensity showed a large effect size and was significant. Therefore, the mean in self-compassion is significantly lower, the stronger intensity of IP.

Ordered Logistic Regression is an analytical method which enables the analysis of the relationship between one or more independent variables and an ordinal, multilevel dependent variable. Based on the order of the response categories, ordered logits are easy to construe. The odds ratio, which is the test statistic, describes how much more likely the probability to observe one or another category of the outcome variable is, when the independent variable increases by one. The odds ratio is a value between zero and infinity (Agresti, 2007, p. 180). In this survey, self-compassion was the independent variable and

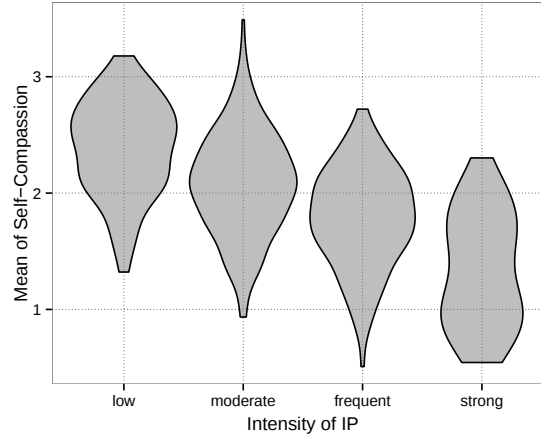


Figure 4. Density functions of self-compassion mean by IP intensity

IP intensity (levels order from low to strong) formed the dependent variable.

The resulting parameter $OR = 0.106$ lies in the confidence interval

$CI = [.071; .156]$ with a probability of 95 percent. This means, if the score of self-compassion increases by one, the chance to experience IP with lower intensity is 9.43 times as high.

Research Question 4: Self-Compassion as mediator between gender-role orientation and the Impostor Phenomenon

Path analysis is a specification of structural equation modeling which allows to unveil direct and indirect (over a mediator variable) effects between variables in a theoretical model. As described in a previous section, the developed model contained the relation between the independent variable gender-role orientation, which was divided into feminine and masculine, over the mediator variable self-compassion to the dependent variable impostor phenomenon. The following path analyses should expose whether or not self-compassion acts as mediator between gender-role orientation and IP. In Figure 6, the basic model including all considered paths is shown. Additional to the point estimates obtained by path analysis, 95 percent confidence intervals were estimated for each effect via bootstrapping. Bootstrapping is a process in which a new sample is generated by randomly selecting observations with replacement from the original sample

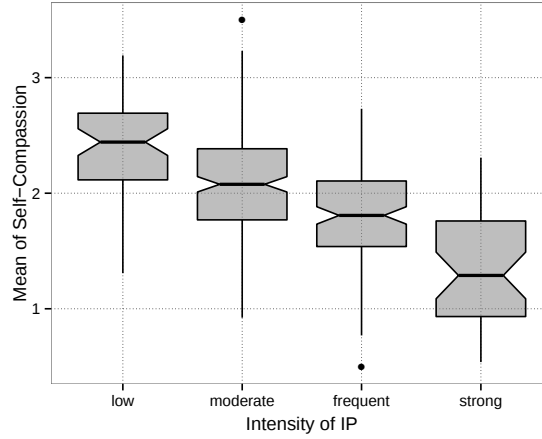


Figure 5. Boxplots of self-compassion mean by IP intensity

(Efron & Tibshirani, 1993).

Model 1 which is shown in Figure 7a included the complete sample ($n = 459$). All direct effects but the relationship between masculine gender-role orientation and the impostor phenomenon were significant.

The largest direct effect was observed between self-compassion and the impostor phenomenon with $de = -.820$ ($CI = [-.923; -.708]$; $p < .001$). This quantifies the strong inverse link between self-compassion and the impostor phenomenon. Gender-role orientation (femininity and masculinity) was directly related with self-compassion. Both direct effects (femininity: $de = .079$; $CI = [.009; .155]$; $p = .024$; masculinity: $de = .143$; $CI = [.072; .212]$; $p < .001$) were low but significant. Furthermore, femininity and IP were low but significantly associated with each other ($de = .163$; $CI = [.073; .251]$; $p < .001$). The only insignificant direct effect was the relation between masculine and IP ($de = -.063$; $CI = [-.156; .028]$; $p = .135$), but according to Cohen (1992), this can still be interpreted as trend.

The indirect effects in the model are interesting for the link between gender-role orientation over self-compassion to IP. The indirect effect between feminine and IP ($ide = -.065$; $CI = [-.128; -.007]$) as well as the indirect effect between masculine and IP ($ide = -.117$; $CI = [-.178; -.058]$) were both significant as the 95 percent confidence interval does not contain zero. Thus, self-compassion

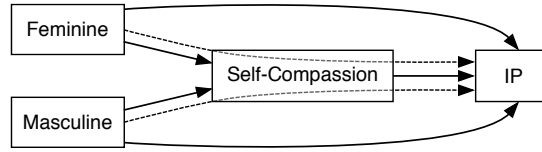


Figure 6. Basic path model

mediated between gender-role orientation and the IP. The model fit is quantified by $AIC = 20$ and $BIC = 2.034 \times 10^{-13}$. As AIC is very small and BIC is nearly zero, the fit of model one to the data is very good. For an overview of the fit of all models see Table 8.

In conclusion, an indirect relation between gender-role orientation (divided in feminine and masculine) and IP was found. Additionally, self-compassion mediated between masculinity, femininity and IP. The only non-significant direct effect was found in the relation between masculinity and the impostor phenomenon.

By applying the assumed model separately for women (model 2) and men (model 3), the difference between traditional gender-role orientation (feminine oriented women and masculine oriented men) and non-traditional gender-role orientation (masculine oriented women and feminine oriented men) is observable. According to gender-role orientations, model 2 which includes just female participants and model 3 which includes just male participants, is more insightful than model 1 (all participants are included).

