# Personality Traits and Social Perception in the Workplace

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Abstract

Previous studies suggested that the effect of workplace ostracism is related to specific

personality traits and especially extraversion. In study 1 it was examined if extraversion is

correlated with feelings of ostracism at the workplace. The results were not significant.

Additionally study 2 examined if high or low extraversion as a personality trait and level of

social interaction in the job creates a different impression about extrovert and introvert

stereotypes. Four scenarios with job type and without were included. Possible explanations

include the large age range which bibliography shows affects extraversion and perception of it.

In addition the multiple cultures in the sample indicated that a more focused sample should be

used for further investigation on the topic. The current study contributes as a guideline on the

approach for social psychology research in the work environment and in particular, in

exploration of social perception and extraversion-introversion stereotypes. The benefits and

limitations of the study create a basis on which variables require focus and which should be

avoided for future research.

Keywords: extraversion, introversion, stereotypes, person perception, workplace ostracism

#### Introduction

The process of social impressions based on personality traits and stereotypes has been increasingly prevalent in recent years and in order to further understand social cognitive schemas, particular focus has been set on three main dimensions of personality (warmth, competence, honesty etc) (Goodwin, 2015). The various dimensions of a person's personality can affect how a person is perceived and this is the focus of the current research. In addition, considering the traits of introversion/extraversion, they can contribute on the perception of solitude or ostracism. The preference for less social interaction have been commonly misinterpreted to have negative spillover effect on other dimensions of the personality (Leary, Herbst & McCrary, 2003). Furthermore, this can impact individuals and how morality, warmth and competence are perceived in a more organizational level as it will be explained further on the present study.

Solitude and its perception is the main topic of research in recent years, as well as what are the antecedents of such behavior on a psychological level. Giving a general outline of the concept of solitude, the study of Detrixhe et al., (2014) further explains the solitude theory. As described in the study, solitude is suggested to be an element separate from the others such as loneliness and social isolation. The personality and preference for less social interaction of an individual is most appropriately characterized by the author "that for many people a high preference for solitude is related to positive well-being"., even though, signs of solitude have been connected with several psychological disorders. For instance, Long and Averill (2003) compared depressive patients and normal controls and their results suggested that those experiencing more depressive symptoms engaged in limited social interaction and contact. Furthermore, solitude is linked with the spectrum of anxiety disorders. Indeed, Jackson (2016)

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found that those scored high in solitude self-report scales were more likely to receive a diagnosis of generalized anxiety disorder (GAD) or social anxiety disorder (SAD). The aforementioned evidence is reasonable if we take into consideration that human beings are wired for relationships and we all need to have some kind of connection in our lives. Consequently, if being alone becomes more of a defense and an avoidant behavior than a way to improve wellbeing then it's probably not the most functional practice (Ruiz-Casares, 2012). However, the opposing view supports that there are some life benefits related to solitude. In fact, previous research has indicated that some significant qualities like freedom, creativity, intimacy, and spirituality could be considered as the result of solitude (Nilsson, Lindström & Nåden, 2006). Besides, environmental settings and personality traits should be considered before we conclude whether solitude should be categorized as a negative or positive indicator for psychological well-being and life quality (Wang, Rubin, Laursen, Booth-LaForce & Rose-Krasnor, 2013). The distinction between "being lonely" and preferring solitude as a mean of self-expression and revealing ones "true self" is suggested to be rooted in early development stages in which children learn to cope with being alone (e.g. Erickson stage 6 intimacy versus Isolation) Hearn, Saulnier, Strayer, Glenham, Koopman & Marcia, 2012). Evidence of that distinction is presented in the study of Galanaki (2004) in which 180 children were interviewed to examine if they could distinguish between aloness, loneliness and solitude concepts. The study discovered that from the age of 6-8 there is a clearer understanding of choosing to in solitude without negative effects. Based on Selman's theory of interpersonal relationships, there is a gradual understanding of loneliness in children which consequently results in comprehension of physical and emotional state of being alone. More specifically, the positive aspects of solitude are recognized at the beginning of adolescence with further reinforces the argument that solitude is a distinct construct that has an

effect on people's well-being. Results indicated a progressive understanding of the concept of solitude which solidifies the description of voluntary solitude and its distinction from early age. The contribution of the current research is to provide further insight on the dissatisfaction of individuals to either work or social occasions due to introversion and solitude stereotyping (Gizatullina et al., 2016).

#### **Ostracism**

Another aspect of being alone that is important to mention at this point is the involuntary type of solitude or simply put ostracism. In cases that someone is feeling ignored or even excluded from belonging to a group the concept of ostracism is introduced (Williams, 2009). As the author states, there is an innate need for communication and belongingness which extends from animals to humans. Independently of the background and the cultural norms of societies ostracism exists on multiple levels. That is due to the need of people to cover biological as well as social needs and the primal instinct of group survival. In contrast with solitude preference, the detection of ostracism though can have detrimental effects and its reaction can be categorized in four distinct stages. In particular after the initial detection a reflexive stage of pain and negatives effects follows with the reflective stage in order to cope with the loss in self-esteem, recognition and social cues. In case there are no positive results in coping with these losses a resignation stage with feelings if depression and helplessness follows in which reduction in covering the needs of the person is developed. At this point it is important to mention that the concept of ostracism is important to understand since the perception of solitude can be easily misinterpreted, given a lack of knowledge in the distinction between the two. In the study of Wesselmann et al. (2015) more attention has been given on its definition and methods of recognizing and studying it. In order to make the distinction between the two more clear, ostracism is a threat to personal

security and its involuntary character deprives the person of wanted social interaction (Yang, & Treadway, 2016). Additionally the manifestation of ostracism may not be the same for everyone but it can be part of larger or smaller communities such as the work environment.

Since the base of this study is on work environments it is important to define ostracism in organizational settings. The study of Robinson, O'Reilly & Wang, (2013) describes ostracism at work as an omission of social interaction through multiple antecedents. These antecedents can be either purposeful (e.g. group ostracism) or nonpurposeful (High stress Environment, Workplace diversity). The purposeful part of ostracism is explained as the lack of attention to it as well as the lack of consequences for the ones that engage in ostracism. It is noted that companies with flat structure in their hierarchy and policies against obvious acts of ostracism may divert their employees into more subtle ways of acting on ostracism. Common antecedents are the position of employees inside the work environment and language barriers between the staff that can inadvertently weak bonds and exclude members of entering a group. An example of such case may be not switch to English when working in an international work environment which devoid employees not knowing the native language could not contribute to the discussion. This may result in weaker social bonds which consequently can affect relationships and may even be part of lower job satisfaction. The impact of ostracism in the work environment can have organizational consequences of lower behavioral contribution which this study can provide more information for future research in this topic. Additional studies on workplace ostracism have not been studied specifically but in a larger context of bullying or social undermining which make this study important in the aspect of focusing on workplace ostracism (Ferris, Brown, Berry & Lian, 2008). Also, it is not only aggression on a target but also aversion for interaction that can be considered as an act of ostracism.

