

Give and Take: Validity, Personality Profiling, and Individual Success

by
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Master of Science
Florida Institute of Technology
2011

A dissertation submitted to
College of Psychology and Liberal Arts at
Florida Institute of Technology
in partial fulfillment of the requirements for the degree of

Doctor in Philosophy
in
Industrial/Organizational Psychology

Melbourne, Florida
June, 2017

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The undersigned committee hereby recommends that the attached document be accepted as fulfilling in part the requirements for the degree of Doctor of Philosophy in Industrial/Organizational Psychology.

“Give and Take: Validity, Personality Profiling, and Individual Success”
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Abstract

Title:

Give and Take: Validity, Personality Profiling, and Individual Success

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This research addresses two critical aspects of organizational performance: (1) identification of individuals who have the potential to become the organization's greatest assets and (2) identification of individuals who are likely to be the organization's greatest liabilities. The greatest assets, contributing the most value to the organization, are proposed to be individuals with a predisposition to engage in a prosocial interaction style referred to as *give*. The greatest liabilities, engaging in behaviors contradicting organizational goals, are proposed to be individuals with an antisocial interaction style referred to as *take*. Although both givers and takers can be highly successful as individuals, the difference between the two has been argued to be their altruistic versus egoistic approach to providing value to the organization (Grant, 2013). So far, very limited research has evaluated give and take as a construct and a measure (Utz, Muscanell, & Goritz, 2014), and no research has evaluated the relationship between personality and give and take. Therefore, the current research first evaluates the give and take concept and corresponding measure. Second, the extent to which give and take is related to underlying personality profiles is examined. Lastly, the

extent to which the identified personality profiles can be used to predict employee performance is evaluated. Results from the validation study suggest give and take is a construct distinct from yet similar to other existing constructs and that the measure can be used to determine an individual's social interaction style. Results also suggest givers, takers, and matchers have different underlying personality profiles and that the three styles differentially predict various individual success factors. The implications of the current research are directly related to talent management, as findings can be applied to identification and development of the most beneficial employees as well as to identification of those individuals who may be particularly detrimental to the organization.

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Acknowledgement

For several years my dream of one day pursuing my doctoral degree grew stronger and stronger, but I never really thought I would do it. When I one day was presented the opportunity to make reality of my dream, I quickly ignored any doubt or concern I had about my ability to pursue a Ph. D, and jumped on board. For this opportunity I will be forever thankful! Although I was prepared for the hard work I knew was required, I could never have imagined the mental and emotional struggles I would go through. I cannot describe the gratitude I feel towards my amazing advisor Pat for guiding and mentoring me through this journey, which I many times thought was never-ending. I could not have asked for a better, smarter, or more supporting advisor. Sometimes I (almost) wish the journey was not over yet as I still have so much to learn from him.

I also want to direct a huge thank you to my committee members Jessica Wildman, Zhiqing Zhou, and Deborah Carstens for their guidance and valuable efforts to improve my research. I would like to thank Jessica specifically for sharing her great knowledge in team research. Jessica transformed my interest in groups and teams from quite low to something I now find highly interesting. I would like to thank Zhiqing specifically for teaching me advanced statistics. Zhiqing's ability to break down statistics and providing alternative explanations was invaluable for my understanding of statistics. I would like to thank Deborah specifically for her interest in my research from the very beginning. I also want to thank my former classmate and friend Stephen Young, as well as his colleagues at the Center for Creative Leadership, for providing me with the data I needed for the final part of my research.

Many people have, during different periods, been instrumental in helping me finish and I would like to especially express my appreciation towards my cohort, my friends, and my family. My cohort, who adopted me two years into their Ph.D, made me feel like I had always been part of their crew, and helped me survive the program. I would like to especially thank Charlie and Agnes for helping me stay sane while preparing for my biggest challenge so far, the comprehensive exam, and for their great friendship. My friends outside of the program, for always being there for me in spite of the physical distance between us. Finally, I could not have done this without the tireless encouragement and support from my family.

Introduction

Schneider (1987) stated that “organizations are functions of the kinds of people they contain” and that “the people make the place” (p. 437). With this, Schneider highlights the fundamental importance of individuals and their characteristics to organizations and how organizational performance is dependent on what applicants are attracted, who is selected, and which employees choose to stay with the organization (i.e., the attraction-selection-attrition [ASA] model). Statements like these have contributed to the common understanding among both researchers and practitioners that employing the right people is critical for organizational success and, due to careful evaluations of candidates during the selection process, the right employees are assumed to be hired. As a result of this shared understanding, many companies put forth the notion that their people are their greatest asset. However, due to the large number of recruiting mistakes that occur (Babiak & Hare, 2006; Hogan & Hogan, 2001) as well as the amount of negative employee behaviors recorded (i.e., counterproductive work behavior; Greco, O’Boyle & Walter, 2015), referring to all of an organization’s employees as its greatest asset may be not only misleading but wrong.

The benefits of good hires and the costs of bad hires are widely known. Successful hires are known to bring productivity and high performance to the organization, whereas hiring the wrong person can be extremely costly to any organization with estimated costs between \$25,000 and \$50,000 (Williams, 2012). Furthermore, this is likely to be an underestimate, as it only includes the direct costs and not potential indirect costs such as demoralizing effects on other employees, likely resulting in a decrease in their performance. Research on negative employee behaviors, commonly referred to as antisocial behaviors (Giacalone & Greenberg, 1997), clearly

shows that some employees are simply not good for the organization (Babiak & Hare, 2006; Dunlop & Lee, 2004).

Given this, identifying individuals who will become the organization's greatest assets as well as those who are likely to engage in behaviors that will hurt the organization is critical to organizational functioning. Recent research (Grant, 2013) directly related to this issue suggests that some individuals can be considered invaluable assets, whereas others, in spite of their competence and ability to succeed within some aspects of the job, should not be considered part of this same group of successful and desired employees. Instead, these individuals should be eliminated from the recruiting process and, when already existing inside the organization, their behaviors need to be well managed to prevent against extremely selfish behaviors that are harmful to the organization and its members. Translating Grant's argument to the issues raised in terms of selection of employees for various positions, it can be argued that some employee characteristics are likely to be beneficial and some dysfunctional no matter the context and should hence serve as minimum requirements for any type of job.

More specifically, this recent work suggests that individuals who may be considered the greatest assets, because of their outstanding contributions to the organization, engage in behaviors focused on helping other people towards high performance and success, without having any self-benefitting motives and without letting their own performance suffer due to their prosocial behaviors (Grant, 2013). By constantly having others' best interest in mind, this group of employees is able to reach greater success than other employees, across industries and jobs. This group of individuals can be argued to have a giving character because of their similar belief system in terms of other-orientation during social interactions. On the contrary, the

group of individuals argued to harm the organization to such an extent that their presence within any organization can be questioned tend to have a dysfunctional self-serving agenda and share characteristics such as withholding important information, sharing fewer resources with others (Utz et al., 2014), using others for their own motives, engaging in immoral behaviors, and taking every chance to get ahead of others without considering what might be best for the collective or the organization (Grant, 2013). This group of individuals can be argued to have a taking character, because of their similar beliefs about social interactions as self-serving.

Based on previous research, the current research builds a case for why organizations should be very careful in referring to all of their employees as their greatest assets and why they should implement a strategy for identifying their true assets. It is argued that organizations will benefit from paying extra attention to two types of individuals, one that benefits the organization the most (the givers) and one that, in spite of their high performance in some aspects of the job, either directly or indirectly significantly hurts the organization (the takers).

Purpose of the Current Research

It has recently been argued that the most successful and the most destructive employees can be identified by understanding their social interaction styles in terms of preference to give to others versus take from others (Grant, 2013). Although Grant (2013) provides an impressive list of supporting arguments for his propositions (i.e., various ways in which the givers are the more valuable employees and the takers are the most dysfunctional employees), very little direct evidence exists for the three specific social interaction styles (i.e., give, take, and match) and their relationships to individual

and organizational outcomes (with the exception of research presented by Utz et al., 2014).

To better understand these concepts of give and take, how they relate to prosocial and antisocial behaviors and employees as assets versus liabilities, as well as who these individuals are, the current research has a threefold purpose: (1) to better understand the concept of give and take, (2) to explore how organizations can identify individuals belonging to each social interaction style, using personality assessments, and (3) to reveal how givers and takers impact the organization differently, through individual success factors. Increased understanding of give and take was accomplished through a validation study focusing on the concept and corresponding measure (see Grant, 2013). The second goal of the research, to identify individuals characterized as givers and takers through personality assessments only, was pursued using personality profiling. Personality profiling enables identification of personality traits that are typical to each social interaction style (i.e., give, take, and match). Lastly, to evaluate the hypothesized differential impact of givers and takers on various factors related to individual success, a third study analyzing the relationships between givers versus takers and various outcome variables, was conducted. Based on the information obtained through these three studies, preliminary conclusions regarding who is the greatest asset and who is a liability to the organization can be drawn. The list of potential implications from the proposed research is long, including implications related to selection and development of individuals, groups/teams, and the organization as a whole.

Summary of the Current Research

The concept of give and take has many commonalities with prosocial behaviors and antisocial behaviors. Givers, being individuals who contribute to the success of others, are argued to fall under the umbrella term of prosocial behavior (involving voluntary behaviors that are helpful to other people; Brief & Motowidlo, 1986; Eisenberg, Fabes, & Spinrad, 2007; Eisenberg, 2010), and these individuals are further argued to be the greatest assets to the organization. Takers, being individuals who engage in behaviors that contribute to their own success, are argued to fall under the umbrella term of antisocial behavior (involving behaviors that harm or are intended to harm any part of the organization; Giacalone & Greenberg, 1997), and these individuals are argued to be liabilities to the organization.

The current research therefore starts with a thorough description of the concept of give and take, followed by a review of prosocial and antisocial behavior to build a foundation for understanding how the concept of give and take relates to but is distinct from these two larger and well recognized concepts. Following this, a description of constructs and motives that theoretically should show convergent and discriminant relations with give and take is presented and their proposed relationships are evaluated. This part of the research lays the foundation for the validation study of give and take (Study 1). The potential for differential effects of give and take on individual outcomes related to career success are discussed next. Along with this, arguments are provided for why the concept of give and take may be important for individual success and performance factors, which are likely to influence organizational performance (Studies 1, 2, and 3 all investigate consequences of give and take). The potential relationship between personality traits and give and take is then discussed, and it is hypothesized

that give and take will be characterized by different underlying personality profiles (Study 2). Finally, these hypothesized personality profiles were applied to a different sample and the proposed differential impact of give and take on individual performance was examined (Study 3). Study 3 utilized an archival dataset consisting of a managerial sample, where their give and take profiles were evaluated against their performance obtained through a 360 degree feedback evaluation.

It is important to note that the current research focuses on an individual's overall tendency to engage in giving, taking, and matching behaviors and acknowledges that these types of behaviors can fluctuate over time.

Give and Take: A Social Interaction Style

In today's workplace, finding situations where no social interaction occurs is difficult, as most employees are in constant interaction with co-workers, supervisors, subordinates, clients, customers, or other collaborative partners. Effective social exchange relationships are therefore critical for success; no employee is able to succeed without successful interaction with other people whether the interaction is leader-subordinate, sales person-customer, or teamwork. In every social interaction, no matter the context or situation, we have to make a choice about the level of contribution to the other. Social interactions are commonly explained through Social Exchange Theory (SET; Blau, 1964), suggesting that social interactions are constant exchanges of favors, information, and other resources, with the purpose of the exchange being to reach individual goals (Lawler & Thye, 1999). Social exchanges are therefore argued to be guided by an individual's self-interest and interdependence (Lawler & Thye, 1999).

According to Grant (2013), an individual can choose between three different ways of interacting with others, which he refers to as three different social interaction styles.

These three styles are closely related to self-interest and interdependence as they revolve around a ratio of input versus output, or put in other words whether an individual decides to give/contribute to other people or take/receive from others. Social interactions can in this way be seen as a ratio game between providing beneficial acts and receiving beneficial acts. Most individuals try to balance the acts of providing and receiving help, support, resources, and information by keeping the ratio of give and take close to 1:1. This way of viewing social interactions is to most individuals the correct, or the normal, way of interacting with others, because in most societies this is viewed as the norm and hence it represents most individuals' belief system with respect to giving and taking behavior. Common to most societies is the philosophy of the social norm of reciprocity (Gouldner, 1960), which can be seen in ideas such as gratitude, mutual goodwill, and the Golden Rule. The norm of reciprocity explains why individuals feel the need to return favors and engage in the exchange behaviors argued by SET.

According to the norm of reciprocity, others will respond to us with behaviors similar to those we enact; hence, reciprocal actions can work in both a positive and a negative way (Gouldner, 1960; Chen, Chen & Portnoy, 2009). Beneficial actions are reciprocated in terms of favors similar in value and unfavorable treatments are repaid with actions of a similar negative value, such as in retaliation (Chen et al., 2009). The norm of reciprocity functions to motivate, create, sustain, and regulate various reciprocal behaviors involved in cooperative interactions.

Individuals with the preference for a style of interacting with others that builds on the social norm of reciprocity, where the expectation is to reciprocate actions of similar value, are referred to as matchers. These individuals systematically combine giving behavior with taking behavior in an attempt to keep a balance between receiving from

others and contributing to others (Grant, 2013). Recent research suggests that approximately 50 percent (i.e., 55%, Utz et al., 2014; 56%, Grant, 2016) of individuals can be classified as matchers. However, there are exceptions to this norm and not everyone has the same norm of reciprocity. This can be argued to be the reason why individuals differ in their social interaction styles. Some individuals have a norm of reciprocity that includes more giving than receiving, and others have a norm that is more heavily focused on taking from others than giving. These two groups of individuals are referred to as givers and takers, respectively (Grant, 2013). Previous research suggest that the second largest group, after the matchers, is the givers (i.e., 33% according to Utz et al., 2014; 25% according to Grant, 2016), and the least amount of people are classified as takers (i.e., 12%, Utz et al., 2014; 19%, Grant, 2016).

Support for individual differences in the preferred ratio between giving and taking behaviors can be seen in research on fairness as well. Individuals have been found to differ in their level of sensitivity to equity (Huseman, Hartfeld & Miles, 1985, 1987; Sauley & Bedeian, 2000). Some individuals believe situations are fair when they give more than they receive in comparison to others' give/take ratio (similar to the definition of a giver), whereas others view situations as fair when their give/take ratio is lower compared to others' (similar to the definition of a taker). Just as in the case of the matchers, most individuals view situations as fair when equality among individuals occur, such that their own ratio of giving and taking is equal to that of others'.

Research suggests that the three styles of social interaction are differentially effective and have different relationships with individual, group/team, and organizational success (Grant, 2013; Podsakoff, Ahearne, & MacKenzie, 1997; Utz et al., 2014). Based on such findings, it can be argued that the norm of reciprocity that

most individuals recognize as the typical way of living, including equal input and output, might not teach us the most successful way of living. Instead, we might be better off teaching our children the norm of giving without expectations of reciprocity. Due to their differences in belief systems and attitudes towards social interactions, givers, takers, and matchers are very different from each other; however, these difference may or may not be apparent to others until a deeper relationship is developed.

Givers, Takers, and Matchers

We can all likely identify individuals around us who seem to always look out for other people, find ways to help others towards success, take from their own time and resources to enable others to reach their goals, and very rarely turn to others asking for help. On top of their helpfulness and genuine care for others' well-being, these individuals perform their prosocial acts without seeming to care about how their beneficial behaviors impact themselves, and they do not expect to ever be repaid for helping others. Their genuine prosocial behavior is highly appreciated and it is apparent to others that they have no hidden agenda for helping. Most of us have also encountered individuals who seem to take every opportunity they can to benefit themselves as much as possible, who steal other's ideas using them as their own, and who ask others to help them with their work or provide them with favors but never give anything back in return, unless it in some way will ultimately be beneficial to them. These kinds of antisocial behaviors might not be obvious at first, as many of these individuals are experts at hiding their dysfunctional behaviors. However, the most common type of individual to run into in the workplace is someone who believes that giving and taking behavior should be balanced and hence as close to a 1:1 ratio as possible. If I help you, I expect you to repay the favor at a later time, and if someone provides me with help it is

my obligation to provide that person with a favor of similar value. These three types of individuals are what Grant (2013) refer to as givers, takers, and matchers, respectively.

Givers are individuals who selflessly provide help to other people without expecting anything in return for the favor. Givers choose to contribute to others because they genuinely care about helping others and give of their time and resources even if this means sacrificing their own time. Therefore, givers commonly look for opportunities to help others and are attentive to situations in which they can benefit another individual. Based on this, givers can be defined as *individuals who selflessly share their time, knowledge, skills, ideas, resources, and energy to help others succeed and do so without expecting anything in return*. In order to help others, these individuals actively seek out others who might need their help, are attentive to the needs of others, and offer to help others without being asked. Note here that selflessness and the goal of helping others reach success are key parts of the definition of givers, and these individuals do not consider how such actions might benefit themselves. Some givers seem to not even consider the potential costs of helping someone, which according to Grant (2013) can put givers in a position where their own performance suffers, they are being used by others, and they are seen as doormats.

According to Clark and Mills (1993), most people identify with being a giver in their close relationships, such as with their partner or close friends; however, within the workplace very few people continue to act like a giver (Grant, 2013). The reason for this can be argued to be the difference in what values are endorsed in peoples' personal lives versus their professional lives. Schwartz (2001) identifies the most common values among people across the world, which include helpfulness, responsibility, social justice, and compassion. These are typical values of a giver (Grant, 2013). However, something

changes when we enter the workplace, as these are not the values that most people endorse in that context. Instead, most people adopt a mentality of not wanting to give more than what they know they will receive in return (i.e., they become matchers; Grant, 2013).

Takers are characterized by behaviors that are the opposite of those seen in givers and these individuals commonly endorse values such as wealth (money and possessions), power, pleasure, and winning (Grant, 2013). Takers are individuals who are interested in receiving as much as possible from other people, while using as little as possible of their own resources. These individuals evaluate situations based on what they can gain and how they can maximize what they walk away with. In this way, they are maximizing their input-output ratio. These individuals can be perceived as willing to share information and resources and help others succeed, but the reason for engaging in such seemingly altruistic behaviors is not likely to be altruistic at all but purely selfish. Help is provided for the sole reason that it will most likely result in the beneficiary reciprocating something more valuable to the taker than what the taker put in. The taker is the coworker by the coffee machine always fishing for input on projects or showing interest in others' ideas, which they later present as their own, or the one that when asked for a favor never has time or knows the answer even though he/she does. They are also very strategic in who they befriend and create a good relationship with, which is all based on what resources the other person can provide. Takers are competitive and believe keeping information to themselves is a way of making sure others don't know as much as they do and look less competent. A common attitude of a taker is that everyone is responsible to look out for themselves, very few people can be trusted, and situations are never fair because someone is always trying to exploit you.

Common to all takers is their extreme interest in their own success, without any concerns about hurting others or ruining others' chances of success. Takers are therefore commonly known around the office as people who knowingly steal others' ideas and create a competitive and hostile work environment where people around them feel the need to protect their resources and look out for themselves. However, it should also be noted that some takers are extremely good at hiding their dark side, pretending to be helpful and caring about others and hence both successful and liked by others. However, as soon as others become aware of their true agenda and exploitative behaviors this changes quickly to dislike, distrust, and others distancing themselves from the taker. These takers perceived as givers can be referred to as fakers (Grant, 2013). This type of taker is likely to be the most difficult to identify and possibly also the most dangerous to have within the workplace. Based on this description, takers can be defined as *individuals who take from others and use others to benefit themselves, without any intentions of returning the favor or providing help to others, unless they see a value for themselves in such helpful or reciprocal behavior.* Note here that selfishness and using of others to reach one's own goals are key characteristics of these individuals' social interaction style.

As mentioned previously, within the workplace most individuals belong to the third category, referred to as *matchers* (Grant, 2013). Matchers are individuals who believe in even trades of favors between individuals. Individuals who use this third type of social interaction style therefore interact with others using a reciprocal interaction style characterized by a constant give and take mentality. These are individuals who do not mind doing favors for others, and in fact like helping others because they see helping as part of the social norm. They also believe that favors will be repaid and

hence will benefit them in the long term. This means that if they give something to someone, they expect to receive a favor of a similar value in return. The reciprocal behavior goes the other way around as well, such that if someone provides them with help they will match the beneficial gesture by repaying that individual. Based on this tit-for-tat attitude, matchers are defined as *individuals who strive towards equality between providing help and receiving help, and hence do not mind doing favors for others but when they do they expect a similar favor in return*. In short, they expect social interactions to be based on an equal amount of give and take, and hence try to balance input and output.

Give and Take: Prosocial and Antisocial Behavior

Give as Prosocial Behavior

Prosocial behavior is defined in broad terms as behaviors that are expected to be helpful for the target of the beneficial action (Brief & Motowidlo, 1986). Prosocial acts can be directed towards various sources/targets, such as a single individual, a group, an organization, or society (Brief & Motowidlo, 1986; Twenge, Baumeister, DeWall, Ciarocco, & Bartels, 2007). When directed towards other individuals, prosocial behavior is commonly defined as any voluntary behavior performed with the intention to benefit another person (Eisenberg, Fabes, & Spinrad, 2007; Eisenberg, 2010). Examples of helpful actions categorized as prosocial behavior include helping someone with a task or personal matter, sharing information or resources, providing support, and volunteering for tasks to ease the labor of someone else. Within the organizational setting, these acts of providing help are performed by a member of the organization, directed towards another individual (e.g., colleague, client, or customer) or some part of the organization (e.g., group, department, or organization) whom the employee interacts

with in his/her role, and the intention must be to benefit the target (Brief & Motowidlo, 1986).

Given this definition, prosocial behavior does not have to involve caring about others well-being (e.g., having an altruistic motive for engaging in beneficial actions towards others). In fact, an individual can behave prosocial for purely egoistic reasons (Batson, Ahmad, & Stocks, 2011; Baston, 2012). For example, an individual might want to help an elderly individual with his/her grocery bags to the car to impress someone who is watching or an employee may help a colleague or volunteer for a task to make a good impression on his/her boss. However, common to many definitions of prosocial behavior is the fact that the helpful actions have no intended benefit for the helper, and can even many times involve costs to the actor. This genuine prosocial behavior can be seen as a specific form of prosocial behavior referred to as altruism.

Altruism can be defined as engaging in prosocial acts without expecting direct or indirect reciprocal benefits as a result of helping someone (Simpson & Willer, 2008). Some forms of altruism involve so little consideration to the self that it can be directly dangerous and harmful to the individual performing the altruistic act. The most extreme form of altruism can be seen in actions where showing concern for others' well-being and providing others with help impose great, sometimes life threatening, risks to the provider of the service. One such type of prosocial behavior that can be extremely costly for the actor is whistleblowing. Whistleblowing refers to disclosure of information regarding an individual's or organization's illegal, immoral, or illegitimate practices, by a former or current member of the organization (Miceli, Near, & Dworkin, 2013). Another example of this type of more risky prosocial behavior is bravery, which is defined as "voluntarily risking one's own life to save the lives of others" (Dunlop &

Walker, 2013, p.380). Bravery can be seen in rescue missions or other situations where individuals face a situation where they have to choose between keeping safe themselves versus ensuring someone else's safety.

Whether acts can ever be truly altruistic is an ongoing debate (Knickerbocker, 2003). One side of the debate argues for the existence of true altruism (Batson, Ahmad, & Stocks, 2010; Batson et al., 2011; Batson, 2010) and the other side argues that even what might look like the purest altruistic actions are selfish in nature because they are driven by an innate need to feel good. Thus, prosocial behaviors are performed for reasons such as removing feelings of discomfort over others' suffering or satisfying a need to help others as a means to increase positive self-feelings or other self-benefiting outcomes (psychological egoism; Maner, Luce, Neuberg, Cialdini, Brown, & Sagarin, 2002). Other selfish reasons for engaging in prosocial behavior come from explanations such as the theories of kin selection (Hamilton, 1964) and reciprocal altruism (Trivers, 1971), where prosocial behavior is a critical piece in survival, as well as the negative state-relief model (Cialdini, Schaller, Houlihan, Arps, & Fultz, 1987).

To illustrate how helping someone can in fact be either a selfish action or a genuinely altruistic action, Batson et al. (2010) draw from Lewin's (1951) distinction between ultimate goals and instrumental goals. An ultimate goal is a desired state that an individual is trying to maintain or reach. An instrumental goal is a goal that serves as a means to accomplish the ultimate goal. In relation to prosocial behaviors, these two types of goals can be seen in a person feeling heartbroken and experiencing huge distress by seeing a homeless person sitting next to the street begging for some money. The individual gives the homeless person some money, resulting in both relieving his/her own distress and discomfort and helping the homeless person. According to the

selfish view, the ultimate goal is to remove one's own distress, which is purely selfish, and the instrumental goal is to help the homeless person, which serves as a means to reach the higher order goal. On the other hand, in response to this (selfish) side of the debate regarding whether true altruism exists or not, supporters of true altruism have, by manipulating the extent to which helping hurts the helper, provided evidence that some individuals engage in prosocial behaviors for non-selfish reasons (Batson, 1987; Batson, 2010; Carlo, Eisenberg, Troyer, Switzer, & Speer, 1991).

The purpose of this study is not to find an answer to this philosophical question of whether true altruism exist or not, but to understand prosocial behavior in relation to individuals with a giving versus taking social interaction style. As described above, givers are defined as *individuals who selflessly share their time, knowledge, skills, ideas, resources, and energy to help others succeed and do so without expecting anything in return*. This definition is very similar to the definition of altruism, which is why give is argued to be a type of altruism, based on the genuine willingness to help others without expectations of reciprocation, and hence also part of the category of behaviors referred to as prosocial behavior. What makes give different from altruism is the fact that altruism is a way of describing genuine prosocial behaviors performed with no intention of self-benefit, whereas give is a way of interacting with others in an altruistic way. Based on the above reasoning, the current study argues that give should be considered part of the prosocial behavior category, together with, for example, OCB, altruism, whistleblowing, and bravery.

Take as Antisocial Behavior

Just as some individuals are more likely than others to demonstrate behaviors that in various ways help the organization to perform better (i.e., prosocial behaviors),

others are more likely to engage in behaviors that are destructive for the organization and negatively impact organizational performance. Throughout the years, negative employee behaviors have received a lot of attention from researchers and practitioners as well as from the general public (Spector, Fox, Penney, Bruursema, Goh & Kessler, 2006). From a research perspective, a main focus has been to better understand the different types of negative behaviors that employees engage in (Giacalone & Greenberg, 1997), reasons for performing such behaviors (Fox, Spector, & Miles, 2001), who engages in this type of behavior (Paulhus & William, 2002; Hogan & Hogan, 2001; Marcus & Schuler, 2004), as well as evaluating the consequences of negative employee behaviors on others (Mathieu, Neumann, Hare, & Babiak, 2014; Schyns & Schilling, 2013), as well as the organization as a whole (Dunlop & Lee, 2004).

The initial research on this type of negative employee behavior has referred to such behaviors using a variety of terms such as deviant behavior (Robinson & Bennett, 1995), aggressive work behavior (O'Leary-Kelly, Griffin, & Glew, 1996), and organizational misbehavior (Vardi & Wiener, 1996). Today, dysfunctional employee behaviors are commonly grouped under the umbrella term “antisocial behaviors” (Giacalone & Greenberg, 1997). Within organizations, antisocial behaviors are referred to as any type of behavior that hurt, or is intended to cause damage, to others (e.g., the organization, its employees, or stakeholders; Giacalone & Greenberg, 1997). Antisocial behaviors include dysfunctional and destructive behaviors such as fraud, blackmailing, espionage, discrimination, interpersonal violence, lying, sabotage, sexual harassment, theft, and violation of confidentiality. Popular topics that fall under the heading of antisocial behaviors include dark personality, derailers and destructive leadership

(Hogan & Hogan, 2001), toxic leadership (Whicker, 1996), the dark triad (Paulhus & William, 2002), counterproductive work behaviors (CWB; Fox et al., 2001), and incivility (Andersson & Pearson, 1999). Some of these concepts refer to the personality traits common to individuals engaging in negative behaviors at work (e.g., dark personality/leadership, derailers, and the dark triad), whereas others refer to the actual behaviors that are acted out, such as in the case of incivility and CWB. Takers, individuals who in their interactions with others are motivated by a selfish agenda and who use others for their own purposes, are likely to be the individuals responsible for many of the various antisocial behaviors seen in the workplace. Although takers can engage in what might look like prosocial behavior, their ways of performing prosocial acts are still harmful and antisocial. Their selfish intent, willingness to exploit others, and strong tendency to put self before others even while helping others out, is detrimental for other individuals, the team, and the organization as a whole (e.g., hurts others' performance and negatively impact the climate and culture within the team and organization). The taking social interaction style is therefore, in spite of the possibility that prosocial acts are carried out, considered part of the antisocial behavior category, together with, for example, CWB, fraud, blackmailing, sabotage, sexual harassment, theft, destructive leadership, and dark personality.

Validity of Give and Take

As with all new constructs, a thorough evaluation of the concept and the validity of its associated measure is necessary to determine applicability to the area(s) of interest. Validity is commonly defined as “the degree to which accumulated evidence and theory support specific interpretations of the test scores entailed by proposed uses of a test” (AERA et al., 2008, p. 9). According to the definition above, validity is

viewed as a unitary concept including multiple sources of evidence contributing to a correct understanding of the results from the measure of interest (e.g., what interpretations and conclusions can accurately be drawn from the results; AERA et al., 2008).

According to the *Standards for Educational and Psychological Testing* (AERA et al., 1999), there are five main sources of validity evidence including: 1) evidence based on test content, 2) evidence based on response processes, 3) evidence based on internal structure, 4) evidence based on relations to other variables, and 5) evidence based on consequences of testing. *Evidence based on test content* establishes the extent to which the content covered in the test is representative of the entire construct that it is proposed to measure. This kind of evidence is collected through analysis of the format, wording, and themes of the items, tasks, or questions included in the test. *Evidence based on response processes* addresses the fit between the construct and the performance and responses of the test takers. This type of evidence is commonly used to evaluate propositions regarding similar meanings or interpretations of the scores on the test across relevant subgroups of test takers. *Evidence based on internal structure* refers to how items and components of the test are related to each other and the overall proposed construct and dimensions. How this type of evidence is obtained depends on the test and how it will be used. In some instances, it is appropriate to analyze the difficulty of each item, whereas in others it may be more appropriate to evaluate loadings on different factors to determine dimensionality, reliability, or differential functioning of items depending on subgroups. *Evidence based on relations to other variables* is obtained to evaluate the extent to which the proposed interpretations based on the test are consistent with hypothesized relationships to other variables. Variables

included in this type of analysis can be those that theoretically should be similar to or different from the construct of interest, hence providing convergent and discriminant validity evidence respectively, and relevant outcome variables such as performance that provide predictive validity evidence. *Evidence based on consequences of testing* addresses the potential for a test to result in different consequences depending on who is taking the test. A consequence can, for example, involve getting hired or promoted based on test scores.

Because validity is related to a specific measure intended to be used in a specified situation, validation is viewed as a process of developing evidence supporting the proposed interpretations of the results in a specified situation (AERA, 2008). Therefore, what type of evidence is collected varies depending on the proposed interpretations and areas of usage. Given the nature of the give and take measure and the fact that almost no research has been published on the validity of this measure, the current research focuses on evaluating validity based primarily on relationships with other variables. The validity information obtained will be sufficient to determine the distinctiveness of the construct, whether three social interaction styles exist, and the extent to which give and take has implications for the workplace. An important piece in fully understanding give and take concerns the dimensionality of the measure, being either one-dimensional (i.e., falling on a continuum) or multi-dimensional (i.e., consisting of multiple distinct social interaction styles). This can and will be evaluated theoretically by comparing it to similar constructs as well as empirically through evaluations of its nomological network. If this is best understood as one construct, give and take should be related to the same variables but in opposite directions, whereas if

give and take consist of multiple distinct styles then give, take, and match should be related to different variables.

Existing Evidence for Validity

As of today, very little direct evidence exists for the concept of give and take and its corresponding measure. In fact, as Utz et al. (2014) pointed out, give and take is commonly measured through other similar assessments, such as those for prosocial motivation (Grant & Berry, 2011; Grant & Mayer, 2009), self- and other-orientation (DeDreu & Nauta, 2009), neuroticism (Buffardi & Campbell, 2008), or games proposed to measure similar behaviors (Kahneman, Knetsch, & Thaler, 1986). To date, the only exception to this is a study conducted by Utz et al. (2014), where give and take was measured directly and evaluated against other concepts and various outcomes. Findings from this study suggest that Give, Take, and Match correlate differently with social value orientation, narcissism, and reciprocity, and that the three styles have unique predictive validity for resource and information sharing. Although this study showed some evidence for validity, a significant limitation for applicability in the United States (and other countries) is that it was conducted on a German sample and measures were hence translated into German and modified to fit the German culture (i.e., one scenario was excluded due to cultural differences). Research evaluating the validity of the measure, using an American sample as well as the original 15 item Give and Take measure (Grant, 2013), is needed before it can be concluded what give and take is measuring and in what situations such a measure may be useful.

Nature of the Construct

Give and take, being a measure describing extreme behaviors in opposite directions (givers vs. takers), with a middle style (i.e., matchers) described as a mix

between the two, triggers the question whether the three styles are distinct from each other or just different parts of the same continuum. No research has so far addressed this issue; thus, the current research attempts to provide some evidence related to this question. Understanding give and take in terms of distinctiveness is critical for measurement purposes, and more specifically how the current measure of give and take should be scored and interpreted to provide the most accurate understanding of an individual's giving and taking behaviors. The current measure (i.e., Give & Take) is a 15 scenario forced-choice measure. This means that an individual is forced to choose between three different answers, each corresponding to one of the three styles. Selecting one answer (style) hence automatically eliminates the other two. The final result consists of three scores, referring to the percentage of the individual's profile that is give, take, and match (i.e., the percentage of answers endorsing each style). The style with the highest percentage is considered the individual's dominant style.

In order to validate the measure (e.g., compare it to other measures and outcomes) and eventually use the measure to understand an individual in terms of their social interaction style, a decision regarding how to use the three scores must be made. Such a decision revolves around whether to view give and take as three distinct styles, or whether the three styles fall on the same continuum. If evidence suggests viewing give and take as three separate constructs, the three scores can be used in two ways: 1) only use each individual's dominant style (i.e., the style with the highest percentage) or 2) use all three together as one profile. If evidence suggests viewing give and take as one continuum, each response alternative (give, take, and match) can be assigned a point (e.g., ranging from 1-3, such that all take answers are worth 1, all match 2, and all give 3), which in the end will add up to a total score. This way each individual will

collect points, based on their answers, and scores falling into a certain range will be classified as give, take, or match, or individuals can be viewed as more or less givers/takers depending on where on the continuum their score falls.

The distinctiveness of the three styles as well as the most appropriate scoring method can be determined by drawing from both theoretical and empirical evidence. Theoretical evidence will be obtained based on a discussion of the distinctiveness of constructs similar to give and take, and empirical evidence will come from previous research as well as new research (i.e., Study 1) presented throughout this proposal. The current research will hence, through theoretical and empirical evidence, evaluate the nature of the construct and the most appropriate scoring method of the give and take measure.

Theoretical Evidence for the Nature of the Construct

Other similar constructs have gone through similar discussions and evaluations regarding their distinctiveness and dimensionality. The following sections will describe how constructs similar to give and take are viewed in terms of this issue.

Prosocial and Antisocial Behaviors. Historically, altruistic and egoistic behaviors have been treated as opposites on the same continuum. However, today a growing body of research argues for the distinctiveness of these two interests (Garebasi & Prentice, 2013; Krueger, Hicks, & McGrath, 2001). According to Krueger et al. (2001), altruism and antisocial behavior are uncorrelated with each other when measured in terms of frequency of the two types of behaviors. The same study further demonstrated that the two different tendencies stem from different sources. Altruism was found to stem from shared and non-shared environments (e.g., family and nonfamily, respectively) as well as personality traits related to positive emotionality (i.e., social

potency, social closeness, absorption, and lack of aggression). Antisocial behavior was found to stem from genes, non-shared environments and personality traits related to negative emotionality and a lack of constraint (i.e., aggression, lack of control, and harm avoidance). The distinctiveness between prosocial and antisocial behaviors has further been supported by research looking at the two types of behaviors in children (Veenstra, 2006; Veenstra, Lindenbergh, Oldehinkel, De Winter, Verhulst, & Ormel, 2008). According to Veenstra and colleagues' findings, prosocial and antisocial behaviors can be observed simultaneously in the same individual, suggesting that the two are independent of each other.

OCB and CWB. OCB has traditionally been described as employee behaviors that are voluntary (i.e., not part of the formal role description) and support the functioning of the organization (Organ, 1988). CWB is described in opposite terms as behaviors that are intended to harm the organization in some way (Robinson & Bennett, 1995). In terms of definition, the two concepts can be interpreted as opposite ends on the same continuum; however, research suggests the two are best understood as distinct constructs (Dalal, 2005; Sackett, Berry, Wiemann, & Laczo, 2006; Dalal, Lam, Weiss, Welch, & Hulin, 2009; Fox, Spector, Goh, Bruursema, & Kessler, 2012; Bolino & Klotz, 2015). Results from confirmatory factor analytical studies suggest that facets of OCB and CWB load differently on OCB and CWB (Sacket et al., 2006). The correlation between OCB and CWB has also been established as moderately negative (Dalal, 2005; Sackett et al., 2006), suggesting that the two are related but not to an extent where the two cannot simultaneously occur in the same individual. This was further investigated by Sackett et al. (2006) and their results show that 8.7 % of the sample reported high levels of both OCB and CWB and 8.1% reported low levels of both OCB and CWB.

Recent research even argues for a positive relationship between the two (Dalal et al., 2009; Fox et al., 2012) and that OCB can act as an antecedent to CWB (Bolino & Klotz, 2015). Additionally, OCB and CWB have been found to have different antecedents in terms of personality traits (Sackett et al., 2006), further indicating that OCB and CWB are two different constructs.

Self- and Other-Orientation/Interest. Self-interest/orientation and other-interest/orientation refer to the extent to which individuals pursue gains for themselves (self-interest) or for others (other-interest) in various situations that are socially valued (e.g., happiness, achievement, recognition, status, and material things; Gerbasi & Prentice, 2013). The motivation to act in a self-benefitting way versus in an other-benefitting way are two independent constructs, found to stem from different sources and relate to different outcomes (De Dreu & Nauta, 2009; Gerbasi & Prentice, 2013). Therefore, the two concepts can be considered distinct and are best measured and understood as separate constructs. Various sources have found self-interest to relate to variables such as independence, autonomy, achievement motivation, and performance orientation, whereas other-orientation is related to interdependence, viewing self as part of the social system, empathy, perspective taking ability, and agreeableness (De Dreu & Nauta, 2009).

Additional support for the distinctiveness of self-interest and other-interest comes from research suggesting that self-interest and other-interest independently contribute to behaviors in situations where individuals are forced to choose between self-benefiting versus other-benefiting answers to various scenarios (i.e., the prisoner's dilemma). Other-interest was found to relate positively to answers indicating

cooperation and self-interest related negatively to such answers (Gerbasi & Prentice, 2013).

Agency and Communion. Agency and communion (Bakan, 1966) are two basic dimensions describing an individual's perspective on the self and others in terms of social perception and judgment (Bruckmüller & Abele, 2013). Agency is related to pursuit of goals relevant to the self and includes individual qualities driving expansion of the self, such as instrumentality, ambition, dominance, competence, and how efficient someone is in attaining goals (Bakan, 1966; Abele & Wojciszke, 2007). Communion relates to an individual's concern for other people (Abele & Wojciszke, 2007) and includes qualities such as caring for others and their well-being, cooperativeness, and how emotions are expressed, which result in strivings to integrate the self into the larger group (Bakan, 1966; Abele & Wojciszke, 2007).

As with other self- and other-related constructs, agency and communion are argued to be independent constructs, as they represent two superordinate personality factors (i.e., the interpersonal circumplex; Wiggins, 1991). Agency has been described as representing the vertical axis in the interpersonal circumplex model, which consists of power, dominance, and control. Communion represents the horizontal axis consisting of solidarity, friendliness, warmth, and love (Locke, 2006). Support for the independence of agency and communion can be seen in research organizing the five main personality dimensions (i.e., Big Five) into two super factors, corresponding to the agency and communion dimensions (Digman, 1997), demonstrating that the five personality dimensions are differently related to the two super factors. Research also demonstrates that agency and communion are differentially related to other constructs

such as stereotypes (Fiske et al., 2002) and self- and other-interest (Abele & Wojciszke, 2007).

The distinctiveness of agency and communion can further be seen in their interactive effect on successful behaviors in social interactions. During social interaction, communion is important because of the importance of considering others in order to get along with and build relationships with others. In addition, agency is important because many relationships are interdependent, and if each individual is not also considering what is best for themselves it is hard to contribute to others with their best performance which is critical when the self- and other-relationship is interdependent (Abele & Wojciszke, 2007). Based on this it can be concluded that agency and communion are distinct and contribute independently to various outcomes.

Equity Sensitivity. Equity sensitivity (Huseman et al., 1985, 1987) refers to the degree to which an individual is sensitive to inequity (Miles, Hartfeild & Huseman, 1989). Research has examined sensitivity to equity both as a concept falling on one continuum ranging from low to high (Sauley & Bedeian, 2000) and as a multi-dimensional construct describing types of individuals depending on their preference with respect to personal input/output ratio compared to others' ratio (benevolents, entitleds, and equity sensitives; Huseman et al., 1985). Individuals who are very sensitive to equity want their input/output ratio to be lower than others', meaning that they receive more than what they give compared to others. These individuals are referred to as entitleds. On the contrary, individuals who prefer this ratio to be in the opposite direction (i.e., input/output ratio should be higher compared to others') believe situations are more equal when they give more than what they receive compared to others. These individuals are referred to as benevolents. Finally, some individuals view

situations as fair when everyone's ratios are the same. These individuals are referred to as equity sensitives and they make up the largest group of individuals.

A third line of research (i.e., Clark, Foote, Clark & Lewis, 2010; Clark, Clark, Foote, & Hanna, 2013) argues for equity sensitivity as a four-dimensional construct. In addition to the three dimensions presented by Huseman et al., (1986) it is argued that some individuals do not have any equity sensitivity preference at all, referred to as indifferent.

Support for the distinctiveness of the different preferences, whether these involve three or four preference types, can be seen in research relating equity sensitivity to various workplace-related variables. Benevolents tend to work significantly harder, providing more input to the organization, compared to both entitleds and equity sensitives, for the same amount of pay (Miles et al., 1989). Equity sensitivity preferences have further been found to relate to different outcome preferences in terms of whether an individual values intrinsic or extrinsic outcomes. According to Clark and his colleagues (2010), benevolents tend to value intrinsic outcomes, in terms of enjoyment, challenging work, meaningful work, sense of accomplishment, responsibility, feelings of personal worth, personal growth, contributing to society, work-life balance, and trust more than entitleds and entitleds place more value on extrinsic outcomes such as pay. The same study also found differences in the type of input that is preferred, with benevolents placing higher value on intrinsic inputs such as commitment, dependability, cooperation, values, and work ethic than entitleds, but the entitleds did not value any inputs significantly more than the benevolents, not even the expected extrinsic inputs. This suggests that benevolents value providing input to the organization and prefer receiving intrinsic outputs, whereas the entitleds are not

interested in providing input but are interested in receiving extrinsic output. Taken together, research suggest that equity sensitivity involves different dimensions (e.g., benevolents, entitleds, and equity sensitives), and can be viewed as a multidimensional construct.

Empirical Evidence for the Nature of the Construct

So far, the only empirical evidence directly addressing the distinctiveness of the three social interaction styles has been collected by Utz et al. (2014). Their research provides preliminary support for some distinctiveness by examining relationships with several variables. Give was found to significantly relate to three social value orientations (prosocial, individualist, and competitor), self-orientation, other-orientation, narcissism, and reciprocation wariness. Take was found to be significantly related to the same variables, but in opposite directions. Lastly, match was found related to only two of the variables, other-orientation and narcissism. Based on the results from this study, give and take may be opposites of each other, but match seems to be distinct from the two. However, considering the strong theoretical evidence for give and take as distinct from each other, more empirical research is needed before the dimensionality of give and take can be established. Therefore, the current research evaluates the relationship between give and take and additional variables including self- and other-interest, theories of self and other relations, equity sensitivity, and helping orientation, as well as four different motivations (i.e., prosocial, impression management, competitive, and reciprocal). Each of these variables will be discussed throughout the following section in relation to give and take. The relationship between the various variables and match is many times less clear, because of the less extreme behaviors of matchers and the malleability of matchers depending on the situation. Therefore, match will generally not

be discussed directly in relation to the variables included in the current research (with some exceptions when a clear relationship is likely). However, its relationship will still be investigated and in most cases stated as a research question (i.e., no specific relationship can be hypothesized based on lack of support, but the relationship will be analyzed after data have been collected).

Relationships with Other Variables

Evidence regarding relationships with other variables is commonly evaluated by comparing the construct of interest to other constructs that are similar (convergent validity) or different (discriminant validity) as well as examining relationships with various outcomes (predictive validity).

Convergent and Discriminant Validity

Previous research has presented correlational results indicating that give and take is related to but still different from Social Value Orientation (SVO, including prosocials, individualists, and competitors; Van Lange, DeBruin, Otten, & Joireman, 1997), narcissism, and reciprocity. As hypothesized by Utz et al. (2014), these variables were differentially related to the three styles. Give was positively related to prosocials ($r = .25$) and other-orientation ($r = .10$), and negatively related to individualist ($r = -.20$), competitor ($r = -.13$), self-orientation ($r = -.14$), narcissism ($r = -.19$), and reciprocation weariness ($r = -.25$). Take related positively to individuals ($r = .23$), competitors ($r = .16$), self-orientation ($r = .12$), narcissism ($r = .15$), and reciprocation weariness ($r = .31$), and negatively to prosocial ($r = -.31$) and other-orientation ($r = -.20$). Being a matcher was not related to SVO, but was positively related to other-orientation ($r = .07$) and narcissism ($r = .07$). Interestingly, match was not found significantly related to reciprocal behaviors, measured in terms of creditor ideology (believing that giving more

than what was received will result in generous repayment). The strongest predictor of both give ($r = -.25$) and take ($r = .31$) was reciprocity weariness, the belief that one has to be careful when returning favors to not be taken advantage of. Givers seem unlikely to worry about being used by others whereas takers think that others will take advantage over them by asking for favors. Reciprocity weariness was not related to being a matcher.

Based on Utz et al.'s (2014) study, it can be concluded that give and take seems to be a distinct concept (i.e., different from SVO, SOII, narcissism, and reciprocity) and also that give, take, and match may be separate social interaction styles (i.e., the three are differentially related to other variables). However, given that this is the only study that has investigated give and take directly and the fact that their study was conducted on a German sample, with measures translated to German, additional evidence for the validity of give and take is required. Therefore, this proposal argues that more validity evidence needs to be collected, using an American sample, before its usefulness in the United States and possibly other English speaking countries with a similar culture, can be established.

Given the above arguments about give and take needing more validity evidence, the proposed study examines give and take in relation to self- and other-interest, theories of self-other relations, helping orientation, equity sensitivity, and four different motives (prosocial, impression management, competitive, and reciprocal motivation). Because Utz et al. (2014) carefully evaluated the relationship between give and take and SVO and SOII, including both these two variables in the current study is considered redundant. The SOII is argued to be a better measure (i.e., SVO is unable to categorize all individuals and does not recognize self and other interest as distinct concepts, which

are significant limitations to the measure; Gerbasi & Prentice, 2013), and thus the SOII was included but the SVO was not. Because individual behavior is driven by motives (Pinder, 2008), the three social interaction styles demonstrating major differences in behaviors should be related to different motives. Therefore, give and take is also evaluated against prosocial motivation (Ryan & Connell, 1989), impression management motivation (Rioux & Penner, 2001), competitive motivation (Cardador & Wrzesniewski, 2015), and reciprocal motivation (Pinguini, Gallucci, Presaghi, & Ercolani, 2003).