Model 2 included only female participants ($n = 315$). This model is illustrated in Figure 7b.

Non-significant direct effects were observed between feminine gender-role orientation and self-compassion ($de = .072$; $CI = [-.025; .168]$; $p = .105$) as well as between masculine gender-role orientation and the impostor phenomenon ($de = -.011$; $CI = [-.123; .102]$; $p = .834$). Thus, femininity was not related to self-compassion and masculinity was not associated with the impostor phenomenon in female freshman students. Nevertheless, the insignificant relation between feminine gender-role orientation and self-compassion can be interpreted

Table 8

Model fit indices

	model 1	model 2	model 3
AIC	20	20	20
BIC	2.034	1.241	$.715 \times 10^{-12}$

as trend (Cohen, 1992). All other direct effects were significant. Self-compassion was highly related with the impostor phenomenon ($de = -.891$; $CI = [-1.018; -.752]$; $p < .001$). However, this relation was negative which illustrate the inverse link between self-compassion and IP. Moreover, the relation between masculine gender-role orientation and self-compassion are explained by low direct effects ($de = .133$; $CI = [.048; .224]$; $p < .001$). The direct effect between femininity and IP was also low but significant ($de = .166$; $CI = [.042; .288]$; $p = .004$). Thus, femininity is positively associated with the IP. The only significant indirect effect was between masculine gender-role orientation and IP ($ide = -.119$; $CI = [-.210; -.039]$), whereas the indirect effect between feminine and IP was insignificant ($ide = -.064$; $CI = [-.154, .023]$). Thus, self-compassion mediates between masculinity and the impostor phenomenon. Femininity, however was not related to the impostor phenomenon over self-compassion.

The model fit ($AIC = 20$ and $BIC = 1.241 \times 10^{-11}$) is very similar to the fit of model 1, despite the lower sample size.

To draw a conclusion, model 2 showed an indirect effect between masculine gender-role orientation and the impostor phenomenon. Thus, self-compassion mediated between masculinity and the impostor phenomenon. Each direct path except the relation between feminine and self-compassion as well as masculine and IP had significant direct effects.

Model 3 included exclusively male participants ($n = 144$) and is shown in Figure 7c.

Except for the relation between feminine gender-role orientation of men and the impostor phenomenon ($de = .107$; $CI = [-.050; .315]$; $p = .128$), all direct effects were significant. Even though this effect is not significant, it can be interpreted as trend (Cohen, 1992). The smallest direct effects in model 3 were observed between feminine gender-role orientation and self-compassion ($de = .139$; $CI = [-.081; .290]$; $p = .017$) and masculine gender-role orientation and self-compassion ($de = .153$; $CI = [-.053; .338]$; $p = .004$). Thus, gender-role orientation was associated with self-compassion in both dimension. Additionally, a significantly negative direct effect ($de = -.196$; $CI = [-.392, -.010]$; $p = .011$) described the relation between masculine gender-role orientation and the impostor phenomenon. Between self-compassion and IP, a very high inverse link ($de = -.643$; $CI = [-.842, -.437]$; $p = .004$) was observed.

The observed indirect effects in model 3 were similar to each other and not significant. The indirect path from feminine gender-role orientation over self-compassion to IP showed an $ide = -.089$ ($CI = [-.213, .031]$), while the path between masculine gender-role orientation and the impostor phenomenon, mediated by self-compassion, resulted in an $ide = -.099$ ($CI = [-.222, .034]$). Which means that self-compassion did not mediate between gender-role orientation and IP in male freshman students. Furthermore, the model fit ($AIC = 20$, $BIC = 1.715 \times 10^{-12}$) was again similar to models 1 and 2 very good.

To conclude, both indirect effects were insignificant and therefore self-compassion did not mediate between gender-role orientation and the impostor phenomenon when only men are considered. Except for the relation between feminine gender-role orientation and IP, all direct effects were significant.

Discussion

The aim of the present study was to bridge the research gap between the impostor phenomenon, gender-role orientation, and self-compassion by

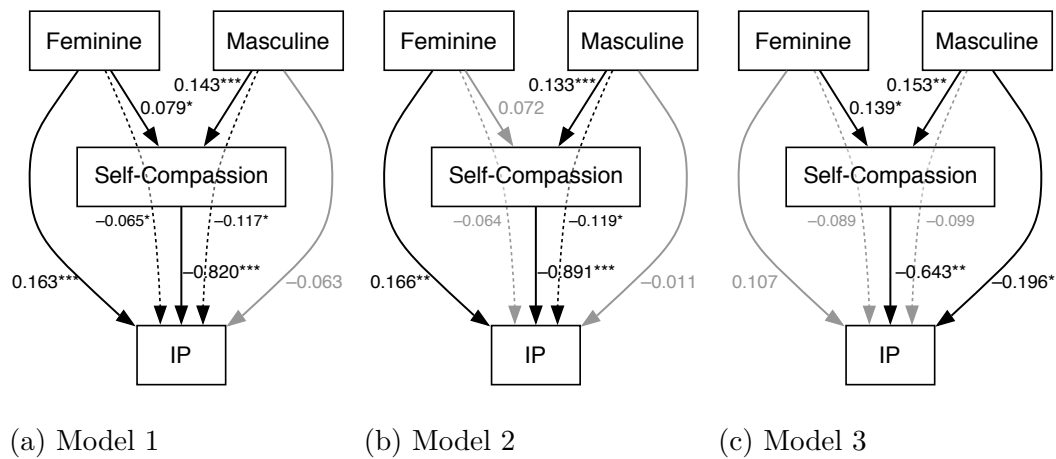


Figure 7. Path models for all participants (model 1), female participants (model 2), and male participants (model 3).

investigating the relationship between these constructs in university freshman students in Vienna.