#### Introversion/Extraversion

Given the complexity and individual differences in the personality of people which the current study focuses only a part of, it is deemed crucial to also explore the most relevant part in solitude perception which is the personality trait. One of the most prominent studies that examined the Big Five and more specifically extraversion is the study from John & Srivastava (1999). By arguing in the need of taxonomy of personality traits it is highlighted that in a broader concept the dimensions included in the Big Five Inventory (BFI) capture the different facets in a person personality with higher accuracy. In particular, extraversion is considered as to be one of the most basic traits in the Big-Five as well as the Five-Factor Model (FFM) (Wilt & Revelle, 2011) Going back to earlier trait theories of personality, it is obvious that previous researchers have made a long attempt to pin down exactly how many personality traits exist. For example, Gordon Allport's theory has suggested a various number of possible traits which are estimated around 4,000 (Kayiş et al., 2016). Furthermore, more recent attempts towards the identification of personality traits were made by Raymond Cattell's with 16 personality factors theory, and Hans Eysenck's three-factor theory (Robinson, Noftle, Guo, Asadi & Zhang, 2015). However, many researchers found Cattell's theory too complicated and Eysenck's too limited in scope. As a result, the Big Five Dimensions of Personality emerged to identify the major traits that serve as the building blocks of personality. Many contemporary personality psychologists believe that there are five basic dimensions of personality, referred to as the "Big 5" personality traits. Based on this theory, the five broad dimensions of personality are extraversion, agreeableness, openness, conscientiousness, and neuroticism (Edwards & Collins, 2008). Evidence of this theory has been growing for many years, starting with the research conducted by Digman, Geen

and Russell (1997) and later on expanded by other more recent studies such as those conducted by Soto and John (2009) and Lovik, Nassiri, Verbeke, Molenberghs and Sodermans (2017). While there is a significant body of previous literature supporting this five-factor model of personality, still the exact labels for each dimension are sometimes disputed and replaced by alternative labels. Besides, it is important to note that personality psychologists argue that each of the five personality factors represents a range between two extremes poles (Jung, Lee & Karsten, 2012). For example, the dimension of extraversion represents a continuum between the extreme extraversion and the extreme introversion. However, in real world settings this is a rare phenomenon and most people lie somewhere in between the two ends of each personality dimension.

For a deeper comprehension of extraversion it is important to examine both introversion and extraversion as traits. First and foremost extraversion is considered a fundamental personality dimension characterized by the disposition to seek social engagement and propensity for exhibiting emotions as well as apparent assertiveness. In contrast introversion is described as more inhibit, less social seeking and with lower levels of energy. The distinction between the two is crucial due to the similarity between solitude and introversion manifestation which from an extrovert viewpoint it may be confused or perceived as the same. To expand on introversion and extroversion the study of Hills & Argyle (2001) indicated that it can contribute to happiness of a person and consequently preference for solitude. Examining the aspect of introversion can provide data about the reason of preferring to be more isolated and most importantly after examining job satisfaction as being related to extraversion-introversion (Kirkcaldy, Thome & Thomas, 1989). In order to create the basis for the first study of the current research which includes extraversion-introversion and the feeling of ostracism, a further exploration of the Big-

Five personality traits research method is required. According to the study of Gosling, Rentfrow & Swannn (2003) in order to get more reliable data longer instruments of measurement are needed. In case of extraversion though it is suggested that simpler types of measurement can be effective due to the more simplistic nature of the trait. To specify, creating a measurement of social pattern and behavior can be measured with shorter instruments and still be effective for the present study as well as provide reliable data. Evidently shorter type of question lists and with fewer items scales can be used to avoid redundancy in measurement.

### **Social stereotypes**

Perception of the different dimensions of introverts/extroverts is included in the second study of the present research as it has been shown that social stereotypes create prejudgment of people, or in this case employees, on multiple dimensions (Andersen & Klatzky, 1987). More specifically, indication of someone being an introvert may cause social stereotyping due to the fact that stereotyping of overt behavior is easier to recognize such in the case of extraversion which provides physical and verbal cues. This study further supports the concept of person perception based on specific personality traits such introversion. Social stereotypes indicate that introverts may possess different characteristics (socially offensive, withdrawn etc) than extroverts which seemingly possess characteristics on the other end of the spectrum (socially skilled, self-confident). Regarding the theory of stereotyping individuals, the Stereotype Content Model (SCM) provides an adequate theoretical basis (Fiske, Cuddy & Glick, 2007). Its explanation suggests the existence of 3 separate dimension of social perception which is warmth, competence and morality. According to the theory, these aspects provide a base for individuals to understand intentions and personality of other people and group members in order to classify them on a lower or higher point on these dimensions according to the social feedback they

receive from them. In the current research the feedback is the introversion and extroversion perception from other employees.

Further analyzing the stereotypes of introversion and extraversion it is important to mention the study of Fiske, Cuddy, Glick, & Xu, (2002) in regards to warmth and competence as the main aspect of stereotyping. The two dimensions mentioned are described as means of understanding the in-group – out-group identity of person that enters or exists inside a group. By simplifying their social perception, it is easier for group members to make assumptions about the "performance" and characteristics of others. To specify each dimension: Competence addresses capabilities and the perceived status by others and their behavior towards the person, then changes accordingly if it's considered low or high. In contrast with Competence which out-group which can either be low or high, Warmth in out-group is considered high as they do not compete with the members of the in-group. People that are more introverted and have higher preference for solitude may perceived as less empathetic and kind than people that are more extroverted in their behavior. From the 74 participants of the study that rated 23 groups regarding competence and warmth in various jobs differences in perception of these dimensions were noticed. Additionally a dimension which will be important for the present study is the aspect of morality (Wojciszke, 2005). The dimension of morality is considered too as a significant quality both for perception of one's self and social perception that can be affected from personality traits or stereotypes. Being fair, honest or responsible can be perceived differently from others if stereotyping exists. Considering the characteristics these dimensions it was deemed important to be included in the current study to better assess stereotyping patterns. (Coetzee, Martins, Basson & Muller, 2006). The current research explores that part by including in the second study the

measuring of difference in Warmth, Competence and Morality along with the other traits in regard to extrovert and introvert personality traits.