Similar Constructs

Self- and Other-Interest. The Self- and Other-Interest Inventory (SOII; Gerbasi & Prentice, 2013) assesses an individual's motivation to engage in behaviors that are self-serving and other-serving. Self-interest is defined as "the pursuit of gains in socially valued domains, including material, goods, social status, recognition, academic or occupational achievement, and happiness" (Gerbasi & Prentice, 2013, p. 3). Other-interest is defined in opposite terms as "the pursuit of gains for others in socially valued domains, including material, goods, social status, recognition, academic or occupational achievement, and happiness" (Gerbasi & Prentice, 2013, p. 4). In spite of the opposing definitions self- and other-interest are two distinct concepts and not opposites on the same dimension (Gerbasi & Prentice, 2013). The two concepts are measured independently and individuals can therefore be high in both, low in both, or the two scores can differ.

As noted above, Utz et al. (2014) demonstrated differential relationships between give and take and self- and other-interest. Self-orientation was found to negatively relate to give ($r = -.14$) and positively relate to take ($r = .12$), but no

significant relationship was found for match. Other-orientation was found to be positively related to being a giver ($r = .10$) and a matcher ($r = .07$), and negatively related to being a taker ($r = -.20$). In social dilemmas, self-interest has been found to relate with competitive choices (i.e., self-maximizing, self-prioritizing, and self-comparative) and other-interest with cooperative choices (i.e., prosocial; Gerbasi & Prentice, 2013). These behavioral consequences are also in line with what one would expect the relationship between give and take and behaviors in social dilemmas to be. Furthermore, self- and other-interest are differently related to values (i.e., Schwartz Values Survey; Schwartz, 1992). Specific to self-interest are values such as hedonism, power, and stimulation and values related specifically to other-orientation include benevolence and universalism (Gerbasi & Prentice, 2013). Such findings are relevant to give and take because takers should theoretically be driven by fulfilling their own needs and by being in a position where they are in charge and can make decisions based on their own interests, such as in the case of hedonism, stimulation, and power. Givers, being individuals who care about the well-being and success of others, should theoretically endorse values such as benevolence and universalism.

Based on the similarities in definitions between self-interested individuals and takers and other-interested individuals and givers, as well as previous findings by Utz et al. (2014), the hypothesized relationships between self- and other-interest and give and take are as follows.

Hypothesis 1a: Self-orientation is positively related to take and negatively related to give.

Hypothesis 1b: Other-orientation is positively related to give and negatively related to take.

Research Question 1: How is match related to self- and other-orientation?

Equity Sensitivity. As described earlier, equity sensitivity (Huseman, Hartfeild, & Miles, 1985, 1987) is defined in terms of sensitivity to inequity (Miles, Hartfeild & Huseman, 1989), and is commonly described as a multidimensional construct categorizing individuals as benevolents, entitleds, or equity sensitives (Huseman et al., 1985). Equity sensitivity is directly related to Equity Theory (Adams, 1963, 1965), which states that individuals evaluate their relationships by comparing input with output, and then comparing this ratio with others' input/output ratio. If the ratios are different, individuals are argued to feel distress and take action in order to decrease the difference in ratios, because equity between one's own and others' input/output ratios is important. Whereas equity theory assumes that everyone is the same in terms of reactions to inequity, equity sensitivity states that not everyone believes in the same norm of equality. The three categories as well as the underlying theory behind equity sensitivity is very similar to the three categories of give and take and the underlying theory (i.e., the norm of reciprocity). Matchers and equity sensitives both follow the underlying theory/norm, whereas takers/entitleds and givers/benevolents prefer an unequal balance between benefitting self versus others, respectively. The benevolent type of individual is argued to be similar to Adler's (1935) "giving type," which is an individual who gives to others while having low expectations of being repaid (Miles et al., 1989). Takers, on the other hand, want to use fewer of their resources and receive as much as possible from others, which is very similar to the entitleds' inequality preference.

Entitlement has been looked at as a separate concept, referring to "the degree to which individuals believe that they deserve the time, resources, and considerations of

society" (Brummel & Parker, 2015, p. 130) has been found related to a number of self-serving outcomes. Given that takers are selfish, try to increase their output/input ratio, and think they deserve more than others, they are likely to be classified as entitleds. This connection between individuals who are more sensitive to equity and those who are takers can further be supported by the relationship between equity sensitivity and antisocial behaviors in terms of Machiavellianism and Psychopathy (Woodley & Allen, 2014). Machiavellianism (manipulative and deceiving) and Psychopathy (greedy and egocentric) have both been found to negatively relate to equity sensitivity. This suggest that individuals who are selfish, greedy, and manipulative are likely to perceive situations in the workplace as less fair, thinking that they are putting in more and receiving less compared to others.

Another similarity between equity sensitivity and give and take is, as described earlier, the relationship to intrinsic or extrinsic values. According to Clark et al. (2010), benevolents tend to value intrinsic outcomes, in terms of enjoyment, challenging work, meaningful work, sense of accomplishment, responsibility, feelings of personal worth, personal growth, contributing to the society, work-life balance, and trust more compared to entitleds, which is similar to the arguments made by Grant (2013) with respect to givers. Benevolents also place higher value on intrinsic inputs such as commitment, dependability, cooperation, values and work ethic than entitleds, which also is in line with what can be expected from givers. Entitleds were found to place more value on extrinsic outcomes such as pay and did not value any input significantly more than the benevolents, not even the expected extrinsic inputs, which again is in line with what can be expected based on previous arguments regarding the takers' motives and attitude towards input (Grant, 2013). This suggest that benevolents value providing

input to the organization and prefer receiving intrinsic outputs, whereas the entitleds are not interested in providing input but are interested in receiving extrinsic output.

Based on previous research on equity sensitivity, individuals who are more sensitive to equity (i.e., entitleds) will be more likely to be takers and individuals who are less sensitive (i.e., benevolents) will be more likely to be givers. Therefore the following relationships are hypothesized.

Hypothesis 2: Equity sensitivity is positively related to give (i.e., benevolents score higher on give) and negatively related to take (i.e., entitleds score higher on take).

Research Question 2: What is the relationship between equity sensitivity and match?

Helping Orientation. The Helping Orientation Questionnaire (Romer, Gruder, & Lizzardo, 1986) is a commonly used assessment to understand an individual's orientation towards helping others. There are four different orientations towards helping others: altruistic, receptive giving, selfish, and inner-sustaining (Ribal, 1963; Romer et al., 1986). The altruistic orientation is prosocial and has been found to relate negatively to self-interest (Gerbasi & Prentice, 2013). The receptive giving orientation is helpful under certain circumstances, such as knowing the person in need of help, and relates positively to self-interest (Gerbasi & Prentice, 2013). The selfish orientation is self-protective (such as fearing being hurt or in danger), and though no significant relationship was found with self- and other-interest, the relationships are in the expected direction (i.e., positive to self-interest and negative to other-interest; Gerbasi & Prentice, 2013). Lastly, the inner-sustaining orientation is purely selfish which can be seen in the positive relationship with self-interest (Gerbasi & Prentice, 2013).

These four orientations towards helping others builds on the two dimensional concept of nurturance and succorance, which are two different interpersonal motives

(Ribal, 1963). Nurturance is defined as “the tendency to react to other person’s suffering with care and concern and to reduce this concern by aiding or supporting those persons” (Romer et al., 1986, p. 1002). Individuals high in nurturance help others and individuals scoring low tend to avoid helping others in need. Succorance refers to “the tendency to seek sympathetic support or aid from others, especially when one is in need” (Romer et al., 1986, p. 1002). Individuals high in succorance hence encourage help from others, whereas individuals scoring low avoid receiving help from others. People that are altruistic and receptive-giving are nurturant, whereas individuals with a selfish and inner-sustaining orientation are succorant. Altruists have feelings of social responsibility and empathetic concern and have also been found to help most in situations when compensation is not expected (Romer et al., 1986). However, in situations when compensation is expected, the receptive-givers tend to help the most. Helping behaviors among selfish individuals are unaffected by compensation and these individuals help the least across situations (Romer et al., 1986).

Comparing the description of these four helping orientations with the definitions of give and take, the expected relationships are fairly straightforward. Givers are hypothesized to be altruistic in nature and should hence have an altruistic helping orientation. Takers are selfish in nature and should hence only be oriented towards helping others when such acts contribute to their own goals. Takers are therefore likely to be high in all of the other three helping orientations (i.e., self-protective, selfish, and inner-sustaining) because of the selfish aspect to all of them.

Hypothesis 3a: Altruistic helping orientation is positively related to give and negatively related to take.

Hypothesis 3b: Self-protective, selfish, and inner-sustaining helping orientations are positively related to take and negatively related to give.

Research question 3: What is the relationship between helping orientations and match?

Theories of Self-Other Relations. Theories of self-other relations is a concept involving an individual's preference for four theories, which address the appropriate relationship between self-interest and other-interest. The four theories build on the two measures for self-interest and other-interest (Gerbasi & Prentice, 2013) and are referred to as prosocial relations, self-prioritizing relations, self-comparative relations, and self-maximizing relations. Individuals believing in prosocial relations agree with statements such as "It is the total amount of benefit that everyone receives that matters most" (p. 5). Self-prioritizing individuals are people who are happy to help others, but before doing so they will make sure they are all right first. Self-comparative individuals are competitive and in their relations with others are concerned about doing as well as or better than those around them. Lastly, individuals who are self-maximizers are extremely selfish and hence look to their own interests without being concerned with others. Comparing the descriptions of these four theories with the definitions of givers, takers, and matchers, the constructs should theoretically be related to each other. Givers, being other-oriented, should, believe in prosocial relations. Takers, being extremely selfish, should have a belief in line with the self-maximizing relations group of individuals. Matchers, being somewhere in the middle and generally not showing any of the extreme behaviors of givers and takers, are likely to be more malleable to situational factors and thus should not believe in prosocial relations, but can theoretically believe in any or all of the other three relations (self-comparative, self-prioritizing, and self-maximizing).

Hypothesis 4a: Prosocial relations is positively related to give and negatively related to take.

Hypothesis 4b: Self-maximizing, self-prioritizing, and self-comparative relations are positively related to take and negatively related to give.

Research Question 4: What is the relationship between the four helping orientations and match?

Motives – What Drives Giving and Taking Behavior?

Motivation is the driving force behind all human behavior, and hence explains why individuals behave the way they do (Mitchell & Daniels, 2003). According to the well-established theory of motivation, *Valence Instrumentality Expectancy Theory* (VIE Theory; Vroom, 1964), individuals actively choose to engage in various behaviors, and this choice is based on psychological processes such as perceptions, attitudes, and beliefs (Pinder, 2008). More specifically, a behavior is initiated and directed as a result of (1) the belief that the behavior will lead to an outcome, (2) the belief that the outcome will be rewarded, and (3) the reward is valued by the individual. Valence, instrumentality, and expectancy help explain the differences in behaviors performed by givers, takers, and matcher because the three types are likely to differ in their perceptions, attitudes, and beliefs about various social interaction situations that they encounter. Givers, takers, and matchers can all engage in behaviors that are helping others, but their reasons for doing so are likely to be very different depending on how they perceive the valence, instrumentality, and expectancy attached to such behaviors.

Givers are suggested to be prosocially motivated (Grant, 2013; Utz et al., 2014) and hence put high value on helping others. They help others for the joy of helping and are thus likely to believe that prosocial behaviors will lead to an expected outcome,

which will be rewarded (e.g., internal satisfaction), and they also place high value on such reward. Takers, on the other hand, do not see any of the connections just described but are likely to engage in helpful behaviors to get what they want (e.g., the reason is to make a good impression). Therefore, when they expect a helpful behavior will be related to them looking good in front of others or others feeling grateful, and such behavior will be rewarded and the reward is valuable to them, they are likely to engage in behaviors that to others might look like genuine prosocial behaviors. Support for takers being motivated by impression management can be found in results from Utz et al. (2014) suggesting that narcissism is positively related to taking. Narcissistic individuals have been found to be extremely self-interested and to strive to make themselves look and feel good and successful, and tend to use relationships as a resource to serve their own interests (Foster & Campbell, 2007).

For the matcher, the valence, instrumentality, and expectancy of helping others build on the norm of reciprocity (Gouldner, 1960). Matchers are not very likely to place the same intrinsic value on giving as the givers, but they are usually happy to help because they believe that giving and taking are part of the norm for social interactions. Therefore, when they feel helping others is expected of them (e.g., the outcome is meeting expectations), the outcome will be rewarded, and such reward is valuable to them, they will provide help to others. Matchers should theoretically therefore be motivated mainly by reciprocity motives. Utz et al. (2014) investigated matchers in relation to two types of reciprocity: reciprocation wariness (worrying that others will take advantage by asking for favors) and creator ideology (believing that giving more and more results in more payback). Findings suggested that matchers do not worry about others taking advantage of them or think that more giving results in more

payback. However, this does not eliminate the possibility that matchers' behaviors are motivated by reciprocity in another form.

In the following sections each of these underlying motives (prosocial, impression management, and reciprocal) will be explained in relation to givers, takers, and matchers.

Prosocial Motivation and Givers

Prosocial motivation has been defined in terms of wanting to put personal effort into something that will benefit others (Batson, 1987). Prosocial motivation has been argued to be both a trait-like and state-like concept, meaning that some aspects might be inherent and others might be due to external factors (e.g., a result of the environment or the situation). As a trait, prosocial motivation has been described as an enduring individual difference, reflected in the personality trait of agreeableness (Graziano, Habashi, Sheese, & Tobin, 2007), empathy and helpfulness (Penner, Dovidio, Piliavin, & Schroeder, 2005), valuing and having concern for others (De Dreu, 2006; Meglino, & Korsgaard, 2004), and altruism (Santrock, 2007). As a state, prosocial motivation can be seen in feelings of wanting to help and protect others when prompted by a situation in which others are in need of help (Batson, 1987; Grant, 2008), indicating that the goal can be to help in that specific situation. Situational factors such as mood (Eisenberg, Guthrie, & Cumberland, 2002), diffusion of responsibility (Latane, & Darley, 1970), and religion (Galen, 2012) have also been related to prosocial motivation. As a state, prosocial motivation can therefore, theoretically, temporarily exist in all people independent of social interaction style. This is in line with Grant's (2012) arguments that most individuals, even takers, commonly behave more like givers in their closest relationships (such as with a partner). However, in general givers are more likely to be

prosocially motivated across situations, and this type of motivation is less likely to be seen in takers and matchers. Based on previous research on prosocial motivation and helping behaviors (Penner, Dovidio, Piliavin, & Schroeder, 2005), altruism (Santrock, 2007), and OCBs (Grant & Mayer, 2009), the following is hypothesized.

Hypothesis 5a: Prosocial motivation is positively related to giver.

Hypothesis 5b: Prosocial motivation is negatively related to being a taker.

Research Question 5: What is the relationship between prosocial motivation and match?

Impression Management and Competitive Motivation and Takers

It is tempting to believe that individuals who help others and interact with others in a friendly way do so without any hidden agenda (i.e., solely out of pure care for others' well-being and success). However, it turns out that such true altruistic motivation is not the reason why all individuals demonstrate prosocial behaviors, such as OCBs (Bolino, 1999). Some individuals are the true good soldiers, having no other reason for helping others except genuinely caring about others' well-being, whereas others are what Bolino (1999) refers to as "good actors." These individuals use prosocial behaviors as tactics to enhance their image at work. The only difference between such image enhancing behaviors and prosocial behaviors (here OCBs) is the motive (Bolino, 1999). Such behaviors are solely self-serving and referred to as impression management (Rosenfeld, Giacalone, & Riordan, 1995). Impression management has been defined as a process in which individuals try to influence others' perceptions of them (i.e., their image; Rosenfeld et al., 1995). This process of influencing others can be accomplished by using five main strategies: self-promotion, ingratiation, exemplification, intimidation, and supplication (Jones & Pittman, 1982). This means that individuals engaging in impression management techniques can talk

widely about their own accomplishments (self-promotion), help others and complement them to be liked (ingratiation), do more than required to be seen as dedicated (exemplification), signal their power to scare others (intimidation), or pretend to be less competent to receive help from others (supplication). Takers are argued to be the group of individuals who engage in this kind of image enhancing behaviors as a tactic to get what they want from other people (Grant, 2013).

Takers tend to view the world as competitive, they do not trust others, and they think that if you do not look out for yourself no one will. Takers commonly promote themselves and make sure other people know about their accomplishments by ensuring they get credit for their performance. Such arguments are supported by Utz et al.'s (2014) findings suggesting being a taker is related to narcissistic tendencies. Since most situations at work involve getting along with others and collaborating (and not just getting ahead), takers have to make sure they are liked by others and engage in prosocial behaviors when expected to do so or in order to reach a goal. Takers are therefore likely to protect their image and engage in image enhancing behaviors to get what they want or to be liked, which eventually will benefit them. The image enhancing behaviors (e.g., impression management) that takers engage in are likely to be the same as the behaviors shown by the “good actors” identified by Bolino (1999). Additional support for the relationship between takers and IM motives comes from research on personality and IM motives for engaging in OCB. Research (e.g., Bourdage, Lee, Lee & Shin, 2012; Bourdage, Wiltshire & Lee & Ashton, 2015) found dishonest, greedy, and exploitative personality characteristics (i.e., low Honesty-Humility; Lee & Ashton, 2004) to be significantly related to IM motives and tactics.

The description of takers also indicates that they are highly competitive and are therefore, in addition to having impression management motives, likely to be driven by competitive motives. Individuals high in competitive motivation are achievement oriented and strive to outperform others (Cardador & Wrzesniewski, 2015). Competitive motivation has been related to external sources of motivation (Van Lange et al., 1997), which is in line with what takers are expected to be motivated by (i.e., power, status, recognition, and money). Motives classified as involving external sources of motivation are argued to be conflicting with motives building on internal rewards (i.e., prosocial motivation; Grant, 2008; Cardador & Wrzesniewski, 2015), which suggests that givers are less likely to be high in competitive motivation. However, research also argues that it is possible for individuals to have competing values and in such situations individuals try to fulfill both desires with the same behavior (i.e., the behavior might be the same but the motive behind it is now mixed; Grant & Mayer, 2009; Cardador & Wrzesniewski, 2015). Based on the arguments about mixed motives, it is possible for givers and matchers to also be high in competitive motivation, but no significant relationship is likely to be observed.

Based on findings related to self-serving motives for engaging in OCBs (Bolino, 1999), the relationship between personality and IM motives, and the description of takers provided by Grant (2013), takers are argued to have impression management motives during their interactions with others. Additionally, research on competitive motivation supports a positive relationship between competitive motivation and take. Therefore, both impression management and competitive motivation are hypothesized to be driving the behaviors of takers.

Hypothesis 6a: Impression management motivation is positively related to take and negatively related to give.

Hypothesis 6b: Competitive motivation is positively related to take and negatively related to give.

Research Question 6: What is the relationship between impression management and competitive motivation and match?

Reciprocal Motivation and Matchers

Matchers are usually happy to help others, but their motive for doing so is likely to be adherence to social norms, and more specifically the norm of reciprocity.

According to the norm of reciprocity (Gouldner, 1960), individuals respond to each other with similar behaviors. Kind actions are therefore responded to with kind actions and harmful actions are likely to either be responded to with indifference or with another harmful action (Gouldner, 1960). However, what is a socially expected behavior differs depending on the situation and the culture. Givers and takers are not as affected by the social norm of reciprocity, because they give or take in most situations, respectively. In most cultures and situations, it is considered normal human behavior to want to help someone in need, and therefore matchers are happy to help when asked. However, they also expect to have their helping gesture returned or repaid in some way. Because they adhere to the norm of reciprocity, it seems likely that they engage in prosocial behaviors because they are reciprocally motivated (e.g., they know that if they give they will receive). Based on the tit-for-tat behaviors seen in matchers, it seems likely that matchers, in their interactions with others, will have reciprocity motives.

Hypothesis 7: Reciprocal motivation is positively related to match and take, and negatively related to give.

Predictive Validity

As mentioned previously, for give and take to be a useful concept within the workplace, it must predict important outcomes. Establishing the relationship between give and take and workplace-related outcomes is relevant to the first purpose of this research (i.e., evaluating validity) as well as the third purpose (i.e., evaluating relationships between give and take and individual success). In general, givers have been associated with the most positive outcomes and takers, in spite of their ability to become successful in some ways, with serious negative outcomes. Some outcomes presented as associated with give and take include individual performance, helping and sharing behaviors (e.g., information, knowledge, resources, and support), networking behaviors, collaboration, moral behaviors, perceptions of justice, leadership behavior, career success and motivation, as well as counterproductive work behaviors such as withholding information and using other people for one's own purposes (Grant, 2013). Utz et al. (2014) provide support for some of these by evaluating the impact of give and take on sharing behaviors (i.e., information and resources). Findings from their study indicate that givers are the individuals who contribute the most resources and information to others, followed by matchers and takers. Give was found significantly related to the amount of Euros given ($r = .13$), sharing of important information that was both private (private networks; $r = .13$) and public (intranet; $r = .08$) but it did not relate to sharing information considered as less important. This suggest that givers share resources and information that they believe others will benefit from. Matchers shared information that was less important, both in the private condition ($r = .07$) and the public condition ($r = .06$). They also shared more information in the public important information condition ($r = .06$). However, they did not share the information that was

important and only known to them (i.e., private, coming from their personal network). Not surprisingly, takers kept both resources and information to themselves and shared significantly less with others (euros, $r = -.13$; private important information, $r = -.13$; private less important information, $r = -.08$; public important information, $r = -.16$; public less important information, $r = -.10$). Additionally, give and take was found to have incremental validity over and above SVO in predicting these sharing behaviors, which prior to the introduction of give and take had served as a main predictor of helping and sharing behaviors. These findings are critical for teamwork and collaborative behaviors among employees (such as knowledge, information, and resources sharing) and indicate that if organizations are interested in effective teamwork they need to think carefully about who they hire and how to ensure important information is shared among employee. However, most of the predictive relationships discussed by Grant (2013) remain unexplored.

Therefore, the current research proposes analyses of additional outcome variables related to individual success (i.e., job performance, career success, and life satisfaction) to further the understanding of the predictive validity of give and take. Based on previous research and arguments related to give and take (i.e., Grant, 2013; Utz et al., 2014) as well as findings on prosocial and antisocial behaviors in general, these outcomes should all be related to give and take. The following sections describe hypothesized implications of give and Take for these individual success-related outcomes.

Individual Success

The main reason give and take has become very popular is because of the argued differential relationship to individual success (Grant, 2013). According to Grant

(2013), the three styles of social interaction are differently related to individual success, such that givers are the most successful employees, followed by takers, and matchers. This order, in terms of individual performance, holds true across industries and jobs (Grant, 2013; Green & Maximin, 2015). Previous research has found support for such arguments based on measurements ranging from the individual level to the organizational level. On an individual level, individuals with giving characteristics have been found to be the most productive employees (Flynn, 2003), and individual giving behavior (i.e., helpfulness and sportsmanship) has a significantly positive effect on both quantity (i.e., amount of papers produced) and quality of performance (i.e., numbers of papers rejected; Podsakoff, Ahearne, & MacKenzie, 1997). Additionally, research looking at give and take on the highest individual level within organizations (i.e., CEO) has found giver characteristics to be highly successful. Ou, Waldman, and Peterson (2015) found humility to be a critical trait of CEOs. Findings suggest that when the CEO of the organizations is more humble, the top management team performs better in terms of collaboration, information sharing, joint decision making, and vision sharing. This is in line with Grant's (2013) argument that leaders who possess giver characteristics such as kindness and generosity are more effective and as a result the team and the organization perform better.

However, the relationship between give and take and individual success may be more complex than it might seem. Grant (2013) argues that givers can be the highest performing employees or the worst performers. This proposition places the three types of individuals on a continuum of performance, ranging from high to low, in the order givers, takers, matchers, and givers. The argument that givers are found at both ends on the performance spectrum and takers score much higher on individual performance than

the low performing givers complicates the picture, making recommendations about the most beneficial employees difficult, and suggests there may be a serious downside to being a giver. This downside is described by Grant (2013) as becoming a doormat and someone that others use whenever they need help with something, resulting in these individuals spending more time helping others than performing their own tasks.

However, what separates the successful givers from the non-successful givers is not other people per se (i.e., taking advantage of them) but how givers choose to allocate their acts of giving. Grant (2013) argues that successful givers give within their area of expertise and are more selective in who they give to (e.g., give less to takers and provide help where it is actually beneficial), whereas unsuccessful givers tend to be less strategic in how they give (e.g., what, when, and to whom). Grant's arguments regarding the order of the three groups in terms of performance and the potential division of givers into one successful and one non-successful group will be explored further in the section "task performance and give and take."

Several potential explanations for the relationship between an individual's social interaction style and individual success exist, with the most likely main reason being *the norm of reciprocity* (Gouldner, 1960). As explained previously, the norm of reciprocity states that individuals tend to reciprocate actions of similar value, both favorable and unfavorable. The more givers help others, the larger their network of people wanting to reciprocate beneficial favors grows. This reciprocal effect can also occur indirectly between individuals and have a long-lasting effect. According to models of indirect reciprocity (Alexander, 1987), providing a shorter-term beneficial act towards someone can have a long-term positive effect, through indirect reciprocity. Indirect reciprocity is defined as helping others who have helped others in the past (Alexander, 1987;

Milinski, Semmann & Krambeck, 2002). Givers will therefore not only receive reciprocation directly from the beneficiary, but also from others who become aware of the givers altruistic behaviors. This is supported by research demonstrating that most individuals are more willing to help, support, and perceive an individual in a more positive light if that person has helped others in the past (Milinski et al., 2002).

Individuals are also more likely to cooperate when the situation is related to reputational winnings (i.e., cooperation will have a positive effect on the individual's reputation) and indirect reciprocation (i.e., cooperation is observed by others, who hence are likely to respond in a reciprocal manner towards the actor; Milinski et al., 2002). This way, reciprocation does not have to occur immediately after a beneficial act but can occur later on in life when an opportunity for reciprocation appears.

Closely related to the phenomena of indirect reciprocity and its long-term effect on providers of favors is *liking*. Research (Cialdini, 2001) suggests that liking is a main factor affecting the amount of influence someone has on others and on the amount of prosocial behavior received. Individuals who are liked by others tend to have more influence, and we tend to like individuals who provide help either to us or to someone else. This supports the argument that givers are more successful, because they provide help to others resulting in liking, reciprocity, and increased social status. Flynn (2003) provides support for the importance of frequency of favor exchange in increasing social status and productivity, which can both be viewed as part of individual success. Therefore, givers, who are likely to provide the most favors, may be perceived as generous and high in social status and may receive more favors from others resulting in increased productivity.

Grant (2013) does not define individual success in one specific way, but conceptualizes individual success differently depending on the situation and the job. What individual success is can be somewhat difficult to define and measure, due to its subjectivity as well as the inclusion of multiple factors. Furthermore, how individual success is defined by the general public has changed over time. In the past, success was very much defined in terms extrinsic variables, such as money, power, and material things (Smith, 2014). However, a recent study from Strayer University suggests that this is changing. According to the “Success Project Survey”, Americans define success in terms of happiness, which very much stems from achieving personal goals. As many as 90% of the more than 2000 respondents defined success in terms of happiness, more so than money, power, and fame.

For the purpose of the current research, individual success will be conceptualized in both objective and subjective terms to provide a more encompassing understanding of give and take in relation to individual success. Objective aspects of individual success include variables such as job performance and objective measures of career success (income, position) whereas subjective aspects include subjective career success, comparative career success, and life satisfaction.

Job Performance

Job performance is defined in terms of “the total expected value to the organization of the discrete behavioral episodes that an individual carries out over a standard period of time” (Motowidlo & Kell, 2013, p. 82). One of the most common conceptualizations of job performance is a two dimensional model including task performance and contextual performance (Borman & Motowidlo 1993; Borman & Motowidlo, 1997). *Task performance* refers to an individual’s performance on

“activities that contribute to the organization’s technical core either directly by implementing a part of its technological process, or indirectly by providing it with needed material or services” (Borman & Motowidlo, 1997). Examples of task performance include selling products, speaking to customers, and time management.

Contextual performance is different in that it contributes to the performance of the organization by shaping the context (i.e., organizational, social and psychological), which enables improved effectiveness for task performance-related activities and processes (Borman & Motowidlo, 1997). Activities such as volunteering for tasks and cooperating with others to help them perform on tasks are examples of contextual performance. These activities may not be formally part of the job description but nevertheless improve organizational performance.

Previous research has also focused on negative behaviors in the workplace. These behaviors are referred to as *counterproductive work behavior (CWB)* and have together with task and contextual performance been identified as aspects of individual performance (Motowidlo & Kell, 2013). In fact, some researchers conceptualize job performance in terms of task and non-task performance where the non-task category includes positive non-task related employee behaviors (i.e., OCB) and negative non-task employee behaviors (i.e., CWB; Gonzalez-Mulé, Mount, & Oh, 2014). CWB is defined as employee behaviors that are intended to harm the organization and/or its members (Fox & Spector, 1999). CWB includes a wide range of negative employee behaviors such as theft, misuse or stealing of information, property destruction, misuse of time, poor attendance, drug and alcohol use, and inappropriate physical and verbal behavior (Sackett, 2002).

Based on research conducted on job performance and the associated conclusion that in order to understand an individual's overall job performance (i.e., total contribution to the organization) both positive and negative performance-related behaviors (task and non-task) must be considered, the current study conceptualizes job performance in terms of task- and contextual performance as well as CWB.

Task Performance and Give and Take

Task performance, referring to the aspects of the job that either directly or indirectly contribute to the technical core of the job (Borman & Motowidlo, 1997), is something that takers are likely to place value on because of their competitiveness and constant strive towards success, status, and higher positions. Because task performance is commonly what determines external rewards, such as money, higher positions, status, and recognition (motivational factors for takers), takers are likely to do what they can to perform well within this area and hence score high on task performance.

As mentioned earlier, Grant (2013) argues that givers are both the best and the worst performers. The reason for this is likely to be found in personality characteristics that are both distinctive of givers (i.e., typical giver traits) and characteristics that are not giver-specific. The typical giver characteristics of being caring, helpful, and other-oriented can be detrimental to task performance if the time and effort spent on supporting and helping others towards success limits the individual's own task performance. According to Grant (2013), successful givers are able to balance helping others with focusing on their own work tasks, by being more strategic in when they give, what they give, and to whom they give. Successful givers do not in general give at the expense of their own performance, they give within their area of expertise (i.e., where they know they can make a difference), and they do not waste their time giving to

takers (i.e., letting takers take advantage of their kindness). The non-giver specific characteristics distinguishing between high and low performing givers is therefore, just like for the takers, related to a constant strive for success, and it can be concluded that takers and successful givers are likely to share the same characteristics that are typically found in individuals scoring high on task performance (i.e., conscientiousness, especially ambition and achievement orientation).

Based on the definition of matchers, no specific relationship is likely to be found between match and task performance. However, considering what is known about task performance and personality, matchers who are high in conscientiousness are more likely to be high in task performance. Based on the above arguments related to givers, takers, and matchers, the following relationships between give and take and task performance are hypothesized.

Hypothesis 8a: Take is significantly positively related to task performance.

Hypothesis 8b: The relationship between give and task performance depends on the level of achievement orientation, such that givers who are high in achievement orientation will be high in task performance and givers low in achievement orientation will be low in task performance.

Hypothesis 8c: The relationship between match and task performance depends on the level of achievement orientation, such that matchers who are high in achievement orientation will be higher in task performance compared to matchers lower in achievement orientation.

Contextual Performance and Give and Take

Contextual performance can include a number of different constructs such as volunteerism, helping and cooperation, voice, persistence and enthusiasm, following

rules and procedures, and loyalty. The two most common constructs referred to as part of contextual performance are organizational citizenship behaviors (OCB) and prosocial organizational behavior (Borman & Motowidlo, 1997).

OCB, defined as “individual behavior that is discretionary, not directly or explicitly recognized by the formal rewards system, and that in the aggregate promotes the effective functioning of the organization” (Organ, 1988, p. 4), is recognized as significantly related to individual difference factors in terms of personality traits (Organ & Ryan, 1995; Midili & Penner, 1995; Borman, Penner, Allen & Motowidlo, 2001; LePine & Van Dyne, 2001; Gonzalez et al., 2014). Meta-analytic results suggests conscientiousness is the main predictor of OCB, both in terms of altruistic and compliance behaviors (Organ & Ryan, 1995).

More recent research has confirmed these results and also added other variables to the relationship between OCB and individual difference factors (Borman et al., 2001). Individuals with a prosocial personality, being other-oriented and helpful towards others, rate themselves higher on OCB (Midili & Penner, 1995). Bourdage et al. (2012) evaluated the relationship between personality, measured by the HEXACO, and other-rated OCB and found conscientiousness to relate to both OCB-I (OCB directed towards individuals; $r = .13$) and OCB-O (OCB directed towards the organization; $r = .16$), and Emotionality correlated only with OCB-O ($r = -.16$). Contextual performance, measured in terms of dedication to work and interpersonal facilitation, has been found to relate to multiple personality traits. According to Hogan, Rybicki, Motowidlo, and Borman (1998), dedication to work, interpersonal facilitation and overall contextual performance are all negatively related to adjustment (similar to neuroticism) and positively related to prudence (similar to conscientiousness) in jobs

where no opportunities for advancement exist. However, when advancement opportunities did exist, ambition (or surgency) predicted supervisor ratings of contextual performance.

Additional support for the importance of multiple traits in predicting OCB comes from Gonzalez et al.'s (2014) meta-analysis where, in addition to conscientiousness, they found extraversion and agreeableness to significantly predict the OCB classified behaviors of voice and cooperative behaviors. Research on narcissism and performance (Judge, LePine, & Rich, 2006) suggest the two are negatively correlated, and this negative relationship is stronger for contextual performance than for task performance.

Based on the description of givers and takers as going above and beyond to help others versus putting as little effort into others' success as possible, the two are likely to differ significantly on measures of contextual performance, with givers being high and takers low. Matchers, who believe in reciprocation, are likely to be more affected by the situation and how much others and the organization give to them. Therefore, no direct relationship between contextual performance and match is likely to be observed. However, other factors such as perceptions of justice, perceived organizational support, and amount of help received from others are likely to influence the relationship, but this is outside of the scope of the current research.

Hypothesis 9: Givers are higher in contextual performance compared to takers and matchers.

Counterproductive Work Behavior (CWB)

Research (Fox & Spector, 1999) has identified two main categories of CWB: CWB-O, including dysfunctional behaviors directed towards the organization, and

CWB-I, including behaviors targeting the members of the organization. CWB has, just like contextual performance, been related to personality traits (Judge et al., 2006; O'Neill, Lewis, & Carswell, 2011; Hilbig & Zetter, 2015). Agreeableness ($r = -.33$, $-.26$, $-.33$), conscientiousness ($r = -.41$, $-.48$, $-.47$), and honesty-humility ($r = -.32$, $-.33$, $-.36$) have been found to be negatively related to deviance (i.e., interpersonal deviance, ID; organizational deviance, OD; and overall deviance), and neuroticism ($r = .22$, $.26$, $.26$) has been found to be related positively to all three conceptualizations of deviance (O'Neill et al., 2011). Furthermore, all four of these dimensions of personality added incremental validity to all the measures of deviance (ID, OD, and overall deviance), suggesting that they are all important predictors of deviant behavior. However, across the six dimensions in the FFM and the HEXACO models of personality, the H-H factor is most commonly found to be the strongest predictor of CWB and other related behaviors (Lee, Ashton, & De Vries, 2005; Marcus, Lee, & Ashton, 2007; Zettler & Hilbig, 2010; Hilbig & Zettler, 2015). Both give and take are likely to be related to conscientiousness (and its facets), agreeableness, and honesty-humility. It can therefore be hypothesized that give and take will be related to CWB in a similar way.

Additional support for the relationship between give and take and CWB can be found in research on the three dark triad traits (narcissism, machiavellianism, and psychopathy) and CWB. The dark triad and especially the entitlement/exploitativeness dimension of narcissism, which is a typical characteristic of takers, relate positively to CWB (O'Boyle, Forsyth, Banks & McDaniel, 2012; Grijalva & Newman, 2015). Judge et al. (2006) report a significant relationship between narcissism and supervisor ratings of workplace deviance ($r = .24$). This research suggests that individuals who believe they have certain rights that others do not have and think they have the right to use

others for their own purposes engage in more intentionally harmful behaviors towards the organization and/or its members. Based on these previous findings on what individuals who engage in CWB have in common and the likely relationship between these individuals and givers and takers, the current research proposes that CWBs will mainly be seen among takers and very rarely seen among givers. As described above, the matchers' belief in reciprocity makes them more likely to be more affected by the situation. If they experience negative behaviors from others or the organization they are likely to reciprocate such negative behaviors to preserve equality between input and output. Therefore, similar to contextual performance, no direct relationship between CWB and match is likely to be observed but other factors such as perceptions of justice, perceived organizational support, and amount of negative behaviors received from others are likely to influence the relationship. However, this is again outside of the scope of the current research.

Hypothesis 10: Takers are higher in CWB compared to matchers and givers.

Career Success

Career success can be defined in terms of a positive psychological state and/or positive work-related outcome stemming from an individual's experiences at work (Ng, Eby, Sorensen, & Feldman, 2005). These two aspects of career success are commonly measured through either subjective or objective variables, which are distinct but related concepts (Converse, Piccone, & Tocci, 2014; Converse, Thackray, Piccone, Sudduth, Tocci, & Miloslavic, 2015; Ng et al., 2005). Subjective career success refers to an individual's subjective judgment or opinion about their own career-related attainments (e.g., job satisfaction and career satisfaction), whereas objective career success includes variables such as income and promotions (Judge et al., 1994). While subjective career

success is likely to be interesting to the individual, objective career success is most commonly what organizations are interested in (Abele & Wiese, 2008).

As mentioned earlier, both givers and takers can be viewed as successful at work, and compared to the majority (i.e., matchers) they perform above average. The fact that both givers and takers may be highly successful can be explained through two different perspectives: the contest-mobility perspective and the sponsored-mobility perspective. According to the *contest-mobility perspective*, who gets ahead within the organization is determined based on individual performance and the amount of value added to the organization (Ng et al., 2005). Based on this perspective, individuals have to perform in their own tasks as well as make positive contributions to the organization to be able to move up within the organization. This perspective furthermore suggests that anyone who devotes time and energy towards their performance can become successful by performing and contributing to the organization. *The sponsored-mobility perspective* explains success by suggesting that an established elite within the company provides special opportunities to individuals identified as high potentials, which are usually those who quickly perform and have great social skills (e.g., political skills and impression management tactics).

Logically, it should take longer to prove competence through the contest-mobility perspective, requiring consistency in performance and multiple individuals' agreement about exceptional performance, than through the sponsored-mobility perspective, requiring potentially only one person's opinion about an individual's high potential. Givers with their intrinsically motivated behaviors and genuine care for others' success (colleagues and the organization) should be more likely to show consistency in performance and over time outperform other employees, whereas takers

with their extrinsically motivated behaviors will do everything they can to quickly outperform others and rise to the top by successfully interacting with the “right” people (i.e., the people in power to help them succeed).

Based on these differences in motives and approaches to become successful within the organization, givers and takers are likely to differ in subjective and objective career success.

Subjective career success

An individual’s subjective opinion about career success is commonly captured in terms of satisfaction with job and/or career (Judge et al., 1995). The current research conceptualizes subjective career success in terms of career satisfaction and comparative career success.

Career satisfaction. Career satisfaction is defined as the degree to which an individual is satisfied with career related advancements, such as progress towards meeting one’s own overall career goals (Greenhaus, Parasuraman, & Wormley, 1990). Research suggests that individuals that are sensitive to equity (entitled) tend to be less satisfied with their job in general as well as with their pay, and benevolents (who are less sensitive to equity) tend to score the highest on career success (Sauley & Bedeian, 2000). Takers, who definition-wise are similar to entitleds (i.e., sensitive to equity and view themselves as always deserving more) are therefore likely to be unsatisfied with their career because they think that they deserve higher positions, more money, and more status and recognition for their accomplishments. Further support for the negative relationship between takers and aspects of career satisfaction can be found in the direct relationship found between equity sensitivity and pay satisfaction (Miles et

al., 1989), suggesting that higher sensitivity to equity (i.e., entitleds) is associated with less satisfaction with pay.

Givers, being similar to benevolents, are likely to be satisfied with their career because they do not focus on fairness or view situations as unfair based on how much they receive from the organization. Another argument in support of a positive relationship with career satisfaction is that because individuals who are prosocially motivated (i.e., givers) are likely to be intrinsically motivated (Grant, 2008) they are more likely to choose a job that will be intrinsically motivating which arguably is easier than finding a job that provides high salary, power, and status. Additional support for the relationship between give and take and career satisfaction can be seen in findings demonstrating that satisfaction with one's career is related to agreeableness ($r = .11$), suggesting that individuals with other-oriented personality characteristics are more satisfied with their careers (Ng et al., 2005).

Based on the relationships described above, givers are proposed to be more satisfied with their career compared to matchers and takers.

Hypothesis 11: Givers are more satisfied with their career compared to matchers and takers.

Comparative career success. Comparative career success is defined as an individual's subjective judgment about one's own career-related success compared to other colleagues (Abele & Wiese, 2008). Comparative career success has been found to be related to self-referent career success (i.e., career satisfaction, $r = .54$; Abele & Wiese, 2008), suggesting that the pattern proposed above in terms of career satisfaction may also hold for comparative career success. However, the opposite relationship can also be argued for takers. The grandiose self-view (i.e., viewing themselves as better

than others) found in entitled individuals, narcissists, and also arguably takers is likely to result in takers viewing themselves as more successful in their careers compared to their colleagues. Takers are also likely to get promoted and may be viewed as successful within the organization, until their true characteristics are revealed (Grant, 2013). Thus, in objective measures of career success (which is what takers are likely to evaluate career success based on) takers may view themselves as more successful compared to others. Combining previous findings relating career satisfaction to comparative career success with these arguments with respect to takers and comparative career success, comparative career success is proposed to relate positively to both give and take, but takers will be higher in comparative career success than givers and matchers.

Hypothesis 12: Takers view themselves as more successful in their careers compared to matchers and givers.

Objective career success

Objective career success conceptualizes success based on hard facts or numbers, such as income, position, and promotions. The current research defines objective career success in terms of GPA, income, and position.

GPA, Income, and Position. Research suggests givers may be less successful in school (in terms of GPA). Lievens, Ones, and Dilchert (2009) examined the performance of medical students over the course of five years and found that givers receive the lowest grades and takers the highest grades. This relationship was the strongest in the beginning when the classes were more academic; however, later on when social skills became more important as the amount of interaction with patients increased, the relationship between social interaction style and performance reversed and givers were the most successful and takers were the worst performers. The reason

for this relationship may be that givers prioritize helping others succeed over their own needs, whereas takers use others to succeed (e.g., receive as much help with school as possible). This give and take relationship, reflected in the students' grades, was only relevant to the first years where they had course work to finish, but not later on in their education when their grades were based on their performance solely and how they interacted with their patients.

Based on this research, takers may perform better in school, where most of their performance is based on objective measures in terms of exams and papers.

Hypothesis 13: Takers have higher GPA compared to matchers and givers.

Later in life, the same pattern has been found in terms of income. Individuals high in the prosocial trait of agreeableness tend to have lower income compared to those low in agreeableness (Judge, Livingston, & Hurst, 2011), which theoretically should transfer to givers being lower in income compared to takers. Research evaluating the differences between the CEO's salary and the top management team and other employees within the organization suggest that the difference between CEO salary and other employees are much higher when the CEO has takers characteristics than when the CEO possess the characteristics of a giver (Peterson, Galvin, & Lange, 2012; Ou et al., 2015).

Additional support for takers being higher in income can be obtained by drawing from research on motives. As described earlier, impression management motives are classified as extrinsic, which is related to striving for external rewards (i.e., money, status, and power). Takers, being arguably more likely to have this type of underlying motive, should hence be likely to strive for higher and higher salary. Givers are likely to be prosocially motivated and hence intrinsically motivated (Grant, 2008).

Intrinsic motivation revolves around the striving for internal rewards, which does not include money and position and hence not income. Based on the arguments described above, takers are proposed to have higher income than givers and matchers.

Hypothesis 14: Takers have higher income compared to givers and matchers.

Ng et al. (2005) reported relationships between promotions and personality, with extroversion being the strongest predictor ($r = .18$), followed by neuroticism ($r = -.11$), conscientiousness ($r = .06$), and agreeableness ($r = -.05$). These findings indicate that more sociable individuals are more likely to get promoted. Takers are likely to demonstrate sociable characteristics because they know that they need others to like them in order to get what they want. Agreeableness was again found to relate negatively to promotions, suggesting that individuals with caring and compassionate traits (i.e., givers) are less likely to get promoted and those low in agreeableness (i.e., takers) are more likely to get promoted. On a similar note, individuals with the takers characteristics of using others for their own success and constantly striving for more extrinsic rewards are more likely to be selected for higher positions because of their social and communicative skills (Babiak & Hare, 2006). Takers share characteristics such as entitlement, superiority, and seeking status through material things, with narcissists, and narcissism has been found to be positively related to life-success, defined in terms of socio-economic status, income, position, and size and ownership of home (Ullrich, Farrington, & Coid, 2007).

Based on the relationships found between typical giver and taker personality characteristics and promotions/positions, takers are proposed to be found in higher positions compared to givers and matchers.

Hypothesis 15: Takers hold higher positions within organizations compared to givers and matchers.

Life satisfaction. Individuals who are classified as givers have been found to score higher on prosocial behavior (Utz et al., 2014), which in turn has been found to be positively related to an individual's degree of satisfaction with life (Caprara & Steca, 2005). The reason prosocial behavior is related to life satisfaction can be argued to be its relationship to positive emotions and well-being (van der Linden, 2011; Weinstein & Ryan, 2010; Schwartz, Meisenhelder, Ma, & Reed, 2003; Helliwell & Putnam, 2004; Post, 2005). Post (2005) presents evidence for a positive relationship between being altruistic and both mental and physical health (i.e., well-being, health, happiness, and longevity). Research on elderly individuals shows that those who are involved in altruistic activities, such as volunteer work, are significantly more satisfied with their life, have less negative emotions, and have higher well-being compared to those who do not engage in such activities (Hunter & Lin, 1980-1981; Dulin & Hill, 2003).

According to Weinstein and Ryan (2010), individuals who have an autonomous motivation for helping others (i.e., the act of helping is in line with their own values) produce more benefits both for the provider and the recipient compared to individuals with a controlled motivation for helping (i.e., the act of helping is due to external pressure or contingencies). Research also suggests that giving provides more benefits (i.e., mental health) to the provider compared to the receiver, suggesting that giving is more beneficial than receiving (Schwartz et al., 2003). Van der Linden (2011) explains the positive feeling experienced when helping others through activation of a certain type of pleasure producing neurotransmitter (i.e., oxytocin). The resulting pleasurable feeling

can, just like other pleasure producing activities, produce an addictive high of positive feelings, referred to as “the helper’s high” (van der Linden, 2011, p. 27).

Another variable strongly related to subjective well-being is social capital (Helliwell & Putnam, 2004). According to this line of research, the strengths of various relationship ties (i.e., marriage, family, friends, work, civic engagements, trustworthiness, and trust) independently predict an individual’s happiness and satisfaction with life. Givers, with their other-oriented approach to social interactions, should have stronger relationship ties compared to takers and should also be higher in both trustworthiness and trust.

Lastly, narcissism, which includes the typical taker characteristics of entitlement and exploitativeness, has been found to be positively related to being a taker (Utz et al., 2014). Individuals scoring high on narcissism have been found to have lower levels of self-esteem and life satisfaction (Rose, 2001). Taken together, the research described above suggests that givers should be the most satisfied with their life and takers should be the least satisfied with their life.

Hypothesis 16: Givers are more satisfied with their life compared to matchers and takers.