This sample was selected because of the crucial time, the transition from secondary to tertiary education forms. The transition is a challenging situation for university freshman students which can result in drop-out (Heublein & Wolter, 2011). Thus, it is an determining time for future careers and might be a fertile ground for the impostor phenomenon. Due to the fact that 86.5 percent of freshman students (see 2) in the present study suffer at least from moderate impostor feelings, the relevance of the impostor phenomenon for this sample is obvious.

Conclusion and Interpretation of Results

The first goal of the present study was to investigate sex differences in suffering from the impostor phenomenon. A small but significant sex difference was found in freshman students suffering from the impostor phenomenon. Female freshman students are more likely to experience the impostor phenomenon on higher levels than male freshman students. This result was supported by a χ^2 -Test and further backed by Monte Carlo simulation. Moreover, it also conforms with the suggestion of Clance and Imes (1978) that the impostor phenomenon is a

predominant female construct as well as numerous research findings which assume that women suffer more from the impostor phenomenon than men (Jöstl et al., 2012; Kumar & Jagacinski, 2006; McGregor et al., 2008).

Although there is an ongoing debate about sex differences in suffering from the impostor phenomenon, there are theoretical reasons to believe that women suffer more from the IP than men. With focus on the consequences of the impostor phenomenon, negative consequences such as low self-efficiency, anxiety or depression are more likely to be experienced by female IP sufferers (Bernard et al., 2002; Clance & Imes, 1978; Clance, 1985; Flett & Hewitt, 2002; Jöstl et al., 2012; McGregor et al., 2008; September et al., 2001). These effects however, might be explained by investigation of sex differences on a less superficial level, such as gender-role orientation.

The author of the present study assumes that the conflict in the research community regarding sex differences in suffering from the IP can not be solved by focusing on the biological sex. To get a better understanding about these differences, it is necessary to investigate them more differentiated. As gender-role orientation is a construct which involves internal factors such as internalized gender-stereotypes as well as external factors such as the social environment, gender-role orientation allows a categorization of individuals concerning their attitudes, behaviors, and their current self-perception (Bem, 1974). Therefore, a more precise picture of gender can be drawn. However, in the present study no significant relation between gender-role orientation within the four dimensions androgynous, feminine, masculine, as well as undifferentiated, and the impostor phenomenon was observed. In reducing the characteristics to only *feminine* and *masculine*, small and significant effects were observed. Female freshman students are positively associated with the impostor phenomenon ($r = .10$) while male freshman students are negatively correlated with suffering from the impostor phenomenon ($r = -.17$).

This result conforms with the hypothesized relation between gender-role

orientation and the impostor phenomenon. There are numerous positive effects related to masculine gender-roles while femininity seems to be accompanied by negative consequences and gender-stereotypical constraints, especially for female feminines. However, the non-significant relation between the four dimensions of gender-role orientation and the impostor phenomenon is counterintuitive and contrary to the hypothesis. To measure gender-role orientation, Gender Trait Approach (Niepel & Kranz, in press), based on the short form of Bem Sex-Role-Inventory (see in a previous chapter) was used. Compared to Gender Trait Approach, the original version of Bem Sex-Role-Inventory (Bem, 1974) contains, besides attitudes social desirable for women and men, a neutral sub-scale including attitudes which are equally social desirable for both sexes. In addition, the original version is, with its 60 items, much more detailed. The explanation of the counterintuitive result might lie in the used instrument to measure gender-role orientation. It is possible that this short instrument (including 12 items) did not suffice for the aspired differentiated perspective on gender-role orientation.

The impostor phenomenon and self-compassion are two constructs which so far have rarely been empirically connected with each other. Therefore, the investigation of the relationship between the impostor phenomenon and self-compassion was the third goal of the present study. As there are numerous theoretical similarities between those constructs, an inverse link between the impostor phenomenon and self-compassion was hypothesized.

Due to the visualization via boxplots, the first hint of a relationship between the impostor phenomenon and self-compassion in the hypothesized direction was given. Results of t-tests as well as ordered logistic regression underlined this observation. The median of self-compassion differ significantly for all levels of the impostor phenomenon (low, moderate, frequent, strong) with a medium effect size. These results are supported by the outcome of ordered logistic regression with an odds ratio of $OR = .10$. In conclusion, there is not only a

medium effect describing a significant, inverse relationship between the impostor phenomenon and self-compassion, but there are also interpretations regarding the direction of this relationship. If the score of self-compassion increases by one, it is more likely to fall within a higher level of IP intensity. Thus, higher scores of self-compassion are associated with lower levels of experiencing the impostor phenomenon. These outcomes indicate, that self-compassion might be an effective prevention of the impostor phenomenon. In order to support sufferers from the impostor phenomenon in overcoming their impostor feelings, an intervention to increase self-compassion might be an appropriate method. Numerous aspects of the impostor phenomenon such as fear of failure, denial of competence, and self-doubts are directly targeted by self-compassion. Other characteristics of the impostor phenomenon are indirectly concerned by self-compassion. For instance, fear of and guilt about success is facilitated by the ability of self-compassionate individuals to perceive themselves as competent, their self-kindness as well as their high self-esteem. Additionally, self-compassion might help IP sufferers to break the impostor cycle. As self-compassionate individuals are not only able to cope with failure, but also see failure as a learning opportunity and are more likely to try again (Neff et al., 2005), an important aspect of the impostor cycle, *fear*, is omitted. Moreover, the ability to perceive themselves as competent might help IP sufferers to attribute their success to their capability instead of external factors like luck or effort. Thus, fear of the next challenge is defeated and as a result individuals suffering from the impostor phenomenon are released of this vicious circle.