Understanding solitude preference also leads to exploration of the social skills of the employees. To start with an introduction of the variable early studies with a sample of 137 children has shown that shyness may contribute to solitude preference as it make the acceptance of social invitations more difficult (Coplan, Girardi, Findlay & Frohlick, 2007). Furthermore the avoidance of interaction can lead to solitude preference in an implicit manner which is not defined as ostracism since it is not "enforced" by an extraneous factor. Additionally, preference for solitude has shown to affect the well being and happiness of people as they may be perceived as more isolated (Burger, 1995). As suggested earlier the positive or negative relationship to solitude is based on situational or personal factors Long et al., (2003). Considering that some people have a preference for solitude, in a work environment that can have also a relationship their personality type (introvert-extrovert).

### Job types and personality traits

Regarding the type of job and introversion-extraversion personality traits it is deemed important to mention the study of Forouzande, Rastegari & Nasiri (2010) which provides an indication on types of jobs and the extraversion tendency included in them. In this study leadership was examined in relationship with introverted/extroverted personalities, which provided evidence that depending on type and level of the position, extraversion can be perceived differently. For example, in positions that require communication such as head nurses, extraversion has a high effectiveness. In contrast positions such as in the army personnel in a more isolated environment, extraversion is perceived to have a lower effectiveness. For the

present study this basis is relevant in the aspect that extraversion can be perceived differently in the work environment and depending the position inside the company. Additionally there is clear evidence on the impact of ostracism in the work environment (Leung, Wu, Chen & Young, 2011). As this study indicates the service sector or the human resource department requires constant interaction with people and ostracism can have detrimental effects in depletion of resources for employees. From a sample of 19 hotels in southern Asia it was indicated that workplace ostracism has a relationship with personality traits such as competence and neuroticism. In that aspect introversion is perceived as a personality trait which is perceived as less competent. Furthermore the personality of the employee such as extroversion or introversion can further enhance the stereotype of less competence in jobs that require certain social skills.

### **Current research**

To summarize the research questions and hypothesis of the present study, the extent to which extraversion/introversion affects perception of solitude and ostracism will be explored. People have shown to hold biases against and ostracize introverts in the workplace thus:

H1: introverted individuals will have higher feeling of ostracism at work than extroverted.

Specifically, compared to extroverts, introverts are perceived to be less warm and less competent. In Study 2 In this study the difference between the introverted and extroverted individuals was measured in relation with person perception scale. The hypothesis in this study will examine the stereotypes of introverts and extroverts and perception of introversion in total as less positively in the traits included in the scale. Specifically, compared to extraverts, introverts

are perceived to be less warm, competent, and honest and in general score less on the person perception scale thus:

H2: Introvert employees will be perceived less positively in their work environment than extroverts

This is especially true for jobs that require social skills (e.g., customer service) than jobs to which social skills are less central (e.g., accountant). Job is also added an additional variable to this study thus I propose:

H3: Introvert employees with jobs that require less social skills will be perceived less positively in their work environment than extrovert.

### Study 1

### Method

### **Participants**

The sample was comprised of employees currently working in an organizational environment. The participants were comprised by a homogeneous sample of employees working in an office environment. A sample of 82 participants with an age range from 18-50 (39 male and 43 female) was recruited for study 1 by requesting from the Travix Nederland B.V. company in Amsterdam to distribute the survey internally through the company's social network. Due to low participation the study cannot be focused as a case study as only 30 participants were from only inside the company. The employee sample matching the criteria was office employees from Asia, Europe, Africa and Australia. An estimate of 25-30 nationalities participated in the current study but it cannot be specifically defined due to confidentiality reasons. The participants

proceeded to the survey after being provide with an informed consent (see appendix A) form at the start of the survey and were shown a debriefing form (see appendix B) at the end of the survey.

#### **Materials**

The Variables in this study will include measurement of extraversion/introversion in relation to feeling of ostracism through the following measures.

The scale for introversion used included an abbreviated version of the Eysenck Personality Questionnaire (EPQ) (see Appendix C) which will exclude parts such as neuroticism (Sato, 2005). The EPQ will be used in a Likert-scale from 1-5 which will be described from 1 (completely false) to 5 (completely true). Example questions include "I enjoy social gatherings" and "I tend to be more comfortable with the known than the unknown".

Workplace Ostracism was measured using a 10-item scale from the study of Ferris, Brown, Berry & Lian (2008) (a=.89) as it is considered to have the validity required for the current research as it has been tested on multiple levels. The scale was based on Bass, Cascio, and O'Connor (1974) and Sample questions include "Others ignored you at work" "Others left the area when you entered" and is answered using a 1-5 Likert-scale varying from 1 "never" to 5 "always".

Additional instrument to assess personality traits was the Extraversion part of the Big Five Inventory (BFI) (a=.87) and in particular seven questions that were focused on extraversion assessment (John & Srivastava 1999). The part used was measured on a Likert-scale from 1 (strongly agree) to 5 (strongly disagree). Questions included "I see myself as Someone Who is

full of energy" and "I see myself as Someone Who is reserved". Necessary reverse coding was applied in accordance to the bibliography in order to assess and report the data.

#### Procedure

The Independent variable in study 1 was the Extraversion level which was calculated by computing the questions related to the topic from the BFI (See Appendix I) and recoded according the literature to be measurable. The Dependent variable was the feeling of ostracism in the workplace and was calculated through the questions of the Workplace Ostracism scale (See Appendix F). A necessary calculation was made to combine the questions into a total score as the Qualtrics system didn't provide the scales in one piece during extraction of the data. Participants were asked to fill a computer based questionnaire through the Qualtrics system for efficiency and reliability of administering questionnaires. Consent was provided at the start of the survey to acknowledge agreement in participation with the study. The instructions provided, explained what is required by them and that access to the data will only be allowed to the researcher. In addition they will be ensured that the employer will not have knowledge of the questionnaire but only at the end of the study as a whole if they wish to learn to result of the research. Demographic questions were asked before the start of the study which addressed gender, age, type of job, Interaction at the workplace and educational level. All the reverse coding and computing of the scales of the responses was made according to the bibliography of each variable.

### **Results**

A correlation coefficient was computed to assess the relationship between the extraversion personality trait and perception of workplace ostracism. There was low negative correlation between the two variables of the present survey [r = -.406, n=72, p < .01]. A scatterplot summarizes the results (Figure).