Personality and Give and Take

Personality is commonly defined in terms of an individual’s stable pattern of thoughts, feelings, and behaviors (Connor-Smith & Flachsbart, 2007). Understanding an individual’s personality hence enables prediction of specific behaviors and actions in various situations. Personality traits have been linked to both prosocial and antisocial behavior (Hilbig, Glöckner, & Zettler, 2014; Penner, Fritzsche, Craiger, & Freifeld, 1995; Rushton, Chrisjohn, & Fekken, 1981; Lee & Ashton, 2005; Furnham, Richards &

Paulhus, 2013), and are commonly assessed through measures building on one of three main models of personality: (1) a two factor structure (Interpersonal circumplex; Wiggins, 1979), (2) a five factor structure (FFM; Costa & McCrae, 1991) or (3) a six factor structure (Big Six; Ashton & Lee, 2001; Ashton & Lee, 2005).

The *Interpersonal circumplex* consists of two axes referred to as Agency and Communion. Agency involves self-centered and agentic aspects such as striving for autonomy and superiority, whereas Communion involves other-oriented and communal aspects such as connecting with and helping others (Bruckmüller & Abele, 2013). Together the two axes form four quadrants, each corresponding to a combination of the individual's level of Agency and Communion. The interpersonal circumplex is commonly used to understand social roles, social interactions, and individual differences (McCrae & Costa, 1989). The interpersonal circumplex is different from the five factor model, which will be discussed in the next section, in that it includes only dispositions that are relevant for social interactions. The relationship between the interpersonal circumplex and prosocial behavior has been supported by research relating communion to empathy, which is described as a major component of altruistic prosocial behaviors (i.e., the empathy-altruism hypothesis; Batson, 2010). According to Gurtman (1992), three out of the four subscales measuring empathy, from the interpersonal reactivity index (IRI; Davis, 1980), fall within the nurturance location of the circumplex. Research also shows that antisocial behaviors in terms of the dark triad fall in the second Quadrant, representing individuals who are high in agency and low in communion (Jones & Paulhus, 2011a). This suggests that, based on the interpersonal circumplex model, individuals with any of the three antisocial traits included in the dark triad share a high level of self-oriented behaviors (i.e., agency) and a low level of other-

oriented behaviors (i.e., communion). Research has also directly compared the interpersonal circumplex model with dimensional personality measures (e.g., NEO-PI; Costa & McCrae, 1985). According to McCrae and Costa (1989), the interpersonal circumplex model is very closely related to the two personality traits extraversion and agreeableness.

The Five Factor Model (FFM) of personality defines personality in terms of five main dimensions: Agreeableness, Extraversion, Conscientiousness, Neuroticism (or Emotional Stability) and Openness to Experience (Costa & McCrae, 1985; 1991). Among these five dimensions, Agreeableness and Conscientiousness are argued to be the main drivers of prosocial behaviors (Hilbig et al., 2014; Organ & Ryan, 1995; Borman et al., 2001). Agreeableness is defined as an individual difference factor concerned with having an orientation towards interpersonal relationships, and has been found to be positively related to a number of prosocial behaviors such as helping behaviors (Graziano et al., 2007). Conscientiousness, defined in terms of dependability, responsibility, persistency, planning, organizing, detail orientation, achievement orientation, and self-control (Perry, Hunter, Witt, & Harris, 2010; Dudley, Orvis, Lebiecki, & Cortina., 2006; Costa & McCrea, 1992; Barrick & Mount, 1993), has been identified as a main predictor of OCB (Organ & Ryan, 1995; Borman et al., 2001). Agreeableness and conscientiousness are also the main FFM predictors of antisocial behaviors, but in the opposite direction (Furnham et al., 2013). Furthermore, it has been suggested that different types of antisocial behaviors are best predicted by the FFM when the facets of the five factors are used. For example, narcissism is most strongly related to low levels of modesty and straightforwardness (agreeableness) and high levels of achievement-striving and competence (conscientiousness), whereas psychopathy is

most strongly related to low levels of deliberation and dutifulness (conscientiousness; Miller, Dir, Gentile, Wilson, Pryor & Campbell, 2010).

The Big Six includes essentially the same five dimensions as the Big Five and the FFM, but in addition contains a sixth factor referred to as honesty-humility (H-H; Ashton & Lee, 2001). Based on the first letter of these six dimensions, the model is commonly referred to as the HEXACO model (Ashton & Lee, 2001; Lee & Ashton, 2005). The H-H factor measures an individual's tendency to be insincere, dishonest, and greedy, which are underlying characteristics of individuals who use others for personal gains, break rules, and seek status positions and material luxuries. Individuals high in H-H are not interested in these things and avoid manipulating others and breaking rules, whereas individuals scoring low engage in these kinds of behaviors and feel high levels of entitlement and self-importance. The H-H factor is the main predictor among the six of both prosocial and antisocial behaviors and predicts both types of behaviors over and above the FFM (Hilbig et al., 2015; Lee & Ashton, 2005; Lee, Ashton, & Shin, 2005). Although some outcomes can be predicted just as well by extracting certain facets from the FFM, outcomes such as ethical violations, materialism, and criminality cannot be predicted as well by the FFM as by the HEXACO (Ashton & Lee, 2008). For instance, research (Lee, Ashton, Morrison, Cordery, & Dunlop, 2008) shows that the H-H factor is the strongest predictor, among the six personality dimensions, of behaviors related to integrity. Based on this, the H-H factor can be considered directly relevant to moral behaviors, an area in which givers and takers show opposite behaviors. Givers can be viewed as having high moral standards (i.e., high moral character; Cohen, Panter, Turan, Morse, & Kim, 2014), which can be seen in their empathic concern, care and helpfulness towards others, as well as obedience. Takers on the other hand can be

viewed as having low moral standards (i.e., low moral character; Cohen et al., 2014) because of their lack of obedience, exploitativeness, and harmful behaviors. The H-H factor consists of four sub-scales (i.e., fairness, greed avoidance, modesty, and sincerity), which has been found differently related to various outcomes. Among these four, fairness, greed avoidance, and sincerity are significantly related to prosocial behaviors (as measured through social value orientation; $r = .30$, $r = .30$, and $r = .24$, respectively), but only fairness and greed avoidance add unique prediction for prosocial behavior (Hilbig et al., 2014).

In terms of antisocial behaviors, the H-H factor is predictive of negative workplace behaviors such as deviance (stealing time and money and spreading rumors), sexual harassment, political behaviors (e.g., impression management), self-promotion at the expense of others, ingratiation and abusive leadership (Lee & Ashton, 2015). H-H has also been found to be strongly related to Psychopathy ($r = -.54$), Machiavellianism ($r = -.59$), and Narcissism ($r = -.55$; Lee, Ashton, Wiltshire, Bourdage, Visser, & Gallucci, 2013), whereas the Big Five Agreeableness only correlated with Psychopathy ($r = -.39$) and Machiavellianism ($r = -.44$), and Extraversion related to Narcissism, both measured through the Big Five (0.46) and the HEXACO (0.49). The importance of the H-H factor has also been demonstrated by research connecting H-H to integrity and ethical decisions in a business task (Lee et al., 2008). In this study, the HEXACO model predicted the integrity-related criteria better than the FFM, because the strongest predictor among the six factors was the H-H factor.

Additional support for the likelihood that give and take can be predicted based on personality characteristics comes from research on prosocial personality (Penner et al., 1995), altruistic personality (Carlo et al., 1991), and dark personality (Hogan &

Hogan, 2001). These are all examples of measures assessing an individual's prosocial and antisocial tendencies through personality traits. Based on these previous findings, relating personality to behaviors similar to the behaviors demonstrated by givers and takers, it can be concluded that it seems likely that give and take can be predicted by personality.

Considering the relationships described above relating prosocial and antisocial behaviors to personality (addressed both in terms of the interpersonal circumplex and the two dimensional models of personality), it can be concluded that give and take should theoretically also be related to personality. Because the main personality predictor of both prosocial and antisocial behaviors is the honesty-humility dimension and its more specific facets, it is reasonable to believe that this is also true for give and take. Additionally, based on the findings discussed above, the other five personality dimensions are also likely to relate to give and take. Thus, we can draw some general conclusions regarding the likely relationship between the main dimensions of personality described above and give and take. For example, it seems quite obvious that givers will be significantly higher in honesty-humility, agreeableness, and conscientiousness, because of the other-oriented, caring, and ethical behaviors attached to these traits. Also, extraversion and openness to experience should theoretically also be positively related to being a giver, considering the social and curious aspects of these two traits.

However, due to the interactive effect that personality traits have on each other in producing behaviors (Witt, 2002; Witt, Burke, Barrick, & Mount, 2002; Gylfason, Halldorsson, & Kristinsson, 2016; Perry et al., 2010; Hogan, Hogan & Warrenfeltz, 2009) as well as the complex nature of the traits, including multiple facets (i.e., more

specific characteristics) and their effect on each other in predicting specific behaviors, it appears difficult to hypothesize about the specific relationship between give and take and the various traits individually. A more efficient and precise method is to consider personality as a whole (i.e., all dimensions and facets at once and in combination with each other) when predicting behaviors and categorize individuals into groups demonstrating similar behaviors. This can be accomplished through various approaches describing individuals in terms of their entire personality profile.

Personality Profiling

Personality profiling refers to a holistic approach to assessing an individual's personality, by taking multiple personality characteristics into account when trying to understand an individual and predict various outcomes (Criswell, 2013). The approach of personality profiling has been around for a long time to enhance understanding of an individual's personality characteristics. Some examples of personality assessments compiling personality information into a personality profile are: the MBTI (Myers, McCaulley, Quenk, & Hammer, 1998), Hogan's Personality Inventory (Hogan, 1986), the 16 PF (Conn & Rieke, 1994), and the NEO-PI-R (Costa & McCrae, 1985).

Personality profiles can be seen in a variety of different areas such as criminology (to understand offenders; Valliant & Bergeron, 1997), internet (to understand website choices; Kosinski, Bachrach, Kohli, Stillwell, & Graepel, 2012), school (to understand and predict student performance; Mey, Abdullah, & Yin, 2014), as well as to understand more specific individual profiles such as high versus low moral character (Cohen et al., 2014), the pro-environmental individual (Markowitz, Goldberg, Ashton, & Lee, 2012), and specific workplace related profiles (Hogan, Hogan & Warrenfeldz, 2009).

Personality profiles are also commonly gathered on high performing employees, to understand what these individuals have in common (i.e., what personality traits characterize them). The obtained profiles are later used to identify future high performing employees (i.e., individuals with a similar profile). The current study intends to utilize personality profiling to answer the question whether givers, takers, and matchers have distinct personality profiles and hence can be identified based on common personality traits, as well as to determine how they differentially impact the organization in terms of individual performance. Research has used a few different approaches to profile individuals based on personality, which will be described next.

Different Approaches to Personality Profiling

Identifying the Personality Profiles. In general, two main types of approaches to determining various profiles can be used: (1) linearity-based approaches and (2) optimality-based approaches. The most common approach has, so far, been the *linearity-based approach*, which assumes that higher (or lower) scores on the scales identified as predictive of certain behaviors are always better (Criswell, 2013). Linear approaches to personality profiling determine the importance of various traits based on correlations (r) or regression weights (R). The traits with the highest correlations or regression weights are commonly viewed as more important, and the importance of the various traits are based on their incremental validity (Tett & Christiansen, 2007). In cases where a negative relationship is observed between a trait and an outcome/behavior, the profile will reflect that lower scores on that specific trait are better.

The *optimality-based approach* is non-linear and instead considers the optimal scores on multiple personality characteristics in predicting various criteria (Criswell,

2013). More specifically, a target profile is created based on the means of the personality traits for the individuals identified as belonging to the specific group(s)/type(s). This approach recognizes the importance of closeness to the ideal scores (i.e., the mean scores for a specific trait). One commonly used method within the optimality approach is the configural approach, also referred to as the constellation approach. The configural approach is based on the understanding of personality traits as interactive, and considers multiple personality traits in relation to each other (Witt et al., 2002; Witt, 2002; Perry, Hunter, Witt, & Harris, 2010).

Personality research (e.g., Witt, 2002; Witt et al., 2002; Gylfason, Halldorsson, & Kristinsson, 2016; Perry et al., 2010; Hogan et al., 2009) acknowledges that an individual's entire set of personality traits is related to behaviors in various situations (i.e., outcomes). The importance of taking multiple aspects of an individual's personality into account can be seen in research demonstrating interaction effects between various traits, such that prediction for one characteristic can be strengthened or weakened depending on the combination with other traits. For example, dishonest behavior may not be predicted by H-H by itself; however, when low H-H interacts with high extraversion this combination is more predictive of dishonesty than any one personality trait alone (Gylfason et al., 2016). In addition, among the five personality dimensions in the FFM, job performance is most strongly predicted by conscientiousness (Barrick & Mount, 1991). However, research (Witt, 2002) also suggests that conscientiousness is differently related to performance depending on whether the individual is high or low in agreeableness, resulting in high versus low performance ratings respectively. Job performance is also related to openness to experience but only in individuals who are high in extraversion and/or low in emotional

stability (Burke & Witt, 2002). Personality profiling based on the mean scores of the individuals belonging to that profile enables evaluation of the argued interactive effect among all personality traits and hence allows for prediction of criteria in a more holistic fashion compared to other methods. The current research therefore acknowledges the importance of the optimality-based approach to personality profiling.

Classification of Individuals

How new individuals are classified (i.e., assigned to the different profiles) depends on which one of the approaches described above is being used. If a linearity-based approach is used, the correlations or regression weights are used to determine what personality traits distinguish between individuals belonging to one profile or another. These traits are combined into a linearity-based algorithm, where the various personality traits are assigned different weights based on their importance (i.e., regression weights).

When the optimality-based approach is being used, a different classification method must be used. In order to determine what profile an individual belongs to using this approach, a target profile must first be created. This target profile is based on the means for all the personality traits identified as important for the specific profile. Once the target profile is created, each individual's personality profile is compared to the target profile(s) to determine the best fitting profile. The fit between a target profile and an individual's actual profile can be determined based on various metrics measuring the distance between the means of the target profiles and the individual's actual scores. One such metric, comparing the distance between the individual's profile and a target profile is D^2 (*the generalized distance function*; Osgood & Suci, 1952; Cronbach & Gleser, 1953). D^2 is a metric that determines the fit between an individual's profile and a target

profile, through the formula: $D^2 = (X_{a1} - X_{b1})^2 + (X_{a2} - X_{b2})^2 + \dots + (X_{ak} - X_{bk})^2 = \sum (X_{aj} - X_{bj})^2$.

Profiling Givers, Takers, and Matchers

Personality profiling has been conducted on constructs similar to give and take, which throughout this proposal has been described in terms of prosocial and antisocial behaviors. One such construct is moral character (Cohen et al, 2014) Moral character is defined as “an individual’s characteristic patterns of thought, emotion, and behavior associated with moral/ethical and immoral/unethical behavior” (Cohen et al., 2014, p. 944). Cohen et al. (2014) found that personality profiling, through the application of personality assessments, can be used to characterize individuals based on their moral character (i.e., high vs. low). Moreover, their findings suggest that individuals with a high level of moral character score high on H-H, empathic concern, guilt proneness, conscientiousness, and self-control, and they place high value on being moral and consider future consequences.

Based on the similarity between give and take and prosocial and antisocial behaviors as well as the personality profiles found for high versus low moral character, the current research predicts that givers and takers have different personality profiles. These personality profiles will most likely be characterized by personality traits that are prosocial versus antisocial in nature. The typical personality traits of matchers are more difficult to predict but are likely to fall somewhere in between the scores of givers and takers.

A critical factor affecting how well a certain outcome or behavior can be predicted (i.e., criterion-related validity) revolves around the bandwidth of the predictor and the outcome, and more specifically the extent to which the bandwidth on both sides

are similar. Research has concluded that predictions will be more specific and accurate when the bandwidths on the predictor and outcome sides are matched and as narrow as possible (Tett, Steele, & Beauregard, 2003; Rothstein & Goffin, 2006; Tett & Christiansen, 2007). For the purpose of the current research, this suggests that give, take, and match, which are three rather specific behavioral categories, may be best predicted by traits that are more narrow rather than broad. Broad personality traits are considered to be the main dimensions in the FFM or the HEXACO, whereas narrow traits are considered to be the facets for each dimension. In an attempt to profile givers, takers, and matchers, the current research therefore proposes using narrow personality traits.

A number of personality assessments measure both the broader five personality dimensions (i.e., the five FFM dimensions), as well as their specific facets. For research purposes, an appropriate approach to measuring both broad and narrow personality traits is through the International Personality Item Pool (IPIP). The IPIP consists of over 3000 items, from which more than 250 different personality-related scales have been created (<http://ipip.ori.org>, Oct, 2016). Many of the scales have been developed to correspond with popular personality assessments such as the Hogan Personality Inventory (HPI; Hogan & Hogan, 1986), the NEO personality inventory (Costa & McCrae, 1992), and the HEXACO personality inventory (Lee & Ashton, 2004). Because the current research seeks to explore the personality profiles of givers, takers, and matchers in terms of narrow personality traits, an appropriate personality assessment must measure both the broader personality dimensions and their facets. One such measure is the 120-item IPIP NEO-PI-R (Maple, Guan, Carter, & Miller, 2014; Johnson, 2014). This measure has proven to be equivalent to the 120-item version of the

NEO-PI-R, with each main scale and facet demonstrating acceptable reliability and validity in terms of comparability with the original validated measure (i.e., the NEO-PI-R; Costa & McCrae, 1992; Maples et al., 2014; Johnson, 2014). Based on the research on prosocial and antisocial behavior suggesting that the honesty-humility dimension from the HEXACO model is a critical piece in understanding such behaviors, honesty-humility should also be evaluated as part of the give and take personality profiles. The current research therefore proposes measuring personality in terms of the five dimensions and 30 facets included in the 120-item IPIP NEO-PI-R as well as the HEXACO dimension H-H and its four facets. All six of these dimensions and 34 facets are summarized below along with supporting evidence for their relevance in relation to give and take.

Summary of Personality Traits and Their Relationships to Give and Take

| Scale/Sub-Scale | Relevance for Give and Take |
|---|---|
| Honesty-humility • Sincerity • Fairness • Greed Avoidance • Modesty | <ul style="list-style-type: none"> • H-H relates negatively to the dark triad (Lee et al., 2002) • H-H relates negatively to IM motives for OCB (Bourdage, Lee, Lee & Shin, 2012; Bourdage, Wiltshire & Lee & Ashton, 2015) • Sincerity, Fairness, & Greed Avoidance relate positively to SVO (Hilbig et al., 2014). |
| Neuroticism • Anxiety • Anger • Depression • Self-Consciousness • Immoderation • Vulnerability | <ul style="list-style-type: none"> • Neuroticism relates positively to Psychopathy (Paulhus & Williams, 2002) • Emotionality (i.e., neuroticism) relates negatively to the dark triad (Lee et al., 2013) |
| Extraversion • Friendliness • Gregariousness • Assertiveness • Activity Level • Excitement Seeking • Cheerfulness | <ul style="list-style-type: none"> • Extraversion relates positively to the dark triad (Paulhus & Williams, 2002; Lee et al., 2013) |

| | |
|--|---|
| Openness <ul style="list-style-type: none"> • Imagination • Artistic interest • Emotionality • Adventurousness • Intellect • Liberalism | <ul style="list-style-type: none"> • Openness relates positively to Narcissism and Psychopathy (Paulhus & Williams, 2002) |
| Agreeableness <ul style="list-style-type: none"> • Trust • Morality • Altruism • Cooperation • Modesty • Sympathy | <ul style="list-style-type: none"> • Agreeableness, Concern for others, & Helpfulness relate positively to prosocial motivation (Graziano et al., 2007; De Dreu, 2006; Meglino & Korsgaard, 2004; Penner et al., 2005) • Helpfulness relates positively to prosocial personality (Penner et al., 1995) • Altruism relates positively to prosocial motivation (Santrock, 2007) • Empathy relates positively to prosocial personality and motivation (Penner et al., 1995; Penner et al., 2005; Batson, 2010) • Modesty and straightforwardness relate negatively to narcissism (Miller et al., 2010). • Deliberation relates positively to Psychopathy (Miller et al., 2010) • Agreeableness relates negatively to the dark triad (Paulhus & Williams, 2002; Furnham, Richards & Paulhus, 2013) |
| Conscientiousness <ul style="list-style-type: none"> • Self-Efficacy • Orderliness • Dutifulness • Achievement Striving • Self-Discipline • Cautiousness | <ul style="list-style-type: none"> • Conscientiousness relates negatively to Machiavelianism and Psychopathy (Paulhus & Williams, 2002; Furnham, Richards & Paulhus, 2013) • Dutifulness relates negatively to Psychopathy (Miller et al., 2010) • Achievement Striving relates positively to the dark triad (Miller et al., 2010) • Competence relates positively to Narcissism (Miller et al., 2010) |

Based on previous research on prosocial and antisocial behaviors and personality characteristics (summarized throughout the proposal as well as in the summary list above), the current research hypothesizes three different personality profiles, one each for givers, takers, and matchers. Figure 1 in Appendix B describes what these personality profiles might look like, based on the IPIP NEO-PI-R (Maples et al., 2014) and the honesty-humility dimension from the HEXACO model (Lee &

Ashton, 2004). However, given that the current research is the first to explore the possibility of profiling givers, takers, and matchers using personality assessments, limited evidence on the relationship between give and take and personality traits exists. Therefore, these profiles (i.e., figure 1) should be considered approximations and an illustration of possible patterns within and between the three profiles.

Hypothesis 18: Givers, takers, and matchers have different underlying personality profiles.

Methodology

Because limited research has evaluated give and take directly in relation to other variables, a natural first step in enhancing the understanding of these social interaction styles is to validate the construct and the existing measure (i.e., Give & Take; Grant, 2013). Therefore, a validation study was conducted before any other research was carried out. Given that results from Study 1 support the validity of give and take, two additional studies were conducted to further understand give and take in relation to personality characteristics and individual performance. Study 2 evaluate the relationship between personality and the three social interaction styles using a personality profiling approach, as well as determined how give and take is related to CWB. Study 3 enhance the understanding of the applicability of give and take to the workplace, by evaluating the relationship between give and take and individual performance. Each of the three studies will now be explained in detail.

Study 1: A Validation Study of Give and Take

A validation study was conducted to establish the validity of give and take through evaluation of its relationship with other variables. Although recent work by Grant (2013) indicates that an individual's social interaction style in terms of giving

versus taking behaviors is related to individual success, limited research has provided direct information regarding the validity of the construct, the measure, and its argued consequences (Utz et al., 2014). Study 1, therefore, evaluates give and take in relation to other constructs defined in similar terms (i.e., equity sensitivity, self- and other-orientation, theories of self- and other-relations, and helping orientation), underlying motives for giving, taking, and matching behaviors (i.e., prosocial, impression management, competitive, and reciprocal motivation), as well as its relationship to career success-related variables (i.e., GPA, income, subjective and objective career success, and life satisfaction).

Method

Participants

Because the purpose of this study was to validate the construct give and take in general, no specific sample characteristics were considered necessary. Therefore, a convenience sample was used, consisting of individuals recruited from two sources: university classes (i.e., undergraduate students) and personal contacts (i.e., via Facebook). The main part of the sample came from the student population, who participated in the study in exchange for extra credit. The final sample, after removing participants who did not answer all of the 15 give and take items as well as those who failed to correctly answer any of the three attention check questions, consisted of 261 participants. The sample consisted of 45% females, and 65% described themselves as White. The mean age was 23, with a standard deviation of 8. All demographics are reported in Appendix A, Table 1.

Procedure

The students were recruited using the university's research site, Sona Systems, as well as through recommendations from professors. The rest of the sample was recruited through the main researcher's Facebook, where a message asking for participants was sent out together with the link to the online survey. Because the sample recruited from the researcher's personal contacts was so small in comparison to the student sample, no analyses comparing the two samples were required. All participants completed the survey online by clicking on a link directing them to the survey hosted on Qualtrics. The survey, consisting of statements and scenarios evaluating individual motives, belief systems, norms, and attitudes, took approximately 40-50 minutes to complete.

Measures

The online survey consisted of the following self-report measures. All measures along with any changes that were made to them are presented in Appendix A, following the same order as described below.

Give & Take. Whether someone is a giver, taker, or matcher was determined using The Give & Take measure (Grant, 2013; www.giveandtake.com). This self-report measure consists of fifteen workplace-related scenarios, where the respondent is asked to judge the behavior of either someone else or themselves in a hypothetical situation. Each scenario has three possible answers, corresponding to the three social interaction styles. The Give & Take measure has, so far, been used in only one published study (Utz et al., 2014). For the purpose of their study, Utz and colleagues translated Give & Take into German, resulting in the removal of one scenario and a final fourteen scenario measure, due to cultural differences. Findings from Utz et al.'s. (2014) research suggest the fourteen scenario version of Give & Take can be considered valid in a German

sample, as it demonstrated convergent, discriminant, and predictive validity. Using this measure, individuals can be classified as a giver, taker, or matcher based on their highest score on the three subscales (i.e., give, take, and match). In the current study, 42% of the sample was classified as givers, 49% as matchers and 9% as takers.

Self- and Other-Interest. Self-interest (SI) and other-interest (OI) were measured using the Self- and Other-Interest Inventory (SOII), a two-dimensional measure of an individual's motivation to act in self-benefitting and other-benefitting manners developed by Gerbasi and Prentice (2013). Each interest is measured using nine items rated on a seven-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items from the self-interest inventory and the other-interest inventory are “I am constantly looking for ways to get ahead” and “I am constantly looking for ways for my acquaintances to get ahead,” respectively. The SOII has shown high reliability with alphas of .89 (SI) and .91(OI; Gerbasi & Prentice, 2013). It has also been validated against a number of other constructs such as values (i.e., Schwartz Value Survey), social value orientations, and helping orientations, demonstrating both convergent and discriminant validity, as well as against outcomes supporting predictive validity (Gerbasi & Prentice, 2013).

Equity Sensitivity. Equity sensitivity was measured through the Equity Preference Questionnaire (EPQ; Sauley & Bebeian, 2000). The scale consists of 16 items asking for individuals' preferred behaviors at work and opinions about their job. Items are rated on a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Because not all participants in the study can be assumed to be working, with a large portion being students, a sixth option was added to the scale, reading *I do not work*. A sample item from the scale is “I prefer to do as little as

possible at work while getting as much as I can from my employer.” Scores are reverse coded and summed up, with greater scores representing a stronger preference for providing more input than output received (e.g., similar to what Huseman et al., 1987, refer to as benevolents). The lower the scores, the stronger the preference for receiving more than what is put in, which is a typical view of entitleds (Huseman et al., 1987). Scores on the EPQ range from 16 to 80, with entitleds being individuals with scores between 16 and 37, equity sensitives having scores between 38 and 58, and benevolents referring to individuals scoring between 59 and 80.

The EPQ demonstrates good reliability, with an alpha coefficient of $\alpha = .87$ and test-retest reliability of .84. The validity of the EPQ has been established through multiple studies demonstrating construct validity as well as predictive validity (Sauley & Bebeian, 2000).

Helping Orientation. Helping Orientation was measured with the Helping Orientation Questionnaire (HOQ; Romer et al., 1986), consisting of 23 real-life scenarios with four common response alternatives (i.e., altruistic, receptive-giving, inner-sustaining, and selfish). The four response alternatives represent different reactions to others in need, and hence the measure enables categorization of individuals into four different types, depending on their responses. This measure is an ipsative measure, forcing respondents to choose one alternative per scenario. Scores are added up within each category and converted into z-scores, using the mean and the *SD* of the sample for each of the four categories. Individuals are then assigned to one dominant category, based on their highest z-score. Overall, the most common type is altruistic (31%), followed by receptive giving (27%), selfish (23%), and inner sustaining (19%).

The reliability of the HOQ has been evaluated by coding each item as either yes or no in terms of the altruistic response, allowing for calculations of coefficient alpha (Romer et al., 1986). According to Romer et al. (1986) the reliability of the altruistic response is $\alpha = .56$ which is considered a somewhat low level of reliability. The HOQ demonstrates validity in terms of relationship to other variables, such as nurturance, succorance, social responsibility, fantasy, empathic concern, personal distress, perspective taking, and social desirability (Romer et al., 1986).

Theories of Self- and Other-Relations. Theories of self- and other-relations were measured using the Theories of Self- and Other-Relations measure (TSOR; Gerbasi & Prentice, 2013). This measure was developed simultaneously with the SOII (Gerbasi & Prentice, 2013) as a way to better understand individuals' different views on the appropriate relationship between self- and other-interest. The TSOR consists of 12 items, where 3 items relate to each of the four theories: prosocial relation, self-prioritizing relation, self-comparative relation, and self-maximizing relation.

Participants are asked to rate each statement in terms of their level of agreement, using a seven-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items from each theory are “It is the total amount of benefit that everyone receives that matters most” (prosocial relation), “I am happy to help others as long as I know that I am doing okay first” (self-prioritizing), “I am concerned about doing as well as or better than those around me” (self-comparative), and “I look out for my own outcomes and don’t concern myself with what happens to other people” (self-maximizing). Gerbasi and Prentice (2013) report acceptable reliabilities for each scale, ranging from $\alpha = .61$ (self-maximizing) to $\alpha = .74$ (self-prioritizing). All four subscales demonstrate significant relationships with self- and other-interest

(Gerbasi & Prentice, 2013), previously described in terms of its validity, and hence this measure can be viewed as a valid measure of opinion regarding the appropriate relationship between self- and other-interest.

Prosocial Motivation. Prosocial motivation was measured using four items adapted from Ryan and Connell's (1989) self-regulation scale. These four items were used by Grant (2008) to measure prosocial motivation, defined as an individual's motivation to help others without any expectations of reciprocity. All items are rated on a seven-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Each item begins with the question "Why are you motivated to do your work?" and a sample item from the scale is "Because I care about benefiting others through my work." Grant (2008) presented a reliability estimate of $\alpha = .91$. Prosocial motivation is significantly related to intrinsic motivation ($r = .55$; $p < .05$), and the two types of motivations have been found to interact with each other in predicting persistence in terms of overtime hours (Grant, 2008).

Competitive Motivation. Competitive motivation was measured using the six-item competitive motivation scale developed by Cardador and Wrzesniewski, (2015). This measure assesses an individual's motivation to compete and outperform others. The competitive motivation scale was developed based on previous work on competitive orientation, measured through behaviors in experimental games (Van Lange et al., 1997), and Elliot's (1999) achievement motives measure. The six items are measured on a seven-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). A sample item from the competitive motivation scale is "I am motivated when I am doing better than others." Cardador and Wrzesniewski (2015) report a reliability of $\alpha = .93$. Competitive motivation has been found to interact with prosocial motivation in

predicting affiliative citizenship behavior, such that when prosocial motivation is low competitive motivation does not influence affiliative citizenship behavior, but when prosocial motivation is high competitive motivation decreases the amount of affiliative citizenship behaviors engaged in (Cardador & Wrzesbiewski, 2015).

Impression Management Motives. The motive to engage in prosocial behaviors solely for the purpose of self-gain by engaging in behaviors that are believed to be image enhancing (i.e., looking good in front of others) was measured using the impression management (IM) motives subscale from the Citizenship Motives Scale (Rioux & Penner, 2001). The IM motives subscale consist of ten items, which are rated on a six-point Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). Some of the items were modified to directly address motives and/or improve readability. Respondents were instructed that the statements represent common reasons for why individuals help other people, and they were asked to rate the extent to which they agree that the statements apply to their reasons for helping someone with something. A sample item from the scale is “To avoid looking bad in front of others.” The IM motives subscale demonstrates high reliability with a reliability coefficient of $\alpha = .92$. The validity of the Citizenship Motives Scale has been evaluated in terms of its relationship to OCB, with findings indicating that organizational concern motives and prosocial motives both relate to aspects of OCB, whereas IM motives were not related to any aspect of OCB (Rioux & Penner, 2001). However, more recent research suggests IM motives are significantly related to interpersonal citizenship behavior, and that the strength of the relationship between prosocial motives and interpersonal citizenship as well as initiative citizenship increases as a function of IM motives (Grant & Mayer, 2009). Additionally, voice, which is a form of OCB involving more personal risks, was

not related to IM motives, but only to prosocial motives (Grant & Mayer, 2009), further supporting the validity of the measure.

Reciprocity Motives. The extent to which an individual is motivated by reciprocation was measured through The Personal Norm of Reciprocity Scale (Perguini et al., 2003). The scale measures an individual's belief in reciprocity as a norm to follow when interacting with others. Nine out of the total twenty-six items, measuring belief in reciprocity specifically, were used. Respondents were asked to rate the extent of agreement with each item, using a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). A sample item from the scale is "When I pay someone compliments, I expect that s/he in turn will reciprocate." Tested on a British sample, the scale has demonstrated a reliability of $\alpha = 0.82$. Research has presented good evidence for the validity of the scale (Gallucci & Perugini, 2003; Perugini et al., 2003).

Life Satisfaction. Life Satisfaction was measured using a shortened version of the Satisfaction With Life Scale (SWLS), as used by Cheung and Lucas (2014). The scale consists of four items measuring an individual's level of satisfaction with life. Each item is rated based on level of agreement with the statement, using a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). A sample item from the scale is "My life is close to ideal." The SWLS has a reported reliability of $\alpha = .90$ and demonstrated significant and moderate relationships with income, overall health, mental health, education, energy, and work, and a strong relationship with feeling happy (Cheung & Lucas, 2014), supporting validity.

Subjective Career Success. Subjective career success was measured using the five-item career satisfaction questionnaire from Greenhaus et al. (1990). The self-referent measure is a subjective indicator of an individual's level of career success.

Respondents are asked to rate their level of agreement with the statements, using a seven-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). A sample item from the scale is “I am satisfied with the progress I have made towards meeting my overall career goals.” The reliability of the measure is $\alpha = .88$, and the scale has been validated against a number of variables such as relationship and task related performance, support from supervisor, career strategies, and organizational experiences (Greenhaus et al., 1990).

Comparative Career Success. Comparative career success was measured using one item asking for a comparison of one’s own career success and fellow students/colleagues (Abele & Wiese, 2008). This other-referent subjective measure of career success is rated on a five-point Likert scale ranging from 1 (*less successful*) to 5 (*more successful*). One-item measures are sometimes viewed as less reliable; however, research suggests that one-item measures can capture the essence of the construct (e.g., life satisfaction; Cheung & Lucas, 2014). Research suggests comparative career success is significantly related to self-referent subjective career success as well as objective career-related success, in terms of GPA (Abele & Wiese, 2008).

GPA and Income. GPA and income were measured by asking respondents for their GPA, if students, and for their annual income, if working. For GPA, respondents were asked to fill in their GPA in a blank box and for income they were asked to move a bar to the level of income representing their annual salary, ranging from 0 to 300,000 dollars. Both GPA and income are common measures of objective career-related success and are related to a number of variables such as comparative career success (Abele & Weise, 2008).

Results

Preliminary Analyses. All analyses were conducted using SPSS Statistics 22 (IBM, 2013). After screening and cleaning the data by removing all participants who did not answer all of the give and take items as well as those who failed to correctly answer any one of the attention check questions, initial analyses in terms demographics and descriptive statistics (i.e., means, standard deviations, and reliabilities for all scales where this could be calculated) were conducted. The reliabilities of the various scales were also evaluated using Cronbach's alpha coefficient.

Following the initial analyses, correlational analyses and analyses of variances were carried out to provide insight into how the various constructs are related to each other and help examine Hypotheses 1-7 and Research Questions 1-5, as well as Hypotheses 11-16. The correlational analyses were conducted using Pearson Product-Moment Correlation Coefficients (r). A general guideline when interpreting r in validation studies is that variables hypothesized to be similar (i.e., convergent validity) should be highly related, but not related to the extent that r approximates $+/- 1$ suggesting the two variables are measuring the same thing. When evaluating discriminant validity, variables should be related to each other weakly or not at all and r -values therefore should be closer to 0. The analysis of variance (ANOVA) was used to determine whether significant differences among the three groups existed in terms of the various outcomes. ANOVA focuses on mean differences, and was hence used to determine whether give, take, and match relate differently to the various outcome variables. Significant F-statistics were followed up by additional analyses (i.e., post-hoc analyses). Because the group sizes for give, take, and match were different from each other, the commonly used post-hoc test Tukey's honestly significant difference (HSD)

could not be used (i.e., it requires equal group sizes). Therefore, the Scheffe test was used to determine what groups differ from each other in terms of their means.

Finally, in order to fully understand give and take, the current study examined the construct from two angles by using two different scoring methods: (1) placing give and take on one continuum with high scores indicating give, low scores indicating take, and scores towards the middle representing a matching style and (2) calculating each person's dominant style (i.e., the most frequent type of answer for each participant). The results from the current validation study are therefore reported using both scoring methods of give and take to evaluate potential differences in the two scoring methods. Correlational analyses confirm the two scoring methods (i.e., the continuum approach and the dominant style approach) are related to each other but do not overlap completely: give and take measured on a continuum was positively related to having a dominant giver style ($r = .66$), and negatively related to having a dominant taker style ($r = -.57$) and matcher style ($r = -.18$).

Descriptive Statistics. Descriptive statistics, including means, standard deviations, percentages, and reliabilities, for all measures can be found in Appendix A, Table 2. In general, the measures used in Study 1 demonstrate acceptable reliabilities ranging from $\alpha = .63$ (theories of self-comparative relations) to $\alpha = .91$ (prosocial motivation; except theories of prosocial relations; $\alpha = .43$).

Hypothesis Testing. Hypothesis 1a predicted self-orientation to be positively related to take and negatively related to give. Results indicated that the give and take continuum related negatively to self-orientation ($r = -.33$), suggesting takers score higher on self-orientation and givers score lower. This was further supported by correlational analyses using the dominant styles, where the giver dominant style was

negatively related to self-orientation ($r = -.28$), and the taker dominant style was positively related to self-orientation ($r = .21$). Taken together, these results support Hypothesis 1a. Hypothesis 1b predicted other-orientation to be positively related to give and negatively related to take. Other-orientation was found to relate positively to the give and take continuum ($r = .16$), but no significant relationship was found between other-orientation and the dominant styles. Hypothesis 1b was therefore partially supported. Research Question 1 asked how match was related to self- and other-orientation. Results indicated that match was significantly related to self-orientation ($r = .16$) but not to other-orientation. Additionally, ANOVA results suggest a significant difference in self-orientation ($F(2,245) = 13.33; p < .05$), but not in other-orientation, depending on what social interaction style an individual has. Post hoc analyses reveal takers ($M = 52.39; SD = 5.85$) and matchers ($M = 48.81; SD = 6.50$) are significantly more self-oriented compared to givers ($M = 45.20; SD = 7.72$), but no significant difference was found between takers and matchers. Hypothesis 2 predicted equity sensitivity to be positively related to give and negatively related to take. Results show equity sensitivity is positively related to the give and take continuum ($r = .19$) and negatively related to take ($r = -.21$). However, equity sensitivity was not found significantly related to the giver dominant style. Hypothesis 2 was therefore partially supported. Research Question 2 asked about the relationship between equity sensitivity and match. According to the results, equity sensitivity is not related to match. Additionally, ANOVA results suggest there is a significant difference between the three social interaction styles in terms of equity sensitivity ($F(2,160) = 3.65; p < .05$). Post hoc analyses suggest takers ($M = 43.46; SD = 7.92$) are significantly lower in equity

sensitivity compared to both givers ($M = 47.97$; $SD = 5.66$) and matchers ($M = 48.08$; $SD = 5.64$); however, no significant difference between givers and matchers was found.

Hypothesis 3a predicted altruistic helping orientation to be positively related to give and negatively related to take. Altruistic helping was found to relate positively to the give and take continuum ($r = .32$) and to the dominant giver style ($r = .14$) and to relate negatively to the dominant taker style ($r = -.19$). Hypothesis 3a was therefore supported. Hypothesis 3b predicted receptive-giving, inner-sustaining, and selfish helping orientations to be positively related to take and negatively related to give. Results showed all three helping orientations relate negatively to the give and take continuum, ($r = -.28$, $r = -.23$, and $r = -.39$, respectively). The increase in correlation as the level of self-serving agenda increases is in line with expectations, with the selfish orientation being more strongly related to taker. The dominant giver style was found negatively related to all three, but the relationships were significant only for the receptive giving ($r = -.25$) and selfish ($r = -.26$) orientations. The dominant taker style was found related to only the selfish helping orientation ($r = .28$). Taken together, it can be concluded that Hypotheses 3a and b were partially supported. Research Question 3 asked about the relationship between helping orientations and match. According to the findings, the only helping orientation that is significantly related to match is receptive giving ($r = .20$), which is in line with what one would expect based on their similarities in definitions. Additional ANOVAs suggest group differences with respect to the four helping orientations. Significant differences in helping orientation between the three groups were found for the altruistic ($F(2,258) = 6.10$; $p < .05$), receptive-giving ($F(2,258) = 8.64$; $p < .05$), and selfish ($F(2,258) = 17.28$; $p < .05$) helping orientations. Post hoc analyses suggest takers ($M = -.60$; $SD = .64$) are significantly lower in altruistic

helping orientation compared to both givers ($M = .17$; $SD = 1.10$) and matchers ($M = -.03$; $SD = .92$), but givers and matchers are not significantly different from each other. Takers ($M = .26$; $SD = 1.00$) are significantly higher in receptive giving compared to givers ($M = -.29$; $SD = .96$), and givers are significantly lower compared to matchers ($M = .20$; $SD = .07$). Lastly, with respect to the selfish helping orientation, takers ($M = .89$; $SD = 1.06$) are significantly higher compared to both givers ($M = -.31$; $SD = .73$) and matchers ($M = .10$; $SD = 1.07$), and matchers are also significantly higher compared to the givers.

Hypothesis 4a proposed prosocial relations to be positively related to give and negatively related to take. Prosocial relations was found to be significantly related to the give and take continuum in the hypothesized direction ($r = .15$), but no significant relationships were found with the two dominant styles. Hypothesis 4b proposed self-maximizing, self-prioritizing, and self-comparative relations to be positively related to take and negatively related to give. Findings demonstrated relationships in the hypothesized directions but not all relationships were significant. Give and take continuum was significantly negatively related to all three relations ($r = -.28$, $r = -.25$, $r = -.21$, respectively). The dominant giver style was significantly negatively related to all three as well ($r = -.21$, $r = -.24$, $r = -.18$, respectively). The dominant taker style was found significantly related only to self-maximizing ($r = .13$). Taken together, these results indicate Hypotheses 4a and b were partially supported, with most of the hypothesized relationships being supported. Research Question 4 asked about the relationship between the different theories and match. Results showed match to be related to two of the four relations, self-prioritizing ($r = .17$) and self-maximizing ($r = .13$). Additional ANOVA results suggest the three groups differ in three of the four

relations: self-comparative ($F(2,239) = 4.75; p < .05$), self-prioritizing ($F(2,258) = 7.55; p < .05$), and self-maximizing ($F(2,258) = 6.45; p < .05$). Post hoc analyses show takers ($M = 15.57; SD = 3.17$) and matchers ($M = 14.80; SD = 3.02$) to be significantly higher in self-comparative relations compared to givers ($M = 13.84; SD = 2.86$), but no difference was found between takers and matchers. Takers ($M = 15.39; SD = 2.91$) and matchers ($M = 14.88; SD = 3.59$) are significantly higher in self-prioritizing relations compared to givers ($M = 13.27; SD = 3.20$); however, no difference was found between takers and matchers. Lastly, with respect to self-maximizing relations, takers ($M = 12.39; SD = 3.97$) and matchers ($M = 11.46; SD = 3.39$) were again found to be significantly higher in this more selfish way of interacting with others compared to givers ($M = 10.12; SD = 3.17$). No significant difference was found between takers and matchers. Hypothesis 5 proposed prosocial motivation to be positively related to give and negatively related to take. Prosocial motivation was found to relate positively to the give and take continuum ($r = .29$) and the dominant giver style ($r = .21$), and to relate negatively to the dominant taker style ($r = -.13$). Hypothesis 5 was therefore supported. Research Question 5 asked about the relationship between prosocial motivation and match. Results suggest prosocial motivation and match is negatively related ($r = -.13$). Additional ANOVA results indicate there is a significant difference in prosocial motivation among the three groups ($F(2,250) = 6.35; p < .05$). Post hoc analyses show givers ($M = 31.39; SD = 3.13$) to be significantly higher in prosocial motivation compared to takers ($M = 28.96; SD = 4.35$) and matchers ($M = 29.94; SD = 4.09$). No significant difference was found between takers and matchers.

Hypothesis 6a proposed impression management motivation to be positively related to take and negatively related to give. Impression management motivation was

found to be positively related to the dominant taker style ($r = .18$), and negatively related to both the dominant giver style ($r = -.13$) as well as the give and take continuum ($r = -.24$), supporting Hypothesis 6a. Hypothesis 6b proposed competitive motivation to be positively related to take and negatively related to give. Findings showed a positive relationship between competitive motivation and the dominant taker style ($r = .15$), and a negative relationship with the dominant giver style ($r = -.16$) and the give and take continuum ($r = -.20$). Hypothesis 6b was therefore also supported. Research Question 6 asked about the relationship between impression management motivation and competitive motivation and match. Results did not suggest any relationship between the dominant match style and impression management or competitive motivation. ANOVA results further suggest there is a significant difference between the three groups in terms of both impression management motivation ($F(2,248) = 5.06; p < .05$) and competitive motivation ($F(2,250) = 5.10; p < .05$). Post hoc analyses show takers are significantly higher in impression management motivation ($M = 49.09; SD = 8.70$) and competitive motivation ($M = 34.42; SD = 4.99$) compared to givers ($M = 40.29; SD = 13.35$ and $M = 30.38; SD = 6.06$, respectively), but matchers is not significantly different from neither takers nor givers in any of the two motivations.

Hypothesis 7 proposed reciprocal motivation to be positively related to match and take and negatively related to give. Reciprocal motivation was found to be positively related to the dominant taker style ($r = .19$) and negatively related to the dominant giver style ($r = -.21$) and the give and take continuum ($r = -.30$), but reciprocal motivation did not relate to the dominant matcher style ($r = .09$; n.s.). Hypothesis 7 was therefore partially supported. Additionally, ANOVA results suggest there is a significant difference between the three groups with respect to reciprocal motivation

($F(2,250) = 8.44; p < .05$). Post hoc analyses suggest takers ($M = 44.38; SD = 8.88$) and matchers ($M = 39.27; SD = 9.11$) are significantly higher in reciprocal motivation compared to givers ($M = 35.81; SD = 10.96$), but takers and matchers are not different from each other. The correlation table for Hypotheses 1-7 and Research Questions 1-5 can be found in Appendix A, Table 3, summarizing the evidence for convergent and discriminant validity. The full correlation table is presented in Appendix A, Table 4. See Appendix A, Table 5 and Table 6 for all ANOVA and post hoc results for all Study 1 variables.

Hypotheses 11-16 addressed the relationship between give and take and various outcome variables related to career success (i.e., predictive validity). Not all of these hypotheses could be evaluated using the data obtained in Study 1; those that could not be tested will be evaluated in Studies 2 and 3.

Hypothesis 11 proposed that givers are more satisfied with their career compared to matchers and takers. Correlational analyses suggest career satisfaction is unrelated to social interaction style. Furthermore, results from the ANOVA did not indicate a significant difference ($F(2, 237) = 0.29; p > .05$). Hypothesis 11 was therefore not supported.

Hypothesis 12 proposed that takers are higher in comparative career success than matchers and givers. Results suggested comparative career success is significantly negatively related with being a giver ($r = -.13; p < .05$), but not with being a matcher or a taker. However, based on the ANOVA, no significant difference between the three groups was found ($F(2, 237) = 2.73; p > .05$). Hypothesis 12 was therefore not supported.

Hypothesis 13 proposed that takers have higher GPA than matchers and givers. Unfortunately, only four of the participants reported their GPA. Due to the lack of responses, Hypothesis 13 could not be evaluated.

Hypothesis 14 proposed that takers have higher income than givers and matchers. Correlational analyses demonstrate a significantly positive relationship between income and being a taker ($r = .22; p < .05$). Results from the ANOVA demonstrate that takers ($M = 51750; SD = 50.71$) report the highest income, followed by givers ($M = 29840; SD = 40.20$) and matchers ($M = 24580; SD = 29.10$). However, no significant difference between the three groups was found ($F(2,92) = 1.84; p > .05$). Hypothesis 14 was therefore not supported.