To get new insights about the relationship between the impostor phenomenon, gender-role orientation, and self-compassion, this relationship was investigated by the present study. In doing so, a model was inferred from theoretical background. It was hypothesized that self-compassion mediates between gender-role orientation and the impostor phenomenon. To get a better understanding about the relationship between these constructs and to allow the

differentiation between traditional gender-role orientation and non-traditional gender-role orientation, the assumed model was applied separately to the entire sample (model 1), female freshman students (model 2) and male freshman students (model 3). Because of the better model fit for two characteristics of gender-role orientation (femininity and masculinity) instead of four, those were used in the assumed models.

With focus on the direct effect between gender-role orientation and self-compassion, an interesting effect is observable. As discussed before, there are sex differences regarding the characteristics of self-compassion. Men are more likely to be self-compassionate than women (Neff, 2003; Neff et al., 2005). Additionally, it is assumed that masculine individuals score higher on self-compassion than feminine individuals. The observed results of the path analysis models, conform these assumptions. In model 1 the direct effect between femininity and self-compassion is lesser than the direct effect between masculinity and self-compassion. The same effect is observable when comparing female freshman students and male freshman students. While both direct effects between gender-role orientation and self-compassion are significant for male freshman students, for female freshman students, only the direct effect between masculinity and self-compassion is significant but lesser than in model 3 (male freshman students). In model 3 both direct effects for masculine ($de = 0.14$) and feminine ($de = 0.15$) male freshman students are both significant and higher compared to the other models. This, considering the lesser direct effect ($de = 0.08$) between femininity and self-compassion in the entire sample (model 1) reflects previous findings that men are more self-compassionate than women (Neff et al., 2008; Neff & McGehee, 2010).

These results show that masculinity is, with focus on self-compassion, favorable compared with femininity. Moreover, traditional gender-role orientation seem to be advantageous for male freshman students while female freshman students have more advantages with a non-traditional gender-role orientation.

Another gender-difference was found in the direct link between gender-role orientation and the impostor phenomenon. This effect is especially interesting for female students and male students separately. The first observation regards traditional gender-role orientation and conforms with the outcomes regarding the direct effects between gender-role orientation and self-compassion. As masculine male freshman students are negatively associated with suffering from the impostor phenomenon, it is indicated that a traditional gender-role orientation brings advantages for them. In contrary, feminine female students are positively associated with the impostor phenomenon. These findings not only conform with those discussed in research question two, but also with Clance and Imes (1978) who suggest the impostor phenomenon as a predominant female construct. In addition, the relevance of gender-role socialization and gender-role stereotyping for the development of the impostor phenomenon is emphasized by Clance et al. (1995).

The ongoing debate about sex-differences in suffering from the impostor phenomenon can not be ended by the present study. However, results show that this is a complex relationship which can not be solved on a superficial level like biological sex forms. A more integrated approach including environmental influences such as gender-role socialization or gender-role stereotyping is necessary.

Interesting insights allows the direct effect between self-compassion and the impostor phenomenon. These findings are in line with the outcomes of research question three. Self-compassion is highly negative associated with the impostor phenomenon. This result underlines the hypothesized inverse link between self-compassion and the impostor phenomenon. Particularly interesting is the comparison of the two models which are separated for each sex. The direct effect between self-compassion and the impostor phenomenon concerning female students ($de = -0.89$) is considerably greater compared to the same effect for male students ($de = -0.64$). Thus, self-compassion has a stronger influence on

the impostor phenomenon for female students than for male students.

This outcome might be due to specific aspects of the impostor phenomenon which are facilitated by self-compassion. Fear of success, for instance, is one of the main components of the impostor phenomenon and mostly experienced by female IP sufferers (Clance, 1985; Jöstl et al., 2012). As self-compassion includes perceiving oneself as competent, which implies confidence in mastering future challenges and therefore takes the fundamental for experiencing fear of success.

Moreover, women seem to be less self-compassionate than men (Neff et al., 2008; Neff & McGehee, 2010). These sex differences are also supported by Smeets et al. (2014). They assume women to benefit more from facilitation of self-compassion than men. Thus, a trainings-program to foster self-compassion, designed by these authors, is tailored to female college students.

Outcomes of the present study show that feminine individuals form the less self-compassionate group. Additionally, female freshman students suffer more from the impostor phenomenon than male freshman students (see Research Question 1). A combination of current findings and previous research findings leads to conclusions as follows. As highly self-compassionate individuals are less likely to suffer from the impostor phenomenon, IP sufferers might benefit from increasing self-compassion. Moreover, masculine individuals as well as men are more self-compassionate than feminine individuals or women. Additionally, women suffer more from stereotypical constrains including the impostor phenomenon. Thus, feminine individuals and women form the group that might benefit most from facilitation of self-compassion.

As there are gender differences in self-compassion as well as in suffering from the impostor phenomenon, the question arises if self-compassion mediates between gender-role orientation and the impostor phenomenon. This hypothesis can be confirmed for model one, including male and female freshman students. With focus on female freshman students, however, self-compassion mediates only between masculinity and the impostor phenomenon, while there is no indirect

effect between gender-role orientation and the impostor phenomenon for male freshman students.

Interesting observations arise when comparing the direct effect between gender-role orientation and the impostor phenomenon with the indirect effect, mediated by self-compassion. For both, male and female freshman students (model 1), only the indirect effect is significant. This also conforms with just masculine female freshman students, while male freshman students show only a significant direct effect between masculinity and the impostor phenomenon. Additionally, the present study shows that self-compassion of male freshman students is less related to the impostor phenomenon than self-compassion of female freshman students. This findings conform with the research community, assuming that women are less self-compassionate than men (Neff et al., 2008; Neff & McGehee, 2010). Further, the present study supports the assumption of Smeets et al. (2014) that women benefit more from self-compassionate interventions than men.