An additional correlation coefficient was computed to assess the relationship between the extraversion personality trait though the EPQ and perception of workplace ostracism for further examination of the topic which yielded a very low negative correlation between the two variables of the present survey [r = -.351, n=73, p < .01].

### Study 2

### Method

## **Participants**

The sample was comprised of employees working in an office environment as the people in the imaginary scenario in order to best relate and describe their perception of them. The sample of 86 (age range: 19-58) included employees with other colleagues either on team or with some aspect of daily interaction during a normal working day. The participants agreed with the informed consent (see appendix E) form at the start of the survey and were shown a debriefing form (see appendix F) after the last question of the survey in order to be submitted.

#### **Materials**

For this study the manipulation was 4 different scenarios (See Appendix G) were randomly assigned to participants and were categorized as 1) Introversion scenario 2)

Extraversion scenario 3) Introversion with job type and 4) Extraversion with job type. For the responses a person perception scales (see Appendix H). The scales asked to assess traits as Honest, Warm, Competent and the rest as presented in the Appendix and responses which consisted of 7-point responses from 1 (not at all) to 7 (extremely).

Additional instrument to assess the Extraversion personality trait was one part of the Big Five Inventory (BFI) ( $\alpha$  = .87) and in particular seven questions that were focused on extraversion assessment (John & Srivastava 1999). The part used was measured on a Likert-scale from 1 (strongly agree) to 5 (strongly disagree). Questions included "I see myself as Someone Who is full of energy" and "I see Myself as Someone Who is reserved". Necessary reverse coding was applied in accordance to the bibliography in order to assess and report the data.

The last instrument used for the study was the Solitude Seeking Scale (Burger, 1995) (see Appendix J) which consisted of 16 questions. The scale was measured on a 7 point scale from 1 (strongly agree) to 7 (strongly disagree). Questions included "I do not like being alone" and "Being apart from other people for long periods of time does not bother me". Reverse coding according to the literature and meaning of the questions was performed before calculation.

### **Procedure**

The design and method was approved by the Social Psychology department of Tilburg University similarly to study 1. A 2x2 factorial design was used for the present study (Low and High Extraversion) which consisted of two levels each. The questionnaire was distributed electronically in the same manner as the previous study to ensure the standard reliability of the process. It included more relations between introversion/extraversion and the dimensions in the

SCM as stereotypes with the additional variable of job type included in the analysis. Participants were presented with one of 4 scenarios (see Appendix E) in a randomized manner. Demographic questions were asked before the start of the study which addressed gender, age, interaction levels at the workplace, type of job and educational level. After the end of the study a debriefing form with the information of the researcher was provided for further questions about the research.

This study examined perception of introversion/extraversion of stereotypes in jobs that require social skills (e.g., a customer service) than jobs to which social skills are less central (e.g., an accountant). That manner was used to provide more insight in perception of jobs that may require more solitude or people that prefer to less sociable and to what extent the perception of others towards them can be affected. The sample consisted of less extraversion group vs. more extrovert employees with an additional descriptive variable about their type of work. The two groups were create through splitting on the median in order to create measurable variables. The two categories of job were: 1) jobs that require social traits (e.g. customer service) 2) jobs that don't require social traits as much (e.g. accountant).

In order to have a manipulation for participants in the study an indicative situation was created without naming the individual and job type was provided as a mean to show if the person in question is considered an introvert or an extrovert and to assess better.

### **Results**

### Scenarios Without job type

A two- way ANOVA analysis was conducted which found that there was a non-significant main effect of Extraversion F(1, 23) = .201, p = .661 or Social interaction at Work F(4, 23) = .228, p = .228

= .918 on the Introvert Perception, and there was no statistically significant effect of Extarversion and Social interaction at work F(3, 23) = .188, p = .902 (see table 1)

ANOVA analysis was conducted which found that there was a non-significant main effect of Extraversion F(1, 23) = 1.281, p = .275 or Social interaction at Work F(3, 23) = .425, p = .738 on the Extrovert Perception. No effect of statistical significance was found in the interaction effect between the two F(3, 23) = .358, p = .784 (see table 2)

### Scenarios with job type

ANOVA analysis was conducted which found that there was a non-significant main effect of Extraversion F(1, 17) = 2.773, p = .127 or Social interaction at Work F(4, 17) = .624, p = .656 on the Introvert Perception, and there was no statistically significant effect of Extraversion and Social interaction at work F(1, 23) = .001, p = .972 (see table 3)

ANOVA analysis was conducted which found that there was a non-significant main effect of Extraversion F(1, 16) = 2.197, p = .177 or Social interaction at Work F(4, 16) = .693, p = .617 on the Extrovert Perception. No effect of statistical significance was found in the interaction effect between the two F(4, 16) = .727, p = .513 (see table 4)

The average score of participants in solitude seeking was 60 (SD = 9.66) with skewness of .106 (SE = .271) and kurtosis of .158 (SE = .535)

#### Discussion

Summarizing the hypothesis once more, on the first study it was expected that the lower the extraversion trait on the individual will result in higher feeling of workplace ostracism. The second study did not confirm that lower or higher extraversion would contribute to person perception as neither did social interaction on the job. The results were not significant in the present study therefore the hypotheses were not confirmed. Consequently, the current findings are not in the same line with previous studies measuring the same variables (Nielsen, Glasø & Einarsen, 2017). Several factors could be taken into consideration to provide meaningful explanations for the present findings. Considering the novelty of examining workplace ostracism it is a topic for employees which are currently working that can be difficult to accept. Considering that they make a conscious decision of working in that environment it would be proven counter-intuitive and would contribute to a cognitive dissonance if they accepted the fact that ostracism occurs (Niu, Sun, Tian, Fan & Zhou. 2016). To examine further, mood was not controlled as the survey was distributed electronically therefore it may have played a vital role in perception (Nezlek, Wesselmann, Wheeler & Williams, 2015). The lack of significant data does not devoid the study of its importance as industries are becoming more multicultural and employees social perception is of crucial importance for job performance as well. International companies incorporate many different personalities and their differences on perception was not fully considering in the present study but it is acknowledged as a potential variable to have affected results (Elfenbein, Barsade, Eisenkraft & Desteno, David, 2015).