Lastly, Hypothesis 16 proposed that givers are more satisfied with their life compared to matchers and takers. Correlational analyses suggest life satisfaction is not significantly related to any of the three social interaction styles. Results from the ANOVA suggest there is no significant difference in life satisfaction among the three groups ($F(2,237) = 0.55; p > .05$). Hypothesis 16 was therefore not supported.

Discussion

The purpose of Study 1 was to further understand the construct give and take and evaluate its validity based on its relationships with other variables. Findings suggest that most individuals (i.e., 49%) can be categorized as matchers, followed by givers (42%), and takers (9%). These findings are in line with previous research (i.e., Utz et al., 2010) as well as Grant's (2013) own arguments that most individuals are matchers and fewer individuals demonstrate the more extreme social interaction styles. The current research suggests fewer people are takers and more people are givers compared to previous research. One likely explanation for this is the characteristics of the sample,

being mostly undergraduate students who might not yet have been exposed to the workplace enough to fully know how they would react in the hypothetical situations presented. It is possible for an individual to change social interaction style depending on their experiences. For example, an individual who has been used by others (i.e., others have taken advantage of their willingness to help) can change from being a giver into a taker. The proposed Study 2, involving a full-time employed sample, will add more information about what percentage of the population is likely to be characterized givers versus takers versus matchers.

Taken together, the relationships between give and take scored on a continuum as well as in terms of a dominant style (i.e., giver, taker, or matcher) and other variables support the validity of the construct. Most of the variables evaluated against give and take showed similar relationships with give and take when the continuum scoring method was used and when the dominant style method was used. Only in one case (other-orientation) did a significant relation appear with give and take continuum and not with any of the dominant styles. The fact that in all other cases only one or two of the dominant styles demonstrated significant relationships with the other variables found to correlate significantly with the give and take continuum indicates that the dominant styles add value to the understanding of give and take, over and above what can be observed when the continuum scoring method is used. Therefore, a more accurate and complete understanding of give and take may be reached when the construct is viewed as multidimensional, consisting of three distinct social interaction styles, instead of a unidimensional construct (i.e., on a continuum), and the preferred scoring approach appears to be the dominant styles method.

When measured on a continuum, give and take related to other variables in the hypothesized directions (i.e., positively related to prosocial constructs and negatively related to antisocial constructs), with relationships ranging from $r = -.39$ (HO Selfish) to $r = .32$ (HO altruism). When measured in terms of three distinct social interaction styles, relationships were also generally as expected. In conclusion, the current research supports the convergent and discriminant validity of give and take.

In terms of predictive validity, give and take did not predict life satisfaction or career satisfaction. One possible explanation for this is related to additional individual characteristics, not currently associated with give and take. As argued by Grant (2013), there are two types of givers, one group is characterized as the most successful individuals and one as the least successful. If this is true, it is likely that some other characteristic, not directly attributed to givers in general, determines who becomes a successful giver and who becomes an unsuccessful giver. According to Grant (2013), a distinguishing feature is related to how givers go about engaging in their giving acts, which can be argued to be related to ambition and achievement orientation (i.e., making sure one's own work and goals do not suffer). Additionally, research on individual differences and satisfaction with life suggests that extraversion and emotional stability are the strongest personality predictors of life satisfaction (Romero, Villar, Luengo, & Gómez-Fraguela, 2009). An area for future research is therefore to evaluate the impact on additional individual difference factors on the relationship between give and take and satisfaction with career and life.

However, give did predict comparative career success ($r = -.13, p < .05$), suggesting that givers view themselves as less successful in their careers compared to others. When looking deeper into the differences between the three groups in relation to

comparative career success, ANOVA results do not suggest the three groups are significantly different from each other. These somewhat conflicting results suggest further investigation into the relationship between give and take and career success may be useful. Again, it is possible that the characteristics of the sample (i.e., being mostly students) have affected the results. Also a significant relationship was found between annual income and aspects of give and take. Results suggest that take is positively related to annual income ($r = .22, p < .05$), but once again no significant difference was found between the three groups. As with the other variables evaluated as part of examining predictive validity, future research could look into the relationship between give and take and income using a sample of full time employees. These results further point to the importance of measuring give, take, and match as separate dimensions because of their differential predictive ability.

Study 1 has some limitations that might have impacted the results and will be considered in the proposed studies. The nature of the sample, consisting for the most part of university students, is not representative of a working population with respect to age and work experience. Although most of the survey items were general and applied to students just as well as full time employees, some of the measures were workplace-related (equity sensitivity, income, and workplace positions), resulting in a low response rate for those items. Also, as addressed previously, some of the other measures used to evaluate predictive validity (i.e., career satisfaction, life satisfaction, and comparative career success) might have been affected by the nature of the sample. Therefore the hypothesized relationships between give and take and income and working position as well as the three outcome variables (i.e., career satisfaction, life satisfaction, and comparative career success) were re-evaluated as part of Study 2.

Another limitation of Study 1 is the length of the survey. The total estimated time to complete the survey was 40-50 minutes, which can be considered on the longer end for this kind of survey and could result in some inaccurate responses from the participants.

Study 2: Profiling Givers and Takers

Study 2 served two main purposes: (1) it explored the relationship between give and take and personality and determined whether givers, takers, and matchers have different underlying personality profiles, and (2) it evaluated the relationship between give and take and CWB as part of understanding give and take in relation to employee performance. Study 2 also re-evaluated some of the outcomes from Study 1 (i.e., income, working position, life satisfaction, job satisfaction, and comparative career success) in a sample of full-time employees. In addition to addressing the two main issues above, Study 2 further adds to the understanding of the validity of give and take. The relationships with personality served as convergent and discriminant validity and the relationships with the various outcomes were added as evidence for predictive validity.

Method

Participants

Participants were recruited from Amazon's Mechanical Turk (MTURK). Given the nature of the study, participants were required to have full-time employment and be at least 21 years old. Because the profiles created based on the results from Study 2 were going to be applied to the sample in Study 3, participants were also required to be working in the US. The reason for this requirement was to ensure both samples consist of individuals with a similar cultural background. Participants were paid according to

MTURK's norms for participant payment, which was estimated to be two dollars per person.

The number of participants needed for Study 2 in order to carry out the proposed one-way ANOVAs (which have the highest sample requirements among the proposed analyses) was determined through an a priori power analysis using the G*Power program (Faul, Erdfelder, Buchner, & Lang, 2009). The recommended sample size, for an effect size of 0.25 and a power of 0.95 was $N = 252$. Following these recommendations, the first part of Study 2 aimed for a total of 350 participants. This allowed for some participant drop-out after the first part of the study as well as potential removal of randomly responding participants to still meet the minimum number of participants needed. The final number of participants in the first part of Study 2, after cleaning the data, was 322. As expected, some participants dropped out after the first part, resulting in a total of 206 participants in the second part of Study 2. The larger sample ($N = 322$) consisted of 48.4% females, 76.7% Caucasians, and the mean age of the sample was 35 years old ($SD = 10.3$). The smaller sample ($N = 206$) consisted of 49% females, 79.1% Caucasians, and the mean age was 36 years old ($SD = 10.4$). (See Appendix B, Table 7 for the demographics for both data sets).

Procedure

Study 2 consisted of two parts, involving two surveys administered approximately one week apart. The reason for this was the WPB5 being hosted on a commercial company's website and hence participants had to be invited by this company to be able to fill out the WPB5. Participants were informed about the two parts of the survey and the fact that they would only receive compensation upon completing both parts of the survey. They were also informed that the survey included random

attention checks which they had to correctly answer. Before they were eligible to start the survey, they had to agree to these conditions. Participants who failed to correctly answer any of the six attention check questions (a total of 28 participants) were not included in the analyses and were not invited to participate in the second part of the survey.

The first part of the survey consisted of eleven different measures (i.e., Give & Take, the IPIP-NEO-IRT, honesty-humility, CWB, social desirability, life satisfaction, job satisfaction, comparative career success, burnout, income, and position). Towards the end of the survey, participants were asked to provide a made-up first and last name as well as their personal email address, which were later used to invite the participants to the second part of the survey. The total estimated time for the first part of the survey was 30-40 minutes.

The second part of the survey consisted of a second personality assessment, the WPB5, which was sent to the participants three days after the MTURK survey was posted. However, due to the limited responses ($N = 98$) the WPB5 was sent out again, two weeks later, to everyone who did not answer it the first time. The final number of responses after the second survey had been sent out was 206, which was considered a large enough sample to proceed with the intended analyses. The total estimated time for the second survey was 10-15 minutes.

Once the WPB5 data had been collected these data were combined with the data from the first part of the survey for the 206 participants who answered both parts of the survey. Study 2 therefore consisted of two data sets, one including all the variables except the WPB5 (i.e., $N = 322$) and one including all variables (i.e., $N = 206$). Analyses for Study 2 were conducted using both data sets, depending on what variables

were involved in the analyses. When the WPB5 variables were involved, the smaller data set (i.e., $N = 206$) was used, and when the WPB5 variables were not involved, the larger data set (i.e., $N = 322$) was used. All analyses were conducted using SPSS Statistics 22 (IBM, 2013) and the personality profiles were modeled using Excel 2013.

Measures

Study 2 included the following self-report measures.

Demographics. The demographics that were collected include gender, age, ethnicity, income, position within the workplace, and previous leadership experience.

Give & Take. Give and Take was measured through the same 15 scenario measure (i.e., Give & Take; Grant, 2013) that was used in Study 1.

FFM Personality. Personality was measured using two different five factor model personality assessments: *the IPIP – NEO Short Form* (i.e., IPIP-NEO-IRT; Maples et al., 2014) and the *WorkPlace Big Five Profile 4.0™* (WPB5; Howard & Howard, 2013). The IPIP-NEO-IRT was created to mirror the original NEO-PI-R items as closely as possible, by using Item Response Theory (IRT) methods. Maples et al.'s (2014) 120-item short form of the IPIP - NEO (IPIP-NEO-IRT) hence includes dimensions that are very similar to the original NEO-PI-R measure, which consists of all five personality dimensions (openness, conscientiousness, extraversion, agreeableness, and neuroticism) as well as six sub-facets for each dimension. The measure includes a total of 120 items (24 per dimension and 4 per facet). Each item is rated in terms of accuracy in describing the participant's own behavior, on a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items from each scale in the order of openness, conscientiousness, extraversion, agreeableness, and neuroticism are “Like to get lost in thought,” “Set high standards for

myself and others,” “Love large parties,” “Believe that others have good intentions,” and “Worry about things.” The measure demonstrates alpha reliabilities ranging from .87 to .90 for the five main dimensions and .62 to .88 for the facets. The validity of the IPIP-NEO-IRT can be determined based on its relationship to other variables (i.e., convergent, discriminant, and criterion-related validity). Maples et al. (2014) report convergent correlations with the original NEO-PI-R measure ranging from .87 to .89 for the five main dimensions and from .79 to .83 for the facets. Discriminant validity was also evaluated based on the relationship between the 120 item-version of the IPIP-NEO (Maples et al., 2014) and the original NEO-PI-R. The discriminant validity correlations ranged from -.43 to .21.

Lastly, criterion-related validity is supported through evaluation of the relationship between the original measure and the IPIP-NEO-IRT and various external criteria, such as parent-reported characteristics (i.e., DSM-5 personality disorders) and internalizing and externalizing outcomes.

The WPB5 (Howard & Howard, 2013) is a personality assessment consisting of 155 statements, where 107 of the items measure personality and the other 48 items measure Gardner’s seven talents. Because the assessment can only be distributed in whole, all 155 items were included in the survey; however, only the personality items will be used for the analyses. The participants were asked to rate the extent to which each statement is true or false, using a five-point scale ranging from -2 (*False; means that the opposite is clearly true*) to +2 (*True; means definitely true*). A sample item is “Assumes associates will do what they say.” Although the WPB5 intends to measure personality in terms of the five main factors of personality, no information about its validity has been published. Therefore, the current study examined the internal structure

of the WPB5 and relationships with the IPIP-NEO-IRT, in addition to evaluating its relationship with give and take and CWB.

Honesty-Humility (H-H). H-H was measured using 40 items from the IPIP, identified as corresponding to the H-H dimension in the HEXACO-PI (Lee & Ashton, 2004). H-H is measured through four sub-facets: sincerity, modesty, fairness, and morality (10 items each). Respondents are asked to rate each statement in terms of their level of agreement, using a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). A sample item is “Cheat to get ahead.” The HEXACO-PI has been used in a number of studies, in which the H-H dimension has demonstrated consistently high reliability ($\alpha = .77$ to $.80$; Ashton & Lee, 2004) and validity in terms of its strong relationship to variables such as antisocial behavior (Ashton & Lee, 2008) and prosocial behavior (Hilbig et al., 2014). When compared to five factor measures of personality, the H-H factor appears as a separate factor (Ashton & Lee, 2004) and research suggests that the HEXACO model covers all aspects of five factor measures but not vice versa (Hilbig et al., 2014).

Counterproductive Work Behavior (CWB). CWB was assessed through Bennett and Robinson’s (2000) measure of workplace deviance, consisting of nineteen self-report items. Twelve of the items are classified as measuring deviant behaviors directed towards the organization (i.e., organizational deviance; OD) and the other seven items measure deviant behaviors towards other people within the organization (i.e., individual deviance; ID). Participants are asked to rate the items with respect to the extent to which they have engaged in the various behaviors in the past year, using a seven-point scale, ranging from 1 (*Never*) to 7 (*Daily*). Sample items from each of the two dimensions are “Littered your work environment” (OD) and “Acted rudely towards

someone at work” (ID). The scale demonstrated reliabilities of $\alpha = .82$ and $\alpha = .88$, for the OD and ID scales respectively, and the reliability for the entire scale is $\alpha = .88$ (O’Neill et al., 2011). The workplace deviance scale has demonstrated both convergent and discriminant validity (Bennett & Robinson, 2000).

Social Desirability. Whether an individual tends to answer attitudinal and behavioral questions in a socially desirable manner was measured using the 13-item *Marlowe-Crowne Social Desirability Scale – Short Form* (M-C SDS; Reynolds, 1982). Each item was rated in terms of true or false and scored with respect to the number of items endorsed in a socially desirable direction. A sample item is “*I’m always willing to admit it when I make a mistake*”. The M-C SDS was developed based on the original 33-item Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960), and has demonstrated acceptable internal consistency reliability and correlates with the original longer version as well as with the Edwards Social Desirability Scale (Edwards, 1957; Reynolds, 1982).

Life Satisfaction. Life Satisfaction was measured using a single-item measure, assessing how satisfied an individual is with his/her life in general. The item that was used read “In general, how satisfied are you with your life?” (Cheung & Lucas, 2014). Participants were asked to rate their level of satisfaction using a four-point scale, ranging from 1 (*Very satisfied*) to 4 (*Very dissatisfied*). This single-item measure of life satisfaction has been shown to produce very similar results as multiple-item measures of life satisfaction (i.e., the Satisfaction With Life Scale) and is significantly related to career success in terms of income and satisfaction with work (Cheung & Lucas, 2014).

Job Satisfaction. Job satisfaction was measured in terms of overall satisfaction, using a single-item measure. The item that was used read “All in all, how satisfied are

you with your job at the moment?” (Abele & Spurk, 2009). Participants were asked to rate this item on a five-point scale, ranging from 1 (*Very satisfied*) to 5 (*Very dissatisfied*). Job satisfaction has been used as a measure of subjective career success and has demonstrated relationships with other measures of subjective career success as well as objective measures of career success (Abele & Spurk, 2009).

Comparative Career Success. Comparative career success was measured using a single item assessing an individual’s self-rated career success in comparison to fellow colleagues (Abele & Spurk, 2009). The item used in the current research read “Compared with your fellow colleagues, how successful do you think your career development has been so far” and is a slight adaptation of the item used by Abele and Spurk (2009). The item is rated on a five-point scale ranging from 1 (*Significantly more successful*) to 5 (*Significantly less successful*). This other-referent subjective measure of career success has been used to assess subjective career success together with self-referent measures of career success (i.e., overall job satisfaction; Abele & Spurk, 2009). Comparative career success has been found to be related to both subjective and objective measures of career success and also to be fairly stable over time (Abele & Spurk, 2009).

Burnout. Burnout was measured using Rohland, Kruse, and Rohrer’s (2004) single item measure, asking participants to, classify their level of burnout based on their own definition of burnout using a five alternative response scale. The possible responses were: (1) I enjoy my work. I have no symptoms of burnout; (2) Occasionally I am under stress, I don’t always have as much energy as I once did, but I don’t feel burned out; (3) I am definitely burning out and have one or more symptoms of burnout, such as physical and emotional exhaustion; (4) The symptoms of burnout that I’m experiencing

won't go away. I think about frustration at work a lot; and (5) I feel completely burned out and often wonder if I can go on. I am at the point where I may need some changes or may need to seek some sort of help. This measure of burnout has been validated against the 22-item Maslach Burnout Inventory (Maslach, Jackson, & Leiter, 1996), with findings suggesting the single item measure assesses aspects of burnout similar to the emotional exhaustion sub-scale (Rholand et al., 2004).

Results

Preliminary Analyses. Descriptive statistics in terms of means, standard deviations, reliabilities, and correlations were calculated for both data sets. First, the means, standard deviations, and reliabilities for the variables included in the first part of Study 2 (i.e., $N = 322$), except those not fitting for such analyses, were calculated along with the correlations of these variables. (See Appendix B, Table 8). In general, the measures used in the first part of Study 2 demonstrate acceptable reliabilities ranging from $\alpha = .67$ (achievement striving) to $\alpha = .95$ (neuroticism). Second the means, standard deviations, reliabilities, and correlations for the variables included in the second part of Study 2 (i.e., $N = 206$; the WPB5 measure) was also calculated. In general, the WPB5 measure demonstrated acceptable reliabilities ranging from $\alpha = .63$ (rebound time) to $\alpha = .90$ (need for stability), with the exception of others' needs ($\alpha = .56$) and concentration ($\alpha = .51$). (See Appendix B, Table 9).

Lastly, give and take was evaluated in terms of frequency of each style as well as gender differences within each style. Both samples consist of more givers (43.2% and 45.6%) compared to matchers (37.9% and 37.4%) and takers (18.9% and 15.5%). (See Appendix B, Table 10. Analyses of potential gender differences within each group reveal significant differences in gender among givers and takers, but not matchers.

Among the givers, significantly more of the givers were women (56.8%) compared to men (43.2%), $\chi^2(1, N = 139) = 6.89; p < .05$, and among the takers significantly more of the takers were men (63.6%) compared to women (36.4%), $\chi^2(1, N = 55) = 7.00; p < .05$. (See Appendix B, Table 11).

Evaluation of the WPB5. Because no evidence for validity with respect to the WPB5 has been published, validity was evaluated through Confirmatory Factor Analysis (CFA), as well as through comparison with the already validated measure IPIP- NEO-PI-R. These analyses provide information about how the WPB5 compares to a five factor measure of personality.

Correlational analyses were conducted at the factor level (i.e., the five main factors) as well as at the facet level (i.e., the sub factors). Theoretically, the factors that are by definition the most similar should correlate the strongest with each other, which for the current two measures meant agreeableness would correlate most strongly with accommodation, conscientiousness with consolidation, extraversion with extraversion, neuroticism with need for stability, and openness with originality. The same should be true for the facets, such that the facets that are similar in definition should demonstrate the strongest relationships. Results show all five IPIP factors are significantly related to their corresponding WPB5 factor ($r = .20, r = .75, r = .79, r = .75$ and $r = .45$); however, the relationship between agreeableness and accommodation ($r = .20$) and between openness and originality ($r = .45$) is weaker than what can be expected from a five factor measure.

On a facet level, not all facets of one measure correlated with their corresponding facets and factor within the other measure. Within the accommodation factor, most of the facets were either not related or significantly negatively related to the

agreeableness facets. The only exceptions to these findings were the facet “others’ needs” which was significantly related to the facets within the agreeableness factor, and the fact that all WPB5 accommodation facets were significantly related to the IPIP facet modesty. Two of the WPB5 accommodation facets, humility and reserve, were not related to the agreeableness factor at all (i.e., $r = .00$ and $r = -.01$). Although these two facets did relate to the IPIP facet modesty, they demonstrated the strongest relationships with aspects of neuroticism.

Within the consolidation factor, all facets were significantly related to the conscientiousness factor as well as all the conscientiousness-facets, demonstrating correlations ranging from $r = .25$ (drive) to $r = .78$ (organization). Extraversion was strongly related to extraversion ($r = .79$), and all WPB5 facets were significantly related to the IPIP facets except trust of others which did not relate to excitement seeking. Neuroticism and need for stability were significantly related to each other ($r = .75$), and all the WPB5 need for stability facets demonstrated significant relationships with neuroticism and its facets. Openness was found significantly related to originality ($r = .45$) but not all WPB5 originality facets related to the IPIP openness facets. Results indicate that the originality factor does not measure emotionality and liberalism, which are part of the openness factor in the IPIP. The WPB5 facet scope was not found related to any of the openness facets from the IPIP. However, scope was found significantly positively related to IPIP neuroticism ($r = .31$) and all its six facets, indicating that scope is in fact a facet relating to aspects of neuroticism. Lastly, outside of the scope of evaluating the relationship between the IPIP and the WPB5 factors and facets, the relationship between the WPB5 and Honesty-Humility was evaluated. Honesty-

Humility, was found to be most strongly related to accommodation ($r = .34$). (See Appendix B, Table 12 for all correlations between the two measures).

Results from the CFA, which was performed in RStudio (RStudioTeam, 2015), indicate a poor fit with a five factor structure. All five fit indices used to evaluate the five factor model fit suggest the WPB5 measure does not fit well with the expected five factor structure. See Appendix B, Table 13. The chi-square test was found significant ($\chi^2 = 1119.08$, $df = 220$, $p < .05$). A significant chi-square suggests there is a significant difference between the observed and the expected model, which indicate that the data does not fit the proposed 5-factor model. The root mean square error of approximation (RMSEA) value of 0.14 is also an indication of a poor fit, as the cut-off value for an acceptable fit using the RMSEA statistic is below .06 (Hu & Bentler, 1999). Looking at the comparative fit index (CFI) and the tucker-lewis index (TLI), these values should be more than .95 and .90 respectively to indicate a good fit of the model (Hu & Bentler, 1999). Results suggest both these values are below their cut-off values for a good model fit (i.e., CFI = 0.67; TLI = 0.62). Lastly, the standardized root-mean-square-residual (SRMR) value of 0.14 also indicate a poor fit. The recommended value for good model fit using the SRMR is less than 0.08 (Hu & Bentler, 1999). Based on these fit indices it can be concluded that the data does not fit the proposed five-factor structure and should not be referred to as a five-factor measure.

Hypothesis Testing. One-way ANOVAs were conducted to evaluate the three hypotheses specific to Study 2 (i.e., Hypotheses 10, 15, and 17), as well as to re-evaluate some of the hypotheses from Study 1, using a more appropriate sample (i.e., a working population instead of students). In addition, measures of burnout and social

desirability (SD) were included and evaluated in terms of mean differences depending on social interaction style.

Hypotheses 10, 15, and 17 proposed givers, takers, and matcher are significantly different from each other in terms of the extent to which they engage in CWB, what position they hold within their company, and what their underlying personality traits are, respectively. The hypotheses that were re-evaluated were Hypotheses 11 (career satisfaction), 12 (comparative career success), 14 (income), and 16 (life satisfaction). The ANOVAs and subsequent post-hoc analyses were conducted following the same approach as in Study 1. The ANOVA and post hoc results for Hypotheses 10, 11, 12, 14, 15, and 16, as well as for burnout and SD can be found in Table 14 and 15 (Appendix B), respectively, and the correlations between give and take and these outcome variables are presented in Table 8 (Appendix B). See also Table 8 and Table 16 (Appendix B) for the correlations between the outcome variables and the IPIP/H-H variables and the WPB5 variables, respectively.

Hypothesis 10 proposed that takers engage in more CWB compared to givers and matchers. ANOVA results suggest there is a significant difference in the amount of CWB towards other individuals (CWB-ID; $F(2,319) = 12.49; p < .01$), towards the organization (CWB-OD; $F(2,319) = 10.16; p < .01$), and when measured as a composite of overall CWB including both CBW-ID and CWB-OD ($F(2,319) = 12.63; p < .01$). Post hoc analyses suggest givers ($M = 1.36; SD = .79$) report engaging in significantly less CWB-ID compared to takers ($M = 2.01; SD = 1.34$) and matchers ($M = 1.91; SD = 1.11$). Givers ($M = 1.69, SD = .85$) also report engaging in significantly less CWB-OD compared to takers ($M = 2.30; SD = 1.37$) and matchers ($M = 2.19; SD = 1.14$). Lastly, in terms of overall CWB, givers ($M = 1.07; SD = .54$) report significantly less CWB

compared to both takers ($M = 1.49$; $SD = .89$) and matchers ($M = 1.44$; $SD = .70$). No difference was found between takers and matchers; hence, that part of the hypothesis was not supported. Correlational analyses support the relationship between CWB and give and take. Give is significantly negatively related to CWB-ID, CWB-OD, and CWB ($r = -.27, -.14, -.27$), and take and match are positively related to all three measures of CWB ($r = .17, .16, .16$ for take and $r = .16, .14, .16$ for match). Hypothesis 10 was therefore partially supported.

Hypothesis 11 proposed that givers are more satisfied with their career compared to matchers and takers. This hypothesis was evaluated in Study 1 where it was not supported. Study 2 evaluated the similar construct of job satisfaction using an employee sample. ANOVA results show a significant difference ($F(2, 317) = 3.01; p < .10$) between givers, takers, and matchers. Post hoc analyses suggest givers ($M = 3.74$; $SD = 1.08$) are significantly higher in job satisfaction compared to matchers ($M = 3.44$; $SD = 1.14$) and takers ($M = 3.43$; $SD = 1.10$). Correlational analyses suggest give is positively related to job satisfaction ($r = .14$), but neither take nor match was found significantly related to job satisfaction. Hypothesis 11 was therefore supported.

Hypothesis 12 proposed that takers view themselves as more successful in their career compared to matchers and givers. In line with the results from Study 1, ANOVA results did not suggest there is a significant difference in comparative career success depending on an individual's social interaction style ($F(2, 318) = .09; p > .10$). Additionally, correlational analyses did not indicate any relationship between comparative career success and give and take. Hypothesis 12 was therefore not supported.

Hypothesis 14 proposed that takers have higher income compared to givers and matchers. A requirement to participate in the study was to be a full time employee; however' some participants still reported annual salaries well below the federal minimum wage of \$7.25 per hour. To not skew the results, those participants (i.e., $N = 27$), who reported annual salaries below the federal minimum wage were removed from this particular analysis. Similar to the results in Study 1, no significant difference between givers, takers, and matchers was found in terms of annual income ($F(2,293) = .73; p > .10$). Correlational analyses also support this conclusion, as no significant relationship was found between income and give and take. Hypothesis 14 was therefore not supported.

Hypothesis 15 proposed that givers hold higher positions compared to takers and matchers. Four participants were excluded from these analyses due to reporting being unemployed, in spite of the specific requirement of being full-time employed. ANOVA results do not suggest any significant difference in position between givers, takers, and matchers, ($F(2,316) = 3.49; p > .10$). Additionally, correlational analyses do not indicate any significant relation between position and givers ($r = .10$), takers, ($r = -.08$), or matchers ($r = -.06$). Hypothesis 15 was therefore not supported.

Hypothesis 16 proposed givers are more satisfied with their life compared to matchers and takers. Contrary to the results in Study 1, a significant mean difference in life satisfaction was found between givers, takers, and matchers ($F(2, 316) = 5.25; p < .01$). Post hoc analyses suggest givers ($M = 3.14; SD = .70$) are significantly more satisfied with their life compared to both takers ($M = 2.85; SD = .82$) and matchers ($M = 2.86; SD = .82$), but no difference was found between takers and matchers. Correlational analyses show life satisfaction is positively related to give ($r = .18$) and negatively

related to match ($r = -.12$), but not related to take. Hypothesis 16 was therefore supported.

Hypothesis 17 proposed that givers, takers, and matchers have different underlying personality profiles. Personality data were collected from two different personality assessments; hence, the hypothesis was evaluated using the results from both assessments (i.e., the IPIP and the WPB5). For the IPIP, a significant mean difference between at least two of the three groups (i.e., givers, takers, and matchers) was found on the main factors agreeableness, conscientiousness, neuroticism, openness, and honesty-humility, and on the facets trust, morality, altruism, cooperation, modesty, sympathy, self-efficacy, orderliness, dutifulness, achievement-striving, self-discipline, cautiousness, activity level, cheerfulness, anxiety, anger, depression, self-consciousness, immoderation, vulnerability, imagination, artistic interest, intellect, sincerity, fairness, greed avoidance, and modesty. The full ANOVA results for the IPIP and H-H variables are presented in Appendix B, Table 17. Post hoc analyses, using the Scheffe test, suggest that givers, takers, and matchers have significantly different mean scores from each other on the main factors agreeableness and honesty-humility, where givers are higher than both matchers and takers, and takers are lower than matchers. Significant differences between all three groups were also found on the facet-level for morality, altruism, sympathy, dutifulness, and fairness, where again the givers are the highest followed by matchers and takers. On the other facets, two of the three groups are significantly different from each other. See Appendix B, Table 18 for all mean differences and Appendix D, Figure 2 for an illustration of these significant mean differences.

The same analyses were conducted using the WPB5 variables instead of the IPIP and H-H variables. ANOVA results for the WPB5 suggest mean differences between at least two of the three groups exist at the factor-level for need for stability and on the facet-level for others' needs, concentration, worry, intensity, rebound, trust of others, and tact. See Appendix B, Table 19, for the full ANOVA results for the WPB5. Post hoc analyses suggest givers have a significantly lower need for stability compared to matchers, but no difference was found for takers. At the facet level, givers were found to pay significantly more attention to others' needs compared to matchers and takers, but matchers and takers did not differ in how much attention they pay to others' needs. Givers were found to have higher concentration compared to matchers. No significant difference was found for the takers in terms of concentration. Matchers were found to worry significantly more about things compared to takers and givers, who were found to be more at ease. No difference was found between takers and givers. Givers were found to be significantly calmer during discussion and conflict compared to matchers, who reported more intensity and heat during disagreements. Takers did not differ from the other two groups in terms of intensity. Even though the ANOVA showed a significant difference in terms of trust among the three groups, the post hoc test did not indicate a significant difference. Lastly, givers report being significantly more smooth and tactful in their interactions with others compared to matchers, but takers did not differ from the other two groups. All mean differences are presented in Appendix B, Table 20, and an illustration of the three give and take personality profiles based on these mean differences for the WPB5 can be found in Appendix D, Figure 3. See Appendix B, Tables 8 and 9, for correlations between give and take and the IPIP variables and the WPB5 variables, respectively.

Taken together, both the mean difference analyses using the IPIP traits and the analyses using the WPB5 traits suggest that givers, takers, and matchers differ in their personality characteristics. Results therefore suggest givers, takers, and matchers have different underlying personality profiles, in support of Hypothesis 17.

Additional ANOVAs were conducted on burnout and SD. Results suggest no mean difference in the extent to which individuals feel burned out from their job ($F(2, 317) = 2.46; p > .05$) but that there is a difference in the extent to which they tend to answer questions in a socially desirable fashion ($F(2, 319) = 29.26; p < .01$). Post hoc analyses reveal that givers ($M = 8.21; SD = 3.42$) score significantly higher on social desirability compared to both matchers ($M = 5.39; SD = 3.27$) and takers ($M = 5.28; SD = 3.19$), but no difference was found between takers and matchers. Correlational analyses suggest burnout is significantly related to give ($r = -.12$), but not to take or match. SD was found significantly related to all three styles, demonstrating a positive relationship to give ($r = .40$) and negative relationships to take ($r = -.21$) and match ($r = -.26$).

Discussion

The purpose of Study 2 was to explore the relationship between give and take and personality and determine whether givers, takers, and matchers have different underlying personality profiles, as well as to evaluate the relationship between give and take and various outcomes (i.e., CWB, income, working position, job satisfaction, life satisfaction, and comparative career success). All of these relationships also serve as further evidence for the validity of give and take. The findings and implications for these relationships are discussed first, followed by limitations of this study.

Findings and Implications

Give and Take and Outcomes. In terms of the outcomes, some hypothesized relationships were supported whereas others were not. Givers were found to be significantly less likely to engage in CWB compared to both takers and matchers (*Hypothesis 10*); hence, for the purpose of decreasing the amount of CWB, companies are better off hiring givers rather than takers. These results are consistent with research on antisocial behaviors in general and CWB (O’Boyle et al., 2012; Grijalva & Newman, 2015; Judge et al., 2006). Based on these findings, it can be concluded that takers may be responsible for much of the CWB within the workplace, whereas givers are less likely to engage in such destructive and deviant behaviors.

Givers also reported significantly higher job satisfaction (*Hypothesis 11*) and life satisfaction (*Hypothesis 16*) compared to both takers and matchers, but no difference was found between takers and matchers. Interestingly, the mean levels for the givers (i.e., 3.74 for job satisfaction and 3.14 for life satisfaction) are in line with previous research using the same single-item. For job satisfaction, previous research has reported levels of 3.80 at job entry and 3.74 approximately ten years later (Abele & Spurk, 2009), and for life satisfaction, two studies using large samples report mean levels of 3.39 and 3.40 (Cheung & Lucas, 2014). An interesting finding is therefore the significantly lower levels of job satisfaction reported by takers and matchers. This could be due to the characteristics of the sample, and the fact that many Mturkers work for less than minimum wage. It is possible that this is more upsetting to takers and matchers than it is to givers.

No significant difference was found between givers, takers, and matchers in terms of comparative career success (*Hypothesis 12*), income (*Hypothesis 14*), or position

(*Hypothesis 15*). The non-significant difference in comparative career success is in line with findings from Study 1 and can possibly be due to some takers having relatively low self-esteem rather than an inflated view of themselves. Another possible explanation is that takers are unlikely to be satisfied with their current situation and instead always want more and better things for themselves. Because of this characteristic, they are also likely to constantly want to outperform others (e.g., they are high in competitive motivation; Study 1), making it likely that they compare themselves to others who are in better positions. Because of this self-centered and “glass as half empty” view of the world, they are unable to compare themselves to the majority and instead focus on themselves in relation to what they do not have. An additional issue may be the somewhat lower than expected mean levels of comparative career success in general (i.e., givers = 3.04, takers = 3.03, matchers = 2.99). Previous findings suggest the mean for comparative success ranges between 3.34 and 3.44 (Abele & Spurk, 2009). Therefore, more research is needed to establish the relationship between give and take and comparative career success.

The non-significant difference in income is surprising both because Study 1 found a significant difference and because previous research has found individual difference factors similar to those of givers (i.e., agreeableness) to be significantly negatively related to salary (Judge, Livingston, & Hurst, 2012). It is also commonly suggested that the higher the salary you ask for the higher the salary you are likely to receive, which should work in favor of takers given their tendencies. One possible explanation for the non-significant relationship between give and take and income found in Study 2 is related to the sample. No information was obtained about the source of this sample’s income. It is likely that the participants in the current study (Mturkers) are receiving

income from multiple sources, and if this is the case it may be more difficult to evaluate the direct link between give and take and income. It would therefore be of interest for future research to, for example, evaluate the relationship between give and take and income using a sample taken from the same level within the same organization using only their salary received from that specific job.

Lastly, the non-significant difference found for position is surprising and might be due to the characteristics of the sample. The sample consisted of 64.3% employees with the rest reporting some kind of leadership position (except 1% who reported having some “other” form of employment). Because all individuals come from different organizations, it is difficult to compare their positions. Results could therefore change if the same relationship is evaluated using a sample consisting of participants from the same organization, to determine whether one group is more commonly found in certain positions. To evaluate whether the organizational culture or type of organization influences what group is more or less likely to enter leadership positions, samples from multiple organizations should be compared.

Give and Take and Personality. The main purpose of Study 2 was to determine whether givers, takers, and matchers have different underlying personality profiles (*Hypothesis 17*). To determine whether differences in personality between givers, takers, and matchers exist two different personality assessments were used. The IPIP-NEO-120 and H-H combined assessment demonstrated a significant difference between at least two of the three groups on 27 personality facets, and the WPB5 demonstrated significant differences on seven of the facets. An interesting pattern was observed when studying the mean differences for the IPIP/H-H-based profiles. For the most part, givers and takers demonstrate means in opposite directions, with the matchers’ means falling

somewhere in between. This indicates that givers and takers might have opposing characteristics and that matchers have a combination of the traits seen in givers and takers.

Interestingly, in terms of the IPIP/H-H-based profiles, significant mean differences were found among all three groups on morality, altruism, sympathy, dutifulness, and fairness, where givers report high scores, takers report low scores, and matchers report scores in the middle. This finding further supports the distinctiveness of the three groups, suggesting their personality differences are likely the reason why they behave differently towards others and are viewed as more or less selfish. Based on this finding, givers can be described as having high moral standards, genuinely wanting to help others, caring for others, being responsible, and trying to be as fair as possible. Takers, on the other hand, can be described as having low moral standards, not being interested in helping others just for the sake of helping, showing low sympathy for others, being irresponsible, and treating others unfairly. Based on the moderate scores of matchers, these individuals seem to have a personality profile that is less extreme and their behaviors are therefore less noticeable. These individuals are likely not described by others as other-oriented or selfish, but just as caring and self-interested as most people. Individuals scoring towards the middle of a personality scale may be more impacted by the situation; hence, it may be that matchers are more inclined to adapt their behavior depending on the situation. These personality-based descriptions are very much in line with the definitions of being a giver versus a taker, and should hence be seen as a promising finding and a profile worth testing on other samples in the future.

The WPB5 also demonstrated findings in this direction, but to a lesser extent. In general, the WPB5 was not able to distinguish among the three groups as well as the

IPIP/H-H combination assessment. On some facets, givers were found to be different from matchers but not takers, and on others only matchers and takers were found to be significantly different. This makes it more difficult to determine what personality traits characterize the three groups. Thus, it seems as though the IPIP/H-H assessments can better distinguish between the personalities of givers, takers, and matchers than the WPB5. The reason for this is likely to be the difference in the number of facets between the two personality assessments. More facets result in more specificity in describing an individual and predicting various behaviors. The WPB5 was not found to have the same structure as a five factor personality assessment (i.e., the IPIP-NEO-120) and the facets are somewhat different and fewer compared to the IPIP-NEO-120. The addition of the H-H factor seems to also improve the ability to predict give and take as fairness was one of the significantly distinguishing characteristics. Therefore, give and take is most likely best predicted using a personality assessment that includes the predicting variables found using the IPIP-NEO-120 and the H-H factor. Although the current research did not find support for a five factor structure, a more recent approach to evaluating the factor structure is worth investigating. This approach is a parceling method, where parcels are used instead of individual items. According to Little, Cunningham, and Shahar (2002), parceling is appropriate to apply when it is the relations among constructs that is the main interest, and not the exact relations among the items included in the measure.

In addition to addressing the hypotheses discussed above, the results from Study 2 further add to the evidence related to validity. The outcomes evaluated in Study 2 provide evidence for predictive validity and the relationships between give and take and personality add to the available convergent and discriminant validity evidence.

Additional Findings. In addition to the hypothesized relationships between give and take and other variables, the relationships with burnout and social desirability were evaluated. Findings did not indicate any difference in burnout between givers, takers, and matchers. Previous research (i.e., Grant, 2013) has argued that givers are more prone to burning out than any other group. However, this argument does not apply to all givers; it applies only to those who help anyone with anything. Givers who are less strategic in who they help and how they help risk being used by others (especially takers) and spend a lot of time helping others, when in fact there might be someone else who is better suited to provide help in a specific area. Based on this reasoning, it is likely that at least two types of givers exist: one that selflessly helps anyone and one that is more strategic (i.e., they do not help takers with anything and provide help in areas of their expertise). This further suggests that burnout is likely to be different between these groups: one group is likely to burnout and one group is not likely to burnout. Another possible relationship is between takers and burnout. Research has demonstrated a positive relationship between personality and burnout (Sulea, van Beek, Sarbescu, Virga, & Schaufeli, 2015). This line of research has found a positive relationship between burnout and being high in neuroticism and low in conscientiousness and agreeableness. These are for the most part characteristics of takers; hence, a positive relationship between takers and burnout should theoretically be found as well. This is an area for future research to look into further.

The measure of social desirability was added mainly to determine whether providing give answers to the Give and Take measure is related to social desirability. Findings indicate this is the case as givers scored significantly higher on the social desirability measure compared to takers and matchers. As previously described, givers

also score higher on personality traits related to having high morals and being fair, not greedy, and humble. These are all traits that can be argued to be part of being a “good” person and hence one possible explanation for the positive relationship is a true relationship between behaving in a socially desirable manner and being a giver. However, the possibility that individuals are categorized as givers due to them answering in a socially desirable manner cannot be ignored. An area for future research is therefore to determine whether some scenarios might be more or less prone to socially desirable responding and whether cultural differences affect what answers are given to the Give and Take measure. Future research can also use social desirability as a control variable to determine the extent to which social desirability is involved in the relationship between give and other variables such as CWB.

Other interesting findings from Study 2 worth noting include the ratio of give and take and the gender differences found in give and take. The ratio of give, take, and match is different from what has been found in previous research, with the current research identifying a larger number of givers and a smaller number of matchers. This finding might be due to the sample. Given the oftentimes low return for the efforts put in by Mturkers, it is possible that the percentage of givers is naturally higher in this type of sample. However, more research is needed to establish the true ratio of givers, takers, and matchers in a random sample as well as in samples with specific characteristics such as based on industry section and job type.

The difference in gender found among givers and takers is interesting but perhaps not surprising. Significantly more women were characterized as givers, and significantly more men were characterized as takers. A likely explanation for this finding is related to differences in personality. Meta-analytic findings suggest women

are naturally higher in the typical giver characteristics of being trusting and nurturing/caring about others, whereas males are typically more assertive and have higher self-esteem (Feingold, 1994). It is also possible that traditional gender roles influence the relationship between give and take and gender. Women have traditionally been viewed as more nurturing and caring and men have traditionally been viewed as more aggressive and dominant. With respect to gender differences as well as the ratio of give and take in general, an area for future research could be to look into cultural differences as well as generational differences. Given evidence indicating that the younger population is becoming more and more narcissistic and self-absorbed (Twenge, 2013), it seems likely that the number of takers will increase. This could potentially raise major issues within the workplace where teamwork, collaboration, virtual teams, and information sharing are becoming more and more critical and also less controlled. Consider, for example, findings by Utz et al. (2014) suggesting that takers keep more information to themselves and most critically they tend even more so to not share the important information.

Limitations

Although many interesting and useful findings were revealed in Study 2, the results were mixed in terms of support for the hypothesized relationships. This could be due to various limitations of the study. One major limitation is related to the sample. The sample seems to be somewhat more negative and dissatisfied with their current situation in general (i.e., job, life, and career success compared to others), and it is likely that they have multiple jobs affecting their income. This sample characteristic is likely to have influenced several of the results related to the outcomes. A second limitation is related to the ratio of givers, takers, and matchers found in the sample. The ratio was

different from previous findings, which have indicated more matchers and fewer givers compared to this study. The reason for this difference in ratio can be due to either real differences within the sample or potentially due to scoring differences. A third limitation is the sample size for the sample including the WPB5. The sample including the IPIP/H-H was much larger (i.e., 322) compared to the WPB5 sample (i.e., 206). This difference could potentially have affected the ANOVA results and be the reason fewer facets were found to be significantly different using this assessment. Based on a power analysis, the goal was to collect WPB5 data from a total of 250 individuals, which was not reached and hence the power of the ANOVA analyses was slightly decreased. Finally, the self-reported nature of the study must be addressed. Because all variables are rated by the participants themselves, common method bias must be considered as a potential limitation. Using the same method to assess multiple constructs can possibly either inflate or deflate the relationship between constructs (Podskoff, MacKenzie, Lee, & Podsakoff, 2003). Future research can address this limitation by using other-ratings for the give and take measure, which also will address issues concerning the accuracy of self-assessing give and take style.

Study 3: The Relationship Between Give and Take Personality Profiles and Individual Performance

Study 3 was designed to serve two purposes: (1) demonstrate how the proposed profiles found in Study 2 can be applied to another sample to enable categorization of individuals in terms of give and take by solely using a personality measure and (2) evaluate the proposed differential effect of give and take on task and contextual performance.

Before the first issue could be addressed, additional analyses were conducted to explore the best predicting personality profiles for givers, takers, and matchers. Study 2 results demonstrated that givers, takers, and matchers have different underlying personality profiles, but did not specify how these profiles are best applied to a different sample to predict an individual's give and take style. The analyses conducted to resolve this issue consisted of examining a number of different combinations of the personality variables as predictors of give and take. Once the best predicting combination of traits (i.e., target profiles) had been established, the first purpose of Study 3 was accomplished by applying those profiles to the data set used in Study 3. In Study 3 givers, takers, and matchers were therefore identified through personality profiling, without the use of the give and take measure (Grant, 2013). The second purpose was accomplished through analyses evaluating the hypothesized differences in performance between givers, takers, and matchers (using the underlying personality profiles for givers, takers, and matchers), through ANOVAs, correlation analyses, and regression analyses.

Method

Participants

Participants for Study 3 consisted of 545 employees in leadership positions. At the time of the data collection, these leaders were working within a wide variety of organizations classified as business sector, public sector, and private non-profit sector. The two most common types of organization within the sample were business sector manufacturing and public sector government representing 11% each. In addition, 63.5% of the sample was male, age ranged from 25 to 78 ($M = 44.05$; $SD = 7.30$), and 81% were Caucasian. The leaders within the sample reported positions ranging from first

level to executive and 40% report their position to be upper middle management. The sample was highly diverse in terms of type of organization and job function. See Appendix C, Table 22, for the demographics of the Study 3 sample.

Procedure

Data Collection. The data used in Study 3 came from an archival dataset provided by the Center for Creative Leadership (CCL). CCL had collected the data as part of a leadership development program. As part of the leadership development program, all participants were asked to fill out a self-report measure of personality (i.e., WPB5) and their current performance was evaluated using a multi-rater feedback assessment (i.e., Leading Managers 360). One dataset containing both these measures was provided for the purpose of the current research.

Data Preparation. The data came as one dataset. All the performance data had been aggregated into one score for each competence. In order to analyze the data based on each rater type, the data had to first be un-aggregated, following procedures to extract the performance ratings from each rater type (i.e., boss, peers, superiors, direct reports, others, and self), creating six separate datasets. These six datasets were then merged with the original dataset (now only including the WPB5 and demographical information), resulting in one large data set including all the performance ratings from each rater type.

Measures

Personality. The WPB5 was used to measure each individual's personality profile. See the description of the WPB5 under the Study 2 measures section (p. 102).

Performance. Performance was assessed through the Leading Managers 360 instrument (CCL, 2014). The Leading managers 360 is a 360 degree feedback survey

consisting of ratings obtained from individuals working at various levels around the leaders. The 360 degree feedback ratings include 111 items and measure aspects that target both task and contextual performance, which is in line with recommendations for how to measure employee performance (Borman & Motowidlo, 1997). The 111 items correspond to a total of 15 leadership competencies. Each competency was measured through a number of behavioral statements (i.e., the 111 items); raters were asked to indicate their level of agreement with respect to the leader's performance using a scale ranging from 1 (*To a very little extent*) to 5 (*To a very great extent*). In case the rater lacked understanding of the leader's performance within a specific area, a sixth option was available (i.e., DK; Don't Know/Not Applicable). Results were obtained in terms of self-ratings, all other-ratings, and average for each group of raters (i.e., boss, peers, superiors, and direct reports). All competencies, along with their relationships to either task or contextual performance, are listed in Appendix C, Table 21. The Leading Managers 360 instrument shows acceptable reliability and validity (CCL, 2015). The measure was developed based on the CCL's research on what competencies are contributing to leadership effectiveness for mid- and senior-level leaders, as well as what factor can potentially stall a leadership career. The scores that were obtained therefore represent areas of both strength and development. Each leadership competency is compared to a relevant norm group consisting of the combined other-ratings. All items included in the Leading Managers 360 instrument are listed in the measures section, Appendix F.