Another possible explanation is that masculine individuals experience different aspects of the impostor phenomenon than individuals with other gender-role orientations. More research is necessary to prove this assumption and provide practitioners, such as psychotherapists, with evidence about individual facilitation to best support IP sufferers throughout their educational careers.

Limitations and Implications for Further Research

Although the present study provides new insights in the relationship between gender-role orientation, self-compassion, and the impostor phenomenon, it is also subject to some restrictions. All conducted measures were self-report instruments. It is therefore possible that bias appears in the data because of intended falsification by the participants. However, the survey was anonymously and the participation was voluntarily. Thus, a bias should be small and due to the large sample size negligible for the conducted statistical analysis.

Furthermore, gender-role orientation was measured via Gender Trait Approach (Niepel & Kranz, in press), including 12 items. To get more differentiated insights in the relationship between gender-role orientation and the impostor phenomenon, as well as self-compassion, a more detailed measurement such as the original version of Bem Sex-Role-Inventory (Bem, 1974) respectively a newer instrument which might be more appropriate to operationalize gender-role orientation in modern society should be utilized. Moreover, the relationship between gender-role orientation, self-compassion and the impostor phenomenon was examined in a cross-sectional study. To prove the hypothesis that self-compassion is a resilience factor for the impostor phenomenon, further research especially longitudinal studies are needed. As taking in consideration that the present study investigates the relationship between these constructs the first time, it is assumed that this investigation provides new insights and might lead to new directions in future research.

Results of the present study show that the relationship between sex and the impostor phenomenon is more complex than assumed in the ongoing debate about sex differences in IP suffering, which can therefore not be explained on a superficial level like biological sex. A more integrated approach, including environmental influences such as gender-role socialization or gender-role stereotyping is necessary. More research is needed to illustrate this effect from a different perspective.

Moreover, several gender differences were found in the present study. Further research is necessary to get a more specific view about different aspects of the impostor phenomenon, experienced by individuals with different gender-role orientations. Particularly the difference between masculinity and other gender-role orientations can provide new insights and might contribute towards finding appropriate individual facilitation for sufferers from the impostor phenomenon.

Self-compassion training-programs can support IP sufferers in breaking the

impostor cycle and taking off the mask. Especially women and feminine individuals seem to benefit from these interventions as they suffer most from stereotypical constraints (Jöstl et al., 2012), the impostor phenomenon (Kumar & Jagacinski, 2006; McGregor et al., 2008; Jöstl et al., 2012), and are less self-compassionate (Neff et al., 2008; Neff & McGehee, 2010). Thus, a self-compassion training might help them in overcoming their impostor feelings as well as to decrease stereotypical constraints and as a result contribute towards reducing social injustice based on gender stereotypes.

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Appendix

Appendix 1: Questionnaire

[Druckversion](#)

Fragebogen

1 Begrüßung

Liebe Teilnehmerinnen und Teilnehmer,

vielen Dank für Ihre Bereitschaft an der Studie teilzunehmen, die ich im Rahmen meiner Diplomarbeit am Institut für Angewandte Psychologie: Arbeit, Bildung, Wirtschaft der Universität Wien, durchführe.

In meiner Studie geht es um Facetten der schulischen und akademischen Leistungsfähigkeit sowie Faktoren, die diese beeinflussen, wie z.B. den Umgang mit sich selbst und anderen Personen.

Ihre Angaben werden selbstverständlich **anonym** und **streng vertraulich** behandelt sowie **ausschließlich zu wissenschaftlichen Zwecken** verwendet.

Bitte lesen Sie sich die Fragen genau durch, antworten Sie spontan und vollständig.

Die Bearbeitung dieser Befragung wird ca. 15 Minuten in Anspruch nehmen. Sie können den Fortschritt der Bearbeitung am oberen Balken mitverfolgen.

Vielen Dank, dass Sie mit Ihrer Teilnahme die Forschung an der Universität Wien unterstützen!

Alexandra Patzak

Bei Fragen wenden Sie sich bitte an:
Alexandra Patzak (alexandra.patzak@univie.ac.at)

2 Persönliche Daten**Angaben zu Ihrer Person:****Wie alt sind Sie?** Jahre**Sie sind...**☐ weiblich ☐ männlich**Was ist ihr höchster Abschluss?**

Bitte wählen Sie eine Antwort aus
noch kein Abschluss
Hauptschulabschluss / Abschluss der Pflichtschule
Abschluss einer Berufsbildenden mittleren Schule (ohne Matura)
Matura / Abitur
abgeschlossenes Universitäts- / Fachhochschulstudium

Wo findet Ihre derzeitige Ausbildung statt?☐ Schule ☐ Hochschule**3 Schultyp / Studienrichtung****Welche Schule besuchen Sie?**

- ☐ AHS
☐ BAKIP / BASOP
☐ HAK / HAS
☐ HTL / HTBLA
☐ HLWB / FSWB / HUM
☐ HLFS / LFS
☐ Eine andere und zwar:

Welches Studienfach belegen Sie?**In welchem Semester befinden Sie sich?**

- ☐ 1. Semester
☐ 2. Semester
☐ 3. Semester

☐ weiter als 3. Semester

Welche Hochschule besuchen Sie?

☐ Universität Wien

☐ Technische Universität Wien

☐ Wirtschaftsuniversität Wien

☐ Medizinische Universität Wien

☐ Eine andere und zwar:

4 SES

In welchem Land sind Sie aufgewachsen? In welchem Land sind Ihre Eltern aufgewachsen?

Bitte in jeder Spalte eine Antwort auswählen.

	Sie	Mutter	Vater
Österreich	☐	☐	☐
Bosnien-Herzegowina	☐	☐	☐
Serbien / Montenegro / Kosovo	☐	☐	☐
Türkei	☐	☐	☐
Deutschland	☐	☐	☐
Russland	☐	☐	☐
Kroatien	☐	☐	☐
Mazedonien	☐	☐	☐
Rumänien	☐	☐	☐
Polen	☐	☐	☐
Anderes Land	☐	☐	☐

Welche Sprache sprechen Sie zuhause am häufigsten?