Regarding the generalizability of these five personality dimensions, Afshan, Askari & Manickam (2015) studied people from more than 50 different cultures and the results were striking: they found that the five dimensions could be accurately used to describe personality

across the different cultures. So, it could be reasonable to state that the big five traits are also remarkably universal. Based on this research, many psychologists now state that the five personality dimensions are not only universal but they are also stable. In fact, evidence are coming from longitudinal studies (Lei, Yang & Wu, 2015; Gale, Edwards, Morris, Moore & Forrester, 2001) suggesting that these big five personality traits tend to be relatively stable over the course of adulthood. But, recent studies have also shown that maturation might have an impact on the five traits. For example, people tend to become less extraverted, less open to experience and less neurotic as they are getting older (Tov, Nai & Lee, 2016). On the other hand, the dimensions of agreeableness and conscientiousness tend to increase as people grow older. In regard to extraversion and being close to a goal at the workplace has shown to affect personality state which partially explains the lack of significant data on the present study (Wilt Bleidorn & Revelle, 2016). Taking into account the considerable age range of the present studies and lack of data that support the hypothesis, there is a possibility for further exploration on the subject.

Taken into account the non significant results multicultural environment and workplace culture of each company, a contribution of this study would be to create higher focus on company culture. More specifically different companies may possess different types of culture which do not allow the employees to fully assess each other personality, at least during the workday (Fitzsimmons, 2013). Many employees are familiar with more than one culture which constitute benefits but also create a gap on interpretation of social actions and tasks. Especially on countries with multicultural staff in every industry the creation of a focused sample to examine is becoming increasingly but the present study demonstrates the importance to assess such sample in order to explore the topic further.

Furthermore, the perception of personality dimensions as a scale require further examination as there is no valid instrument that determines how the individual may characterize another person. As mentioned earlier maturity and age play a crucial role (Tov, Nai & Lee, 2016) and the implications of the present study indicate that specify is required not only for the perception but only the age and characteristics of the observer. As the hypothesis was not confirmed this indicates as future reference the creation of more valid instrument and guidelines for usage as it is a topic that is still under exploration. In Addition there has been indications of Emotional Intelligence affecting social perception and as the present study was not confirmed it indicated the topic as important for more exploration which may provide significant findings (DeBusk & Austin, 2011). The study from 87 participants showed that emotional intelligence contributed to better perception of emotions and specific personality traits.

### Limitations

One of the limitations of the present studies can be considered the sample size.

Considering the broad spectrum of experiencing workplace ostracism and perceiving introversion traits in other coworkers it would require as it was evident in this research a larger sample. In addition the sample was from an international environment which cultural differences may have made a difference as the study of (McCrae et al., 2000) has shown. Focusing on study 2, the present study denotes the complexity of the topic as the lack of significant data is evident of variables not yet examined adequately for research. Imaginary scenarios may not have been enough for manipulation as text is evidently not the most effective medium of affecting perception (Geldof, Van Wassenaer, De Kieviet, Kok & Oosterlaan, 2012). As the study of Verleur Heuvelman & Verhagen (2011) demonstrates, in order for the person to be affected in a level that his/her perception will provide an effective response, an audiovisual stimulus may have

been proven more efficient in that aspect. Apart from the stimulus, being in a non-controlled environment is a limitation that has to be taken into consideration as particularly in the present study, filling the survey in the workplace may been an extraneous variable that devoided the participants from responding in all honesty and without disruptions. For a future suggestion, short clips inside a controlled environment can provide improved data and information on the topic.

An additional limitation that can interpret the results is the current mood of the participant which has been shown to be crucial in person perception (Forgas & Bower, 1987). The present studies did not include a scale on mood therefore it lacked a variable that would have produced a sample of greater accuracy for the topic. On the same topic, situational variables may have affected perception at the time and contributed to responses that did not reflect personal response rather situational perception of the topic. Considering it is a variable which is difficult to control it must be considered as a possible limitation to the current study (Wilt, Funkhouser & Revelle, 2011). Extraneous variables may have included office noise and ability to concentrate on the survey as there was specific time period that the survey was distributed.

### **Implications**

The present study has not succeeded in confirming its hypotheses but has contributed on presenting the difficulty of exploring the subject of extraversion exploration in working conditions. As countries become more accessible to employees especially in the EU this topic would become of increasing interest. Even though the data was not of significant value it created a precedent of how to approach social perception research regarding the workplace and what are

the variables which should be more carefully examined. In addition, the conditions to be avoided are mentioned in order to create a more concrete sample. Another contribution was the suggestion of providing a different kind of manipulation than simple scenarios in a text as it was not proven effective in an organizational environment. This study is more closely associated with offering social psychology guidelines for further studies but can also be proven potentially beneficial to organizational topics as social perception and stereotypes have not be thoroughly explored in relation to job outcomes.

## **Suggestions for future research**

As mentioned earlier in the discussion, an international sample even if it from a homogeneous sample may not be the optimal choice for this kind of research. Focused research on countries and even culture specific surveys could be more effective. Furthermore workplace ostracism can be argued to differ from one organization to another and considering also the different cultures. It would be beneficial for industries to examine in more specificity as industries are becoming increasingly multicultural and the effects of such variance are not yet explored. Another suggestion can include the examination of traits across ages as Tov, Nai and Lee (2016) have indicated that different age groups affect extraversion traits and therefore it can be beneficial for social and industrial psychology to explore the topic. The benefits of such research would be higher coherence of teams that understand age gap differences.

### References

- Afshan, A., Askari, I., & Manickam, L. (2015). Shyness, Self-Construal, Extraversion— Introversion, *Neuroticism, and Psychoticism*. SAGE Open, 5(2), SAGE Open, 2015, Vol.5(2).
- Andersen, S. M., & Klatzky, R. L. (1987). Traits and social stereotypes: Levels of categorization in person perception. *Journal of Personality and Social Psychology*, *53*(2), 235.
- Bass, B. M., Cascio, W. F., & O'connor, E. J. (1974). Magnitude estimations of expressions of frequency and amount. *Journal of Applied Psychology*, *59*(3), 313.
- Burger, J. M. (1995). Individual differences in preference for solitude. *Journal of Research in Personality*, 29(1), 85-108.
- Coetzee, M., Martins, N., Basson, J. S., & Muller, H. (2006). The relationship between personality preferences, self-esteem and emotional competence. *SA Journal of Industrial Psychology*, *32*(2), 64-73.
- Coplan, R. J., Girardi, A., Findlay, L. C., & Frohlick, S. L. (2007). Understanding solitude: Young children's attitudes and responses toward hypothetical socially withdrawn peers. *Social Development*, *16*(3), 390-409.
- DeBusk, K. P., & Austin, E. J. (2011). Emotional intelligence and social perception. *Personality* and *Individual Differences*, 51(6), 764-768. (emotional intelligence)
- Detrixhe, J. J., Samstag, L. W., Penn, L. S., & Wong, P. S. (2014). A Lonely Idea: Solitude's Separation from Psychological Research and Theory. *Contemporary Psychoanalysis*, 50(3), 310-331.