Results

Proposed Method for Personality Profiling. Before conducting the analyses required to evaluate the hypothesized relationships between give and take and task and

contextual performance, each individual had to be classified in terms of their dominant social interaction style. This was first done using the initially proposed method of measuring the fit between each individual's personality profile and the three different target profiles found in Study 2, based on the ANOVA results. In addition to this method, a number of alternative methods were evaluated to ensure the best predicting method was used for the purposes of Study 3. Which target profile best matches an individual's observed personality profile was initially proposed to be best evaluated based on two characteristics: (1) similarity in elevation (i.e., mean level of the traits) and (2) similarity in shape (i.e., the rank ordering of the traits). One method that takes both of these characteristics into account is D^2 , by calculating closeness in fit based on both elevation and shape (Cronbach & Gleser, 1953). The D^2 statistic is a measure of distance between two vectors (e.g., a personality profile and the target profile) for k number of values in the profile. The formula for D^2 is: $D_{12}^2 = \sum_l^j (x_{1j} - x_{2j})^2$ where x_1 is the first profile and x_2 is the second profile, and j represents the variables included in the profiles, which are the same in both profiles. This equation was applied on all three styles for each individual, resulting in three D^2 scores (i.e., Give D^2 , Take D^2 and Match D^2).

One important implication from Study 2 was that if the number of traits included in the D^2 equation was different for each of the three styles (i.e., consisting of a different set of personality traits) this had to be accounted for. To accommodate for a difference in numbers of traits among the three styles and enable comparison of the difference scores, all three scores were standardized by dividing the equation by the number of traits included before applying the square root to the entire equation. The final formula was therefore: $D_{12}^2 = \sum_l^j ((x_{1j} - x_{2j})^2 / (k))$. This was not an issue with the first set of

personality profiles, which were created based on the ANOVA results and hence included the same number of traits for all three profiles; however, during the attempts to refine the target profiles the equations did not always include the same number of variables and the values were then standardized.

Using the results from the ANOVAs to create the three target profiles meant including all facets where a significant difference between givers, takers, and matchers was detected and applying the means for givers, takers, and matchers on those variables to the D^2 algorithm. These three algorithms are reported in Appendix 3, Table 23 and Table 24, respectively for the IPIP/H-H and WPB5-based algorithms.

Accuracy in Prediction. Finding target profiles that accurately predict give and take was critical for Study 3. Therefore, the accuracy in predicting give and take, using the ANOVA-based profiles found in Study 2, was evaluated on the two samples from Study 2 before this method was accepted as appropriate to apply to the Study 3 sample. Accuracy in prediction was determined based on two indicators: the percentage of similarity in categorization between the D^2 predicted dominant style and the self-reported style (i.e., the give and take measure) and the total percentage of givers, takers, and matchers predicted by the method. Accuracy in prediction was therefore dependent on the amount of overlap between the two dominant style indicators (i.e., the self-reported style and the algorithm-predicted style) and how similar the ratio of givers, takers, and matchers was to previous findings (i.e., Grant, 2013; Utz et al., 2014; Study 1 and 2). For the IPIP-based give and take personality profiles, the percentage of accurate overall predictions was 44.7% and the accuracy in predicting each style was 46% for givers, 49.1% for takers, and 43.4% for matchers. The target profiles identified 31.4% of the sample as givers, 27% as takers, and 41.6% as matchers. For the WPB5-

based give and take personality profiles, the overall percentage of accurate predictions was 43.7% and the accuracy in predicting each style was 16% for givers, 15.6% for takers, and 87.5% for matchers. The target profiles identified 9.2% of the sample as givers, 8.3% as takers, and 82.5% as matchers. See Appendix C, Table 25 and 26 for accuracy and ratio statistics for the various target profiles that were evaluated for the IPIP-based profiles and the WPB5-based profiles, respectively. Based on the lower than expected percentages of accuracy in predicting give and take as well as the differences in ratios between the current study using the WPB5-variables and previous findings, additional analyses were conducted in an attempt to find a combination of traits that more accurately predicts give and take.

Variations of Target Profiles. In addition to the ANOVA-based profiles, a number of different variations of target profiles were evaluated, with varying results. The five most promising variations were based on: (1) D^2 approach, using the significant mean differences for a more extreme sample of givers, takers, and matchers (i.e., ANOVA based on obvious styles), (2) D^2 approach, using facets based on regression analyses, (3) a linear approach, based on correlations, (4) a linear approach, based on regression analyses, and (5) a linear approach, based on regression weights. After evaluating each method in terms of accuracy in prediction, the most accurate method was a linearity-based method involving the facets that, based on regression, were identified as significantly contributing to the frequency of give and take answers (i.e., approach 4 above). This method will be described in detail below, and the other four less promising variations of target profiles are described in Appendix D. See Appendix C, Table 23 and Table 24, for the algorithms for the different variations of target profiles using the IPIP/H-H and WPB5, respectively. See Appendix C, Table 25

and Table 26 for the ratios and accuracy statistics for these variations of target profiles using the IPIP/H-H and the WPB5, respectively.

Final Target Profiles. The IPIP/H-H facets were used to predict give and take frequency scores using regression. The facets identified as significantly and uniquely contributing to give and take frequencies were included in the two algorithms. This resulted in a regression-based algorithm for give including the facets sincerity, trust, cautiousness, greed avoidance, achievement striving, anger, and morality (e.g., give = $\sum(HH1 + A1 + HH3 + C4 + A2 - N2 - C6)$). The regression-based equation for take included only the facets significantly contributing to the prediction of frequency of take answers, which were greed avoidance, trust, fairness, artistic interest, orderliness, gregariousness, excitement seeking, achievement striving, and friendliness. (e.g., take = $\sum(C2 + E2 - HH3 - A1 - HH2 - O2 - E5 - C4 - E1)$). Applying the regression-based linear algorithm for give frequency resulted in an accuracy prediction rate of 54.1% for givers, when the giver ratio was set to 26.1%. The algorithm for take frequency yielded an accuracy prediction rate of 60.7% for takers, when the take ratio was set to 24.2%. The individuals not categorized as givers or takers (50.3%) were classified as matchers, resulting in an accuracy in prediction rate of 41.7%. The overall accuracy in prediction rate was 51.2%. These numbers are better than those for any of the other methods described above, and hence the method of choice when predicting give and take based on the IPIP/H-H.

Applying the same method using the WPB5 facets resulted in an algorithm consisting of four facets for predicting give frequency and eight facets for predicting take frequency. The giver predicting facets were others' needs, rebound time, trust of others, and humility (e.g., give = $\sum(A1 + E5 + A3 - N4)$), which resulted in an accuracy

prediction rate of 58.2% when the giver ratio was set to 27%. The taker predicting facets were complexity, warmth, reserve, concentration, activity mode, perfectionism, agreement, and humility (e.g., take = $\sum(C1 - O2 - E1 - A4 - C4 - E3 - A2 - A3)$, which resulted in an accuracy prediction rate of 35.7% when the taker ratio was set to 20%. In order to categorize the matchers, the takers were first assigned to the take category followed by the categorization of the givers based on the give algorithm. The individuals not assigned as either giver or taker were categorized as matchers (53%). This method resulted in an accuracy rate in predicting matchers of 42.6%, and a total prediction accuracy of 46.6%.

Taken together, this method resulted in the most accurate predictions. In addition, based on the findings throughout the study, this approach also appears to make the most sense. Therefore, this method was selected as the method of choice for the purposes of Study 3. In order to apply the regression-based algorithm to the Study 3 sample, two steps had to be taken: (1) identify the cut-scores for being a giver and a taker using the Study 2 sample, and (2) calculate each Study 3 participants' giver and taker score and determine whether they have a score that falls within the range for being a giver or a taker.

Categorizing the Study 3 Sample. The participants in Study 3 were categorized as givers, takers, or matchers using the regression-based linear algorithm described above. A giver score and a taker score was calculated for each individual, indicating the degree of match with a giver versus a taker profile. Higher scores indicated being more likely to be a giver/taker. Because the participants in Study 3 were leaders selected for a leadership development program, the sample could not be assumed to have the same characteristics as a random sample, as the leaders have most

likely been selected based on certain characteristics. Therefore, it was not considered appropriate to follow give and take ratios based on recommendations coming from previous research referring to a random sample (i.e., Grant, 2013). Instead, cut scores were used to categorize givers, takers, and matchers. The cut scores were determined based on the results from the Study 2 data. As described above, the highest level of accuracy using the regression-based linear algorithm can be obtained by categorizing individuals into 27% givers, 20% takers, and 53% matchers. These percentages translate into givers having a standardized giver score that is 1.24 or higher, and takers having a standardized taker score of 1.84 or higher. Applying these two cut scores to the standardized giver and takers values for the leadership sample resulted in the identification of 148 givers (27.2%) and 134 takers (24.6%). In addition, 13 of the givers were also identified as takers. To solve this issue, Grant's (2013) arguments regarding fakers and burned out givers who turn into takers were taken into account. Fakers are individuals who are takers but try to pass as givers by engaging in prosocial behaviors to look good and get ahead (i.e., for selfish reasons). Givers who burn out or have been used by takers too many times can turn into takers (i.e., likely as a defense mechanism to not get used again). Both these groups demonstrate behaviors in line with takers and therefore in the current study are considered to be takers. However, although outside of the scope for the current research, it should be noted that these two groups are likely to have characteristics different from the rest of the takers. Based on this reasoning, the 14 individuals classified as both givers and takers were changed into takers, resulting in the final number of givers being 134 (24.6% and the final number of takers being 122 (22.4%). Anyone falling in between the two cut scores was categorized as a matcher, resulting in the categorization of 289 matchers (53%).

Hypothesis Testing. After each participant had been assigned to his/her best matching social interaction type (i.e., giver, taker, or matcher), the relationship between these three groups and 360 degree performance ratings (i.e., task and contextual performance) was evaluated. One-way ANOVAs and post-hoc analyses were conducted (following the same procedure as described in Study 2) for the three groups on each of the 15 competencies for each rater type (i.e., boss, direct reports, peers, superiors, and others) to determine whether any of the three groups differ significantly from the others in relation to the performance variables. Results suggest no mean differences in performance according to the overall, boss and other ratings. However, according to the leaders' direct reports and peers, the three groups differ in their performance on a few of the competencies. According to the direct reports, givers, takers, and matchers are marginally different in broad organizational perspective ($F(2, 484) = 2.46, p < .10$) and taking risks ($F(2, 518) = 2.45, p < .10$). Post hoc analyses did not detect a significant difference in broad organizational perspective, but indicate that takers ($M = 4.40; SD = .38$) and matchers ($M = 4.39; SD = .40$) might be somewhat higher in broad perspective compared to givers ($M = 4.29; SD = .48$). In terms of taking risks, takers ($M = 4.11; SD = .45$) were found to be significantly higher compared to givers ($M = 3.97; SD = .54$). Matchers ($M = 4.06; SD = .47$) were not found to be significantly different from takers or givers.

Peer ratings were significantly different on self-awareness ($F(2, 517) = 3.12, p < .05$), broad organizational perspective ($F(2, 519) = 2.54, p < .10$) and taking risks ($F(2, 519) = 3.32, p < .05$). Post hoc analyses suggest takers ($M = 3.68; SD = .57$) are seen as significantly less self-aware compared to matchers ($M = 3.83; SD = .54$), but not significantly different from givers ($M = 3.79; SD = .60$). No difference was found

between givers and matchers. In terms of broad organizational perspective, post hoc analyses did not reveal any significant differences. Lastly, givers ($M = 3.84$; $SD = .51$) were viewed as significantly lower in taking risks compared to both takers ($M = 3.99$; $SD = .41$) and matchers ($M = 3.95$; $SD = .46$), but no difference was found between takers and matchers. See Appendix C, Table 33 and 34 for the full ANOVA and post hoc results, respectively.

The very limited differences in performance between givers, takers, and matchers suggest that generally there are minimal differences in performance among the three groups in this sample. Therefore, *Hypothesis 8a*, proposing a positive relationship between take and task performance, was not supported. *Hypotheses 8b and 8c* proposed that the relationship between give and match and task performance depends on the level of achievement orientation. The WPB5 facet that most resembles achievement orientation was drive, defined in terms of being ambitious and striving to become number one. To evaluate these two hypotheses, moderation analyses were conducted using multiple regression. The performance variable was entered as the dependent variable, being a giver/matcher and drive were entered as independent variables in the first model and the interaction term (give x drive or match x drive) was entered as independent variable in the second model. This procedure was done for each of the competencies classified as relating to task performance (See Appendix C, Table 21). The task performance competencies were evaluated using a total performance score consisting of the mean ratings for boss, superiors, peers and direct reports. None of the 10 competencies evaluated demonstrated a significant interaction between give and drive or match and drive. *Hypotheses 8b and 8c* were therefore not supported. See Appendix C, Table 35 and Table 36.

Hypothesis 9 proposed that givers are higher in contextual performance compared to takers and matchers. Results do not suggest that givers are significantly higher in any of the competencies related to contextual performance. *Hypothesis 9* was therefore not supported.

Additional Analyses. In addition to evaluating the proposed hypotheses, the relationships between being a giver, taker, or matcher and demonstrating behaviors likely to stall a leadership career (i.e., problems with interpersonal relationships, difficulty building and leading a team, difficulty changing or adapting, failure to meet objectives, and too narrow a functional orientation), as well as potential differences in self-ratings were evaluated. ANOVA results suggest peers and superiors notice a difference in interpersonal relationships ($F(2, 518) = 3.42, p < .05$) and ($F(2, 335) = 5.67, p < .01$), respectively. According to both peer ratings and superiors, takers ($M = 1.93; SD = .74$ and $M = 1.91; SD = .81$) are viewed as demonstrating significantly more problems in their interpersonal relationships (i.e., difficulties developing good working relationships) compared to both givers ($M = 1.76; SD = .63$ and $M = 1.55; SD = .73$) and matchers ($M = 1.76; SD = .63$ and $M = 1.64; SD = .70$). No difference was found between givers and matchers in the career stalling behaviors.

Analyses of potential mean differences in self-ratings between givers, takers, and matchers suggest the three groups rate themselves significantly different on multiple competencies and potential career stalling behaviors. For the competencies, most of these differences are due to takers scoring themselves significantly higher than matchers and in one instance also higher than givers. Significant differences were found in terms of self-awareness, communication, influencing higher management, broad organizational perspective, resilience, negotiation, taking risks, and implementing

change. In terms of career stalling behaviors, self-reported differences were also found, but here takers scored themselves significantly lower than matchers but not significantly different from givers. Significant differences were found in terms of difficulty changing or adapting, failure to meet business objectives, and too narrow a functional orientation. See Appendix C, Table 33 and 34 for the full ANOVA and post hoc results, respectively.

Discussion

The purpose of Study 3 was to evaluate the relationship between give and take personality profiles and performance in terms of task performance (*Hypothesis 8*) and contextual performance (*Hypothesis 9*). To evaluate these relationships, the personality profiles of givers, takers, and matchers first had to be determined. The construction of these personality profiles is described first, followed by a discussion of the relationship between the give and take personality profiles and performance. Finally, the limitations involved in Study 3 are addressed.

Findings and Implications

Give and Take Personality Profiles. The proposed method for determining the personality profiles involved D^2 , which measures the distance between a target profile and an individual's actual profile (Cronbach & Gleser, 1953). This method was chosen because of its non-linearity based approach, determining closeness in fit between an individual's profile and a target profile based on the similarity in level as well as shape. Because Study 3 included only the WPB5, personality profiles using only this assessment needed to be created. However, a well-functioning method should work with other assessments as well and therefore the proposed method was tested using both the WPB5 facets and IPIP/H-H assessment.

In order to determine whether the proposed method was the best approach for predicting give and take based on personality, the accuracy in prediction was evaluated using both assessments. When the IPIP/H-H based facets were used, the accuracy in prediction was acceptable; however, the WPB5 facets did not produce the same results. When the WPB5 facets were used, an unreasonably large portion of the sample was identified as matchers (82.5%) and very few individuals were assigned to the giver (9.2%) and taker (8.3%) categories. Because this ratio is far from both the self-reported ratio and the ratio that previous research has argued for (Grant, 2013; Utz et al., 2014), additional methods for finding the best predicting target profiles were evaluated.

A number of variations of the proposed method (i.e., D^2) were tested, including changing the mean scores to become more extreme for givers and takers and changing the facets included in the algorithm (i.e., based on post hoc analyses, using the main factors instead of the facets, and including regressing weights). None of these attempts resulted in an acceptable accuracy in predicting give and take. After looking further into the relationship between give and take and the various facets, it was concluded that the low accuracy in prediction was likely due to the choice of method. Correlational analyses revealed an interesting pattern, where givers and takers, on numerous facets, scored in opposite directions, and the matchers tended to fall somewhere in the middle. These correlations indicate a linear relationship between specific personality facets and give and take.

Based on this finding, a linearity-based method was applied by creating target profiles based on the sum of the facets that significantly and uniquely related to give and take frequency scores (i.e., based on regression results). Because this method resulted in two scores, givers and takers were categorized based on cut-scores and a

likely give and take ratio. A number of different ratios were tested, using the self-reported ratios as well as suggestions from previous research (i.e., Grant, 2013; Utz et al., 2014). To ensure the best combination of facets had been identified as well, different combinations of facets were also applied (i.e., based on correlations, based only on the giver profile, and applying regression weights). All in all, the choice of give and take ratios did not change the accuracy in prediction rates substantially and the results indicate that the linearity-based algorithm resulted in higher accuracy in prediction for both the IPIP/H-H model and the WPB5 model.

For the IPIP/H-H facets, the best accuracy was found when the ratio was set to 26.1% givers and 24.2% takers, resulting in an accuracy in prediction rate of 71.6% for givers and 26.1% for takers. These numbers are significantly higher than any other method, especially for predicting givers. When the WPB5 facets were used, the results were less promising, at least for the give category, but still better than when the D^2 method was used. When the ratio of give and take was set to 27% and 20%, respectively, the accuracy in prediction rate for givers was 58.2% and 35.7% for takers.

Based on this final method, using the WPB5, givers can be described as individuals who focus on others' agendas, trust others, are humble, and rebound quickly after setbacks. Takers can be described as perfectionistic, simplistic and more narrow in their knowledge, easily distracted, more still and with less energy to spare, competitive and more engaged in conversations/disagreements, and less humble, as well as tending to hold down positive feelings and speak up when around others. Although these personality-based descriptions are, for the most part, in line with the definitions of a giver and a taker, they do not cover the entire definition and in the case of the takers include characteristics not previously discussed as part of being a taker. There could be

many explanations for this difference, such as personality assessments not being enough to sufficiently describe givers, takers, and matchers, the WPB5 assessment not being broad enough, and the difference in personality compared to behavior. These three reasons are somewhat related to each other. Give and take is described in terms of behaviors, and although personality predicts behaviors this relationship is not perfect. Giving, taking, and especially matching behaviors are likely to be influenced to some extent by the situation. Therefore, it might not be possible to more precisely predict give and take based on personality than what the current study demonstrated. However, based on the much higher precision in prediction when the IPIP/H-H facets were used, it can be argued that some personality assessments are better suited for predicting give and take than others, depending on what facets they include. The IPIP/H-H includes both a larger number of facets as well as more relevant give and take facets and can therefore be argued to be a better choice than the WPB5. In conclusion, the results from Study 3 suggest that a linear approach is better than a mean-based approach and that a personality assessment including more specific facets (IPIP/H-H) is likely to be better at identifying givers and takers compared to a broader measure of personality (WPB5).

Give and Take and Personality. Once the best predicting personality profiles had been determined, these profiles were applied to the Study 3 sample. One giver score and one taker score were created for each participant. Participants were categorized as givers, taker, or matchers using cut-scores based on the top 27% of givers and top 20% of takers from the Study 2 sample. The final ratio of predicted givers, takers, and matchers was 23.1% givers, 24.6% takers and 52.3% matchers. This ratio is in line with previous research and arguments by Grant (2013) suggesting that, in a random sample, approximately 50% are matchers, and the other 50% are split fairly equally between

givers and takers. The sample used in Study 3 cannot be considered a random sample, because they are all leaders who had been selected for a leadership development program. Therefore, the accuracy of this ratio cannot be fully evaluated and more research is needed to determine what the common ratio is among leaders. Based on research on narcissistic personality traits and leadership (Babiak & Hare, 2006) suggesting that extreme antisocial behaviors are more likely to be found among leaders than anywhere else, it seems likely that the percentage of takers may be higher among leaders compared to a random sample. Also, the competitiveness found among takers (i.e., competitive motivation; Study 1) is likely to make takers more interested in leadership roles because this is seen as advancement and being in a better position compared to others.

Because the sample consisted of leaders only, it is also important to note that the findings cannot be generalizable to any sample but more research is needed to determine whether performance differences exist among employees in non-leadership positions.

Hypotheses 8-9 suggested performance differences between givers, takers, and matchers. Although the hypotheses were not supported and not as many significant relationships were found as expected, some interesting findings were uncovered. The leaders' boss and superiors were not able to identify any differences in performance, which is not surprising because they are most likely the ones who recommended the leaders to the development program in the first place (i.e., they think that all these leaders are high performers). Interestingly, direct reports and peers pointed out some significant differences in performance. Broad perspective and risk taking were two competencies identified by both rater types as distinguishing aspects of performance

among the three groups. Follow-up analyses were only able to identify a significant difference in risk taking, but not broad perspective. The non-significant post hoc test for broad perspective was likely due to the conservativeness of the Scheffe test. The fact that takers were viewed as higher in risk taking is not surprising, as this is in line with research on antisocial behaviors and risk taking behaviors in general (Mishra, Lalumière, & Williams, 2017).

There are several possible explanations for why more performance differences were not found. The main one is likely the fact that these leaders are high performing individuals that have been selected based on their performance to participate in the leadership development program. With very few performance differences, it is almost impossible to find significant differences between groups.

Another possible explanation that must be addressed is the potential for inaccurate categorization of the leaders. It is possible that the algorithm that was applied to categorize the leaders as givers, takers, or matchers is inaccurate. However, results from the additional analyses evaluating the relationship between give and take and career stalling factors and self-ratings suggest that this explanation may not be entirely supported. The main reason takers are argued to eventually fail is because their selfishness makes them unable to build well-functioning long-term relationships and instead they create enemies around them. This characteristic was identified as significantly distinguishing taking leaders from the rest of the leaders. Both peers and superiors identified takers as having difficulties in building interpersonal relationships, due to factors such as being arrogant and dictatorial, leaving a trail of bruised people, being emotionally volatile and unpredictable, being reluctant to share decision making

with others, adopting a bullying style under stress, and making direct reports and peers feel stupid.

Results from the self-ratings also suggest that the categorizations are at least partially correct. Takers should by definition view themselves in a more positive light compared to how others view themselves. For example, they think they deserve more and better things than others and that they have the right to things that they want, most likely because they view themselves as better and more deserving. According to the self-ratings, takers do view themselves as performing higher than others on 8 out of the 16 competencies. In all cases, the significant difference is between takers and matchers (except risk taking where takers rate themselves as higher than both givers and matchers). Comparing these self-ratings with the other-ratings, it appears that the only accurate difference in performance is in terms of risk taking. On all other competencies where takers rate themselves as higher than givers and matchers, others do not perceive this difference. In support for their tendency to have an inflated view of themselves, they also rated themselves significantly lower compared to matchers on three out of the five career stalling problems. The takers' inflated self-view was also picked up by peers, who rated takers significantly lower in self-awareness compared to matchers, who were viewed as the most self-aware.

In conclusion, the personality-based give and take profiles revealed some significant differences in other-rated performance as well as in self-rated performance. However, due to the limited number of competencies with significant differences, no conclusion regarding task and contextual performance could be drawn. More research is needed on the relationship between give and take and performance, and it is

recommended that a random sample is used instead of one consisting of high performers.

Limitations

Although Study 3 failed to support the proposed hypotheses, some very interesting findings were obtained. Two main limitations are likely to have influenced the somewhat disappointing results. First, the sample consisting of leaders selected to participate in a leadership development program were for the most part likely viewed as high performing. If the sample consisted of scores that are restricted in range, it is more difficult to detect group differences. Second, the possibility that the profiling algorithm applied to the sample is inaccurate cannot be ignored. Although findings based on self-reported performance and differences in career stalling problems suggest this may not represent the full explanation, the algorithm should be further evaluated before accuracy can be confirmed.

General Discussion

In spite of the recent attention given to the concept of Give and Take (Grant, 2013), very little direct research on the topic exists (Utz et al., 2014). The current research therefore served three main purposes: (1) examine the validity of Give and Take, (2) determine whether givers, takers, and matchers have different underlying personality profiles, and (3) evaluate the relationship between give and take and performance. The validity of give and take was evaluated based on the relationship between give and take and other constructs, both those similar to and different from give and take (i.e., convergent and discriminant validity), as well as on the relationship with various outcomes (i.e., predictive validity). The second purpose was addressed by evaluating the relationship between give and take and personality facets from two

different personality assessments. Lastly, the third purpose was addressed by applying the three different personality profiles (i.e., give, take, and match) and evaluating the relationship between these three profiles and performance (i.e., task, contextual and CWB).

To address these three purposes, three survey-based studies were conducted with three different samples. Study 1 mainly targeted the first purpose and served as a validation study. Based on the findings from Study 1, it was concluded that give and take demonstrates convergent, discriminant, and predictive validity, and that the measure Give and Take (Grant, 2013) can be used to identify givers, takers, and matchers. Study 2 sought to evaluate the relationship between give and take and personality and CWB as part of performance, as well as add to the validation study (i.e., Study 1). Based on the findings from Study 2, it was concluded that givers, takers, and matchers have different underlying personality profiles. In addition, the most accurately predicting personality profile was found for each group and applied to the Study 3 sample. Lastly, in Study 3, the relationship between give and take personality profiles and performance was evaluated. The findings are discussed in more detail below followed by a discussion of the promising implications for research and practice. As a final note, limitations and recommendations for future research are described.

Validity of Give and Take

Findings from all three studies contribute to the support for the validity of give and take by providing evidence for the relationship between give and take and other variables. As proposed in Study 1, give is mainly related to prosocial constructs such as prosocial motivation, altruistic helping orientation, and other-oriented personality traits (e.g., trust in others, greed avoidance, sincerity, and morality), whereas take is for the

most part related to antisocial constructs such as impression management, competitive motivation, selfish helping orientation, and self-serving personality traits (e.g., greedy, mistrusting of others, unfriendly). Match related to substantially fewer constructs, but in general these were in line with the hypotheses (e.g., receptive-giving helping orientation and theories of self-prioritizing relations). These all represent convergent support for the validity of give and take. Evidence for discriminant validity was also found in the non-significant or weak relationships between, for example, give and inner-sustaining helping orientation and equity sensitivity, take and receptive-giving helping orientation and theories of self-comparative relations, and match and altruistic helping orientation and competitive motivation.

In terms of predictive validity, the hypothesized relationships between give and take and the various outcomes were partially supported. CWB and a few of the other performance variables were found to be significantly predicted by an individual's social interaction style. Takers were found to be significantly more likely to engage in CWB and givers significantly less likely to engage in such behaviors. Takers were found to be higher in risk taking compared to givers, and lower in self-awareness compared to matchers. Takers were also found to be more at risk of failing in their career due to being unable to build interpersonal relationships, and also rated their own performance higher on several of the competencies compared to matchers and in one case also givers. Taken together, these results provide support for the validity of give and take and suggest the Give and Take measure is a valid assessment for determining an individual's social interaction style, in terms of being a giver, taker, or matcher.

Personality Profiling

Findings from Study 2 suggest givers, takers, and matchers differ significantly on multiple personality traits. Although most of the differences were found between givers and takers, some personality traits seem to be specific for matchers as well. Because the findings differed depending on which personality assessment was used, more research is needed before givers, takers, and matchers can be sufficiently described in general personality terms. However, it can be concluded based on correlation analyses that givers and takers seem to have opposite profiles, and matchers have a profile that is less extreme (i.e., somewhere in between givers and takers).

Based on this pattern of correlations, it can be concluded that a linear modeling approach is more appropriate than the proposed distance measure D^2 for profiling givers, takers, and matchers. Comparisons of the accuracy in predicting givers, takers, and matchers using these two different approaches, in combination with variations of facets and give and take ratios, support this conclusion. Out of the many variations of facet-based algorithms used to predict give and take, one solution stood out as the most accurate. Specifically, the solution that resulted in the highest overlap between self-reported style and predicted style consisted of two linearity-based algorithms including the facets that significantly predicted give and take, respectively. The accuracy in prediction for this method using the WPB5 facets was 58.2% for givers, 35.7% for takers, and 42.6% for matchers, with a total accuracy in prediction of 46.6%.

Ideally, the accuracy rate would be higher and it seems that the highest accuracy in prediction can be accomplished when predicting givers using the IPIP and H-H. Based on the difference in accuracy using the WPB5 compared to the IPIP/H-H, it is recommended that an assessment measuring more specific facets is used to profile

givers, takers, and matchers based on personality. It can also be concluded based on the significant contributions of facets from the H-H measure that a five factor assessment of personality most likely is not enough to accurately predict give and take. Although not used in the current research, the HEXACO model is likely to be a better personality model to use to determine the personality of givers, takers, and matchers compared to assessments based on the five factor model.

Relationships with Individual Success

Individual success was measured through a number of different variables, including life satisfaction, job satisfaction, comparative career success, income, position, and performance. Givers were found to be more successful in terms of job satisfaction and life satisfaction compared to both takers and matchers, but no difference was found between takers and matchers. The three groups did not differ in income, position, or comparative career success.

Performance was defined in terms of task performance, contextual performance, and CWB. Results support the hypothesized relationship between give and take and CWB, suggesting takers perform significantly more CWB compared to others, and givers are the least likely to engage in this type of negative behavior. This finding is in line with previous arguments suggesting takers are destructive for the workplace and should not be hired in the first place (Grant, 2013). In terms of task- and contextual performance, findings were limited. Therefore, no general conclusion can be established regarding these two relationships. However, some performance differences were found (for risk taking and self-awareness), and in general these were detected by peers and direct reports. Takers were viewed as taking more risks compared to givers and being less self-aware than matchers. Although outside of the scope of the hypotheses, it is

interesting to note that takers viewed themselves as performing higher compared to matchers and in one instance also givers. This can be seen as an indication of an inflated view of performance among takers. A final interesting finding from Study 3 was the indication that takers were seen by both peers and direct reports as having more problems with their interpersonal relationships compared to others. In conclusion, takers were found to demonstrate more negative performance behaviors, but more research is needed to determine what group demonstrates more positive performance behaviors and ultimately determine whether give and take is related to overall performance.

Taken together, the findings from the current research are not enough to conclude that one group is more successful than the other two, but results indicate that differences in various success factors do exist. One possible explanation for the limited support found for differences in individual success is the fact that give and take revolves around interpersonal interactions; thus, it might be better to measure outcomes more specifically related to interpersonal relationships. Although factors such as income, position, and performance are likely to be influenced by an individual's social interaction style, the relationship may be less direct and not immediately noticeable.

Implications for Theory and Practice

The current research contributes to both research and practice in several ways. First, the results add to the literature on prosocial and antisocial behaviors as well as the more specific concept give and take. Due to the limited previous research on this topic, this contribution can be seen as quite significant. Second, based on the current research it can be concluded that give and take is a construct measuring an individual's social interaction style and more research can now be conducted using the give and take measure (Grant, 2013). Third, the understanding of what personality traits are specific

for givers, takers, and matchers and the possibility of identifying givers, takers, and matchers based on personality profiling is interesting for several reasons. From a research perspective, give and take personality profiles can be applied to any archival dataset including a measure of personality. Using this approach to identifying givers, takers, and matchers enables research to evaluate the relationship between give and take and a wide variety of variables. From a practical perspective, being able to identify givers, takers, and matchers could be useful in selection contexts to identify contributors and individuals who are less likely to engage in CWB, and who might contribute to or fit within a specific organizational culture. The potential for leadership selection and development as well as for selection of employees for particularly sensitive positions (e.g., those responsible for classified material) should be highlighted as an area where companies should pay close attention to who they hire. Based on the current research, takers might not be appropriate candidates for these positions, and givers might need some extra coaching to become successful in leadership roles and other roles as well (e.g., they need to learn how to give and share their resources but not become doormats). Finally, the current research also contributes with an alternative and, considering the fact that many companies already use personality assessments, potentially more practical way to measure give and take. Although more research is needed to establish the most accurate give and take personality profiles, findings from this research are promising and suggest give and take can be predicted by personality profiles.

Limitations and Future Research

Although this research contributes to the literature on prosocial and antisocial behavior, some limitations should be considered. Limitations specific to each of the

three studies were discussed following each study; however, some limitations apply to the research in general and will be addressed in this section.

One possible limitation that applies to all three studies is the classification of givers, takers, and matchers. Although different classification methods were used in Studies 1 and 2 compared to Study 3, it cannot be determined whether individuals have been classified correctly. In the first two studies, a direct self-report measure was used and in the third study a method which had undergone very limited testing in terms of accuracy in prediction was used. This potential limitation can affect all other results obtained in the three studies.

A second limitation is the sample. All three samples had limitations and this issue could possibly explain some of the non-significant or surprising findings. Therefore, future research should pay close attention to what sample is chosen and how the characteristics of the sample might impact the ratio of give and take as well as other findings.

A third general limitation relates to the choice of analyses. Differences between the three groups on the variables that were examined were analyzed using ANOVA. Because of the large number of variables evaluated a more appropriate method might have been MANOVA. Another limitation relating to the analyses is the choice of the D^2 method and the linear approach to classify individuals in terms of give and take. Another appropriate method to evaluate is discriminant function analysis (DFA). Future research could therefore use MANOVA and DFA and evaluate whether these analyses yield different results.

Although the current research provides more information about give and take, there are still many unanswered questions. We can conclude that give and take is related

to interests, orientations, behaviors, and personality, as well as outcomes such as CWB, aspects of other-rated performance, and dysfunctional behaviors. However, it is still unclear what give and take actually represents. Is it part of an individual's personality? Is it a way of behaving that is determined by multiple factors, such as personality, values, up-bringing, culture, and the situation? These are questions that need to be answered to fully understand the construct and the causal relationships between antecedents, give and take, and outcomes.

As part of this casual investigation related to give and take, future research can look into how the personality profiles found in the current research can be improved and validated and also whether there are better ways to assess an individual's social interaction style. The current research evaluated the scenario-based measure and personality as measures of social interaction style, but other interesting avenues for measuring give and take also exist, such as using Grant's (2013) scenario-based measure as a situational judgement test (SJT) where each alternative is rated instead of only the best matching being selected, developing a new measure, or using other-ratings.

It is also important to understand what role the situation plays in predicting give and take behaviors as well as whether other factors such as culture and upbringing have a significant effect on what social interaction style an individual adopts. Related to this topic is also the possibility that givers, takers, and matchers are successful in different situations and contexts. Looking at specific industries and types of jobs is therefore an area for future research. For example, it is likely that givers are more successful in jobs involving safety and security, and that takers perform better in jobs with highly competitive climates.

Once research has established the best way to identify givers, takers, and matchers and where the differences in behavior come from, a number of areas for future research open up, related to various outcomes. More research is needed on the relationship between give and take and performance and other workplace-related outcomes. The current research did not identify major performance differences; however, due to the strong arguments and indications coming from previous research (i.e., Grant, 2013; Utz et al., 2014) this is still an area of interest for future research.

A final area for future research is to look into how give and take relates to groups and teams. Research suggests that teams consisting of individuals who are more similar in their deep characteristics (e.g., personality, attitudes, and values) integrate better with each other, have fewer conflicts, and can therefore perform more effectively together (Harrison, Price, Gavin, & Florey, 2002). Teams with a higher team average on interpersonally oriented personality characteristics (i.e., agreeableness, extraversion, and emotional stability) perform better in terms of team effectiveness (Bell, 2007). The relationship between give and take and group dynamics, the climate within the group, collaboration and teamwork, competition within the team, and team performance are therefore very interesting. The effect of the leader's style can also be investigated in terms of turnover, employee engagement, and team climate, and also in relation to the ratio of givers, takers, and matchers within the group.

Summary

The purpose of the current research was to examine the validity of give and take and to evaluate its relationship to personality and performance. The validity was determined based on the relationship between give and take and other variables (i.e., convergent, discriminant, and predictive validity). Results provide support for the

validity of give and take and it can be concluded that the give and take measure is effectively assessing an individual's social interaction style. Findings also suggest give and take is a three dimensional construct including three distinct approaches that individuals use when interacting with others. As hypothesized, givers, takers, and matchers were found to have significantly different underlying personality profiles. These profiles can be applied to other samples and especially givers can be identified with reasonable accuracy. Lastly, although no general conclusions can be drawn in terms of performance differences, an important finding is the prevalence of CWB found among takers. Taken together, the current research provides information regarding important differences between givers, takers, and matchers and provides some support for previous arguments for givers as more beneficial to the workplace compared to takers.

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Appendix A: Study 1 Tables

Table 1
Demographics for Study 1 (Based on N = 240)

Demographics Frequency Percent

| Gender | | |
|------------------------|-----|-------|
| Male | 133 | 55.4% |
| Female | 107 | 44.6% |
| Age | | |
| 18-30 | 216 | 90% |
| 31-40 | 9 | 3.8% |
| 41-50 | 9 | 3.8% |
| 51-60 | 5 | 2.1% |
| 61-70 | 1 | 0.4% |
| 71-80+ | 0 | 0% |
| Ethnicity | | |
| White | 156 | 65% |
| Black | 23 | 9.6% |
| Hispanic/Latino | 19 | 7.9% |
| Asian | 25 | 10.4% |
| Middle-Eastern | 4 | 1.7% |
| Mixed race | 10 | 4.2% |
| Other | 3 | 1.3% |
| Job Position | | |
| Executive Level | 1 | 0.4% |
| Middle Management | 4 | 1.7% |
| Lower Level Management | 6 | 2.5% |
| Employee | 14 | 5.8% |
| Consultant | 4 | 1.7% |
| Undergraduate Student | 202 | 84.2% |
| Graduate Student | 9 | 3.8% |

Table 2
Descriptive Statistics and Reliabilities for Study 1 Variables

| Variable | N | M | SD | Percentage | Reliability |
|--------------------------------------|-----|-------|-------|--------------------|-------------|
| G & T Continuum | 261 | 32.29 | 3.87 | -- | .49 |
| Giver Style | 261 | -- | -- | 42.1% | -- |
| Taker Style | 261 | -- | -- | 9.2% | -- |
| Matcher Style | 261 | -- | -- | 48.7% | -- |
| Self-Orientation | 248 | 47.66 | 7.31 | -- | .81 |
| Other-Orientation | 248 | 48.56 | 6.44 | -- | .82 |
| Equity Sensitivity | 163 | 47.66 | 5.95 | -- | .57 |
| Entitleds (ES) | 163 | -- | -- | 4.9% | -- |
| Equity Sensitives (ES) | 163 | -- | -- | 92.6% | -- |
| Benevolents (ES) | 163 | -- | -- | 2.5% | -- |
| Theories Prosocial Relations | 242 | 15.43 | 2.35 | 33.3% ⁺ | .42 |
| Theories Self-Prioritizing Relations | 242 | 14.27 | 3.47 | 18.8% ⁺ | .75 |
| Theories Self-Comparative Relations | 242 | 14.48 | 2.95 | 16.9% ⁺ | .64 |
| Theories Self-Maximizing Relations | 242 | 11.00 | 3.44 | 4.6% ⁺ | .72 |
| HO Altruism | 261 | 10.36 | 4.44 | 29% | -- |
| HO Inner-sustaining | 261 | 2.92 | 2.30 | 29% | -- |
| HO Receptive Giving | 261 | 5.60 | 2.52 | 23% | -- |
| HO Selfish | 261 | 2.63 | 2.01 | 19% | -- |
| Prosocial Motivation | 253 | 30.45 | 3.82 | -- | .91 |
| Competitive Motivation | 253 | 31.57 | 6.11 | -- | .81 |
| Reciprocal Motivation | 253 | 38.32 | 10.19 | -- | .87 |

| | | | | | |
|----------------------------------|-----|-------|-------|----|-----|
| Impression Management Motivation | 251 | 42.12 | 12.27 | -- | .92 |
| Life Satisfaction | 240 | 12.04 | 2.16 | -- | .85 |
| Career Satisfaction | 240 | 18.13 | 3.55 | -- | .87 |
| Comparative Career Success | 240 | 3.44 | 0.95 | -- | -- |
| Income | 94 | 29305 | 37.20 | -- | -- |
| GPA | 4 | // | // | -- | -- |

Note. ** $p < .01$ * $p < .05$; -- indicates not applicable due to the nature of the scale; percentage represents the percentage of individuals characterized as that particular type. // indicates sample is too small to analyze.

Table 3
Convergent, Discriminant, and Predictive Validity

| Variables | 1 | 2 | 3 | 4 |
|--------------------------------------|--------|--------|--------|-------|
| 1. G&T Continuum | 1 | | | |
| 2. Giver Dominant Style | .63** | 1 | | |
| 3. Taker Dominant Style | -.54** | -.27** | 1 | |
| 4. Matcher Dominant Style | -.31** | -.83** | -.31** | 1 |
| Self-Orientation | -.33** | -.28** | .21** | -.16* |
| Other-Orientation | .16* | .04 | -.06 | -.01 |
| Theories Prosocial Relations | .15* | .08 | -.02 | -.09 |
| Theories Self-Prioritizing Relations | -.25** | -.24** | .16 | .17** |
| Theories Self-Comparative Relations | -.21** | -.18** | .12 | .11 |
| Theories Self-Maximizing Relations | -.28** | -.21** | .13* | .13* |
| HO Altruism | .32** | .14* | -.19** | -.03 |
| HO Inner-sustaining | -.23** | -.07 | .10 | -.00 |

| | | | | |
|----------------------------------|--------|--------|--------|-------|
| HO Receptive Giving | -.28** | -.25** | .08 | .20** |
| HO Selfish | -.39** | -.26** | .28** | .10 |
| Prosocial Motivation | .29** | .21** | -.13* | -.13* |
| Competitive Motivation | -.20** | -.16* | .15* | .07 |
| Reciprocal Motivation | -.30** | -.21* | .19** | .09 |
| Impression Management Motivation | -.24** | -.13* | .18** | .02 |
| Equity Sensitivity Composite | .19* | .05 | -.21** | .07 |
| Entitleds (ES) | -.15 | -.03 | .14 | -.05 |
| Equity Sensitives (ES) | .10 | .01 | .14 | -.05 |
| Benevolents (ES) | .05 | .02 | -.05 | .00 |
| Life Satisfaction | .01 | .02 | .06 | -.05 |
| Career Satisfaction | -.05 | -.03 | .04 | -.01 |
| Comparative Career Success | -.11 | -.13* | .10 | -.07 |
| Income | -.07 | .06 | .22* | -.17 |
| GPA | // | // | // | // |

Note. ** $p < .01$ * $p < .05$, // =indicates sample is too small to analyze.

Table 4
Full Correlation Table for Study 1 Variables

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|
| 1. Other-Orientation | 1 | | | | | | |
| 2. Self-Orientation | .33** | 1 | | | | | |
| 3. Prosocial (T) | .36** | .08 | 1 | | | | |
| 4. Self-Comparative (T) | .13 | .57** | .18** | 1 | | | |
| 5. Self-Prioritizing (T) | -.04 | .43** | -.03 | .46** | 1 | | |
| 6. Self-Maximizing (T) | -.11 | .30** | -.07 | .32** | .41** | 1 | |
| 7. Altruistic (HO) | .27** | -.13* | .20** | -.21** | -.38** | -.43** | 1 |
| 8. Receptive-Giving (HO) | -.08 | .15* | .02 | .06 | .09 | .05 | .09 |
| 9. Inner-Sustaining (HO) | -.30** | .08 | -.23** | .16* | .23** | .35** | -.29** |
| 10. Selfish (HO) | -.16* | .15* | -.08 | .16* | .35** | .35** | -.24** |
| 11. Equity Sensitivity | -.01 | -.28** | -.06 | -.12 | -.24** | -.24 | .24** |
| 12. Entitleds (ES) | -.02 | .08 | .04 | -.00 | .13 | .26** | -.19* |
| 13. Equity Sensitives (ES) | .11 | .09 | .06 | .10 | .03 | -.18* | .11 |
| 14. Benevolents (ES) | -.16* | -.26** | -.15 | -.17* | -.24** | -.06 | .07 |
| 15. Prosocial Motivation | .40** | -.02 | .31** | .02 | -.07 | -.11 | .26** |
| 16. Reciprocal Motivation | .08 | .38** | -.01 | .17** | .33** | .31** | -.19** |
| 17. I-M Motivation | .11 | .44** | -.02 | .30** | .28** | .26** | -.17** |
| 18. Competitive Motivation | .10 | .48** | .05 | .43** | .19** | .19** | -.07 |
| 19. Career Success | .16* | .16** | .13* | .14* | -.02 | .15* | .06 |
| 20. Comparative (CS) | .13* | .22** | .12 | .19** | .01 | .10 | .08 |
| 21. Life Satisfaction | .17* | .03 | .17 | .03 | -.10 | .06 | .11 |

Note. * $p < .05$. ** $p < .01$. (T) = Theories; (HO) = Helping Orientation; (ES) = Equity Sensitivity; I-M = Impression Management; (CS) = Career Success.

Table 4 Cont.
Full Correlation Table for Study 1 Variables

| | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|----------------------------|-------|--------|--------|--------|--------|--------|--------|
| 8. Receptive-Giving (HO) | 1 | | | | | | |
| 9. Inner-Sustaining (HO) | .08 | 1 | | | | | |
| 10. Selfish (HO) | .11 | .33** | 1 | | | | |
| 11. Equity Sensitivity | -.08 | -.14 | -.20* | 1 | | | |
| 12. Entitleds (ES) | .04 | .12 | .17* | -.64** | 1 | | |
| 13. Equity Sensitives (ES) | -.01 | -.09 | -.11 | .30** | -.81** | 1 | |
| 14. Benevolents (ES) | -.05 | -.03 | -.05 | .38** | -.04 | -.56** | 1 |
| 15. Prosocial Motivation | -.09 | -.27** | -.17** | .01 | -.17* | .17* | -.05 |
| 16. Reciprocal Motivation | .18** | .06 | .16* | -.32** | .23** | -.18* | -.01 |
| 17. I-M Motivation | .12 | .07 | .18** | -.27** | -.15 | .05 | -.28** |
| 18. Competitive Motivation | .09 | .03 | .02 | -.14 | .04 | .03 | -.10 |
| 19. Career Success | .08 | .04 | -.07 | -.05 | .13 | -.08 | -.05 |
| 20. Comparative (CS) | -.11 | .01 | -.03 | .05 | -.01 | .02 | -.03 |
| 21. Life Satisfaction | -.04 | -.08 | -.06 | .01 | -.00 | -.03 | .05 |

Note. * $p < .05$. ** $p < .01$. (T) = Theories; (HO) = Helping Orientation; (ES) = Equity Sensitivity; (CS) = Career Success.

Table 4 Cont.
Full Correlation Table for Study 1 Variables

| | 15 | 16 | 17 | 18 | 19 | 20 | 21 | |
|----------------------------|------|-------|-------|------|-------|-------|-------|---|
| 15. Prosocial Motivation | 1 | | | | | | | |
| 16. Reciprocal Motivation | -.05 | 1 | | | | | | |
| 17. I-M Motivation | -.07 | .58** | 1 | | | | | |
| 18. Competitive Motivation | .07 | .20** | .21** | 1 | | | | |
| 19. Career Success | | .19** | .09 | .05 | .09 | 1 | | |
| 20. Comparative (CS) | | .12 | .02 | .11 | .24** | .55** | 1 | |
| 21. Life Satisfaction | | .16* | -.06 | -.12 | .13* | .51* | .44** | 1 |

Note. * $p < .05$. ** $p < .01$. (T) = Theories; (HO) = Helping Orientation; (ES) = Equity Sensitivity; (CS) = Career Success.