Bitte wählen Sie eine Antwort aus

Deutsch

Bosnisch

Serbisch

Türkisch

Kurdisch

Russisch

Kroatisch

Mazedonisch

Rumänisch

Polnisch

Albanisch

Arabisch

Englisch

Eine andere Sprache

5 Bücher

Wie vielen Bücher haben Ihre Eltern zu Hause?

Zählen Sie bitte Zeitschriften und Zeitungen **nicht** mit.





6.1 Gender Identity Scale

Menschen vereinen oftmals weibliche und männliche Anteile in sich. Frauen können also durchaus männliche Anteile haben und Männer weibliche. Wie nehmen Sie sich wahr?

Je weiter rechts Sie ankreuzen, desto mehr stimmen Sie der Aussage zu.

	überhaupt nicht zutreffend				absolut zutreffend
Ich nehme weibliche Anteile an mir wahr.	☐	☐	☐	☐	☐
Ich nehme männliche Anteile an mir wahr.	☐	☐	☐	☐	☐

	überhaupt nicht zutreffend				absolut zutreffend
Ich finde Frauen sympathisch, die auch männliche Anteile haben.	☐	☐	☐	☐	☐
Ich finde Männer sympathisch, die auch weibliche Anteile haben.	☐	☐	☐	☐	☐

Die Art, sich zu kleiden oder sich nach außen zu geben wird oftmals als weiblich oder männlich empfunden. Was denken Sie: Wie nehmen andere Menschen Sie diesbezüglich wahr?

Je weiter rechts Sie anklicken, desto mehr stimmen Sie der Aussage zu.

	überhaupt nicht zutreffend				absolut zutreffend
	☐	☐	☐	☐	☐

Meine Art, mich zu kleiden und nach außen zu geben, wird als weiblich wahrgenommen.	☐	☐	☐	☐	☐
Meine Art, mich zu kleiden und nach außen zu geben, wird als männlich wahrgenommen.	☐	☐	☐	☐	☐

6.2 GIS 2

Menschen unterscheiden sich darin, ob sie lieber mit Frauen oder Männern befreundet sind. Was trifft auf Sie persönlich zu?

Je weiter rechts Sie anklicken, desto mehr stimmen Sie der Aussage zu.

	überhaupt nicht zutreffend				absolut zutreffend
Ich bin gerne mit Frauen befreundet.	☐	☐	☐	☐	☐
Ich bin gerne mit Männern befreundet.	☐	☐	☐	☐	☐

Wie sehr trifft die folgende Aussage auf Sie zu?

Je weiter rechts Sie anklicken, desto mehr stimmen Sie der Aussage zu.

	überhaupt nicht zutreffend				absolut zutreffend
Ich denke häufig über die Frage nach, wie weiblich oder männlich ich auf andere wirke.	☐	☐	☐	☐	☐

Wie schätzen Sie die Reaktionen der Personen aus Ihrem Umfeld in folgenden Situationen ein?

Je weiter rechts Sie anklicken, desto positiver schätzen Sie die Reaktionen ein.

	negativ				positiv
Stellen Sie sich vor, Sie verhalten sich typisch weiblich. Was denken Sie: Wie positiv oder negativ reagieren darauf Personen, mit denen Sie befreundet sind?	☐	☐	☐	☐	☐
Stellen Sie sich vor, Sie verhalten sich typisch männlich. Was denken Sie: Wie positiv oder negativ reagieren darauf Personen mit denen Sie befreundet sind?	☐	☐	☐	☐	☐

6.3 GIS Gender Trait Approach

Im folgenden finden Sie eine Reihe von Selbstbeschreibungen. Bitte kreuzen Sie jeweils an, inwieweit die Selbstbeschreibung auf Sie persönlich zutrifft.

Je weiter rechts Sie anklicken, desto mehr stimmen Sie der Aussage zu.

	überhaupt nicht zutreffend				absolut zutreffend
Ich bin verständnisvoll.	☐	☐	☐	☐	☐
Ich habe einen starken Willen.	☐	☐	☐	☐	☐
Ich bin mitfühlend.	☐	☐	☐	☐	☐
Ich bin ehrgeizig.	☐	☐	☐	☐	☐
Ich kann mich gut durchsetzen.	☐	☐	☐	☐	☐
Ich bin gefühlvoll.	☐	☐	☐	☐	☐
Ich messe mich gerne mit anderen.	☐	☐	☐	☐	☐
Ich bin eher still und ruhig.	☐	☐	☐	☐	☐
Ich übernehme gerne die Rolle des Anführers.	☐	☐	☐	☐	☐
Ich achte auf die Bedürfnisse anderer.	☐	☐	☐	☐	☐
Ich bin herzlich.	☐	☐	☐	☐	☐
Ich beziehe klare Positionen.	☐	☐	☐	☐	☐

6.4.1 CIPS

Die Fragen auf den folgenden Seiten beziehen sich auf Situationen in Ihrem schulischen / universitären Umfeld.

Bitte kreuzen Sie jeweils an, inwieweit die Selbstbeschreibung auf Sie persönlich zutrifft.