- Digman, J., & Geen, Russell. (1997). Higher-Order Factors of the Big Five. *Journal of Personality and Social Psychology*, 73(6), 1246-1256.
- Edwards, & Collins. (2008). Evidence for the Big Five personality trait structure in memory organization. *Personality and Individual Differences*, 44(7), 1465-1473.
- Elfenbein, H., Barsade, S., Eisenkraft, N., & Desteno, David. (2015). The Social Perception of Emotional Abilities: Expanding What We Know About Observer Ratings of Emotional Intelligence. *Emotion*, 15(1), 17-34.
- Ferris, D. L., Brown, D. J., Berry, J. W., & Lian, H. (2008). The development and validation of the Workplace Ostracism Scale. *Journal of Applied Psychology*, *93*(6), 1348.
- Fiske, S. T., Cuddy, A. J., & Glick, P. (2007). Universal dimensions of social cognition: Warmth and competence. *Trends in cognitive sciences*, 11(2), 77-83.
- Fiske, S. T., Cuddy, A. J., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: competence and warmth respectively follow from perceived status and competition. *Journal of personality and social psychology*, 82(6), 878.
- Fitzsimmons, S. R. (2013). Multicultural employees: A framework for understanding how they contribute to organizations. *Academy of Management Review*, *38*(4), 525-549.
- Forgas, J. P., & Bower, G. H. (1987). Mood effects on person-perception judgments. *Journal of personality and social psychology*, 53(1), 53.
- Forouzande, R., Rastegari, M., & Nasiri, M. (2010). Leadership effectiveness among nurse managers and its relationship with extrovert/introvert personality. *Iranian Journal of Nursing and Midwifery Research*, 14(4).

- Galanaki, E. (2004). Are children able to distinguish among the concepts of aloneness, loneliness, and solitude?. *International Journal of Behavioral Development*, 28(5), 435-443.
- Gale, Edwards, Morris, Moore, & Forrester. (2001). Extraversion–introversion, neuroticism–stability, and EEG indicators of positive and negative empathic mood. Personality and Individual Differences, 30(3), 449-461.
- Geldof, Van Wassenaer, De Kieviet, Kok, & Oosterlaan. (2012). Visual perception and visual-motor integration in very preterm and/or very low birth weight children: A meta-analysis. Research in Developmental Disabilities, 33(2), 726-736.
- Gizatullina, A., Satiyeva, S., Kunslyamova, T., Edigenova, A., Zhanna, Z., Burahanova, A., & Nurgazina, M. (2016). Comparative Analysis of Gender and Age Differences in the Visions of Solitude. *Indian Journal of Science and Technology*, 9(20).
- Goodwin, G. P. (2015). Moral character in person perception. *Current Directions in Psychological Science*, 24(1), 38-44.
- Gosling, S. D., Rentfrow, P. J., & Swann, W. B. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in personality*, *37*(6), 504-528.
- Hearn, S., Saulnier, G., Strayer, J., Glenham, M., Koopman, R., & Marcia, J. (2012). Between Integrity and Despair: Toward Construct Validation of Erikson's Eighth Stage. Journal Of Adult Development, 19(1), 1-20.
- Hills, P., & Argyle, M. (2001). Happiness, introversion–extraversion and happy introverts. *Personality and individual Differences*, *30*(4), 595-608.

- Jackson, E. (2016). Alone and Together With Myself: How Do We Experience

  Solitude?. Existential Analysis: Journal of the Society for Existential Analysis, 27(2).
- John, O. P., & Srivastava, S. (1999). The Big-Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (Vol. 2, pp. 102–138). New York: Guilford Press.
- Jung, J., Lee, Y., & Karsten, R. (2012). The Moderating Effect of Extraversion–Introversion

  Differences on Group Idea Generation Performance. Small Group Research, 43(1), 3049.
- Kayiş, Satici, Yilmaz, Şimşek, Ceyhan, & Bakioğlu. (2016). Big five-personality trait and internet addiction: A meta-analytic review. Computers in Human Behavior, 63, 35-40.
- Leary, M. R., Herbst, K. C., & McCrary, F. (2003). Finding pleasure in solitary activities: desire for aloneness or disinterest in social contact?. *Personality and Individual Differences*, *35*(1), 59-68
- Lei, X., Yang, T., & Wu, T. (2015). Functional neuroimaging of extraversion-introversion.

  Neuroscience Bulletin, 31(6), 663-675.
- Leung, A. S., Wu, L. Z., Chen, Y. Y., & Young, M. N. (2011). The impact of workplace ostracism in service organizations. *International Journal of Hospitality*Management, 30(4), 836-844.
- Long, C. R., & Averill, J. R. (2003). Solitude: an exploration of benefits of being alone. *Journal* for the Theory of Social Behaviour. 33(1). 2144.

- Long, C. R., Seburn, M., Averill, J. R., & More, T. A. (2003). Solitude experiences: Varieties, settings, and individual differences. *Personality and Social Psychology Bulletin*, 29(5), 578-583.
- Lovik, Nassiri, Verbeke, Molenberghs, & Sodermans. (2017). Psychometric properties and comparison of different techniques for factor analysis on the Big Five Inventory from a Flemish sample. Personality and Individual Differences, Personality and Individual Differences.
- McCrae, R., Bock, P., Marsella, A., Dubanoski, J., Hamada, W., Morse, H., John, O. (2000).