Table 5
ANOVA Results for Give and Take and Study 1 Variables

| Source | SS | Df | MS | F | p |
|---------------------------------|---------|-------|---------|-------|------|
| Self-Orientation | 1297.61 | 2,245 | 648.81 | 13.33 | .000 |
| Other-Orientation | 46.99 | 2 | 23.49 | .57 | .569 |
| Altruism (HO) | 11.74 | 2 | 5.87 | 6.10 | .003 |
| Inner-Sustaining (HO) | 3.23 | 2 | 1.62 | 1.62 | .199 |
| Receptive-Giving (HO) | 16.32 | 2 | 8.16 | 8.64 | .000 |
| Selfish (HO) | 30.72 | 2 | 15.36 | 17.28 | .000 |
| Equity Sensitivity | 249.72 | 2 | 124.86 | 3.65 | .028 |
| Entitleds (ES) | .16 | 2 | .08 | 1.68 | .190 |
| Equity Sensitives (ES) | .09 | 2 | .05 | .68 | .507 |
| Benevolents (ES) | .01 | 2 | .004 | .19 | .832 |
| Prosocial Relations (T) | 10.47 | 2 | 5.24 | .95 | .390 |
| Self-Comparative Relations (T) | 80.15 | 2 | 40.08 | 4.75 | .009 |
| Self-Prioritizing Relations (T) | 172.28 | 2 | 86.14 | 7.55 | .001 |
| Self-Maximizing Relations (T) | 9.61 | 2 | 4.81 | 9.91 | .000 |
| Prosocial Motivation | 178.08 | 2 | 89.04 | 6.35 | .002 |
| Receptive Motivation | 1654.57 | 2 | 827.29 | 8.44 | .000 |
| Competitive Motivation | 368.52 | 2 | 184.26 | 5.10 | .007 |
| IM Motivation | 1297.61 | 2 | 648.81 | 13.33 | .000 |
| Life Satisfaction | 5.12 | 2 | 2.56 | .55 | .580 |
| Career Satisfaction | 7.23 | 2 | 3.61 | .29 | .752 |
| Comparative Career Success | 4.84 | 2 | 2.42 | 2.73 | .068 |
| Income | 5002.30 | 2 | 2501.15 | 1.84 | .165 |

Note. ^z = scores were converted into z-scores; (HO) = Helping Orientation; T = Theories; IM = Impression Management

Table 6
Give and Take Mean Differences in Study 1 Variables (with Standard Deviations in Parentheses)

| Source | Giver <i>M</i> (<i>SD</i>) | Taker <i>M</i> (<i>SD</i>) | Matcher <i>M</i> (<i>SD</i>) |
|------------------------------------|--------------------------------|------------------------------|--------------------------------|
| Self-Orientation | 45.20 (7.72) ^{T**M**} | 52.39 (5.85) ^{G**} | 48.81 (6.50) ^{G**} |
| Other-Orientation | 48.88 (6.61) | 47.30 (8.24) | 48.53 (5.93) |
| Altruism (HO) ^z | .17 (1.10) ^{T**} | -.60 (.64) ^{G**M*} | -.03 (.92) ^{T*} |
| Inner-Sustaining (HO) ^z | -.08 (1.02) | .32 (.94) | .01 (.99) |
| Receptive-Giving (HO) ^z | -.29 (.96) ^{T*M**} | .26 (1.00) ^{G*} | .20 (.97) ^{G**} |
| Selfish (HO) ^z | -.30 (.73) ^{T**M*} | .89 (1.06) ^{G**M**} | .10 (1.07) ^{G**T**} |
| Equity Sensitivity | 47.97 (5.66) ^{T**} | 43.46 (7.92) ^{G*M*} | 48.08 (5.64) ^{T*} |
| Entitleds (ES) | .04 (.20) | .15 (.38) | .04 (.19) |
| Equity Sensitives (ES) | .93 (.26) | .85 (.38) | .94 (.24) |
| Benevolents (ES) | .03 (.17) | .00 (.00) | .03 (.16) |
| Prosocial Relations (T) | 15.65 (2.11) | 15.57 (3.46) | 15.22 (2.29) |
| Self-Comparative Relations (T) | 13.84 (2.68) ^{T*} | 15.57 (3.17) ^{G*} | 14.80 (3.02) |
| Self-Prioritizing Relations (T) | 13.27 (3.20) ^{T*M**} | 15.39 (2.92) ^{G*} | 14.88 (3.59) ^{G**} |
| Self-Maximizing Relations (T) | 10.12 (3.17) ^{T*G*} | 12.39 (3.97) ^{G*} | 11.46 (3.39) ^{G*} |
| Prosocial Motivation | 31.39 (3.13) ^{T*M*} | 28.96 (4.35) ^{G*} | 29.94 (4.09) ^{G*} |
| Receptive Motivation | 35.81 (10.96) ^{T**M*} | 44.38 (.8.88) ^{G*} | 39.27 (9.11) ^{G*} |
| Competitive Motivation | 30.38 (6.06) ^{T*} | 34.42 (4.99) ^{G*} | 32.02 (6.15) |
| IM Motivation | 40.29 (13.35) ^{T**} | 8.70 (1.81) ^{G**} | 11.44 (1.03) |
| Life Satisfaction | 12.08 (2.00) | 12.43 (2.66) | 11.93 (2.19) |
| Job Satisfaction | 17.99 (3.60) | 18.61 (3.50) | 18.15 (3.54) |
| Comparative Career Success | 3.29 (.91) | 3.74 (.96) | 3.51 (.96) |
| Income | 29.84 (40.20) | 51.75 (50.71) | 24.58 (29.10) |

Note. ^G = Giver significantly different; ^T = Taker significantly different; ^M = Matcher significantly different; **p* < .05; ***p* < .01.

Appendix B: Study 2 Tables

Table 7

Demographics for Study 2 (Based on N = 322 and N = 206)

| Variables | N = 322 | | N = 206 | |
|------------------------|-----------|---------|-----------|---------|
| | Frequency | Percent | Frequency | Percent |
| Gender | | | | |
| Male | 166 | 51.6% | 105 | 51% |
| Female | 156 | 48.4% | 101 | 49% |
| Age | | | | |
| 21-30 | 125 | 38.8% | 77 | 37.4% |
| 31-40 | 117 | 36.3% | 76 | 36.9% |
| 41-50 | 42 | 13.0% | 28 | 13.6% |
| 51-60 | 31 | 9.6% | 19 | 9.2% |
| 61-70 | 7 | 2.2% | 6 | 2.9% |
| Ethnicity | | | | |
| White/Caucasian | 247 | 76.7% | 163 | 79.1% |
| Black/African American | 24 | 7.5% | 14 | 6.8% |
| Hispanic/Latino | 16 | 5.0% | 9 | 4.4% |
| Asian | 24 | 7.5% | 15 | 7.3% |
| Mixed race | 6 | 1.9% | 4 | 1.9% |
| Native American | 5 | 1.6% | 1 | .5% |
| Job Position | | | | |
| Employee | 207 | 64.3% | 125 | 60.7% |
| First level management | 49 | 15.2% | 39 | 18.9% |
| Middle management | 43 | 13.4% | 32 | 15.5% |
| Upper management | 13 | 4.0% | 7 | 3.4% |
| Top management | 5 | 1.6% | 1 | .5% |
| Executive level | 2 | 0.6% | 1 | .5% |
| Other | 3 | 0.9% | 1 | 1% |

Table 8
Descriptive Statistics, Reliabilities and Correlations for Study 2 Variables (Based on N = 322)

| Variable | M | SD | α | 1 | 2 | 3 | 4 |
|------------------------------|------|------|----------|--------|--------|-------|-------|
| 1. Give | -- | -- | -- | 1 | | | |
| 2. Take | -- | -- | -- | -.40** | 1 | | |
| 3. Match | -- | -- | -- | -.68** | -.35** | 1 | |
| 4. Agreeableness | 3.66 | .58 | .89 | .36** | -.39** | -.09 | 1 |
| 5. Trust (A) | 3.26 | 1.02 | .90 | .22** | -.22** | -.07 | .60** |
| 6. Morality (A) | 3.72 | .78 | .73 | .31** | -.32** | -.09 | .73** |
| 7. Altruism (A) | 3.95 | .73 | .75 | .27** | -.33** | -.02 | .75** |
| 8. Cooperation (A) | 3.97 | .83 | .74 | .28** | -.28** | -.10 | .78** |
| 9. Modesty (A) | 3.39 | .83 | .72 | .20** | -.20** | -.07 | .59** |
| 10. Sympathy (A) | 3.65 | .85 | .78 | .23** | -.28** | -.03 | .70** |
| 11. Conscientiousness | 3.89 | .66 | .94 | .23** | -.21** | -.09 | .47** |
| 12. Self-Efficacy (C) | 4.00 | .72 | .86 | .16** | -.12* | -.07 | .31** |
| 13. Orderliness (C) | 3.75 | .86 | .77 | .13* | -.12* | -.05 | .31** |
| 14. Dutifulness (C) | 4.06 | .69 | .69 | .27** | -.31** | -.05 | .60** |
| 15. Achievement-Striving (C) | 3.93 | .72 | .67 | .22** | -.21** | -.07 | .36** |
| 16. Self-Discipline (C) | 3.75 | .95 | .86 | .19** | -.13* | -.12* | .33** |
| 17. Cautiousness (C) | 3.86 | .91 | .86 | .17** | -.18** | -.07 | .43** |
| 18. Extraversion | 3.23 | .67 | .92 | .06 | -.07 | -.02 | .13* |
| 19. Friendliness (E) | 3.39 | .98 | .85 | .11* | -.14* | -.02 | .26** |
| 20. Gregariousness (E) | 2.74 | 1.05 | .84 | -.02 | .04 | -.02 | -.05 |

| | | | | | | | |
|----------------------------|------|------|-----|--------|--------|--------|--------|
| 21. Assertiveness (E) | 3.23 | .92 | .83 | .00 | .03 | -.04 | -.01 |
| 22. Activity Level (E) | 3.47 | .80 | .73 | .14* | -.11* | -.06 | .19** |
| 23. Excitement Seeking (E) | 3.00 | .85 | .72 | -.10 | .01 | .10 | -.15** |
| 24. Cheerfulness (E) | 3.57 | .79 | .73 | .16** | -.14* | -.07 | .37** |
| 25. Neuroticism | 2.48 | .82 | .95 | -.23** | .16** | .15** | -.33** |
| 26. Anxiety (N) | 2.73 | 1.08 | .86 | -.20** | .10 | .17** | -.24** |
| 27. Anger (N) | 2.48 | 1.01 | .85 | -.23** | .18** | .13* | -.24** |
| 28. Depression (N) | 2.32 | 1.10 | .89 | -.17** | .14* | .10 | -.32** |
| 29. Self-Consciousness (N) | 3.54 | .94 | .77 | -.15** | .12* | .10 | -.18** |
| 30. Immoderation (N) | 2.49 | .89 | .76 | -.21** | .10 | .16** | -.30** |
| 31. Vulnerability (N) | 2.28 | .88 | .83 | -.20** | .15** | .11 | -.22** |
| 32. Openness to Experience | 3.37 | .57 | .84 | .04 | -.16** | .08 | .29** |
| 33. Imagination (O) | 3.59 | .82 | .68 | -.08 | -.14* | .20** | .05 |
| 34. Artistic Interest (O) | 3.75 | .94 | .80 | .13* | -.23** | .05 | .38** |
| 35. Emotionality (O) | 3.24 | .88 | .72 | .01 | -.06 | .05 | .22** |
| 36. Adventurousness (O) | 2.88 | .94 | .81 | .04 | -.02 | -.03 | .05 |
| 37. Intellect (O) | 3.63 | 1.02 | .85 | .10 | -.18** | .01 | .34** |
| 38. Liberalism (O) | 3.16 | 1.04 | .72 | -.07 | .02 | .04 | .02 |
| 39. Honesty-Humility | 3.66 | .63 | .94 | .40** | -.33** | -.16** | .77** |
| 40. Sincerity (H-H) | 3.72 | .75 | .87 | .37** | -.30** | -.17** | .66** |
| 41. Fairness (H-H) | 3.98 | .71 | .86 | .33** | -.36** | -.06 | .74** |
| 42. Greed Avoidance (H-H) | 3.31 | .72 | .80 | .34** | -.25** | -.16** | .58** |
| 43. Modesty (H-H) | 3.62 | .79 | .88 | .30** | -.22** | -.15** | .63** |

| | | | | | | | |
|-------------------------|-------|-------|-----|--------|--------|--------|--------|
| 44. CWB-ID | 1.69 | 1.07 | .91 | -.27** | .17** | .16** | -.50** |
| 45. CWB-OD | 1.99 | 1.11 | .91 | -.14** | .16** | .14* | -.41** |
| 46. CWB | 1.88 | 1.04 | .94 | -.27** | .16** | .16** | -.46** |
| 47. Social Desirability | .51 | .28 | .83 | .40** | -.21** | -.26** | .42** |
| 48. Life Satisfaction | 2.98 | .78 | -- | .18** | -.11 | -.12* | .20** |
| 49. Job Satisfaction | 3.57 | 1.11 | -- | .14* | -.08 | -.09 | .15** |
| 50. Comparative C.S | 3.02 | .89 | -- | .02 | .00 | -.02 | -.03 |
| 51. Burnout | 2.17 | 1.07 | -- | -.12* | .07 | .10 | -.17** |
| 52. Position | 1.64 | 1.03 | -- | .10 | -.08 | -.06 | -.06 |
| 53. Income | 49.19 | 25.44 | -- | -.05 | -.02 | .07 | -.16** |

Note. CWB-ID = Counterproductive work behavior individual deviance; CWB-OD = Counterproductive work behavior organizational deviance; CWB = Counterproductive work behavior; C.S = Career Success; -- = value could not be obtained due to the nature of the scale.

Table 8 Cont.
Descriptive Statistics, Reliabilities and Correlations for Study 2 Variables (Based on N = 322)

| Variable | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|-----------------------|---|-------|-------|-------|-------|-------|-------|
| 5. Trust (A) | 1 | | | | | | |
| 6. Morality (A) | | .19** | 1 | | | | |
| 7. Altruism (A) | | | .39** | .39** | 1 | | |
| 8. Cooperation (A) | | | | .50** | 1 | | |
| 9. Modesty (A) | | | | | .43** | 1 | |
| 10. Sympathy (A) | | | | | | .24** | 1 |
| 11. Conscientiousness | | | | | | | .28** |

| | | | | | | | |
|------------------------------|--------|--------|--------|--------|--------|--------|--------|
| 12. Self-Efficacy (C) | .18** | .20** | .49** | .32** | -.12* | .25** | .80** |
| 13. Orderliness (C) | .14* | .31** | .32** | .40** | .00 | .16** | .79** |
| 14. Dutifulness (C) | .25** | .54** | .56** | .57** | .27** | .34** | .79** |
| 15. Achievement-Striving (C) | .11 | .26** | .52** | .37** | -.05 | .35** | .83** |
| 16. Self-Discipline (C) | .16** | .33** | .32** | .41** | -.00 | .16** | .87** |
| 17. Cautiousness (C) | .14* | .45** | .34** | .54** | .18** | .19** | .81** |
| 18. Extraversion | .32** | -.10 | .41** | .00 | -.41** | .27** | .38** |
| 19. Friendliness (E) | .44** | -.01 | .46** | .11 | -.28** | .30** | .36** |
| 20. Gregariousness (E) | .21** | -.20** | .13* | -.10 | -.41** | .09 | .11* |
| 21. Assertiveness (E) | .11 | -.09 | .20** | -.02 | -.37** | .09 | .42** |
| 22. Activity Level (E) | .17** | .08 | .38** | .12* | -.18** | .25** | .52** |
| 23. Excitement Seeking (E) | .11 | -.28** | .12* | -.27** | -.37** | .06 | -.06 |
| 24. Cheerfulness (E) | .42** | .08 | .58** | .21** | -.19** | .43** | .41** |
| 25. Neuroticism | -.41** | -.25** | -.37** | -.35** | .17** | -.14* | -.65** |
| 26. Anxiety (N) | -.37** | -.18** | -.25** | -.28** | .17** | -.07 | -.48** |
| 27. Anger (N) | -.46** | -.28** | -.35** | -.45** | -.02 | -.17** | -.53** |
| 28. Depression (N) | -.37** | -.28** | -.31** | -.35** | .15** | -.13* | -.59** |
| 29. Self-Consciousness (N) | -.27** | -.12* | -.33** | -.14** | .25** | -.13* | -.54** |
| 30. Immoderation (N) | -.25** | -.26** | -.26** | -.31** | .06 | -.09 | -.58** |
| 31. Vulnerability (N) | -.30** | -.13* | -.39** | -.22** | .24** | -.12* | -.57** |
| 32. Openness to Experience | .08 | .16** | .35** | .23** | .03 | .40** | .22** |
| 33. Imagination (O) | -.01 | -.10 | .27** | -.07 | -.13* | .26** | .06 |
| 34. Artistic Interest (O) | .12* | .27** | .40** | .36** | .05 | .39** | .42** |

| | | | | | | | |
|---------------------------|------|--------|--------|--------|--------|--------|--------|
| 35. Emotionality (O) | -.04 | .12* | .21** | .13* | .14* | .39** | -.03 |
| 36. Adventurousness (O) | .07 | .01 | .09 | .07 | -.13* | .08 | .09 |
| 37. Intellect (O) | | .21** | .24** | .36** | .30** | .01 | .31** |
| 38. Liberalism (O) | -.09 | -.00 | -.04 | .04 | .13* | .07 | -.18** |
| 39. Honesty-Humility | | .27** | .75** | .49** | .62** | .66** | .45** |
| 40. Sincerity (H-H) | | .19** | .70** | .47** | .60** | .49** | .37** |
| 41. Fairness (H-H) | | .27** | .63** | .64** | .65** | .38** | .55** |
| 42. Greed Avoidance (H-H) | | .22** | .60** | .27** | .42** | .63** | .30** |
| 43. Modesty (H-H) | | .23** | .62** | .31** | .46** | .72** | .32** |
| 44. CWB-ID | | -.22** | -.48** | -.32** | -.54** | -.29** | -.25** |
| 45. CWB-OD | | -.22** | -.42** | -.28** | -.46** | -.17** | -.16** |
| 46. CWB | | -.22** | -.47** | -.30** | -.51** | -.23** | -.20** |
| 47. Social Desirability | | .38** | .36** | .30** | .32** | .12* | .21** |
| 48. Life Satisfaction | | .35** | .10 | .23** | .15** | -.14* | .10 |
| 49. Job Satisfaction | | .28** | .09 | .19** | .12* | -.16** | .08 |
| 50. Comparative C.S | | .09 | -.07 | .06 | .01 | -.22** | -.00 |
| 51. Burnout | | -.24** | -.10 | -.21** | -.14* | .12 | -.13* |
| 52. Position | | -.01 | -.13* | .07 | -.07 | -.11 | .02 |
| 53. Income | | .01 | -.15* | -.09 | -.13* | -.19** | -.16** |
| | | | | | | | -.01 |

Note. CWB-ID = Counterproductive work behavior individual deviance; CWB-OD = Counterproductive work behavior organizational deviance; CWB = Counterproductive work behavior; C.S = Career Success.

Table 8 Cont.

Descriptive Statistics, Reliabilities and Correlations for Study 2 Variables (Based on N = 322)

| Variable | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|------------------------------|----|-------|-------|-------|-------|-------|-------|-------|
| 12. Self-Efficacy (C) | 1 | | | | | | | |
| 13. Orderliness (C) | | .53** | 1 | | | | | |
| 14. Dutifulness (C) | | | .56** | .52** | 1 | | | |
| 15. Achievement-Striving (C) | | | | .74** | .57** | .63** | 1 | |
| 16. Self-Discipline (C) | | | | | .66** | .62** | .61** | .63** |
| 17. Cautiousness (C) | | | | | | .54** | .68** | 1 |
| 18. Extraversion | | | | | | | .43* | .37** |
| 19. Friendliness (E) | | | | | | | | .11 |
| 20. Gregariousness (E) | | | | | | | | .1 |
| 21. Assertiveness (E) | | | | | | | | .46** |
| 22. Activity Level (E) | | | | | | | | .23** |
| 23. Excitement Seeking (E) | | | | | | | | .66** |
| 24. Cheerfulness (E) | | | | | | | | .50** |
| 25. Neuroticism | | | | | | | | .45** |
| 26. Anxiety (N) | | | | | | | | .26** |
| 27. Anger (N) | | | | | | | | .69** |
| 28. Depression (N) | | | | | | | | .76** |
| 29. Self-Consciousness (N) | | | | | | | | .69** |
| 30. Immoderation (N) | | | | | | | | .62** |
| 31. Vulnerability (N) | | | | | | | | .51** |

| | | | | | | | | |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| 32. Openness to Experience | .18** | -.01 | .27** | .28** | .18** | .21** | .24** | .12* |
| 33. Imagination (O) | .19** | -.06 | .14* | .23** | -.00 | -.11 | .27** | .13* |
| 34. Artistic Interest (O) | .30** | .23** | .41** | .43** | .34** | .37** | .27** | .19** |
| 35. Emotionality (O) | -.08 | -.07 | .02 | .06 | -.03 | -.03 | -.13* | -.11 |
| 36. Adventurousness (O) | .06 | -.08 | .14* | .07 | .16** | .12* | .38** | .24** |
| 37. Intellect (O) | .33** | .20** | .39** | .37** | .37** | .42** | .31** | .25** |
| 38. Liberalism (O) | -.16** | -.25** | -.11 | -.13* | -.18** | -.05 | -.20** | -.24** |
| 39. Honesty-Humility | .25** | .34** | .58** | .35** | .34** | .47** | -.08 | .02 |
| 40. Sincerity (H-H) | .32** | .37** | .63** | .40** | .42** | .53** | .03 | .06 |
| 41. Fairness (H-H) | .42** | .44** | .66** | .54** | .38** | .46** | .19** | .22** |
| 42. Greed Avoidance (H-H) | .02 | .12* | .32** | .11* | .19** | .28** | -.22** | -.10 |
| 43. Modesty (H-H) | .09 | .21** | .39** | .14* | .17** | .31** | -.23** | -.09 |
| 44. CWB-ID | -.24** | -.30** | -.42** | -.32** | -.33** | -.45** | -.02 | -.05 |
| 45. CWB-OD | -.36** | -.40** | -.48** | -.42** | -.47** | -.47** | -.18** | -.22** |
| 46. CWB | -.30** | -.37** | -.45** | -.36** | -.41** | -.48** | -.10 | -.13* |
| 47. Social Desirability | .28** | .25** | .36** | .29** | .34** | .27** | .29** | .30** |
| 48. Life Satisfaction | .36** | .28** | .24** | .32** | .36** | .27** | .44** | .43** |
| 49. Job Satisfaction | .38** | .29** | .21** | .32** | .41** | .23** | .46** | .46** |
| 50. Comparative C.S | .24** | .18** | .04 | .21** | .27** | .22** | .29** | .26** |
| 51. Burnout | -.38** | -.30** | -.29** | -.30** | -.37** | -.27** | -.42** | -.41** |
| 52. Position | .07 | .03 | .03 | .08 | .09 | .07 | .19** | .17** |
| 53. Income | .05 | .00 | -.12* | -.05 | .03 | .02 | .13* | .10 |

Note. CWB-ID = Counterproductive work behavior individual deviance; CWB-OD = Counterproductive work behavior organizational deviance; CWB = Counterproductive work behavior; C.S = Career Success.

Table 8 Cont.

Descriptive Statistics, Reliabilities and Correlations for Study 2 Variables (Based on N = 322)

| Variable | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
|----------------------------|-------|-------|-------|-------|--------|--------|--------|--------|
| 20. Gregariousness (E) | 1 | | | | | | | |
| 21. Assertiveness (E) | | .46** | 1 | | | | | |
| 22. Activity Level (E) | | | .47** | 1 | | | | |
| 23. Excitement Seeking (E) | | | | .28** | 1 | | | |
| 24. Cheerfulness (E) | | | | | .42** | 1 | | |
| 25. Neuroticism | | | | | | -.57** | 1 | |
| 26. Anxiety (N) | | | | | | | .89** | 1 |
| 27. Anger (N) | | | | | | | | .71** |
| 28. Depression (N) | | | | | | | | .63** |
| 29. Self-Consciousness (N) | | | | | | | | .53** |
| 30. Immoderation (N) | | | | | | | | .56** |
| 31. Vulnerability (N) | | | | | | | | .60** |
| 32. Openness to Experience | .21** | .17** | .09 | .26** | .23** | -.14* | -.08 | -.14* |
| 33. Imagination (O) | | .14* | .13* | .17** | .37** | .30** | .03 | .07 |
| 34. Artistic Interest (O) | | | .16** | .20** | .30** | .13* | .27** | -.29** |
| 35. Emotionality (O) | | | | -.09 | -.16** | -.13* | -.05 | -.01 |
| 36. Adventurousness (O) | | | | | .40** | .18** | -.34** | -.39** |
| 37. Intellect (O) | | | | | | .28** | -.42** | -.33** |
| | | | | | | | | -.36** |

| | | | | | | | | |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| 38. Liberalism (O) | -.11 | -.14* | -.22** | -.04 | -.15** | .19** | .15** | .12* |
| 39. Honesty-Humility | -.24** | -.09 | .18** | -.30** | .16** | -.23** | -.14* | -.29** |
| 40. Sincerity (H-H) | -.11 | .07 | .21** | -.24** | .18** | -.32** | -.24** | -.34** |
| 41. Fairness (H-H) | -.07 | .13* | .33** | -.06 | .35** | -.31** | -.17** | -.30** |
| 42. Greed Avoidance (H-H) | -.29** | -.23** | .03 | -.37** | .02 | -.10 | -.07 | -.19** |
| 43. Modesty (H-H) | -.34** | -.26** | .04 | -.36** | .03 | -.06 | .01 | -.16** |
| 44. CWB-ID | .07 | -.05 | -.09 | .16** | -.16** | .30** | .20** | .34** |
| 45. CWB-OD | -.03 | -.20** | -.19** | .04 | -.23** | .45** | .35** | .42** |
| 46. CWB | .03 | -.13* | -.14* | .10 | -.19** | .39** | .28** | .39** |
| 47. Social Desirability | .08 | .22** | .30** | .11* | .33** | -.46** | -.40** | -.46** |
| 48. Life Satisfaction | .25** | .32** | .36** | .12* | .51** | -.57** | -.44** | -.42** |
| 49. Job Satisfaction | .27** | .35** | .39** | .17** | .43** | -.53** | -.44** | -.38** |
| 50. Comparative C.S | .18** | .34** | .23** | .06 | .24** | -.38** | -.29** | -.26** |
| 51. Burnout | -.28** | -.36** | -.34** | -.10 | -.37** | .49** | .41** | .35** |
| 52. Position | .17** | .24** | .04 | .09 | .10 | -.19** | -.18** | -.12* |
| 53. Income | .18** | .15* | -.00 | .07 | .03 | -.10 | -.12 | -.03 |

Note. CWB-ID = Counterproductive work behavior individual deviance; CWB-OD = Counterproductive work behavior organizational deviance; CWB = Counterproductive work behavior; C.S = Career Success.

Table 8 Cont.

Descriptive Statistics, Reliabilities and Correlations for Study 2 Variables (Based on N = 322)

| Variable | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | |
|----------------------------|-------|--------|--------|--------|--------|--------|-------|--------|-------|
| 28. Depression (N) | 1 | | | | | | | | |
| 29. Self-Consciousness (N) | .73** | 1 | | | | | | | |
| 30. Immoderation (N) | | .55** | .52** | 1 | | | | | |
| 31. Vulnerability (N) | | .74** | .76** | .53** | 1 | | | | |
| 32. Openness to Experience | -.14* | -.16** | -.09 | -.09 | 1 | | | | |
| 33. Imagination (O) | .02 | -.06 | .09 | -.10 | .55** | 1 | | | |
| 34. Artistic Interest (O) | | -.28** | -.22** | -.25** | -.23** | .75** | .38** | 1 | |
| 35. Emotionality (O) | | .25** | .27** | .23** | .36** | .45** | .19** | .30** | 1 |
| 36. Adventurousness (O) | | -.26** | -.35** | -.19** | -.20** | .61** | .19** | .33** | -.08 |
| 37. Intellect (O) | | -.38** | -.39** | -.30** | -.33** | .75** | .28** | .62** | .14* |
| 38. Liberalism (O) | | .16** | .18** | .13* | .20** | .52** | .09 | .12* | .15** |
| 39. Honesty-Humility | | -.24** | -.08 | -.27** | -.13* | .19** | -.04 | .30** | .13* |
| 40. Sincerity (H-H) | | -.31** | -.21** | -.32** | -.20** | .24** | -.03 | .32** | .08 |
| 41. Fairness (H-H) | | -.29** | -.20** | -.31** | -.28** | .29** | .16** | .42** | .20** |
| 42. Greed Avoidance (H-H) | -.12* | .05 | | -.16** | .01 | .11* | -.09 | .17** | .09 |
| 43. Modesty (H-H) | -.09 | .07 | | -.13* | .010 | .02 | -.14* | .13* | .09 |
| 44. CWB-ID | | .29** | .17** | .33** | .17** | -.21** | .02 | -.30** | -.08 |
| 45. CWB-OD | | .41** | .34** | .41** | .31** | -.15** | .08 | -.29** | .04 |
| 46. CWB | | .36** | .27** | .39** | .25** | -.17** | .09 | -.30** | -.02 |
| 47. Social Desirability | | -.39** | -.33** | -.38** | -.35** | .11 | -.05 | .17** | -.13* |

| | | | | | | | | |
|-----------------------|--------|--------|--------|--------|--------|------|--------|--------|
| 48. Life Satisfaction | -.60** | -.50** | -.38** | -.51** | .03 | -.03 | .15** | -.18** |
| 49. Job Satisfaction | -.53** | -.48** | -.32** | -.50** | -.02 | -.03 | .09 | -.19** |
| 50. Comparative C.S | -.36** | -.35** | -.29** | -.38** | -.05 | -.11 | .07 | -.19** |
| 51. Burnout | .49** | .42** | .35** | .43** | -.03 | .02 | -.14* | .15** |
| 52. Position | -.12* | .23** | -.13* | -.18** | .06 | .04 | .08 | -.11 |
| 53. Income | -.06 | -.17** | -.03 | -.10 | -.18** | -.11 | -.16** | -.16** |

Note. CWB-ID = Counterproductive work behavior individual deviance; CWB-OD = Counterproductive work behavior organizational deviance; CWB = Counterproductive work behavior; C.S = Career Success.

Table 8 Cont.

Descriptive Statistics, Reliabilities and Correlations for Study 2 Variables (Based on N = 322)

| Variable | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 36. Adventurousness (O) | 1 | | | | | | | |
| 37. Intellect (O) | | .48** | 1 | | | | | |
| 38. Liberalism (O) | | | .27** | .17** | 1 | | | |
| 39. Honesty-Humility | | | | -.01 | .24** | .05 | 1 | |
| 40. Sincerity (H-H) | | | | | .13* | .31** | .05 | .87** |
| 41. Fairness (H-H) | | | | | | .87** | 1 | |
| 42. Greed Avoidance (H-H) | | | | | | | .71** | 1 |
| 43. Modesty (H-H) | | | | | | | | .46** |
| 44. CWB-ID | | | | | | | | .55** |
| 45. CWB-OD | | | | | | | | .78** |
| 46. CWB | | | | | | | | 1 |
| 47. Social Desirability | | | | | | | | |
| | .18** | .25** | -.06 | .38** | .37** | .35** | .30** | .26** |

| | | | | | | | | |
|-----------------------|-----|-------|--------|--------|--------|--------|--------|--------|
| 48. Life Satisfaction | .11 | .19** | -.13* | .10 | .10 | .15** | .04 | .04 |
| 49. Job Satisfaction | .07 | .14* | -.16** | .11 | .15** | .16** | .02 | .03 |
| 50. Comparative C.S | .08 | .06 | -.12* | -.07 | -.03 | .00 | -.11* | -.10 |
| 51. Burnout | | -.12* | -.14* | .15** | -.14** | -.18** | -.19** | -.06 |
| 52. Position | | .15** | .15** | -.04 | -.07 | -.05 | -.05 | -.06 |
| 53. Income | .03 | .03 | -.11 | -.25** | -.20** | -.20** | -.22** | -.21** |

Note. CWB-ID = Counterproductive work behavior individual deviance; CWB-OD = Counterproductive work behavior organizational deviance; CWB = Counterproductive work behavior; C.S = Career Success.

Table 8 Cont.

Descriptive Statistics, Reliabilities and Correlations for Study 2 Variables (Based on N = 322)

| Variable | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 |
|-------------------------|----|----|-------|-------|--------|--------|--------|--------|--------|--------|
| 44. CWB-ID | | 1 | | | | | | | | |
| 45. CWB-OD | | | .77** | 1 | | | | | | |
| 46. CWB | | | | .93** | .93** | 1 | | | | |
| 47. Social Desirability | | | | | -.29** | -.39** | -.36** | 1 | | |
| 48. Life Satisfaction | | | | | | -.15** | -.26** | -.21** | .32** | 1 |
| 49. Job Satisfaction | | | | | | | -.12* | -.28** | -.21** | .28** |
| 50. Comparative C.S | | | | | | | | .66** | .47** | .49** |
| 51. Burnout | | | | | | | | | -.67** | -.44** |
| 52. Position | | | | | | | | | | 1 |
| 53. Income | | | | | | | | | | |
| | | | | | | | | | | .11* |
| | | | | | | | | | | -.01 |
| | | | | | | | | | | .06 |
| | | | | | | | | | | .03 |
| | | | | | | | | | | .08 |
| | | | | | | | | | | -.07 |
| | | | | | | | | | | .19** |
| | | | | | | | | | | .24** |
| | | | | | | | | | | .30** |
| | | | | | | | | | | -.22** |
| | | | | | | | | | | .39** |
| | | | | | | | | | | 1 |

Note. CWB-ID = Counterproductive work behavior individual deviance; CWB-OD = Counterproductive work behavior organizational deviance; CWB = Counterproductive work behavior; C.S = Career Success.

Table 9

Descriptive Statistics, Reliabilities and Correlations for WPB5 Variables and Give and Take

| Variable | M | SD | α | 1 | 2 | 3 | 4 | 5 | 6 |
|--------------------------|-------|-------|----------|--------|--------|-------|--------|-------|--------|
| 1. Give | -- | -- | -- | 1 | | | | | |
| 2. Take | -- | -- | -- | -.39** | 1 | | | | |
| 3. Match | -- | -- | -- | -.71** | -.33** | 1 | | | |
| 4. Accommodation | 56.49 | 12.99 | .84 | .07 | -.04 | -.01 | 1 | | |
| 5. Others' Needs (A1) | 49.61 | 10.38 | .56 | .23** | -.11 | -.15* | .50** | 1 | |
| 6. Agreement (A2) | 56.50 | 12.03 | .72 | .05 | -.07 | .05 | .85** | .33** | 1 |
| 7. Humility (A3) | 50.11 | 12.11 | .76 | .03 | .01 | .00 | .61** | .09 | .36** |
| 8. Reserve (A4) | 57.31 | 12.62 | .79 | .00 | -.03 | .04 | .81** | .20** | .66** |
| 9. Consolidation (C) | 52.53 | 11.33 | .88 | .11 | -.09 | -.08 | -.36** | .08 | -.38** |
| 10. Perfectionism (C1) | 46.98 | 12.51 | .71 | -.01 | -.01 | -.01 | -.12 | .01 | -.19** |
| 11. Organization (C2) | 51.99 | 10.96 | .76 | .07 | -.06 | -.05 | -.09 | .20** | -.13 |
| 12. Drive (C3) | 44.79 | 11.54 | .68 | .05 | -.10 | -.02 | -.63** | -.09 | -.58** |
| 13. Concentration (C4) | 64.50 | 17.06 | .51 | .16* | -.03 | -.18* | -.16* | .16* | -.22** |
| 14. Methodicalness (C5) | 55.33 | 11.58 | .66 | .07 | -.13 | .03 | -.25** | -.02 | -.21** |
| 15. Extraversion (E) | 42.86 | 10.41 | .91 | .14* | -.11 | -.08 | -.68** | -.02 | -.57** |
| 16. Warmth (E1) | 45.67 | 12.70 | .74 | .07 | -.15* | .02 | -.50** | -.10 | -.32** |
| 17. Sociability (E2) | 38.15 | 13.45 | .85 | .11 | -.03 | -.11 | -.61** | -.14* | -.47** |
| 18. Activity Mode (E3) | 44.50 | 13.43 | .86 | .08 | -.09 | -.02 | -.34** | .07 | -.32** |
| 19. Taking Charge (E4) | 39.77 | 13.99 | .85 | .02 | .02 | -.07 | -.70** | -.17* | -.64** |
| 20. Trust of Others (E5) | 47.49 | 13.71 | .77 | .15* | -.08 | -.10 | -.07 | .17* | -.06 |

| | | | | | | | | | |
|----------------------------|-------|-------|-----|-------|-------|-------|--------|--------|--------|
| 21. Tact (E6) | 46.37 | 12.63 | .68 | .18** | -.16* | -.09 | -.43** | .10 | -.37** |
| 22. Need for Stability (N) | 53.69 | 13.51 | .90 | -.17* | .04 | .17* | .44** | -.18** | .44** |
| 23. (N1) Worry | 52.10 | 12.96 | .77 | -.13 | -.10 | .23** | .35** | -.10 | .35** |
| 24. Intensity (N2) | 50.17 | 12.28 | .81 | -.15* | .06 | .13 | .21** | -.22** | .22** |
| 25. Interpretation (N3) | 51.46 | 13.16 | .70 | -.14 | .03 | .12 | .42** | -.08 | .40** |
| 26. Rebound Time (N4) | 56.34 | 14.02 | .63 | -.17* | .13 | .11 | .43** | -.15* | .39** |
| 27. Originality (O) | 42.35 | 10.01 | .84 | .06 | -.07 | -.03 | -.52** | .13 | -.53** |
| 28. Imagination (O1) | 43.90 | 10.97 | .65 | .00 | -.03 | .02 | -.39** | .07 | -.39** |
| 29. Complexity (O2) | 47.21 | 12.08 | .70 | .09 | -.18* | .01 | -.48** | .04 | -.48** |
| 30. Change (O3) | 41.47 | 13.19 | .69 | .09 | -.03 | -.08 | -.21** | .38** | -.27** |
| 31. Scope (O4) | 44.61 | 8.95 | .71 | -.13 | .13 | .05 | .03 | -.20** | .06 |

Note. -- = value cannot be obtained due to the nature of the measure.

Table 9 cont.

Descriptive Statistics, Reliabilities and Correlations for WPB5 Variables and Give and Take

| Variable | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|-------------------------|---|---|-------|--------|--------|------|--------|--------|-------|
| 7. Humility (A3) | | 1 | | | | | | | |
| 8. Reserve (A4) | | | .33** | 1 | | | | | |
| 9. Consolidation (C) | | | | -.22** | -.33** | 1 | | | |
| 10. Perfectionism (C1) | | | | | -.06 | -.03 | .73** | 1 | |
| 11. Organization (C2) | | | | | | -.13 | -.14* | .81** | .55** |
| 12. Drive (C3) | | | | | | | -.38** | -.53** | .72** |
| 13. Concentration (C4) | | | | | | | | .42** | .42** |
| 14. Methodicalness (C5) | | | | | | | | | 1 |
| | | | | | | | | | |
| | | | | | | | | | |

| | | | | | | | | | |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 15. Extraversion (E) | -.39** | -.70** | .50** | .10 | .25** | .71** | .28** | .40** | 1 |
| 16. Warmth (E1) | -.31** | -.55** | .11 | -.12 | -.01 | .33** | -.02 | .20** | .73** |
| 17. Sociability (E2) | -.29** | -.64** | .22** | -.01 | .02 | .46** | .11 | .13 | .78** |
| 18. Activity Mode (E3) | -.18** | -.40** | .52** | .27** | .40** | .56** | .28** | .36** | .65** |
| 19. Taking Charge (E4) | -.37** | -.54** | .37** | .14* | .07 | .57** | .23** | .25** | .65** |
| 20. Trust of Others (E5) | -.08 | -.18** | .17* | -.10 | .14* | .19** | .13 | .23** | .55** |
| 21. Tact (E6) | -.28** | -.47** | .54** | .21** | .31** | .63** | .35** | .43** | .75** |
| 22. Need for Stability (N) | .23** | .53** | -.50** | -.08 | -.31** | -.61** | -.42** | -.31** | -.68** |
| 23. (N1) Worry | .11 | .47** | -.23** | .12 | -.12 | -.34** | -.25** | -.09 | -.45** |
| 24. Intensity (N2) | .13 | .28** | -.40** | -.07 | -.26** | -.46** | -.32** | -.28** | -.56** |
| 25. Interpretation (N3) | .19** | .47** | -.45** | -.06 | -.26** | -.48** | -.41** | -.29** | -.54** |
| 26. Rebound Time (N4) | .25** | .47** | -.51** | -.17* | -.29** | -.63** | -.37** | -.33** | -.68** |
| 27. Originality (O) | -.19** | -.64** | .27** | .01 | .03 | .50** | .22** | .11 | .57** |
| 28. Imagination (O1) | -.11 | -.46** | .25** | .13 | .05 | .35** | .21** | .14 | .33** |
| 29. Complexity (O2) | -.28** | -.47** | .48** | .27** | .22** | .58** | .32** | .33** | .50** |
| 30. Change (O3) | -.13 | -.40** | .27** | .04 | .16* | .36** | .25** | .08 | .43** |
| 31. Scope (O4) | .20** | -.01 | -.62** | -.47** | -.54** | -.34** | -.43** | -.52** | -.22** |

Table 9 cont.

Descriptive Statistics, Reliabilities and Correlations for WPB5 Variables and Give and Take

| Variable | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|----------------------------|----|-------|-------|-------|-------|-------|-------|-------|-------|
| 16. Warmth (E1) | 1 | | | | | | | | |
| 17. Sociability (E2) | | .66** | 1 | | | | | | |
| 18. Activity Mode (E3) | | | .34** | .44** | 1 | | | | |
| 19. Taking Charge (E4) | | | | .31** | .45** | .22** | 1 | | |
| 20. Trust of Others (E5) | | | | | .35** | .29** | .22** | .15* | 1 |
| 21. Tact (E6) | | | | | | .43** | .41** | .40** | .44** |
| 22. Need for Stability (N) | | | | | | | .37** | .37** | 1 |
| 23. Worry (N1) | | | | | | | | .81** | .81** |
| 24. Intensity (N2) | | | | | | | | | .48** |
| 25. Interpretation (N3) | | | | | | | | | .61** |
| 26. Rebound Time (N4) | | | | | | | | | .73** |
| 27. Originality (O) | | | | | | | | | .47** |
| 28. Imagination (O1) | | | | | | | | | .25** |
| 29. Complexity (O2) | | | | | | | | | .45** |
| 30. Change (O3) | | | | | | | | | .52** |
| 31. Scope (O4) | | | | | | | | | .31** |

Table 9 cont.

Descriptive Statistics, Reliabilities and Correlations for WPB5 Variables and Give and Take

| Variable | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|-------------------------|--------|--------|-------|-------|--------|------|----|
| 25. Interpretation (N3) | | 1 | | | | | |
| 26. Rebound Time (N4) | .72** | | 1 | | | | |
| 27. Originality (O) | -.49** | -.58** | | 1 | | | |
| 28. Imagination (O1) | -.28** | -.35** | .82** | | 1 | | |
| 29. Complexity (O2) | -.41** | -.54** | .76** | .55** | | 1 | |
| 30. Change (O3) | -.48** | -.56** | .81** | .56** | .53** | | 1 |
| 31. Scope (O4) | .21** | .33** | .08 | .06 | -.33** | -.11 | 1 |

Table 10

Give and Take Frequencies for Study 2

| Social Interaction Style | Sample N = 322 | | Sample N = 206 | |
|--------------------------|----------------|---------|----------------|---------|
| | Frequency | Percent | Frequency | Percent |
| Give | 139 | 43.2% | 94 | 45.6% |
| Take | 55 | 18.9% | 32 | 15.5% |
| Match | 122 | 37.9% | 80 | 38.8% |

Table 11
Gender Differences in Give and Take for Study 2 (N = 322)

| G&T Style | Female | | Male | | Pearson Chi- Square | <i>Df</i> | <i>p</i> | Phi |
|--------------|-----------|---------|-----------|---------|--------------------------------|-----------|----------|------------|
| | Frequency | Percent | Frequency | Percent | | | | |
| Give | 79 | 56.8% | 60 | 43.2% | 6.89 ¹ | 1 | .009 | -.15* |
| Take | 20 | 36.4% | 35 | 63.6% | 3.88 ¹ | 1 | .049 | .11* |
| Match | 55 | 45.1% | 67 | 54.9% | .89 ¹ | 1 | .345 | .05 |

Note. 1 = 0 cells (0.0%) have expected count less than 5; * = p < .05.

Table 12
Correlations Between IPIP and WPB5 Variables

| WPB5 Variables | A | A1 | A2 | A3 | A4 | C | C1 | C2 |
|--------------------------|--------|-------|--------|--------|--------|-------|-------|-------|
| IPIP Variables | | | | | | | | |
| 1. Agreeableness (a) | .20** | .46** | .20** | .00 | -.01 | .24** | .10 | .28** |
| 2. Trust (a1) | -.04 | .22** | .05 | -.15* | -.15* | .11 | -.15* | .13 |
| 3. Morality (a2) | .25** | .38** | .16* | .16* | .06 | .26** | .21** | .33** |
| 4. Altruism (a3) | -.05 | .32** | .01 | -.14* | -.18* | .36** | .21** | .29** |
| 5. Cooperation (a4) | .21** | .37** | .21** | -.05 | .11 | .29** | .23** | .34** |
| 6. Modesty (a5) | .54** | .34** | .40** | .38** | .36** | -.13 | -.11 | .02 |
| 7. Sympathy (a6) | -.03 | .30** | .02 | -.14* | -.18** | .16* | .12 | .10 |
| 8. Conscientiousness (c) | -.15* | .24** | -.17* | -.20** | -.19** | .75** | .54** | .71** |
| 9. Self-Efficacy (c1) | -.29** | .10 | -.28** | -.30** | -.23** | .68** | .45** | .56** |
| 10. Orderliness (c2) | -.04 | .16* | -.06 | -.10 | -.07 | .66** | .53** | .78** |
| 11. Dutifulness (c3) | -.09 | .25** | -.13 | -.11 | -.17* | .50** | .34** | .45** |

| | | | | | | | | |
|--------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| 12. Achievement-Striving (c4) | -.24** | .14* | -.24** | -.23** | -.23** | .63** | .48** | .47** |
| 13. Self-Discipline (c5) | -.18** | .20** | -.18** | -.21** | -.22** | .68** | .42** | .61** |
| 14. Cautiousness (c6) | .04 | .33** | .01 | -.09 | -.06 | .55** | .41** | .57** |
| 15. Extraversion (e) | -.59** | -.01 | -.51** | -.37** | -.60** | .43** | .15* | .24** |
| 16. Friendliness (e1) | -.43** | .02 | -.28** | -.34** | -.47** | .28** | .01 | .17* |
| 17. Gregariousness (e2) | -.51** | -.08 | -.41** | -.28** | -.53** | .16* | .01 | .02 |
| 18. Assertiveness (e3) | -.65** | -.16* | -.65** | -.30** | -.56** | .52** | .29** | .30** |
| 19. Activity Level (e4) | -.20** | .20** | -.20** | -.12 | -.27** | .51** | .30** | .40** |
| 20. Excitement Seeking (e5) | -.40** | -.13 | -.41** | -.19** | -.34** | .04 | -.08 | -.08 |
| 21. Cheerfulness (e6) | -.34** | .14* | -.24** | -.35** | -.39** | .41** | .14* | .29** |
| 22. Neuroticism (n) | .37** | -.19** | .34** | .24** | .47** | -.54** | -.16* | -.41** |
| 23. Anxiety (n1) | .36** | -.13 | .33** | .20** | .45** | -.37** | -.02 | -.25** |
| 24. Anger (n2) | .08 | -.31** | .08 | .09 | .21** | -.38** | -.09 | -.34** |
| 25. Depression (n3) | .35** | -.10 | .29** | .28** | .40** | -.47** | -.14* | -.37** |
| 26. Self-Consciousness (n4) | .56** | -.02 | .49** | .34** | .60** | -.48** | -.14* | -.31** |
| 27. Immoderation (n5) | .11 | -.29** | .14* | .04 | .24** | -.47** | -.22** | -.45** |
| 28. Vulnerability (n6) | .39** | -.10 | .37** | .26** | .43** | -.53** | -.19** | -.37** |
| 29. Openness to Experience (o) | -.21** | .15* | -.23** | -.16* | -.27** | .08 | .03 | -.03 |
| 30. Imagination (o1) | -.21** | .01 | -.25** | -.18* | -.14* | .02 | -.02 | -.08 |
| 31. Artistic Interest (o2) | -.06 | .26** | -.11 | -.04 | -.14* | .28** | .18* | .19** |
| 32. Emotionality (o3) | -.04 | -.09 | .02 | -.09 | .01 | -.05 | .12 | -.07 |
| 33. Adventurousness (o4) | -.29** | .11 | -.30** | -.09 | -.42** | -.02 | -.15* | -.09 |
| 34. Intellect (o5) | -.29** | .18* | -.29** | -.25** | -.35** | .31** | .13 | .19** |

| | | | | | | | | |
|----------------------------|-------|-------|-------|-------|-------|--------|-------|--------|
| 35. Liberalism (o6) | .11 | .06 | .09 | .06 | .06 | -.23** | -.14* | -.23** |
| 36. Honesty-Humility (h-h) | .34** | .45** | .23** | .24** | .10 | .20** | .11 | .29** |
| 37. Sincerity (h-h1) | .19** | .41** | .04 | .20** | .00 | .29** | .21** | .32** |
| 38. Fairness (h-h2) | .05 | .31** | .00 | -.03 | -.05 | .40** | .31** | .40** |
| 39. Greed Avoidance (h-h3) | .41** | .40** | .34** | .34** | .14 | .02 | -.07 | .12 |
| 40. Modesty (h-h4) | .45** | .38** | .36** | .28** | .24** | .00 | -.06 | .14* |

Note. * $p < .05$; ** $p < .01$; A = Accommodation; A1 = Others' Needs; A2 = Agreement; A3 = Humility; A4 = Reserve; C = Consolidation; C1= Perfectionism; C2 = Organization; C3 = Drive; C4 = Concentration; C5 = Methodicalness; E = Extraversion; E1 = Warmth; E2 = Sociability; E3 = Activity Mode; E4 = Taking Charge; E5 = Trust of Others; E6 = Tact; N = Need for Stability; N1 = Worry; N2 = Intensity; N3 = Interpretation; N4 = Rebound; O = Originality; O1 = Imagination; O2 = Complexity; O3 = Change; O4 = Scope; a = agreeableness; c = conscientiousness; e = extraversion; n = neuroticism; o = openness to experience; h-h = honesty-humility.