	überhaupt nicht zutreffend				absolut zutreffend
Ich habe oft bei einer Aufgabe Erfolg gehabt, obwohl ich vorher Angst hatte zu versagen.	☐	☐	☐	☐	☐
Ich kann den Eindruck erwecken, kompetenter zu sein, als ich wirklich bin.	☐	☐	☐	☐	☐
Wenn es möglich ist, vermeide ich jemanden zu beurteilen und habe Angst davor, selbst beurteilt zu werden.	☐	☐	☐	☐	☐
Wenn Leute mich wegen einer Leistung loben, habe ich Angst davor, ihren Erwartungen in Zukunft nicht entsprechen zu können.	☐	☐	☐	☐	☐
Manchmal denke ich, meine gegenwärtige Position oder meinen momentanen Erfolg erlangt zu haben, weil ich zur richtigen Zeit am richtigen Platz war oder die richtigen Leute kenne.	☐	☐	☐	☐	☐
Ich habe Angst, dass Leute, die mir wichtig sind, herausbekommen, das ich nicht so fähig bin, wie sie glauben.	☐	☐	☐	☐	☐
Ich neige dazu, mich mehr an meine weniger guten als an meine besten Leistungen zu erinnern.	☐	☐	☐	☐	☐
Ich erledige selten ein Vorhaben oder eine Aufgabe so gut, wie ich gerne möchte.	☐	☐	☐	☐	☐
Manchmal glaube ich, dass mein schulischer / beruflicher Erfolg durch einen Irrtum zustande gekommen ist.	☐	☐	☐	☐	☐
Es fällt mir schwer, Komplimente oder Lob für meine Intelligenz oder meine Leistung entgegenzunehmen.	☐	☐	☐	☐	☐

Die folgenden Fragen beziehen sich auf Situationen in Ihrem schulischen / universitären Umfeld.

	überhaupt nicht zutreffend				absolut zutreffend
Manchmal habe ich das Gefühl, dass ich meinen Erfolg einer Art von Glück zu verdanken habe.	☐	☐	☐	☐	☐
Zeitweise bin ich enttäuscht über meine gegenwärtigen Leistungen und denke, dass ich viel mehr erreichen hätte müssen.	☐	☐	☐	☐	☐
Manchmal habe ich Angst, dass die anderen merken, wie wenig ich eigentlich weiß und kann.	☐	☐	☐	☐	☐
Ich fürchte oft, dass ich bei einer neuen Aufgabe versagen könnte, obwohl mir im Allgemeinen gelingt, was ich versuche.	☐	☐	☐	☐	☐
Wenn mir etwas gelungen ist und meine Leistung anerkannt wird, beginne ich zu zweifeln, dass ich das Erreichte wiederholen kann.	☐	☐	☐	☐	☐
Wenn ich für eine Leistung viel Lob und Anerkennung bekomme, neige ich dazu, die Wichtigkeit dessen, was ich vollbracht habe, herunter zu spielen.	☐	☐	☐	☐	☐
Oft vergleiche ich meine Fähigkeiten mit denen der Menschen in meiner Umgebung und denke, dass die anderen	☐	☐	☐	☐	☐

Umgebung und denke, dass die anderen vermutlich intelligenter sind als ich.

Ich mache mir oft Sorgen, dass mir ein Vorhaben nicht gelingt oder dass ich eine Prüfung nicht bestehe, obwohl andere beachtliches Vertrauen in meinen Erfolg haben.

Wenn mir irgendeine Art der Anerkennung wie z.B. eine Beförderung bevorsteht, zögere ich, darüber zu reden, bis es tatsächlich geschehen ist.

Ich fühle mich schlecht und entmutigt, wenn ich in Situationen, die große Leistungen erfordern nicht "der (oder die) Beste" oder wenigstens "ganz besonders gut" bin.

☐	☐	☐	☐	☐
☐	☐	☐	☐	☐
☐	☐	☐	☐	☐

6.5.1 SCS-D

Bei den Aussagen auf den folgenden Seiten geht es um Ihre Selbsteinschätzung.

Bitte geben Sie an, wie sehr diese Aussagen auf Sie zutreffen.

Je weiter rechts Sie anklicken, desto mehr stimmen Sie der Aussage zu.

	überhaupt nicht zutreffend				absolut zutreffend
Ich versuche verständnisvoll und geduldig gegenüber jenen Zügen meiner Persönlichkeit zu sein, die ich nicht mag.	☐	☐	☐	☐	☐
Wenn ich mich niedergeschlagen fühle, neige ich dazu nur noch auf das zu achten, was nicht in Ordnung ist.	☐	☐	☐	☐	☐
Wenn die Dinge bei mir schlecht laufen, sehe ich diese Schwierigkeiten als Teil des Lebens, den jeder einmal durchlebt.	☐	☐	☐	☐	☐
Wenn ich über meine Fehler und Mängel nachdenke, neige ich dazu mich vom Rest der Welt getrennt und abgeschnitten zu fühlen.	☐	☐	☐	☐	☐
Ich versuche mit mir selbst liebevoll umzugehen, wenn es mir emotional schlecht geht.	☐	☐	☐	☐	☐
Wenn ich bei etwas versage, was mir wichtig ist, werde ich von Gefühlen der Unzulänglichkeit aufgezehrt.	☐	☐	☐	☐	☐
Wenn ich völlig am Ende bin, rufe ich mir in Erinnerung, dass es vielen anderen Menschen auf der Welt genauso geht.	☐	☐	☐	☐	☐
In wirklich schwierigen Zeiten, neige ich dazu, streng mit mir selbst zu sein.	☐	☐	☐	☐	☐
Wenn mich etwas aufregt, versuche ich meine Gefühle im Gleichgewicht zu halten.	☐	☐	☐	☐	☐
Wenn ich mich auf irgendeine Art unzulänglich fühle, versuche ich mich daran zu erinnern, dass die meisten Leute solche Gefühle der Unzulänglichkeit haben.	☐	☐	☐	☐	☐
Ich bin intolerant und unduldsam gegenüber denjenigen Seiten meiner Persönlichkeit, die ich nicht mag.	☐	☐	☐	☐	☐
Wenn ich eine schwere Zeit durchmache, schenke ich mir selbst die Zuwendung und Einfühlbarkeit, die ich brauche.	☐	☐	☐	☐	☐
Wenn es mir schlecht geht, neige ich dazu zu glauben, dass die meisten anderen Menschen wahrscheinlich glücklicher sind als ich.	☐	☐	☐	☐	☐

- - - - -

Bei den folgenden Aussagen geht es um Ihre Selbsteinschätzung.