  Personality traits and culture: New perspectives on some classic issues. American

  Behavioral Scientist, 44(1), 10-157.
- Nezlek, J., Wesselmann, E., Wheeler, L., & Williams, K. (2015). Ostracism in Everyday Life:

  The Effects of Ostracism on Those Who Ostracize. The Journal of Social Psychology,

  155(5), 432-451.7-80.
- Nielsen, M. B., Glasø, L., & Einarsen, S. (2017). Exposure to workplace harassment and the Five Factor Model of personality: A meta-analysis. *Personality and individual differences*, 104, 195-206.
- Nilsson, B., Lindström, U. Å., & Nåden, D. (2006). Is loneliness a psychological dysfunction? A literary study of the phenomenon of loneliness. *Scandinavian journal of caring sciences*, 20(1), 93-101.
- Niu, Sun, Tian, Fan, & Zhou. (2016). Resilience moderates the relationship between ostracism and depression among Chinese adolescents. Personality and Individual Differences, 99, 7

- Robinson, Noftle, Guo, Asadi, & Zhang. (2015). Goals and plans for Big Five personality trait change in young adults. Journal of Research in Personality, 59, 31-43.
- Robinson, S. L., O'Reilly, J., & Wang, W. (2013). Invisible at work: An integrated model of workplace ostracism. *Journal of Management*, 39(1), 203-231.
- Ruiz-Casares, M. (2012). "When It's Just Me at Home, It Hits Me That I'm Completely Alone": An Online Survey of Adolescents in Self-Care. *The Journal of psychology*, *146*(1-2), 135-153.
- Sato, T. (2005). The Eysenck personality questionnaire brief version: Factor structure and reliability. *The Journal of psychology*, *139*(6), 545-552.
- Soto, & John. (2009). Ten facet scales for the Big Five Inventory: Convergence with NEO PI-R facets, self-peer agreement, and discriminant validity. Journal of Research in Personality, 43(1), 84-90.
- Tov, W., Nai, Z., & Lee, H. (2016). Extraversion and Agreeableness: Divergent Routes to Daily Satisfaction With Social Relationships. Journal of Personality, 84(1), 121-134.
- Verleur, R., Heuvelman, A., & Verhagen, P. W. (2011). Trigger videos on the Web: Impact of audiovisual design. *British Journal of Educational Technology*, 42(4), 573-582.
- Wang, J. M., Rubin, K. H., Laursen, B., Booth-LaForce, C., & Rose-Krasnor, L. (2013).Preference-for-Solitude and Adjustment Difficulties in Early and LateAdolescence. Journal Of Clinical Child & Adolescent Psychology, 42(6), 834-842.
- Wesselmann, E. D., Hales, A. H., Ren, D., & Williams, K. D. (2015). A Temporal Need Threat Framework. *Handbook of Personal Security*, 191-205

- Williams, K. D. (2009). Ostracism: A temporal need-threat model. *Advances in experimental* social psychology, 41, 275-314
- Wilt, J. A., Bleidorn, W., & Revelle, W. (2016). Velocity explains the links between personality states and affect. Journal of Research in Personality.
- Wilt, J., & Revelle, W. (2011) Oxford Handbooks Online.
- Wilt, J., Funkhouser, K., & Revelle, W. (2011). The dynamic relationships of affective synchrony to perceptions of situations. *Journal of Research in Personality*, 45(3), 309-321.
- Wojciszke, B. (2005). Morality and competence in person-and self-perception. *European review* of social psychology, 16(1), 155-188.
- Yang, J., & Treadway, D. C. (2016). A Social Influence Interpretation of Workplace Ostracism and Counterproductive Work Behavior. *Journal of Business Ethics*, 1-13.

Table 1					
Analysis of Introvert Perception Across Extraversion and Work Social Interaction					
Source	Df	F	$\eta^2$	p	
Extraversion	1	0.201	0.013	0.661	
Social interaction	4	0.228	0.058	0.918	
Extraversion*Social intera	3	0.188	0.036	0.902	
Error	14				

Note. N=23

Table 2						
Analysis of Extrovert Perception Across Extraversion and Work Social Interaction						
Source	Df	F	$\eta^2$	p		
Extraversion	1	1.281	0.069	0.275		
Social interaction	3	0.425	0.068	0.738		
Extraversion*Social intera	3	0.358	0.058	0.784		
Error	15					

*Note*. N=23

Table 3					
Analysis of Introvert/job Perception Across Extraversion and Work Social Interaction					
Source	Df	F	$\eta^2$		p
Extraversion	1	2.773	0.186		0.127
Social interaction	4	0.624	0.167		0.656
Extraversion*Social intera	3	0.001	8.357		0.972
Error	10				

*Note*. N=17

Table 4							
Analysis of Extrovert/job	Analysis of Extrovert/job Perception Across Extraversion and Work Social Interaction						
Source	Df	F	$\eta^2$	p			
Extraversion	1	2.197	0.152	0.177			
Social interaction	4	0.693	0.192	0.617			
Extraversion*Social intera	. 4	0.1	8.357	0.513			
Error	8						

*Note*. N=16

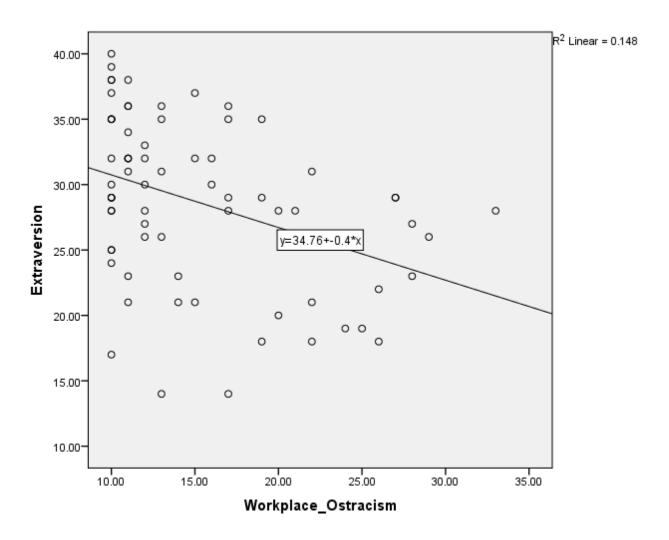


Figure: Scatterplott of correlation coefficient

### Appendix A

#### **Informed consent**

### Description

If you choose to participate, you will be asked some questions about your workplace, yourself and indicate your perception on a topic.

## Confidentiality

All of the information that we obtain from your session is anonymous. There will be no record that links the data collected from you with any personal data from which you could be identified (e.g., your name, address, email, etc.). These anonymous data may be made available to researchers via accessible data repositories and possibly used for novel purposes.

### Voluntary Nature of Participation

Your decision to participate in this study is completely voluntary. Thus, you may refuse to join the study or terminate your participation at any time without negative consequences. Should you wish to terminate your participation at any point, you only need to close the browser window.

### **Contact Information**

If you have any questions or concerns about this study, you may contact the contact persons for this study: Antonios Tsiras.

## Appendix B

### **Debriefing Statement**

Thank you for participating in this study on Extroversion, introversion, and Workplace ostracism!

In this study, we were interested in how being an introvert or extrovert can change perception of ostracism in the workplace.