Table 12 cont.
Correlations Between IPIP and WPB5 Variables

| WPB5 Variables | C3 | C4 | C5 | E | E1 | E2 | E3 | E4 |
|--------------------------|--------|-------|-------|--------|--------|--------|--------|--------|
| IPIP Variables | | | | | | | | |
| 1. Agreeableness (a) | .10 | .24** | .20** | .22** | .19** | .01 | .12 | -.11 |
| 2. Trust (a1) | .13 | .10 | .13 | .42** | .37** | .27** | .20** | .09 |
| 3. Morality (a2) | .04 | .28** | .14* | .00 | -.07 | -.15* | .04 | -.17* |
| 4. Altruism (a3) | .32** | .27** | .29** | .41** | .33** | .19** | .25** | .07 |
| 5. Cooperation (a4) | .09 | .23** | .25** | .08 | .01 | -.14* | .10 | -.13 |
| 6. Modesty (a5) | -.34** | .07 | -.11 | -.35** | -.26** | -.34** | -.24** | -.40** |
| 7. Sympathy (a6) | .15* | .10 | .13 | .28** | .31** | .14* | .12 | .01 |
| 8. Conscientiousness (c) | .47** | .60** | .60** | .34** | .12 | .04 | .34** | .16* |
| 9. Self-Efficacy (c1) | .54** | .51** | .51** | .43** | .16* | .12 | .37** | .28** |

| | | | | | | | | |
|--------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| 10. Orderliness (c2) | .33** | .44** | .57** | .17* | -.03 | -.04 | .31** | .01 |
| 11. Dutifulness (c3) | .31** | .46** | .37** | .25** | .16* | .06 | .18* | .04 |
| 12. Achievement-Striving (c4) | .50** | .46** | .50** | .37** | .17* | .11 | .31** | .22** |
| 13. Self-Discipline (c5) | .45** | .59** | .52** | .37** | .18* | .11 | .34** | .19** |
| 14. Cautiousness (c6) | .25** | .48** | .45** | .12 | -.01 | -.13 | .16* | .06 |
| 15. Extraversion (e) | .67** | .23** | .25** | .79** | .53** | .68** | .59** | .47** |
| 16. Friendliness (e1) | .47** | .14* | .19** | .71** | .58** | .64** | .47** | .27** |
| 17. Gregariousness (e2) | .40** | .03 | .05 | .60** | .50** | .69** | .40** | .39** |
| 18. Assertiveness (e3) | .63** | .34** | .36** | .62** | .32** | .43** | .37** | .63** |
| 19. Activity Level (e4) | .53** | .33** | .33** | .44** | .15* | .23** | .50** | .21** |
| 20. Excitement Seeking (e5) | .34** | -.05 | -.09 | .41** | .24** | .47** | .34** | .29** |
| 21. Cheerfulness (e6) | .53** | .26** | .27** | .65** | .46** | .41** | .49** | .21** |
| 22. Neuroticism (n) | -.52** | -.48** | -.36** | -.64** | -.33** | -.43** | -.51** | -.37** |
| 23. Anxiety (n1) | -.44** | -.32** | -.21** | -.59** | -.26** | -.45** | -.46** | -.37** |
| 24. Anger (n2) | -.29** | -.39** | -.27** | -.40** | -.14* | -.22** | -.27** | -.20** |
| 25. Depression (n3) | -.45** | -.42** | -.32** | -.56** | -.37** | -.36** | -.46** | -.27** |
| 26. Self-Consciousness (n4) | -.56** | -.37** | -.30** | -.70** | -.44** | -.56** | -.51** | -.44** |
| 27. Immoderation (n5) | -.32** | -.45** | -.32** | -.34** | -.11 | -.16* | -.37** | -.22** |
| 28. Vulnerability (n6) | -.53** | -.45** | -.37** | -.61** | -.30** | -.37** | -.48** | -.35** |
| 29. Openness to Experience (o) | .18* | .03 | .05 | .24** | .24** | .10 | .17* | .21** |
| 30. Imagination (o1) | .16* | -.06 | .02 | .17* | .18* | .06 | .04 | .15* |
| 31. Artistic Interest (o2) | .24** | .20** | .25** | .22** | .15* | .00 | .20** | .14 |
| 32. Emotionality (o3) | -.05 | -.15* | .04 | -.03 | .22** | -.03 | -.08 | -.06 |

| | | | | | | | | |
|---------------------------|--------|--------|--------|-------|-------|--------|-------|--------|
| 33. Adventurousness (o4) | .17* | -.01 | -.13 | .30** | .21** | .33** | .29** | .25** |
| 34. Intellect (o5) | .29** | .30** | .20** | .34** | .16* | .13 | .24** | .29** |
| 35. Liberalism (o6) | -.16* | -.18** | -.19** | -.11 | -.03 | -.10 | -.09 | -.02 |
| 36. Honesty-Humility | -.03 | .27** | .14* | -.03 | -.05 | -.15* | .02 | -.25** |
| 37. Sincerity (H-H) | .08 | .33** | .15* | .06 | -.01 | -.09 | .10 | -.09 |
| 38. Fairness (H-H) | .26** | .30** | .28** | .19** | .10 | -.01 | .20** | -.06 |
| 39. Greed Avoidance (H-H) | -.18** | .16* | .05 | -.15* | -.09 | -.19** | -.12 | -.30** |
| 40. Modesty (H-H) | -.22** | .13 | .01 | -.16* | -.13 | -.21** | -.09 | -.36** |

Note. * $p < .05$; ** $p < .01$; A = Accommodation; A1 = Others' Needs; A2 = Agreement; A3 = Humility; A4 = Reserve; C = Consolidation; C1= Perfectionism; C2 = Organization; C3 = Drive; C4 = Concentration; C5 = Methodicalness; E = Extraversion; E1 = Warmth; E2 = Sociability; E3 = Activity Mode; E4 = Taking Charge; E5 = Trust of Others; E6 = Tact; N = Need for Stability; N1 = Worry; N2 = Intensity; N3 = Interpretation; N4 = Rebound; O = Originality; O1 = Imagination; O2 = Complexity; O3 = Change; O4 = Scope; a = agreeableness; c = conscientiousness; e = extraversion; n = neuroticism; o = openness to experience; h-h = honesty-humility.

Table 12
Correlation Table Between IPIP and WPB5 Variables

| WPB5 Variables | E5 | E6 | N | N1 | N2 | N3 | N4 | O |
|-----------------------|-------|-------|--------|--------|--------|--------|--------|--------|
| IPIP Variables | | | | | | | | |
| 1. Agreeableness (a) | .42** | .33** | -.15* | .01 | -.23** | -.02 | -.20** | .16* |
| 2. Trust (a1) | .61** | .27** | -.29** | -.22** | -.29** | -.19** | -.30** | .14* |
| 3. Morality (a2) | .15* | .17* | -.11 | -.02 | -.14* | -.06 | -.09 | .09 |
| 4. Altruism (a3) | .34** | .50** | -.24** | .04 | -.29** | -.09 | -.36** | .30** |
| 5. Cooperation (a4) | .28** | .22** | -.09 | .06 | -.20** | -.02 | -.12 | .04 |
| 6. Modesty (a5) | .01 | -.13 | .20** | .14 | .08 | .20** | .24** | -.19** |
| 7. Sympathy (a6) | .26** | .34** | -.04 | .12 | -.06 | .10 | -.18* | .28** |

| | | | | | | | | |
|--------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| 8. Conscientiousness (c) | .18* | .47** | -.37** | -.12 | -.37** | -.28** | -.39** | .21** |
| 9. Self-Efficacy (c1) | .20** | .55** | -.45** | -.19** | -.43** | -.34** | -.47** | .29** |
| 10. Orderliness (c2) | .13 | .26** | -.19** | -.02 | -.18* | -.15* | -.22** | -.01 |
| 11. Dutifulness (c3) | .16* | .39** | -.28** | -.11 | -.26** | -.20** | -.30** | .23** |
| 12. Achievement-Striving (c4) | .10 | .53** | -.33** | -.04 | -.36** | -.23** | -.39** | .30** |
| 13. Self-Discipline (c5) | .22** | .40** | -.41** | -.21** | -.36** | -.33** | -.41** | .24** |
| 14. Cautiousness (c6) | .08 | .28** | -.20** | -.04 | -.25** | -.14* | -.19** | .05 |
| 15. Extraversion (e) | .34** | .61** | -.63** | -.44** | -.46** | -.48** | -.66** | .56** |
| 16. Friendliness (e1) | .38** | .58** | -.52** | -.36** | -.41** | -.38** | -.55** | .40** |
| 17. Gregariousness (e2) | .19** | .30** | -.44** | -.42** | -.27** | -.34** | -.42** | .42** |
| 18. Assertiveness (e3) | .15* | .54** | -.50** | -.29** | -.35** | -.41** | -.51** | .49** |
| 19. Activity Level (e4) | .21** | .45** | -.52** | -.29** | -.46** | -.38** | -.57** | .38** |
| 20. Excitement Seeking (e5) | .11 | .21** | -.28** | -.23** | -.16* | -.22** | -.25** | .35** |
| 21. Cheerfulness (e6) | .47** | .60** | -.50** | -.28** | -.39** | -.36** | -.57** | .38** |
| 22. Neuroticism (n) | -.38** | -.57** | .75** | .54** | .65** | .64** | .70** | -.48** |
| 23. Anxiety (n1) | -.35** | -.46** | .75** | .62** | .60** | .65** | .67** | -.49** |
| 24. Anger (n2) | -.41** | -.39** | .55** | .37** | .55** | .46** | .50** | -.33** |
| 25. Depression (n3) | -.33** | -.47** | .59** | .42** | .48** | .50** | .59** | -.33** |
| 26. Self-Consciousness (n4) | -.29** | -.59** | .70** | .54** | .53** | .61** | .67** | -.48** |
| 27. Immoderation (n5) | -.14* | -.33** | .47** | .30** | .43** | .40** | .42** | -.32** |
| 28. Vulnerability (n6) | -.34** | -.60** | .68** | .41** | .66** | .56** | .65** | -.45** |
| 29. Openness to Experience (o) | .02 | .23** | -.13 | -.01 | -.13 | -.02 | -.15* | .45** |
| 30. Imagination (o1) | .03 | .20** | -.02 | .13 | -.07 | .03 | -.06 | .30** |

| | | | | | | | | |
|----------------------------|-------|-------|--------|--------|--------|--------|--------|-------|
| 31. Artistic Interest (o2) | .07 | .29** | -.16 | .01 | -.10 | -.14 | -.17 | .35** |
| 32. Emotionality (o3) | -.05 | -.03 | .32** | .30** | .33** | .33** | .22* | -.07 |
| 33. Adventurousness (o4) | .00 | .32** | -.59** | -.55** | -.41** | -.54** | -.50** | .70** |
| 34. Intellect (o5) | .22* | .39** | -.33** | -.20* | -.21* | -.31** | -.28** | .58** |
| 35. Liberalism (o6) | -.17 | -.10 | .19 | .12 | .07 | .28** | .23* | -.04 |
| 36. Honesty-Humility (h-h) | .25* | .22* | -.14 | -.08 | -.19 | -.07 | -.12 | .04 |
| 37. Sincerity (h-h1) | .26** | .27** | -.26** | -.20* | -.25* | -.23* | -.20* | .11 |
| 38. Fairness (h-h2) | .29** | .40** | -.23* | -.05 | -.30** | -.13 | -.23* | .19 |
| 39. Greed Avoidance (h-h3) | .10 | .04 | -.07 | -.09 | -.08 | -.03 | -.07 | .02 |
| 40. Modesty (h-h4) | .21* | .08 | .04 | .06 | -.05 | .10 | .04 | -.15 |

Note. * $p < .05$; ** $p < .01$; A = Accommodation; A1 = Others' Needs; A2 = Agreement; A3 = Humility; A4 = Reserve; C = Consolidation; C1= Perfectionism; C2 = Organization; C3 = Drive; C4 = Concentration; C5 = Methodicalness; E = Extraversion; E1 = Warmth; E2 = Sociability; E3 = Activity Mode; E4 = Taking Charge; E5 = Trust of Others; E6 = Tact; N = Need for Stability; N1 = Worry; N2 = Intensity; N3 = Interpretation; N4 = Rebound; O = Originality; O1 = Imagination; O2 = Complexity; O3 = Change; O4 = Scope; a = agreeableness; c = conscientiousness; e = extraversion; n = neuroticism; o = openness to experience; h-h = honesty-humility.

Table 12 cont.

Correlation Table Between IPIP and WPB5 Variables

| WPB5 Variables | O1 | O2 | O3 | O4 |
|-----------------------|------|-------|-------|--------|
| IPIP Variables | | | | |
| 1. Agreeableness (a) | .07 | .20** | .31** | -.30** |
| 2. Trust (a1) | -.01 | .15* | .18* | -.16* |
| 3. Morality (a2) | .06 | .10 | .26** | -.25** |
| 4. Altruism (a3) | .18* | .37** | .34** | -.32** |
| 5. Cooperation (a4) | .01 | .16* | .20** | -.35** |

| | | | | |
|-------------------------------|--------|--------|--------|--------|
| 6. Modesty (a5) | -.15* | -.22** | .01 | -.03 |
| 7. Sympathy (a6) | .21** | .29** | .30** | -.17* |
| 8. Conscientiousness (c) | .14* | .40** | .30** | -.55** |
| 9. Self-Efficacy (c1) | .17* | .48** | .34** | -.52** |
| 10. Orderliness (c2) | .00 | .18** | .10 | -.45** |
| 11. Dutifulness (c3) | .19** | .35** | .27** | -.38** |
| 12. Achievement-Striving (c4) | .23** | .47** | .29** | -.44** |
| 13. Self-Discipline (c5) | .15* | .35** | .33** | -.44** |
| 14. Cautiousness (c6) | .01 | .24** | .17* | -.49** |
| 15. Extraversion (e) | .35** | .49** | .44** | -.14* |
| 16. Friendliness (e1) | .26** | .30** | .34** | -.13 |
| 17. Gregariousness (e2) | .28** | .27** | .32** | .05 |
| 18. Assertiveness (e3) | .36** | .46** | .30** | -.16* |
| 19. Activity Level (e4) | .28** | .44** | .37** | -.32** |
| 20. Excitement Seeking (e5) | .19** | .27** | .21** | .16* |
| 21. Cheerfulness (e6) | .16* | .42** | .37** | -.26** |
| 22. Neuroticism (n) | -.27** | -.45** | -.49** | .31** |
| 23. Anxiety (n1) | -.28** | -.40** | -.48** | .19** |
| 24. Anger (n2) | -.19** | -.30** | -.39** | .28** |
| 25. Depression (n3) | -.14* | -.33** | -.36** | .30** |
| 26. Self-Consciousness (n4) | -.26** | -.43** | -.41** | .19** |
| 27. Immoderation (n5) | -.24** | -.28** | -.39** | .25** |
| 28. Vulnerability (n6) | -.24** | -.50** | -.40** | .33** |

| | | | | |
|--------------------------------|-------|-------|-------|--------|
| 29. Openness to Experience (o) | .36** | .39** | .44** | -.06 |
| 30. Imagination (o1) | .28** | .34** | .16* | -.04 |
| 31. Artistic Interest (o2) | .30** | .48** | .35** | -.31** |
| 32. Emotionality (o3) | -.02 | -.03 | -.09 | .01 |
| 33. Adventurousness (o4) | .54** | .50** | .74** | .01 |
| 34. Intellect (o5) | .48** | .57** | .52** | -.21* |
| 35. Liberalism (o6) | -.08 | .03 | .02 | .01 |
| 36. Honesty-Humility (h-h) | -.03 | .06 | .20* | -.34** |
| 37. Sincerity (h-h1) | .06 | .14 | .25* | -.41** |
| 38. Fairness (h-h2) | .09 | .31** | .31** | -.45** |
| 39. Greed Avoidance (h-h3) | .01 | -.06 | .14 | -.10 |
| 40. Modesty (h-h4) | -.22* | -.12 | .03 | -.23* |

Note. * $p < .05$; ** $p < .01$; A = Accommodation; A1 = Others' Needs; A2 = Agreement; A3 = Humility; A4 = Reserve; C = Consolidation; C1 = Perfectionism; C2 = Organization; C3 = Drive; C4 = Concentration; C5 = Methodicalness; E = Extraversion; E1 = Warmth; E2 = Sociability; E3 = Activity Mode; E4 = Taking Charge; E5 = Trust of Others; E6 = Tact; N = Need for Stability; N1 = Worry; N2 = Intensity; N3 = Interpretation; N4 = Rebound; O = Originality; O1 = Imagination; O2 = Complexity; O3 = Change; O4 = Scope; a = agreeableness; c = conscientiousness; e = extraversion; n = neuroticism; o = openness to experience; h-h = honesty-humility.

Table 13
Fit Indices: Five Factor Model of the WPB5

| | Fit Indicies | | | | |
|----------|----------------------|--------------|------------|------------|-------------|
| | X² | RMSEA | CFI | TLI | SRMR |
| Estimate | 1119.08 | .14 | .67 | .62 | .14 |
| Df | 220 | | | | |
| p-value | .000 | .000 | | | |

Note. * = Significant at the .05-level.

Table 14
ANOVA Results for Give and Take and Outcome Variables

| Source | SS | Df | MS | F | p |
|----------------------------|-----------|-----------|-----------|----------|----------|
| Social Desirability | 646.13 | 2 | 323.07 | 29.26 | .000 |
| CWB-ID | 26.84 | 2 | 13.42 | 12.49 | .000 |
| CWB-OD | 23.64 | 2 | 11.82 | 10.16 | .000 |
| CWB | 4184.70 | 2 | 2092.35 | 12.63 | .000 |
| Life Satisfaction | 6.20 | 2 | 3.10 | 5.25 | .006 |
| Job Satisfaction | 7.39 | 2 | 3.70 | 3.01 | .051 |
| Comparative Career Success | .14 | 2 | .07 | .09 | .915 |
| Burnout | 5.62 | 2 | 2.81 | 2.46 | .087 |
| Position | 3.49 | 2 | 1.75 | 1.65 | .193 |
| Income | 949.28 | 2 | 474.64 | .732 | .482 |

Table 15
Post Hoc: Give and Take Mean Differences in Outcome Variables (with Standard Deviations in Parentheses)

| Source | Giver <i>M</i> (<i>SD</i>) | Taker <i>M</i> (<i>SD</i>) | Matcher <i>M</i> (<i>SD</i>) |
|----------------------------|---------------------------------|------------------------------|--------------------------------|
| Social Desirability | 8.21 (3.42) ^{M***T***} | 5.28 (3.19) ^{G***} | 5.39 (3.27) ^{G***} |
| CWB-ID | 1.36 (.79) ^{M***T***} | 2.01 (1.34) ^{G***} | 1.91 (1.11) ^{G***} |
| CWB-OD | 1.69 (.85) ^{M***T***} | 2.30 (1.37) ^{G***} | 2.19 (1.14) ^{G***} |
| CWB | 1.07 (.54) ^{M***T***} | 1.49 (.89) ^{G***} | 1.44 (.70) ^{G***} |
| Life Satisfaction | 3.14 (.70) ^{M**T*} | 2.85 (.82) ^{G*} | 2.86 (.82) ^{G*} |
| Job Satisfaction | 3.75 (1.08) ^{M*} | 3.43 (1.10) | 3.44 (1.14) ^{G*} |
| Comparative Career Success | 3.04 (.82) | 3.03 (.93) | 2.99 (.95) |
| Burnout | 2.01 (1.00) | 2.25 (1.17) | 2.30 (1.09) |
| Position | 1.76 (1.12) | 1.52 (.92) | 1.56 (.97) |
| Income | 47803 (24231) | 47810 (26043) | 51505 (26517) |

Note. ^G = Giver significantly different; ^T = Taker significantly different; ^M = Matcher significantly different; **p* < .10; ***p* < .05; ****p* < .01

Table 16
Correlations Between WPB5 Personality Variables and Outcomes

| WPB5 Variables | CWB-ID | CWB-OD | CWB | L.S | J.S | CCS | SD |
|----------------|--------|--------|--------|--------|--------|--------|--------|
| A | -.12 | .07 | -.03 | -.40** | -.40** | -.34** | -.12 |
| A1 | -.32** | -.21* | -.25* | .12 | .09 | .06 | .23* |
| A2 | -.07 | .07 | .00 | -.31** | -.29** | -.28** | -.13 |
| A3 | -.02 | .02 | -.03 | -.31** | -.37** | -.20* | .00 |
| A4 | .00 | .20* | .09 | -.44** | -.38** | -.35** | -.20* |
| C | -.32** | -.47** | -.43** | .45** | .50** | .45** | .28** |
| C1 | -.25* | -.27** | -.27** | .15 | .20* | .20 | .05 |
| C2 | -.39** | -.41** | -.42** | .36** | .39** | .33** | .17 |
| C3 | -.15 | -.36** | -.27** | .47** | .53** | .48** | .27** |
| C4 | -.32** | -.47** | -.43** | .33** | .30** | .29** | .26** |
| C5 | -.23* | -.33** | -.31** | .39** | .47** | .40** | .25* |
| E | -.01 | -.25* | -.11 | .61** | .59** | .45** | .32** |
| E1 | .07 | -.15 | .00 | .52** | .41** | .22* | .15 |
| E2 | .11 | -.10 | .03 | .49** | .43** | .28** | .26** |
| E3 | -.04 | -.26** | -.17 | .46** | .47** | .37** | .23* |
| E4 | .06 | -.03 | .02 | .31** | .35** | .40** | .19 |
| E5 | -.14 | -.18 | -.12 | .39** | .36** | .21* | .18 |
| E6 | -.11 | -.31** | -.21* | .48** | .56** | .39** | .35** |
| N | .08 | .30** | .19 | -.50** | -.52** | -.45** | -.52** |
| N1 | .00 | .21* | .11 | -.42** | -.36** | -.32** | -.45** |
| N2 | .17 | .20* | .17 | -.25* | -.39** | -.30** | -.40** |

| | | | | | | | |
|----|-------|--------|-------|--------|--------|--------|--------|
| N3 | .03 | .30** | .18 | -.50** | -.48** | -.46** | -.52** |
| N4 | .04 | .27** | .15 | -.53** | -.52** | -.43** | -.48** |
| O | -.06 | -.20 | -.11 | .31** | .30** | .25* | .37** |
| O1 | -.03 | -.10 | -.06 | .22* | .22* | .16 | .31** |
| O2 | -.20* | -.24* | -.22* | .22* | .29** | .28** | .27** |
| O3 | -.10 | -.28** | -.16 | .27** | .24* | .18 | .35** |
| O4 | | .27** | | .27** | -.18 | -.28** | -.24* |
| | | | | | | | -.07 |

Note. * $p < .05$; ** $p < .01$; A = Accommodation; A1 = Others' Needs; A2 = Agreement; A3 = Humility; A4 = Reserve; C = Consolidation; C1= Perfectionism; C2 = Organization; C3 = Drive; C4 = Concentration; C5 = Methodicalness; E = Extraversion; E1 = Warmth; E2 = Sociability; E3 = Activity Mode; E4 = Taking Charge; E5 = Trust of Others; E6 = Tact; N = Need for Stability; N1 = Worry; N2 = Intensity; N3 = Interpretation; N4 = Rebound; O = Originality; O1 = Imagination; O2 = Complexity; O3 = Change; O4 = Scope; L.S = Life Satisfaction; J.S = Job Satisfaction; CCS = Comparative Career Success; SD = Social Desirability.

Table 17
ANOVA Results for Hypothesis 15: Give and Take and Personality (IPIP + H-H)

| Source | SS | Df | MS | F | p |
|--------------------|-------|----|-------|-------|------|
| Agreeableness | 18.67 | 2 | 9.34 | 33.94 | .000 |
| Trust (A1) | 19.17 | 2 | 9.58 | 9.72 | .000 |
| Morality (A2) | 24.32 | 2 | 12.16 | 22.55 | .000 |
| Altruism (A3) | 20.77 | 2 | 10.39 | 22.12 | .000 |
| Cooperation (A4) | 20.45 | 2 | 10.23 | 16.39 | .000 |
| Modesty (A5) | 10.35 | 2 | 5.17 | 7.91 | .000 |
| Sympathy (A6) | 20.04 | 2 | 10.02 | 14.97 | .000 |
| Conscientiousness | 8.32 | 2 | 4.16 | 10.07 | .000 |
| Self-Efficacy (C1) | 4.68 | 2 | 2.34 | 4.61 | .011 |

| | | | | | |
|---------------------------|-------|---|------|-------|------|
| Orderliness (C2) | 4.47 | 2 | 2.24 | 3.04 | .049 |
| Dutifulness (C3) | 15.30 | 2 | 7.65 | 17.72 | .000 |
| Achievement-Striving (C4) | 9.61 | 2 | 4.81 | 9.91 | .000 |
| Self-Discipline (C5) | 10.35 | 2 | 5.17 | 5.85 | .003 |
| Cautiousness (C6) | 9.15 | 2 | 4.57 | 5.72 | .004 |
| Extraversion | .63 | 2 | .32 | .70 | .498 |
| Friendliness (E1) | 5.31 | 2 | 2.66 | 2.81 | .061 |
| Gregariousness (E2) | .917 | 2 | .46 | .41 | .663 |
| Assertiveness (E3) | .64 | 2 | .32 | .38 | .686 |
| Activity Level (E4) | 4.44 | 2 | 2.22 | 3.52 | .031 |
| Excitement Seeking (E5) | 2.59 | 2 | 1.29 | 1.81 | .165 |
| Cheerfulness (E6) | 5.80 | 2 | 2.90 | 4.72 | .010 |
| Neuroticism | 11.31 | 2 | 5.65 | 8.73 | .000 |
| Anxiety (N1) | 15.14 | 2 | 7.57 | 6.67 | .001 |
| Anger (N2) | 17.25 | 2 | 8.63 | 8.93 | .000 |
| Depression (N3) | 10.92 | 2 | 5.46 | 4.64 | .010 |
| Self-Consciousness (N4) | 6.40 | 2 | 3.20 | 3.68 | .026 |
| Immoderation (N5) | 11.34 | 2 | 5.67 | 7.42 | .001 |
| Vulnerability (N6) | 10.38 | 2 | 5.19 | 6.92 | .001 |
| Openness to Experience | 2.49 | 2 | 1.24 | 3.86 | .022 |
| Imagination (O1) | 9.89 | 2 | 4.94 | 7.71 | .001 |
| Artistic Interest (O2) | 15.72 | 2 | 7.86 | 9.26 | .000 |
| Emotionality (O3) | 1.28 | 2 | .64 | .83 | .437 |

| | | | | | |
|------------------------|-------|---|-------|-------|------|
| Adventurousness (O4) | .44 | 2 | .22 | .25 | .778 |
| Intellect (O5) | 7.41 | 2 | 3.70 | 3.61 | .028 |
| Liberalism (O6) | 1.68 | 2 | .84 | .77 | .462 |
| Honesty-Humility | 22.60 | 2 | 11.30 | 34.08 | .000 |
| Sincerity (H-H1) | 27.36 | 2 | 13.68 | 28.54 | .000 |
| Fairness (H-H2) | 25.98 | 2 | 12.99 | 30.05 | .000 |
| Greed Avoidance (H-H3) | 20.47 | 2 | 10.23 | 22.23 | .000 |
| Modesty (H-H4) | 19.07 | 2 | 9.54 | 16.63 | .000 |

Table 18
*Post Hoc: Give and Take Mean Differences in Personality based on IPIP and H-H
 (with Standard Deviations in Parentheses)*

| Source | Giver M (SD) | Taker M (SD) | Matcher M (SD) |
|--------------------|-------------------------------|-------------------------------|-------------------------------|
| Agreeableness | 3.66 (.58) ^{T***M**} | 3.25 (.60) ^{G***M**} | 3.59 (.51) ^{G***T**} |
| Trust (A1) | 3.51 (1.02) ^{T***M*} | 2.86 (.94) ^{G**} | 3.17 (.99) ^{G*} |
| Morality (A2) | 4.00 (.67) ^{T***M**} | 3.27 (.88) ^{G***M**} | 3.62 (.73) ^{G***T**} |
| Altruism (A3) | 4.17 (.71) ^{T***M*} | 3.48 (.78) ^{G***M**} | 3.93 (.61) ^{G*T**} |
| Cooperation (A4) | 4.23 (.71) ^{T***M**} | 3.57 (.85) ^{G**} | 3.86 (.84) ^{G**} |
| Modesty (A5) | 3.58 (.69) ^{T***M*} | 3.11 (.93) ^{G**} | 3.32 (.86) ^{G*} |
| Sympathy (A6) | 3.88 (.81) ^{T***M*} | 3.19 (.83) ^{G***M**} | 3.63 (.82) ^{T**G*} |
| Conscientiousness | 4.06 (.61) ^{T***M**} | 3.65 (.63) ^{G**} | 3.81 (.67) ^{G**} |
| Self-Efficacy (C1) | 4.13 (.64) ^{T*} | 3.83 (.81) ^{G*} | 3.94 (.74) |
| Orderliness (C2) | 3.88 (.80) | 3.58 (.86) | 3.69 (.91) |
| Dutifulness (C3) | 4.26 (.66) ^{T***M**} | 3.67 (.72) ^{G***M**} | 4.01 (.63) ^{G***T**} |

| | | | |
|---------------------------|------------------------------|------------------------------|-----------------------------|
| Achievement Striving (C4) | 4.10 (.64) ^{T**M*} | 3.65 (.77) ^{G**} | 3.86 (.72) ^{G*} |
| Self-Discipline (C5) | 3.95 (.90) ^{T*M*} | 3.56 (.90) ^{G*} | 3.61 (1.00) ^{G*} |
| Cautiousness (C6) | 4.04 (.81) ^{T**} | 3.61 (.92) ^{G**} | 3.77 (.97) |
| Extraversion | 3.28 (.68) | 3.16 (.69) | 3.21 (.65) |
| Friendliness (E1) | 3.51 (.98) | 3.16 (.95) | 3.36 (.97) |
| Gregariousness (E2) | 2.72 (1.06) | 2.85 (.98) | 2.71 (1.09) |
| Assertiveness (E3) | 3.23 (.99) | 3.31 (.89) | 3.18 (.83) |
| Activity Level (E4) | 3.60 (.80) | 3.30 (.84) | 3.42 (.77) |
| Excitement Seeking (E5) | 2.90 (.86) | 2.99 (.73) | 3.10 (.88) |
| Cheerfulness (E6) | 3.71 (.77) ^{T**} | 3.38 (.84) ^{G**} | 3.49 (.77) |
| Neuroticism | 2.26 (.78) ^{T**M**} | 2.65 (.85) ^{G**} | 2.63 (.81) ^{G**} |
| Anxiety (N1) | 2.49 (1.05) ^{M**} | 2.82 (1.12) | 2.96 (.1.06) ^{G**} |
| Anger (N2) | 2.22 (.98) ^{T**M**} | 2.75 (1.02) ^{G**} | 2.64 (.97) ^{G**} |
| Depression (N3) | 2.11 (1.05) ^{T*M*} | 2.52 (1.12) ^{G*} | 2.46 (1.10) ^{G*} |
| Self-Consciousness (N4) | 2.40 (.94) | 2.70 (.98) | 2.67 (.89) |
| Immoderation (N5) | 2.27 (.88) ^{M**} | 2.60 (.83) | 2.67 (.89) ^{G**} |
| Vulnerability (N6) | 2.07 (.80) ^{T**M*} | 2.50 (.91) ^{G**} | 2.40 (.91) ^{G*} |
| Openness | 3.40 (.57) | 3.19 (.52) ^{M*} | 3.43 (.58) ^{T*} |
| Imagination (O1) | 3.52 (.82) ^{M*} | 3.34 (.91) ^{M**} | 3.80 (.71) ^{G*T**} |
| Artistic Interest (O2) | 3.89 (.97) ^{T**} | 3.30 (.88) ^{G**M**} | 3.81 (.89) ^{T**} |
| Emotionality (O3) | 3.24 (.85) | 3.11 (.83) | 3.29 (.93) |
| Adventurousness (O4) | 2.92 (1.01) | 2.86 (.85) | 2.84 (.90) |
| Intellect (O5) | 3.74 (1.01) ^{T*} | 3.33 (.97) ^{G*} | 3.64 (1.04) |

| | | | |
|-----------------------|------------------------------|------------------------------|------------------------------|
| Liberalism (O6) | 3.08 (.05) | 3.24 (.97) | 3.22 (1.07) |
| Honesty-Humility | 3.94 (.51) ^{T**M**} | 3.26 (.60) ^{G**M*} | 3.53 (.64) ^{G**T*} |
| Sincerity (H-H) | 4.04 (.62) ^{T**M**} | 3.31 (.77) ^{G**} | 3.56 (.73) ^{G**} |
| Fairness (H-H) | 4.24 (.61) ^{T**M**} | 3.47 (.68) ^{G**M**} | 3.92 (.70) ^{G**T**} |
| Greed Avoidance (H-H) | 3.59 (.63) ^{T**M**} | 2.97 (.70) ^{G**} | 3.16 (.72) ^{G**} |
| Modesty (H-H) | 3.90 (.68) ^{T**M**} | 3.31 (.71) ^{G**} | 3.47 (.86) ^{G**} |

Note. ^G = Giver significantly different; ^T = Taker significantly different; ^M = Matcher significantly different; * $p < .05$; ** $p < .01$.

Table 19
ANOVA Results for Hypothesis 18: Give and Take and The WPB5 Profile

| Source | SS | Df | MS | F | p |
|------------------------|-----------|-----------|-----------|----------|----------|
| Accommodation (A) | 311.66 | 2 | 155.83 | .92 | .399 |
| Others' Needs (A1) | 1138.72 | 2 | 569.358 | 5.52 | .005 |
| Agreement (A2) | 422.22 | 2 | 211.11 | 1.46 | .234 |
| Humility (A3) | 64.81 | 2 | 32.41 | .22 | .803 |
| Reserve (A4) | 99.53 | 2 | 49.77 | .31 | .733 |
| Consolidation (C) | 307.02 | 2 | 153.51 | 1.20 | .304 |
| Perfectionism (C1) | 25.41 | 2 | 12.71 | .08 | .923 |
| Organization (C2) | 126.67 | 2 | 63.34 | .53 | .593 |
| Drive (C3) | 109.53 | 2 | 54.76 | .41 | .665 |
| Concentration (C4) | 1976.37 | 2 | 988.19 | 3.48 | .033 |
| Methodicalness (C5) | 531.30 | 2 | 265.65 | 2.00 | .138 |
| Need for Stability (N) | 1290.36 | 2 | 645.18 | 3.63 | .028 |

| | | | | | |
|----------------------|---------|---|--------|------|------|
| Worry (N1) | 1888.80 | 2 | 944.40 | 5.89 | .003 |
| Intensity (N2) | 726.52 | 2 | 363.26 | 2.44 | .089 |
| Interpretation (N3) | 709.97 | 2 | 354.99 | 2.07 | .129 |
| Rebound (N4) | 1218.88 | 2 | 609.44 | 3.17 | .044 |
| Extraversion (E) | 446.99 | 2 | 223.50 | 2.08 | .127 |
| Warmth (E1) | 575.47 | 2 | 287.73 | 1.80 | .168 |
| Sociability (E2) | 512.36 | 2 | 256.18 | 1.42 | .243 |
| Activity mode (E3) | 340.52 | 2 | 170.26 | .943 | .391 |
| Taking Charge (E4) | 304.56 | 2 | 152.28 | .78 | .461 |
| Trust of Others (E5) | 915.37 | 2 | 457.69 | 2.47 | .087 |
| Tact (E6) | 1215.98 | 2 | 607.99 | 3.92 | .021 |
| Originality (O) | 87.74 | 2 | 43.87 | .435 | .648 |
| Imagination (O1) | 10.08 | 2 | 5.04 | .04 | .959 |
| Complexity (O2) | 591.78 | 2 | 295.89 | 2.05 | .131 |
| Change (O3) | 317.18 | 2 | 158.59 | .91 | .404 |
| Scope (O4) | 336.56 | 2 | 168.28 | 2.12 | .122 |

Table 20
Give and Take Mean Differences in Personality Based on The WPB5 Profile (with Standard Deviations in Parentheses)

| Source | Giver <i>M</i> (<i>SD</i>) | Taker <i>M</i> (<i>SD</i>) | Matcher <i>M</i> (<i>SD</i>) |
|---------------------|--------------------------------|------------------------------|---------------------------------|
| Accommodation | 57.49 (12.07) | 54.00 (14.79) | 56.39 (13.23) |
| Others' Needs (A1) | 52.17 (9.86) ^{M***T*} | 47.23 (10.86) ^{G*} | 47.56 (10.20) ^{G***} |
| Agreement (A2) | 57.10 (11.97) | 53.34 (12.57) | 57.22 (11.79) |
| Humility (A3) | 50.56 (11.55) | 48.97 (12.34) | 50.08 (12.79) |
| Reserve (A4) | 57.37 (12.76) | 55.86 (13.67) | 57.88 (12.05) |
| Consolidation | 53.86 (10.60) | 51.40 (12.54) | 51.42 (11.60) |
| Perfectionism (C1) | 48.87 (12.45) | 47.74 (12.98) | 46.75 (12.52) |
| Organization (C2) | 52.84 (10.65) | 51.34 (10.83) | 51.23 (11.45) |
| Drive (C3) | 45.47 (10.92) | 43.46 (14.15) | 44.56 (11.06) |
| Concentration (C4) | 67.40 (15.92) ^{M**} | 65.23 (17.52) | 60.61 (17.66) ^{G**} |
| Methodicalness (C5) | 56.23 (11.09) | 51.80 (11.72) | 55.81 (11.94) |
| Need for Stability | 51.16 (13.84) ^{M**} | 53.94 (13.52) | 56.68 (12.60) ^{G**} |
| Worry (N1) | 50.26 (13.60) ^{M**} | 48.60 (12.15) ^{M**} | 55.95 (11.66) ^{G**T**} |
| Intensity (N2) | 48.19 (11.99) ^{M*} | 50.80 (11.04) | 52.29 (12.92) ^{G*} |
| Interpretation (N3) | 49.51 (12.88) | 52.09 (13.74) | 53.56 (13.05) |
| Rebound (N4) | 53.70 (13.73) | 59.11 (14.48) | 58.30 (13.77) |
| Extraversion | 44.45 (10.02) | 41.06 (11.37) | 41.74 (10.30) |
| Warmth (E1) | 46.70 (12.17) | 42.03 (12.16) | 46.05 (13.41) |
| Sociability (E2) | 39.15 (13.45) | 37.86 (12.23) | 36.30 (14.13) |
| Activity mode (E3) | 45.67 (13.40) | 42.09 (11.48) | 44.18 (14.26) |

| | | | |
|----------------------|------------------------------|------------------------------|---------------|
| Taking Charge (E4) | 40.09 (13.49) | 41.89 (14.87) | 38.43 (14.22) |
| Trust of Others (E5) | 49.78 (13.21) | 45.17 (13.41) | 45.74 (14.18) |
| Tact (E6) | 48.88 (12.59) ^{T**} | 42.69 (14.25) ^{G**} | 44.99 (11.37) |
| Originality | 43.03 (11.18) | 41.40 (9.09) | 41.95 (8.91) |
| Imagination (O1) | 43.84 (11.31) | 43.51 (10.33) | 44.14 (10.97) |
| Complexity (O2) | 48.44 (11.14) | 43.63 (13.12) | 47.35 (12.52) |
| Change (O3) | 42.80 (13.88) | 40.86 (12.16) | 40.13 (12.76) |
| Scope (O4) | 43.33 (8.64) | 46.71 (8.38) | 45.21 (9.43) |

Note. ^G = Giver significantly different; ^T = Taker significantly different; ^M = Matcher significantly different; * $p < .10$; ** $p < .05$; *** $p < .01$

Appendix C: Study 3 Tables

Table 21

Categorization of Task versus Contextual Performance-Related Competencies

| Competency | Description | TP | CP |
|---|---|----|----|
| Self-awareness | Has an accurate picture of self and seeks feedback to improve | | X |
| Learning agility | Seeks opportunities to learn and can learn quickly | | X |
| Communication | Encourages and models effective communication | X | |
| Influencing higher management | Understands and persuades people at higher levels in the organization | | X |
| Influencing across the organization | Uses effective influence strategies to gain cooperation and get things done | | X |
| Acting systematically | Takes a systems perspective on his/her work | X | |
| Responding to complexity | Recognizes and effectively manages organizational dilemmas and trade-offs | X | |
| Broad organizational perspective | Has a “big picture” understanding of the organization | X | |
| Resiliency | Handles stress, uncertainty, and setbacks well | | X |
| Balance between personal life and work | Balances work priorities with personal life | | X |
| Negotiation | Negotiates effectively with individuals and groups in the organization | X | |
| Selecting and developing others | Finds talented employees and develops them | X | |
| Taking risks | Sees possibilities, seizes opportunities, and perseveres in the face of obstacles | | X |
| Implementing change | Effectively leads others in implementing change | X | |
| Managing globally dispersed teams | Effectively motivates, develops, and monitors globally | X | |
| Problems that can stall a career | | | |
| Problems with interpersonal relationships | Difficulties in developing good working relationships with others | | |
| Difficulty building and leading a team | Difficulties in selecting and building a team | | |
| Difficulty changing or adapting | Resistant to change, learning from mistakes, and developing | | |

| | | | |
|-------------------------------------|---|--|--|
| Failure to meet business objectives | Difficulties in following up on promises and completing a job | | |
| Too narrow a functional orientation | Lacks depth to manage outside of one's current function | | |

Table 22

Frequencies of Demographics for Study 3 (Based on N = 545)

| Demographic | Frequency | Percent |
|------------------------------|-----------|---------|
| Gender | | |
| Male | 346 | 63.5% |
| Female | 199 | 36.5% |
| Age | | |
| 25-35 | 70 | 13% |
| 36-45 | 250 | 46.4% |
| 46-55 | 178 | 32.7% |
| 56-65 | 40 | 7.3% |
| 66 + years | 1 | 0.2% |
| Race | | |
| African American | 34 | 6.2% |
| Asian | 18 | 3.3% |
| Caucasian | 442 | 81.1% |
| Hispanic | 16 | 2.9% |
| Multiracial | 7 | 1.3% |
| Other | 18 | 3.3% |
| Job Position/Level | | |
| Executive Level | 115 | 21.1% |
| First Level | 13 | 2.4% |
| Middle | 129 | 23.7% |
| Not Relevant in My Situation | 2 | 0.4% |
| Top | 19 | 3.5% |
| Upper Middle | 216 | 39.6% |

Organization Type

| | | |
|---|----|------|
| Business Sector: Aerospace & Defense | 10 | 1.8% |
| Business Sector: Automotive & Transport Equipment | 13 | 2.4% |
| Business Sector: Banking | 5 | 0.9% |
| Business Sector: Chemicals | 15 | 2.8% |
| Business Sector: Computer Hardware | 4 | 0.7% |
| Business Sector: Computer Software & Services | 14 | 2.6% |
| Business Sector: Conglomerates | 1 | 0.2% |
| Business Sector: Consumer Products – Durables | 5 | 0.9% |
| Business Sector: Consumer Products – Nondurables | 19 | 3.5% |
| Business Sector: Education | 5 | 0.9% |
| Business Sector: Electronics | 9 | 1.7% |
| Business Sector: Energy | 22 | 4% |
| Business Sector: Financial Services | 7 | 1.3% |
| Business Sector: Food, Beverage, & Tobacco | 15 | 2.8% |
| Business Sector: Health Products & Services | 9 | 1.7% |
| Business Sector: Insurance | 14 | 2.6% |
| Business Sector: Leisure | 1 | 0.2% |
| Business Sector: Manufacturing | 60 | 11% |
| Business Sector: Materials & Construction | 1 | 0.2% |
| Business Sector: Media | 7 | 1.3% |
| Business Sector: Metals & Mining | 7 | 1.3% |
| Business Sector: Nonprofit | 1 | 0.2% |
| Business Sector: Other | 54 | 9.9% |
| Business Sector: Pharmaceuticals | 25 | 4.6% |
| Business Sector: Real Estate | 6 | 1.1% |
| Business Sector: Retail | 14 | 2.6% |
| Business Sector: Specialty Retail | 4 | 0.7% |
| Business Sector: Telecommunications | 10 | 1.8% |

| | | |
|--|----|-------|
| Business Sector: Transportation | 12 | 2.2% |
| Business Sector: Utilities | 13 | 2.4% |
| Private Nonprofit Sector: Aerospace & Defense | 4 | 0.7% |
| Private Nonprofit Sector: Automotive & Transport Equipment | 1 | 0.2% |
| Private Nonprofit Sector: Banking | 1 | 0.2% |
| Private Nonprofit Sector: Education | 14 | 2.6% |
| Private Nonprofit Sector: Energy | 2 | 0.4% |
| Private Nonprofit Sector: Financial Services | 3 | 0.6% |
| Private Nonprofit Sector: Government | 1 | 0.2% |
| Private Nonprofit Sector: Health Products & Services | 5 | 0.9% |
| Private Nonprofit Sector: Insurance | 3 | 0.6% |
| Private Nonprofit Sector: Media | 1 | 0.2% |
| Private Nonprofit Sector: Nonprofit | 19 | 3.5% |
| Private Nonprofit Sector: Other | 9 | 1.7% |
| Private Nonprofit Sector: Pharmaceuticals | 3 | 0.6% |
| Private Nonprofit Sector: Utilities | 2 | 0.4% |
| Public Sector: Aerospace & Defense | 7 | 1.3% |
| Public Sector: Banking | 1 | 0.2% |
| Public Sector: Computer Software & Services | 1 | 0.2% |
| Public Sector: Education | 8 | 1.5% |
| Public Sector: Financial Services | 3 | 0.6% |
| Public Sector: Government | 62 | 11.4% |
| Public Sector: Other | 7 | 1.3% |
| Public Sector: Transportation | 1 | 0.2% |
| Public Sector: Utilities | 1 | 0.2% |

Job Function

| | | |
|-------------------------|----|------|
| Administrative Services | 10 | 1.8% |
| Communications | 5 | 0.9% |
| E-commerce/Web | 3 | 0.6% |

| | | |
|---------------------------------------|-----|-------|
| Education | 7 | 1.3% |
| Engineering, Architecture, and Design | 45 | 8.3% |
| Facilities Operations and Services | 14 | 2.6% |
| Finance | 33 | 6.1% |
| General Executive | 36 | 6.6% |
| Health Care | 10 | 1.8% |
| Human Resources | 27 | 5.0% |
| Information Technology | 37 | 6.8% |
| Legal and Regulatory Affairs | 22 | 4.0% |
| Maintenance and Skilled Trades | 3 | 0.6% |
| Marketing and Sales | 70 | 12.8% |
| Materials Management | 10 | 1.8% |
| Other | 117 | 21.5% |
| Production/Processing | 30 | 5.5% |
| Project Management | 24 | 4.4% |
| Protective Services | 2 | 0.4% |
| Public Affairs | 2 | 0.4% |
| Research and Development | 37 | 6.8% |

Table 23

Algorithms Used To Create The Various Target Profiles Using the IPIP and H-H Assessments

| Method | Target Profile | Algorithm | Facets Included |
|--|---------------------|--|---|
| D² – ANOVA – FS | Give, Take, & Match | $D_{12}^2 = \sum_l j(x_{1j} - x_{2j})^2$ | N ₁ , N ₂ , N ₃ , E ₁ , E ₄ , E ₆ , O ₁ , O ₂ , A ₁ , A ₂ , A ₃ , A ₄ , A ₅ , A ₆ , C ₁ , C ₂ , C ₃ , C ₄ , C ₅ , H-H ₁ , H-H ₂ , H-H ₃ , H-H ₄ |
| D² – Regression – FS | Give | $D_{12}^2 = \sum_l j(x_{1j} - x_{2j})^2$ | N ₃ , A ₁ , A ₂ , C ₄ , C ₆ , H-H ₁ , H-H ₃ |
| | Take | $D_{12}^2 = \sum_l j(x_{1j} - x_{2j})^2$ | E ₁ , E ₂ , E ₅ , O ₂ , A ₁ , C ₂ , H-H ₂ , H-H ₃ |
| | Match | $D_{12}^2 = \sum_l j(x_{1j} - x_{2j})^2$ | E ₆ , O ₁ , O ₂ , H-H ₁ |
| D² – ANOVA- Obvious Styles¹ | Give, Take, & Match | $D_{12}^2 = \sum_l j(x_{1j} - x_{2j})^2$ | N ₁ , N ₂ , N ₃ , E ₁ , E ₄ , E ₆ , O ₁ , O ₂ , A ₁ , A ₂ , A ₃ , A ₄ , A ₅ , A ₆ , C ₁ , C ₂ , C ₃ , C ₄ , C ₅ , H-H ₁ , H-H ₂ , H-H ₃ , H-H ₄ |
| D² – Regression – Obvious Styles² | Give | $D_{12}^2 = \sum_l j(x_{1j} - x_{2j})^2$ | N ₅ , E ₆ , C ₁ , A ₁ , A ₄ , H-H ₁ , H-H ₃ |
| | Take | $D_{12}^2 = \sum_l j(x_{1j} - x_{2j})^2$ | O ₁ , O ₃ , A ₁ , A ₆ , H-H ₂ , H-H ₃ |
| | Match | $D_{12}^2 = \sum_l j(x_{1j} - x_{2j})^2$ | N ₁ , N ₄ , E ₁ , O ₁ , O ₃ , C ₁ , C ₃ , H-H ₁ |
| Linear – based on Correlations | Give | $\sum (X_1 + X_2 + X_3, \text{ etc...})$ | E ₁ +E ₄ +E ₆ -N ₁ -N ₂ -N ₃ -N ₄ -N ₅ -N ₆ +O ₂ +A ₁ +A ₂ +A ₃ +A ₄ +A ₅ +A ₆ +C ₁ +C ₂ +C ₃ +C ₄ + C ₅ +C ₆ +HH ₁ +HH ₂ +HH ₃ +HH ₄ |
| | Take | $\sum (X_1 + X_2 + X_3, \text{ etc...})$ | |
| Linear – based on Regression | Give | $\sum (X_1 + X_2 + X_3, \text{ etc...})$ | HH ₁ + A ₁ + HH ₃ + C ₄ + A ₂ - N ₂ -C ₆ |

| | | | |
|--|------|--|--|
| | Take | $\sum (X_1 + X_2 + X_3, \text{ etc...})$ | C ₂ + E ₂ - HH ₃ - A ₁ - HH ₂ - O ₂ - E ₅ - C ₄ - E ₁ |
|--|------|--|--|

Note. FS = Full Sample; $x_{1j} = M_{\text{Give}}$ or M_{Take} or M_{Match} ; $x_{2j} = M_{\text{actual score}}$; ¹ = the same algorithm was used as for D^2 ANOVA, but the Give/Take/Match M was different; ² = the means from the obvious styles were used.