	überhaupt nicht zutreffend				absolut zutreffend
Wenn etwas Unangenehmes passiert, versuche ich einen ausgewogenen Überblick über die Situation zu erlangen.	☐	☐	☐	☐	☐
Ich versuche meine Fehler als Teil der menschlichen Natur zu sehen.	☐	☐	☐	☐	☐
Wenn ich Eigenschaften bei mir feststelle, die ich nicht mag, dann deprimiert mich das.	☐	☐	☐	☐	☐
Wenn ich bei etwas scheitere, dass mir wichtig ist, versuche ich die Dinge nüchtern zu betrachten.	☐	☐	☐	☐	☐
Wenn ich wirklich zu kämpfen habe, neige ich zur Ansicht, dass andere es sicherlich einfacher haben.	☐	☐	☐	☐	☐
Ich gehe freundlich mit mir um, wenn ich Kummer und Leid erfahre.	☐	☐	☐	☐	☐
Wenn mich etwas aufregt, werde ich von meinen Gefühlen förmlich mitgerissen.	☐	☐	☐	☐	☐
Wenn ich Leid erfahre, kann ich mir gegenüber ein wenig kaltherzig sein.	☐	☐	☐	☐	☐
Wenn es mir schlecht geht, versuche ich meinen Gefühlen mit Neugierde und Offenheit zu begegnen.	☐	☐	☐	☐	☐
Ich akzeptiere meine Fehler und Schwächen.	☐	☐	☐	☐	☐
Wenn etwas Unangenehmes passiert, neige ich dazu, den Vorteil völlig zu übersehen.	☐	☐	☐	☐	☐
Wenn mir etwas für mich Wichtiges misslingt, glaube ich oft, dass nur ich allein versage.	☐	☐	☐	☐	☐
Ich missbillige und verurteile meine eigenen Fehler und Schwächen.	☐	☐	☐	☐	☐

Wie schätzen Sie Ihre bisherigen schulischen / akademischen Leistungen ein?

Klicken Sie auf den Schieberegler und ziehen Sie diesen an die entsprechende Stelle.

gar nicht gut | sehr gut

Falls Sie eines der unten angeführten Fächer nicht zur Matura hatten, tragen Sie in dieser Reihe keine Note ein und ergänzen Sie die fehlenden Fächer in den dafür vorgesehenen Feldern.

Bitte versuchen Sie sich an Ihre letzten Zeugnisnoten zu erinnern. Falls Sie sich nicht genau erinnern können, geben Sie bitte eine ungefähre Schätzung an.

FACH

NOTE (1 – 5)

Deutsch	
Fremdsprache	
Mathematik	
Weiteres Fach	
Weiteres Fach	

Die folgende Frage bezieht sich auf Ihre bisher erbrachten Leistungen im Studium (z.B. Prüfungsnoten oder Seminarnoten):

Falls Sie in Ihrem Studium noch keine Noten erhalten haben, könne Sie diese Frage überspringen.

Die folgende Frage bezieht sich auf Ihre letzten Schularbeitsnoten:

FACH	NOTE (1 – 5)
Deutsch	
Fremdsprache	
Mathematik	
Weiteres Fach	
Weiteres Fach	
Weiteres Fach	

8 Endseite

Vielen Dank für Ihre Teilnahme!

Bei weiteren Fragen wenden Sie sich bitte an:

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Curriculum Vitae

PERSONAL INFORMATION Alexandra Patzak

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EDUCATION AND TRAINING

Oct 2009 – present University of Vienna, Austria
Ongoing studies in Psychology with focus on Educational Psychology

Sep 2007 – Jul 2009 Berufsoberschule für Sozialwesen, Munich

Sep 2005 – Jul 2007 Fachakademie für Sozialpädagogik der Armen Schulschwestern, Munich

WORK EXPERIENCE

Mar 2014 - present Teaching and research assistant
University of Vienna, Department of Educational Psychology and Evaluation

Sep 2009 – Sep 2009 Mobility assistance for physically disabled
Pflegedienst München e.V.

Sep 2006 – Jul 2007 Child care worker
Schülertagesstätte LIFE, Munich

Sep 2005 – Jul 2006 Child care worker
Kindergarten Mengerschwaige e.V., Munich

ACADEMIC WORK

Projects Migration and Education, a Project of the Austrian Council for Research and Technology Development and the Council of Migration to identify positives and optimization potential in order to derive recommendations for the future. Since Jan 2015.

PRO-SRL – project- and process-oriented modelling and assessment of self-regulated learning competences in tertiary education. Research assistant at the University of Vienna, Department of Educational Psychology and Evaluation. Apr 2013 – May 2013.

gender@work, a program for students to raise their awareness of the role gender-stereotypes and media in their future career decision. This project was part of the course „Project based work in Educational Psychology, Evaluation and Training“ at

the University of Vienna, Department of Educational Psychology and Evaluation. Oct 2012 – Jun 2013.

Publications Steiner, F., Patzak, A. & Jirku, E., Schultes, M., Jöstl, G. & Spiel, C. (2014). Musste Bob ein Baumeister werden? - generation@work, SchülerInnenprogramm zum Erlernen eines bewussten Umgangs mit Geschlechterstereotypen und Medien auf dem Weg zur Berufswahl. Poster at the 11th conference of the Austrian Psychological Association (ÖGP), in Vienna.

PERSONAL SKILLS

Languages German
 English
 Spanish

Computer skills MS Office
 R
 Unipark
 MaxQDA