Your participation will help us increase our understanding of how people are being perceived inside the workplace in accordance to workplace ostracism and may help us develop methods to help people with cooperate better and being able to assess with better understanding of how extroversion and ostracism functions.

Please do not share the purpose of the study with other people who might participate in this study. This could make the results of the study less accurate and useful.

Thank you!

## Appendix C

## Eysenck Personality Questionnaire

1- Strongly agree 2- Somewhat agree 3- Neither agree nor disagree 4- Somewhat disagree 5- Strongly disagree

You are a talkative person

Do you enjoy meeting new people

Can you usually let yourself go and enjoy yourself at a lively party

Do you usually take the initiative in making new friends

Can you easily get some life into a rather dull party

Do you tend to keep in the background on social occasions

Do you like mixing with people

Do you like to plenty of action and excitement around you

Are you mostly quiet when you are with other people

Do other people think of you as being very lively

Can you get a party going

## Appendix D

## Workplace Ostracism Scale

Responses: 1- Strongly agree 2- Somewhat agree 3- Neither agree nor disagree 4- Somewhat disagree 5- Strongly disagree

Your greetings have gone unanswered at work.

Others refused to talk to you at work.

Others at work treated you as if you were not there.

Others left the area when you entered.

You involuntarily sat alone in a crowded lunchroom at work.

Others ignored you at work

Others avoided you at work

You noticed others would not look at you at work

Others at work shut you out of the conversation

Others at work did not invite you or ask you if you wanted anything when they went out for a coffee break

### Appendix E

### **Informed consent**

### Description

If you choose to participate, you will be asked some questions about your workplace, yourself and indicate your perception on a topic through an imaginary scenario.

### Confidentiality

All of the information that we obtain from your session is anonymous. There will be no record that links the data collected from you with any personal data from which you could be identified (e.g., your name, address, email, etc.). These anonymous data may be made available to researchers via accessible data repositories and possibly used for novel purposes.

### Voluntary Nature of Participation

Your decision to participate in this study is completely voluntary. Thus, you may refuse to join the study or terminate your participation at any time without negative consequences. Should you wish to terminate your participation at any point, you only need to close the browser window.

#### **Contact Information**

If you have any questions or concerns about this study, you may contact the contact persons for this study: Antonios Tsiras.

### Appendix F

## **Debriefing Statement**

Thank you for participating in this study on Extroversion, introversion, and stereotype perception in the workplace!

In this study, we were interested in how being an introvert or extrovert can change perception of others in the workplace. The difference addressed perception of others in the aspects of Warmth, competence and morality. Here you were a questionnaire which included examination of these aspects. The questionnaires with a hypothetical scenario was used create a better circumstance to examine introversion stereotypes. In the last questionnaire an extra aspect of level of socialization depending on the type of work was also included.

Your participation will help us increase our understanding of how people are being perceived inside the workplace in accordance to stereotypes and may help us develop methods to help people with cooperate better and being able to assess with better understanding of how stereotyping and ostracism functions.

Please do not share the purpose of the study with other people who might participate in this study. This could make the results of the study less accurate and useful.

Thank you!

### Appendix G

#### Scenarios

#### 1. Introvert scenario

Imagine one of your colleagues is reserved and shy at work. This person prefers to stay quiet in daily interactions and is generally inhibited in the workplace. In your opinion, to what extent would the following traits characterize this person?

#### 2. Extrovert scenario

Imagine one of your colleagues is talkative and generates a lot of enthusiasm at work. This person seems full of energy in daily interactions and is generally sociable and outgoing in the workplace. In your opinion, to what extent would the following traits characterize this person?

### 3. Job Type Introvert Scenario

Imagine one of your colleagues in Accounting is reserved and shy at work. This person prefers to stay quiet in daily interactions and is generally inhibited in the workplace. In your opinion, to what extent would the following traits characterize this person?

## 4. Job Type Extrovert Scenario

Imagine one of your colleagues in Human Resources Department is talkative and generates a lot of enthusiasm at work. This person seems full of energy in daily interactions and is generally sociable and outgoing in the workplace. In your opinion, to what extent would the following traits characterize this person?

Appendix H

# Person Perception Scale

(After each scenario): In your opinion, to what extent would the following traits characterize this person?

	Not at all	very little	slightly	Neutral	moderately	y very muc	h Extremely
Sincere	0	0	0	$\circ$	$\circ$	0	0
Honest	0	0	0	$\circ$	$\circ$	0	0
Righteous	0	0	0	0	$\circ$	0	0
Trustworthy	0	0	0	0	0	0	0
Respectful	0	0	0	0	0	0	0
Kind	0	0	0	0	0	0	0
Friendly	0	0	0	0	$\circ$	0	0
Warm	0	0	0	0	0	0	0
Likeable	0	0	0	0	$\circ$	0	0
Helpful	0	0	0	0	0	0	0
Intelligent	0	0	0	0	0	0	0
Competent	0	0	0	0	0	0	0
Efficient	0	0	0	0	$\circ$	0	0
Skillful	0	0	0	0	0	0	0
Capable							

## Appendix I

Scale: Extraversion part

The Big Five Inventory (BFI)

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

1)Disagree strongly 2) Disagree a little 3) Neither agree nor disagree 4) Agree a little 5) Agree Strongly

I see Myself as Someone Who...

- 1) Is talkative
- 2) Is reserved
- 3) Is full of energy
- 4) Generates a lot of enthusiasm
- 5) Tends to be quiet
- 6) Has an assertive personality
- 7) Is sometimes shy, inhibited
- 8) Is outgoing, sociable

## Appendix J

### Solitude-Seeking Scale

To what extent each of the following statements applies to you? Please rate your answer on a 5-point scale  $(1 = not \ at \ all; 5 = very \ much)$ .

- 1. I do not like being alone. (R)
- 2. Being apart from other people for long periods of time does not bother me.
- 3. I enjoy the pleasure of solitude.
- 4. I see myself as a loner.
- 5. The perfect weekend is spent alone.
- 6. I prefer spending Friday night alone rather than being with others.
- 7. The perfect vacation would be with lots of people around. (R)
- 8. My dream vacation is to be alone with no connections to others.
- 9. With free time, I prefer to be with others. (*R*)
- 10. I feel I can think clearer when alone.
- 11. Solitude helps me center myself.
- 12. I do not understand people who choose to be alone. (R)
- 13. I need time each day alone to collect my thoughts.
- 14. Spending time alone enhances my day.
- 15. I need time alone each day.
- 16. Being with others for extended amounts of time becomes unbearable.