Table 24

Algorithms Used To Create The Various Target Profiles using the WPB5 assessment

| Method | Target Profile | Algorithm | Facets Included |
|---|---------------------|--|--|
| D^2 – ANOVA – FS | Give, Take, & Match | $D_{12}^2 = \sum_j (x_{1j} - x_{2j})^2$ | N ₁ , N ₂ , E ₅ , A ₁ , C ₄ |
| D^2 – Regression – FS | Give | $D_{12}^2 = \sum_j (x_{1j} - x_{2j})^2$ | A ₁ , A ₃ , E ₅ , N ₄ |
| | Take | $D_{12}^2 = \sum_j (x_{1j} - x_{2j})^2$ | O ₂ , E ₁ , E ₃ , A ₂ , A ₃ , A ₄ , C ₁ , C ₄ |
| | Match | $D_{12}^2 = \sum_j (x_{1j} - x_{2j})^2$ | A ₁ , N ₁ |
| D^2 – ANOVA- Obvious Styles¹ | Give, Take, & Match | $D_{12}^2 = \sum_j (x_{1j} - x_{2j})^2$ | A ₁ , C ₂ , C ₅ , N ₁ , N ₄ , E ₅ , E ₆ , O ₄ |
| D^2 – Regression – Obvious Styles² | Give | $D_{12}^2 = \sum_j (x_{1j} - x_{2j})^2$ | A ₁ , A ₃ , A ₄ , E ₅ |
| | Take | $D_{12}^2 = \sum_j (x_{1j} - x_{2j})^2$ | O ₂ , E ₃ , A ₄ , C ₄ , E ₃ , A ₂ , A ₃ , C ₁ |
| | Match | $D_{12}^2 = \sum_j (x_{1j} - x_{2j})^2$ | A ₁ , N ₁ |
| Linear –Based on Correlations | Give | $\sum (X_1 + X_2 + X_3, \text{ etc...})$ | E ₅ +E ₆ -N ₁ -N ₂ -N ₃ -N ₄ +O ₂ +O ₃ -O ₄ +A ₁ +C ₂ +C ₄ |
| | Take | $\sum (X_1 + X_2 + X_3, \text{ etc...})$ | |
| Linear – Based on Regression | Give | $\sum (X_1 + X_2 + X_3, \text{ etc...})$ | A ₁ + E ₅ + A ₃ – N ₄ |
| | Take | $\sum (X_1 + X_2 + X_3, \text{ etc...})$ | C ₁ - O ₂ - E ₁ - A ₄ - C ₄ - E ₃ - A ₂ - A ₃ |

| | | | |
|---|------|--|---|
| Linear – Based on Regression Weights | Give | $\sum (X_1 + X_2 + X_3, \text{ etc...})$ | $(A_1 * 1.07) + (E_5 * 1.03) + (A_3 * 1.03)$ $- (N_4 * 1.04)$ |
| | Take | $\sum (X_1 + X_2 + X_3, \text{ etc...})$ | $(C_1 * 1.03) - (O_2 * 1.07) - (E_1 * 1.04) - (A_4 * 1.05) - (C_4 * 1.02) - (E_3 * 1.03) - (A_2 * 1.04) - (A_3 * 1.02)$ |

Note. FS = Full Sample; $x_{1j} = M_{\text{Give}}$ or M_{Take} or M_{Match} ; $x_{2j} = M_{\text{actual score}}$; ¹ = the same algorithm was used as for D^2 ANOVA, but the Give/Take/Match M was different (i.e., the obvious style means); ² = the means from the obvious styles were used.

Table 25

Ratio and Accuracy Statistics for the Variations of Profiles for the IPIP/H-H sample

| Profile based on: | Give% | Take% | Match% | G-G | T-T | M-M | Accuracy* |
|-------------------------|--------------------|--------------------|--------------------|-------|-------|-------|-----------|
| D^2 – ANOVA – FS | 31.4% | 27% | 41.6% | 46% | 49.1% | 43.4% | 44.7% |
| D^2 - ANOVA – OS | 31.4% | 25.8% | 42.9% | 34.6% | 66.7% | 46.9% | 43.5% |
| D^2 – Regression – FS | 0% | 0% | 100% | 0% | 0% | 100% | 37.9% |
| D^2 - Regression –OS | 6.8% | 14% | 79.2% | 5.1% | 26.7% | 90% | 34.5% |
| Linear - Correlations | 43% ¹ | 19% ¹ | 38% ¹ | 62.6% | 32.8% | 44.3% | 50% |
| Linear - Regression | 26.1% ² | 24.2% ² | 50.3% ² | 54.1% | 60.7% | 41.7% | 51.2% |

Note. * = accuracy was calculated based on percentage of accurate (similar) predictions in relation to the Give & Take measure; -- not applicable to this method; ¹ = predetermined ratio based on the self-reports; ² = predetermined ratio based on best accuracy in prediction.

Table 26
Ratio and Accuracy Statistics for the Variations of Profiles for WPB5 sample

| Profile based on | Give % | Take % | Match % | G-G | T-T | M-M | Accuracy* |
|----------------------------------|--------------------|-------------------|--------------------|-------|-------|-------|-----------|
| D ² - ANOVA – FS | 9.2% | 8.3% | 82.5% | 16% | 15.6% | 87.5% | 43.7% |
| D ² - ANOVA – OS | 0% | 100% | 0% | 0% | 100% | 0% | 10.1% |
| D ² - Regression – FS | 0% | 59.2% | 40.8% | 0% | 93.8% | 48.8% | 33.5% |
| D ² - Regression – OS | 0% | 95.6% | 4.4% | 0% | 100% | 11.1% | 18.9% |
| Linear - Correlations | 25.7% ¹ | 4.4% ¹ | 69.9% ¹ | 69.8% | 11.1% | 44.4% | 49.5% |
| Linear - Regression | 27% ² | 20% ² | 53% ² | 58.2% | 35.7% | 42.6% | 46.6% |

Note. * = accuracy was calculated based on percentage of accurate (similar) predictions in relation to the Give & Take measure; -- not applicable to this method; ¹ = predetermined ratio based on the obvious givers and takers from the Study 2 sample; ² = pre-determined ratio based on best accuracy in prediction.

Table 27
ANOVA Results for Obvious Give and Take and Personality (IPIP + H-H)

| Source | SS | Df | MS | F | p |
|-------------------|-------|----|-------|-------|------|
| Agreeableness | 16.92 | 2 | 8.46 | 31.70 | .000 |
| Trust (A) | 25.52 | 2 | 12.76 | 12.56 | .000 |
| Morality (A) | 23.18 | 2 | 11.59 | 23.33 | .000 |
| Altruism (A) | 13.65 | 2 | 6.83 | 15.95 | .000 |
| Cooperation (A) | 19.78 | 2 | 9.89 | 18.76 | .000 |
| Modesty (A) | 7.46 | 2 | 3.73 | 6.35 | .002 |
| Sympathy (A) | 20.76 | 2 | 10.38 | 20.62 | .000 |
| Conscientiousness | 6.73 | 2 | 3.36 | 9.03 | .000 |
| Self-Efficacy (C) | 2.72 | 2 | 1.36 | 3.23 | .043 |

| | | | | | |
|--------------------------|-------|---|-------|-------|------|
| Orderliness (C) | 8.09 | 2 | 4.05 | 6.13 | .003 |
| Dutifulness (C) | 14.31 | 2 | 7.16 | 16.23 | .000 |
| Achievement-Striving (C) | 6.88 | 2 | 3.44 | 8.37 | .000 |
| Self-Discipline (C) | 7.67 | 2 | 3.84 | 4.78 | .010 |
| Cautiousness (C) | 5.60 | 2 | 2.80 | 3.88 | .023 |
| Extraversion | 1.87 | 2 | .94 | 2.47 | .088 |
| Friendliness (E) | 6.54 | 2 | 3.27 | 3.94 | .022 |
| Gregariousness (E) | .45 | 2 | .22 | .20 | .818 |
| Assertiveness (E) | .092 | 2 | .05 | .05 | .952 |
| Activity Level (E) | 7.02 | 2 | 3.51 | 6.28 | .002 |
| Excitement Seeking (E) | 1.96 | 2 | .98 | 1.46 | .236 |
| Cheerfulness (E) | 10.93 | 2 | 5.46 | 12.20 | .000 |
| Neuroticism | 10.91 | 2 | 5.45 | 9.63 | .000 |
| Anxiety (N) | 16.89 | 2 | 8.44 | 8.51 | .000 |
| Anger (N) | 20.99 | 2 | 10.49 | 12.38 | .000 |
| Depression (N) | 17.03 | 2 | 8.51 | 8.21 | .000 |
| Self-Consciousness (N) | 2.92 | 2 | 1.46 | 1.62 | .202 |
| Immoderation (N) | 7.19 | 2 | 3.59 | 4.58 | .012 |
| Vulnerability (N) | 8.82 | 2 | 4.41 | 7.01 | .001 |
| Openness to Experience | 1.82 | 2 | .91 | 2.83 | .062 |
| Imagination (O) | 6.36 | 2 | 3.18 | 4.94 | .009 |

| | | | | | |
|-----------------------|-------|---|-------|-------|------|
| Artistic Interest (O) | 14.73 | 2 | 7.37 | 9.67 | .000 |
| Emotionality (O) | .09 | 2 | .05 | .06 | .942 |
| Adventurousness (O) | 3.57 | 2 | 1.79 | 1.86 | .160 |
| Intellect (O) | 8.36 | 2 | 4.18 | 4.27 | .016 |
| Liberalism (O) | 1.83 | 2 | .92 | .87 | .423 |
| Honesty-Humility | 23.05 | 2 | 11.53 | 38.56 | .000 |
| Sincerity (H-H) | 30.01 | 2 | 15.01 | 32.49 | .000 |
| Fairness (H-H) | 21.93 | 2 | 10.97 | 27.54 | .000 |
| Greed Avoidance (H-H) | 18.38 | 2 | 9.19 | 24.48 | .000 |
| Modesty (H-H) | 23.27 | 2 | 11.63 | 22.63 | .000 |

Note. (A) = Agreeableness; (C) = Conscientiousness; (E) = Extraversion; (N) = Neuroticism; (O) = Openness; (H-H) = Honesty-Humility

Table 28
Obvious Give and Take Mean Differences in Personality based on IPIP and H-H (with Standard Deviations in Parentheses)

| Source | Giver M (SD) | Taker M (SD) | Matcher M (SD) |
|-----------------|-------------------------------|------------------------------|------------------------------|
| Agreeableness | 4.00 (.50) ^{T**M**} | 2.96 (.62) ^{G**M**} | 3.51 (.52) ^{G**T**} |
| Trust (A) | 3.69 (1.01) ^{T**M**} | 2.40 (1.04) ^{G**} | 3.09 (1.00) ^{G**} |
| Morality (A) | 4.10 (.65) ^{T**M**} | 3.07 (.89) ^{G**} | 3.37 (.73) ^{G**} |
| Altruism (A) | 4.25 (.68) ^{T**M**} | 3.25 (.78) ^{G**M**} | 3.90 (.56) ^{G**T**} |
| Cooperation (A) | 4.33 (.64) ^{T**M**} | 3.38 (.80) ^{G**} | 3.65 (.84) ^{G**} |
| Modesty (A) | 3.61 (.66) ^{T**} | 2.90 (.90) ^{G**} | 3.31 (.88) |

| | | | |
|--------------------------|------------------------------|------------------------------|-----------------------------|
| Sympathy (A) | 4.03 (.73) ^{T**} | 2.75 (.76) ^{G**M**} | 3.72 (.65) ^{T**} |
| Conscientiousness | 4.14 (.63) ^{T**M*} | 3.49 (.65) ^{G**} | 3.82 (.56) ^{G*} |
| Self-Efficacy (C) | 4.21 (.64) ^{T*} | 3.75 (.94) ^{G*} | 4.07 (.55) |
| Orderliness (C) | 3.98 (.81) ^{T*} | 3.28 (.91) ^{G*} | 3.61 (.79) |
| Dutifulness (C) | 4.33 (.68) ^{T**M**} | 3.33 (.61) ^{G**M*} | 3.93 (.65) ^{G**T*} |
| Achievement Striving (C) | 4.15 (.65) ^{T**} | 3.42 (.74) ^{G**M*} | 3.96 (.59) ^{T*} |
| Self-Discipline (C) | 4.05 (.91) ^{M*} | 3.50 (.92) ^{G*} | 3.61 (.87) |
| Cautiousness (C) | 4.12 (.81) | 3.65 (.91) | 3.74 (.89) |
| Extraversion | 3.37 (.65) | 3.00 (.78) | 3.26 (.49) |
| Friendliness (E) | 3.61 (.95) ^{T*} | 2.90 (.98) ^{G*} | 3.40 (.81) |
| Gregariousness (E) | 2.74 (1.10) | 2.72 (1.16) | 2.61 (.92) |
| Assertiveness (E) | 3.31 (1.05) | 3.27 (1.11) | 3.35 (.74) |
| Activity Level (E) | 3.73 (.74) ^{T**} | 3.02 (.94) ^{G**} | 3.49 (.69) |
| Excitement Seeking (E) | 2.92 (.83) | 2.98 (.88) | 3.18 (.79) |
| Cheerfulness (E) | 3.92 (.60) ^{T**M**} | 3.10 (.89) ^{G**} | 3.51 (.69) ^{G**} |
| Neuroticism | 2.14 (.74) ^{T**M**} | 2.86 (.85) ^{G**} | 2.63 (.73) ^{G**} |
| Anxiety (N) | 2.31 (1.03) ^{M**} | 3.00 (1.04) | 3.02 (.92) ^{G**} |
| Anger (N) | 2.03 (.91) ^{T**M**} | 3.10 (1.05) ^{G**} | 2.66 (.89) ^{G**} |
| Depression (N) | 1.93 (.98) ^{T**M**} | 2.83 (1.21) ^{G**} | 2.54 (1.02) ^{G**} |

| | | | |
|------------------------|------------------------------|-------------------------------|-----------------------------|
| Self-Consciousness (N) | 2.40 (1.01) | 2.85 (1.03) | 2.58 (.81) |
| Immoderation (N) | 2.17 (.86) ^{M*} | 2.67 (.92) | 2.61 (.94) ^{G*} |
| Vulnerability (N) | 1.98 (.71) ^{T**} | 2.73 (.97) ^{G**} | 2.34 (.87) |
| Openness | 3.51 (.58) | 3.14 (.66) | 3.38 (.51) |
| Imagination (O) | 3.62 (.85) | 3.08 (1.02) ^{M**} | 3.83 (.61) ^{T**} |
| Artistic Interest (O) | 4.09 (.85) ^{T**} | 3.02 (1.17) ^{G**M**} | 3.85 (.80) ^{T**} |
| Emotionality (O) | 3.22 (.82) | 3.20 (.87) | 3.17 (.96) |
| Adventurousness (O) | 2.92 (1.01) | 2.86 (.85) | 2.84 (.90) |
| Intellect (O) | 3.96 (1.00) | 2.27 (1.07) | 3.57 (.95) |
| Liberalism (O) | 3.10 (1.09) | 3.48 (.71) | 3.18 (1.00) |
| Honesty-Humility | 4.09 (.48) ^{T**M**} | 3.01 (.68) ^{G**} | 3.40 (.61) ^{G**} |
| Sincerity (H-H) | 4.19 (.58) ^{T**M**} | 3.05 (.85) ^{G**} | 3.34 (.77) ^{G**} |
| Fairness (H-H) | 4.39 (.55) ^{T**M**} | 3.26 (.82) ^{G**M*} | 3.78 (.69) ^{G**T*} |
| Greed Avoidance (H-H) | 3.74 (.59) ^{T**M**} | 2.73 (.70) ^{G**} | 3.15 (.62) ^{G**} |
| Modesty (H-H) | 4.06 (.60) ^{T**M**} | 3.01 (.81) ^{G**} | 3.33 (.87) ^{G**} |

Note. ^G = Giver significantly different; ^T = Taker significantly different; ^M = Matcher significantly different; * = $p < .05$; ** = $p < .01$.

Table 29
ANOVA Results for Obvious Give and Take and Personality WPBS

| Source | SS | Df | MS | F | p |
|------------------------|-----------|-----------|-----------|----------|----------|
| Accommodation (A) | 372.06 | 2 | 186.03 | 1.08 | .345 |
| Others' Needs (A1) | 1324.34 | 2 | 662.17 | 6.79 | .002 |
| Agreement (A2) | 64.61 | 2 | 32.30 | .22 | .803 |
| Humility (A3) | 536.76 | 2 | 268.38 | 2.11 | .128 |
| Reserve (A4) | 50.53 | 2 | 25.27 | .17 | .846 |
| Consolidation (C) | 409.23 | 2 | 204.61 | 1.81 | .170 |
| Perfectionism (C1) | 9.34 | 2 | 4.67 | .03 | .972 |
| Organization (C2) | 584.28 | 2 | 292.14 | 2.50 | .088 |
| Drive (C3) | 295.37 | 2 | 147.69 | 1.16 | .318 |
| Concentration (C4) | 235.59 | 2 | 117.79 | .54 | .588 |
| Methodicalness (C5) | 760.27 | 2 | 380.14 | 3.05 | .053 |
| Need for Stability (N) | 909.07 | 2 | 454.54 | 2.83 | .065 |
| Worry (N1) | 944.74 | 2 | 472.37 | 2.60 | .080 |
| Intensity (N2) | 387.14 | 2 | 193.57 | 1.54 | .220 |
| Interpretation (N3) | 811.36 | 2 | 405.68 | 2.50 | .088 |
| Rebound (N4) | 952.182 | 2 | 476.09 | 2.85 | .063 |
| Extraversion (E) | 510.07 | 2, 86 | 255.04 | 3.00 | .055 |
| Warmth (E1) | 522.02 | 2 | 261.01 | 2.29 | .107 |
| Sociability (E2) | 51.54 | 2 | 25.77 | .18 | .839 |

| | | | | | |
|----------------------|---------|---|--------|------|------|
| Activity mode (E3) | 582.47 | 2 | 291.24 | 1.93 | .152 |
| Taking Charge (E4) | 105.67 | 2 | 52.83 | .26 | .770 |
| Trust of Others (E5) | 1653.72 | 2 | 826.86 | 5.65 | .005 |
| Tact (E6) | 1118.81 | 2 | 559.40 | 4.36 | .016 |
| Originality (O) | 278.57 | 2 | 139.29 | 1.38 | .258 |
| Imagination (O1) | 199.80 | 2 | 99.90 | .87 | .421 |
| Complexity (O2) | 998.68 | 2 | 499.34 | 3.17 | .047 |
| Change (O3) | 798.18 | 2 | 399.09 | 2.44 | .093 |
| Scope (O4) | 372.65 | 2 | 186.33 | 2.95 | .058 |

Table 30
Obvious Give and Take Mean Differences in Personality based on the WPB5 (with Standard Deviations in Parentheses)

| Source | Giver <i>M</i> (<i>SD</i>) | Taker <i>M</i> (<i>SD</i>) | Matcher <i>M</i> (<i>SD</i>) |
|--------------------|------------------------------|------------------------------|--------------------------------|
| Accommodation (A) | 58.49 (12.69) | 57.78 (16.32) | 55.67 (12.89) |
| Others' Needs (A1) | 55.13 (9.66) ^{M***} | 47.67 (10.72) | 47.15 (10.03) ^{G***} |
| Agreement (A2) | 57.06 (11.87) | 57.67 (13.52) | 55.33 (12.19) |
| Humility (A3) | 52.17 (10.01) | 55.56 (13.48) | 47.78 (12.85) |
| Reserve (A4) | 56.57 (12.77) | 54.22 (13.31) | 56.89 (10.81) |
| Consolidation (C) | 55.75 (10.48) | 48.56 (15.11) | 51.59 (11.21) |
| Perfectionism (C1) | 48.25 (12.82) | 48.33 (14.33) | 47.56 (12.07) |
| Organization (C2) | 54.47 (10.79) | 47.00 (13.20) | 50.52 (9.96) |

| | | | |
|------------------------|--------------------------------|---------------------------------|-----------------------------|
| Drive (C3) | 46.23 (10.76) | 40.56 (15.09) | 47.00 (10.91) |
| Concentration (C4) | 70.11 (15.26) | 65.56 (17.34) | 67.44 (13.04) |
| Methodicalness (C5) | 57.09 (11.01) ^{T*} | 47.22 (12.81) ^{G*} | 56.41 (10.96) |
| Need for Stability (N) | 48.17 (13.45) | 55.89 (14.29) | 55.59 (13.00) |
| Worry (N1) | 47.49 (14.50) ^{M*} | 47.11 (13.49) | 54.52 (11.12) ^{G*} |
| Intensity (N2) | 46.87 (10.13) | 52.44 (12.40) | 50.48 (12.77) |
| Interpretation (N3) | 46.91 (13.28) | 54.67 (14.58) | 52.33 (10.89) |
| Rebound (N4) | 50.85 (13.27) ^{T*} | 61.22 (13.64) ^{G*} | 54.93 (11.99) |
| Extraversion (E) | 45.77 (9.23) | 37.67 (11.83) | 41.58 (9.57) |
| Warmth (E1) | 46.51 (11.77) | 38.33 (8.34) | 45.96 (8.83) |
| Sociability (E2) | 39.64 (12.32) | 37.78 (11.12) | 38.22 (12.00) |
| Activity mode (E3) | 48.25 (11.21) | 39.89 (14.68) | 45.48 (13.51) |
| Taking Charge (E4) | 41.28 (14.21) | 39.44 (16.24) | 43.07 (13.48) |
| Trust of Others (E5) | 52.08 (11.20) ^{T**M*} | 39.11 (15.04) ^{G**} | 45.81 (12.77) ^{T*} |
| Tact (E6) | 50.47 (11.58) ^{T**} | 38.56 (15.45) ^{G**M**} | 49.93 (9.08) ^{T**} |
| Originality (O) | 44.92 (10.61) | 39.56 (11.75) | 41.58 (9.57) |
| Imagination (O1) | 46.04 (10.12) | 41.00 (12.72) | 44.81 (11.13) |
| Complexity (O2) | 50.17 (11.90) ^{T**} | 38.78 (16.93) ^{G**} | 48.41 (12.24) |
| Change (O3) | 46.08 (12.70) | 41.11 (14.27) | 39.67 (12.45) |
| Scope (O4) | 41.49 (7.00) ^{T*} | 48.33 (11.50) ^{G*} | 43.30 (8.38) |

Note. ^G = Giver significantly different; ^T = Taker significantly different; ^M = Matcher significantly different; * = $p < .05$; ** = $p < .01$.

Table 31
Correlations Between The WPB5 Facets and Give, Take, and Match Frequencies (N = 206)

| Facets | Give Frequency | Take Frequency | Match Frequency |
|----------------------|----------------|----------------|-----------------|
| Others' Needs (A1) | .33** | -.21** | -.23** |
| Agreement (A2) | .07 | -.09 | .01 |
| Humility (A3) | .09 | -.06 | -.07 |
| Reserve (A4) | .03 | -.03 | -.00 |
| Perfectionism (C1) | .00 | .01 | -.02 |
| Organization (C2) | .15* | -.08 | -.12 |
| Drive (C3) | .07 | -.09 | -.00 |
| Concentration (C4) | .21** | -.16* | -.12 |
| Methodicalness (C5) | .10 | -.15* | .03 |
| Worry (N1) | -.17* | .01 | .22** |
| Intensity (N2) | -.22** | .17* | .13 |
| Interpretation (N3) | -.18** | .13 | .11 |
| Rebound (N4) | -.26** | .21** | .13 |
| Warmth (E1) | .08 | -.13 | .04 |
| Sociability (E2) | .06 | -.05 | -.04 |
| Activity mode (E3) | .14 | -.17* | .00 |
| Taking Charge (E4) | -.01 | .03 | -.02 |
| Trust of Others (E5) | .24** | -.19** | -.14 |
| Tact (E6) | .23** | -.24** | -.05 |
| Imagination (O1) | .07 | -.11 | .03 |

| | | | |
|-----------------|--------|--------|------|
| Complexity (O2) | .17* | -.23** | .02 |
| Change (O3) | .21** | -.19** | -.09 |
| Scope (O4) | -.21** | .17* | .10 |

Note. * = significant at $p < .05$; ** = significant at $p < .01$

Table 32

Correlations Between The IPIP And H-H Facets, And Give, Take, and Match Frequencies (N = 322)

| Facets | Give Frequency | Take Frequency | Match Frequency |
|---------------------------|----------------|----------------|-----------------|
| Trust (A1) | .34** | -.32** | -.10 |
| Morality (A2) | .41** | -.35** | -.16** |
| Altruism (A3) | .34** | -.35** | -.07 |
| Cooperation (A4) | .37** | -.30** | -.17** |
| Modesty (A5) | .26** | -.22** | -.10 |
| Sympathy (A6) | .31** | -.37** | -.01 |
| Self-Efficacy (C1) | .18** | -.20** | -.02 |
| Orderliness (C2) | .16 | -.11 | -.09 |
| Dutifulness (C3) | .32** | -.32** | -.07 |
| Achievement Striving (C4) | .24** | -.28** | -.01 |
| Self-Discipline (C5) | .22** | -.17** | -.11 |
| Cautiousness (C6) | .20** | -.16** | -.09 |
| Friendliness (E1) | .18** | -.21** | -.00 |
| Gregariousness (E2) | .01 | .02 | -.02 |
| Assertiveness (E3) | .04 | -.05 | .01 |
| Activity Level (E4) | .20** | -.21** | -.04 |

| | | | |
|-------------------------|--------|--------|--------|
| Excitement Seeking (E5) | -.06 | -.06 | .15** |
| Cheerfulness (E6) | .25** | -.24** | -.07 |
| Anxiety (N1) | -.24** | .15** | .16** |
| Anger (N2) | -.32** | .24** | .16** |
| Depression (N3) | -.22** | .17** | .12* |
| Self-Consciousness (N4) | -.16** | .14* | .07 |
| Immoderation (N5) | -.23** | .16** | .13* |
| Vulnerability (N6) | -.23** | .19** | .09 |
| Imagination (O1) | .03 | -.15** | .21** |
| Artistic Interest (O2) | .18** | -.31** | .10 |
| Emotionality (O3) | .03 | -.05 | .02 |
| Adventurousness (O4) | .09 | -.10 | -.01 |
| Intellect (O5) | .09 | -.10 | -.01 |
| Liberalism (O6) | -.04 | .02 | .04 |
| Sincerity (H-H1) | .46** | -.36** | -.22** |
| Fairness (H-H2) | .42** | -.44** | -.08 |
| Greed Avoidance (H-H3) | .41** | -.35** | -.18** |
| Modesty (H-H4) | .39** | -.29** | -.21** |

Note. * = significant at $p < .05$; ** = significant at $p < .01$

Table 33
ANOVA Results for Give and Take and Leadership Performance

| Rater Type | Competence | SS | df | MS | F | p |
|----------------------|---------------------------------|------|----|------|------|------|
| Overall | -- | -- | -- | -- | -- | -- |
| Boss | -- | -- | -- | -- | -- | -- |
| Others | -- | -- | -- | -- | -- | -- |
| Direct Report | Broad Org. Perspective | .84 | 2 | .42 | 2.46 | .086 |
| | Taking Risks | 1.14 | 2 | .57 | 2.45 | .087 |
| Peers | Self-Awareness | 1.94 | 2 | .97 | 3.12 | .046 |
| | Broad Org. Perspective | 1.08 | 2 | .54 | 2.54 | .080 |
| | Taking Risks | 1.41 | 2 | .71 | 3.32 | .037 |
| | Interpersonal Relationships (P) | 2.98 | 2 | 1.49 | 3.42 | .034 |
| Superiors | Interpersonal Relationships (P) | 6.12 | 2 | 3.05 | 5.67 | .004 |
| Self-Ratings | Self-Awareness | 1.89 | 2 | .95 | 3.76 | .024 |
| | Communication | 1.67 | 2 | .84 | 4.01 | .019 |
| | Influencing Higher Management | 4.28 | 2 | 2.14 | 6.80 | .001 |
| | Broad Org. Perspective | 2.61 | 2 | 1.30 | 3.81 | .023 |
| | Resiliency | 4.84 | 2 | 2.42 | 8.29 | .000 |
| | Negotiation | 5.05 | 2 | 2.53 | 7.01 | .001 |
| | Taking Risks | 5.96 | 2 | 2.98 | 9.09 | .000 |
| | Implementing Change | 3.70 | 2 | 1.85 | 8.04 | .000 |
| | Building and Leading a Team (P) | 1.38 | 2 | .69 | 2.44 | .088 |
| | Changing or Adapting (P) | 2.17 | 2 | 1.08 | 4.42 | .013 |

| | | | | | | |
|--|------------------------------------|------|---|------|------|------|
| | Failure to Meet Business Needs (P) | 1.81 | 2 | .91 | 3.58 | .029 |
| | Narrow Functional Orientation (P) | 2.36 | 2 | 1.18 | 3.51 | .031 |

Note. -- no significant mean difference was detected for this rater type; Org. = Organizational; P = Problems that can stall a career.

Table 34
Post Hoc: Give and Take Mean Differences in Performance Ratings (with Standard Deviations in Parentheses)

| Rater Type | Competence | Give M (SD) | Take M (SD) | Match M (SD) |
|----------------------|----------------------------|----------------------------|--------------------------------|-------------------------------|
| Direct Report | Broad Org. Perspective | 4.29 (.48) | 4.40 (.38) | 4.39 (.40) |
| | Taking Risks | 3.97 (.54) ^{T*} | 4.11 (.45) ^{G*} | 4.06 (.47) |
| Peers | Self-Awareness | 3.79 (.60) | 3.68 (.57) ^{M**} | 3.83 (.54) ^{T**} |
| | Broad Org. Perspective | 4.08 (.52) | 4.06 (.42) | 4.16 (.45) |
| Superiors | Taking Risks | 3.84 (.51) ^{T*M*} | 3.99 (.41) ^{G*} | 3.95 (.46) ^{G*} |
| | Interpers. Relations (P01) | 1.76 (.63) ^{T*} | 1.93 (.74) ^{G*M*} | 1.76 (.63) ^{T*} |
| Self-Ratings | Interpers. Relations (P01) | 1.55 (.73) ^{T**} | 1.91 (.81) ^{G**M**} | 1.64 (.70) ^{T**} |
| | Self-Awareness | 3.91 (.52) | 4.02 (.50) ^{M**} | 3.88 (.50) ^{T**} |
| | Communication | 3.89 (.49) | 3.95 (.44) ^{M**} | 3.82 (.45) ^{T**} |
| | Influencing H. M | 3.96 (.60) | 4.10 (.58) ^{M***} | 3.88 (.54) ^{T***} |
| | Broad Org. Perspective | 4.12 (.58) | 4.17 (.59) ^{M**} | 4.01 (.58) ^{T**} |
| | Resilience | 3.66 (.53) ^{M***} | 3.56 (.59) ^{M*} | 3.43 (.52) ^{G***T*} |
| | Negotiation | 3.68 (.64) ^{M**} | 3.71 (.62) ^{M***} | 3.50 (.57) ^{G**T***} |
| | Taking Risks | 3.88 (.61) ^{T***} | 4.11 (.55) ^{G***M***} | 3.87 (.57) ^{T***} |
| | Implementing Change | 3.89 (.52) | 3.98 (.47) ^{M***} | 3.78 (.47) ^{T***} |
| | Building a Team (P02) | 1.58 (.52) | 1.55 (.49) | 1.66 (.55) |

| | | | |
|----------------------------|------------|---------------------------|---------------------------|
| Changing or Adapting (P03) | 1.58 (.47) | 1.53 (.47) ^{M**} | 1.67 (.52) ^{T**} |
| Failure to meet B.O (P04) | 1.55 (.50) | 1.46 (.45) ^{M**} | 1.60 (.53) ^{T**} |
| Narrow F.O (P05) | 1.54 (.53) | 1.53 (.58) ^{M*} | 1.66 (.60) ^{T*} |

Note. Org = Organizational; Interpers. = Interpersonal; H. M = Higher Management; B. O = Business Objectives; F. O = Functional Orientation; P = Problematic Behavior.

Table 35

Results for Task Performance Predicted from Give and Drive (Hypothesis 8b)

| Competency | Predictor | B | SE B | β | t | p |
|---------------------------------|------------|------|------|---------|------|------|
| Communication | Give | .32 | .22 | .08 | 1.42 | .158 |
| | Drive | -.05 | .10 | -.03 | -.54 | .593 |
| | Give*Drive | -.00 | .23 | -.00 | -.02 | .986 |
| | R^2 | | | .01 | | |
| | F | | | .76 | | |
| Acting Systemically | Give | .49 | .27 | .10 | 1.83 | .069 |
| | Drive | -.09 | .12 | -.05 | -.75 | .455 |
| | Give*Drive | .04 | .27 | -.01 | -.13 | .894 |
| | R^2 | | | .01 | | |
| | F | | | 1.30 | | |
| Responding to complexity | Give | .38 | .22 | .10 | 1.75 | .081 |
| | Drive | -.08 | .09 | -.06 | -.89 | .377 |
| | Give*Drive | .00 | .22 | .00 | .01 | .992 |
| | R^2 | | | .01 | | |
| | F | | | 1.28 | | |
| Broad Org. Perspective | Give | .06 | .22 | .00 | .03 | .977 |
| | Drive | .03 | .09 | .02 | .35 | .726 |
| | Give*Drive | .04 | .22 | .01 | .17 | .868 |

| | | | | | | | |
|------------------------------------|-----------------------|-----------------------|-----|------|------|------|--|
| | | <i>R</i> ² | .00 | | | | |
| | | <i>F</i> | .08 | | | | |
| Negotiation | Give | .65 | .28 | .13 | 2.20 | .028 | |
| | Drive | -.10 | .12 | -.06 | -.88 | .381 | |
| | Give*Drive | .08 | .29 | .02 | .28 | .778 | |
| | <i>R</i> ² | .02 | | | | | |
| | <i>F</i> | 1.91 | | | | | |
| Selecting/Developing Others | Give | .46 | .28 | .10 | 1.61 | .108 | |
| | Drive | .09 | .12 | .05 | .76 | .446 | |
| | Give*Drive | .12 | .29 | .03 | .42 | .672 | |
| | <i>R</i> ² | .02 | | | | | |
| | <i>F</i> | 1.48 | | | | | |
| Implementing Change | Give | .49 | .22 | .13 | 2.22 | .027 | |
| | Drive | -.00 | .09 | -.00 | -.03 | .975 | |
| | Give*Drive | .11 | .22 | .03 | .50 | .620 | |
| | <i>R</i> ² | .02 | | | | | |
| | <i>F</i> | 1.90 | | | | | |
| Managing Global Teams | Give | .49 | .27 | .12 | 1.81 | .072 | |
| | Drive | -.09 | .11 | -.05 | -.77 | .442 | |
| | Give*Drive | .08 | .28 | .02 | .29 | .776 | |
| | <i>R</i> ² | .02 | | | | | |
| | <i>F</i> | 1.33 | | | | | |

Table 36
Results for Task Performance Predicted from Match and Drive (Hypothesis 8c)

| Competency | Predictor | <i>B</i> | <i>SE B</i> | β | T | <i>p</i> |
|---------------------------------|-----------------------|----------|-------------|---------|-------|----------|
| Communication | Match | .03 | .18 | .01 | .20 | .845 |
| | Drive | .04 | .13 | .03 | .29 | .772 |
| | Match*Drive | -.15 | .18 | -.07 | -.84 | .401 |
| | <i>R</i> ² | | .00 | | | |
| | <i>F</i> | | .34 | | | |
| Acting Systemically | Match | .20 | .21 | .06 | .96 | .336 |
| | Drive | -.01 | .16 | -.00 | -.05 | .962 |
| | Match*Drive | -.16 | .21 | -.06 | -.73 | .467 |
| | <i>R</i> ² | | .01 | | | |
| | <i>F</i> | | .70 | | | |
| Responding to complexity | Match | .10 | .17 | .03 | .58 | .563 |
| | Drive | .03 | .13 | .02 | .21 | .837 |
| | Match*Drive | -.19 | .17 | -.10 | -1.10 | .271 |
| | <i>R</i> ² | | .01 | | | |
| | <i>F</i> | | .78 | | | |
| Broad Org. Perspective | Match | .11 | .17 | .04 | .62 | .537 |
| | Drive | .13 | .13 | .09 | 1.03 | .305 |
| | Match*Drive | -.18 | .17 | -.09 | -1.06 | .292 |
| | <i>R</i> ² | | .01 | | | |
| | <i>F</i> | | .60 | | | |
| Negotiation | Match | .27 | .22 | .07 | 1.24 | .216 |
| | Drive | .09 | .17 | .50 | .57 | .571 |
| | Match*Drive | -.33 | .22 | -.13 | -1.48 | .141 |
| | <i>R</i> ² | | .01 | | | |

| | | | | | | | |
|------------------------------------|-----------------------|----------|------|-----|------|-------|------|
| | | <i>F</i> | 1.42 | | | | |
| Selecting/Developing Others | Match | | -.02 | .23 | -.01 | -.08 | .935 |
| | Drive | | .23 | .18 | .13 | 1.30 | .196 |
| | Match*Drive | | -.17 | .23 | -.07 | -.73 | .467 |
| | <i>R</i> ² | | | .01 | | | |
| | | <i>F</i> | .62 | | | | |
| Implementing Change | Match | | .19 | .17 | .07 | 1.12 | .265 |
| | Drive | | .13 | .13 | .09 | 1.03 | .304 |
| | Match*Drive | | -.22 | .17 | -.11 | -1.25 | .211 |
| | <i>R</i> ² | | | .01 | | | |
| | | <i>F</i> | 1.04 | | | | |
| Managing Global Teams | Match | | .07 | .22 | .22 | .34 | .734 |
| | Drive | | -.01 | .16 | -.00 | -.04 | .966 |
| | Match*Drive | | -.10 | .21 | -.05 | -.48 | .630 |
| | <i>R</i> ² | | | .00 | | | |
| | | <i>F</i> | .23 | | | | |

Table 37
Regression Results WPB5 Variables on Give and Take Frequency Answers

| | Give Frequency | Coefficient | Importance | Sig | Full Sample (N = 206) | Obvious Styles (N = 88) | |
|-----------------|----------------|-------------|------------|------|-----------------------|-------------------------|------|
| Others' Needs | .07 | .44 | | .000 | .09 | .31 | .013 |
| Rebound Time | -.04 | .28 | | .002 | -.06 | .22 | .034 |
| Trust of Others | .03 | .16 | | .020 | .08 | .36 | .008 |
| Humility | .03 | .12 | | .042 | .05 | .12 | .122 |

| Take Frequency | Coefficient | Importance | Sig | Coefficient | Importance | Sig |
|------------------------|--------------------|-------------------|------------|--------------------|-------------------|------------|
| Complexity | -.07 | .37 | .000 | -.09 | .20 | .000 |
| Warmth | -.04 | .13 | .006 | -.09 | .22 | .000 |
| Reserve | -.05 | .12 | .009 | -.11 | .29 | .000 |
| Concentration | -.02 | .10 | .015 | | | |
| Activity Mode | -.03 | .09 | .027 | | | |
| Perfectionism | .03 | .08 | .034 | | | |
| Agreement | -.04 | .08 | .035 | | | |
| Humility | -.02 | .04 | .149 | | | |
| Tact | | | | -.06 | .09 | .019 |
| Drive | | | | .08 | .11 | .008 |
| Interpretation | | | | .05 | .10 | .012 |
| Match Frequency | Coefficient | Importance | Sig | Coefficient | Importance | Sig |
| Others' Needs | -.04 | .52 | .003 | -.07 | .47 | .006 |
| Worry | .03 | .48 | .004 | .05 | .36 | .015 |
| Humility | | | | -.04 | .18 | .085 |

Note. Sig = Significant.

Table 38

Regression Results IPIP + H-H Variables on Give and Take Frequency Answers

| | Full Sample (N = 322) | | | Obvious Styles (N = 139) | | |
|----------------------|-----------------------|------------|------|--------------------------|------------|------|
| Give Frequency | Coefficient | Importance | Sig | Coefficient | Importance | Sig |
| Sincerity | .94 | .23 | .000 | 2.06 | .49 | .000 |
| Trust | .48 | .22 | .001 | .36 | .04 | .121 |
| Cautiousness | -.60 | .18 | .002 | | | |
| Greed Avoidance | .62 | .13 | .007 | -.93 | .10 | .013 |
| Achievement Striving | .49 | .10 | .020 | | | |
| Anger | -.34 | .09 | .031 | | | |
| Morality | .37 | .05 | .115 | | | |
| Cooperation | | | | 1.04 | .14 | .003 |
| Cheerfulness | | | | 1.12 | .13 | .004 |
| Self-Efficacy | | | | -.88 | .06 | .057 |
| Immoderation | | | | -.51 | .05 | .078 |
| Take Frequency | Coefficient | Importance | Sig | Coefficient | Importance | Sig |
| Greed Avoidance | -.62 | .21 | .001 | -.50 | .10 | .093 |
| Trust | -.38 | .18 | .001 | -.27 | .09 | .126 |
| Fairness | -.62 | .15 | .003 | -.77 | .22 | .016 |
| Artistic Interest | -.31 | .11 | .014 | | | |
| Orderliness | .36 | .10 | .016 | | | |
| Gregariousness | .32 | .09 | .124 | | | |
| Excitement Seeking | -.32 | .07 | .042 | | | |
| Achievement Striving | -.37 | .05 | .078 | | | |

| Friendliness | -.25 | .04 | .127 | | | |
|--------------------|-------------|------------|------|-------------|------------|------|
| Imagination | | | | -.58 | .24 | .011 |
| Sympathy | | | | -.79 | .24 | .012 |
| Emotionality | | | | .37 | .12 | .072 |
| Match Frequency | Coefficient | Importance | Sig. | Coefficient | Importance | Sig. |
| Sincerity | -.64 | .48 | .000 | -1.57 | .40 | .000 |
| Imagination | .43 | .24 | .003 | .56 | .08 | .032 |
| Artistic Interest | .30 | .15 | .021 | | | |
| Cheerfulness | -.32 | .13 | .027 | -.62 | .06 | .071 |
| Anxiety | | | | .98 | .17 | .002 |
| Dutifulness | | | | .98 | .10 | .015 |
| Emotionality | | | | -.62 | .10 | .017 |
| Self-Consciousness | | | | -.51 | .05 | .105 |
| Self-Efficacy | | | | .62 | .04 | .116 |

Note. Sig = Significant.

Appendix D: Figures

Figure 1
Hypothesized Give and Take Personality Profiles

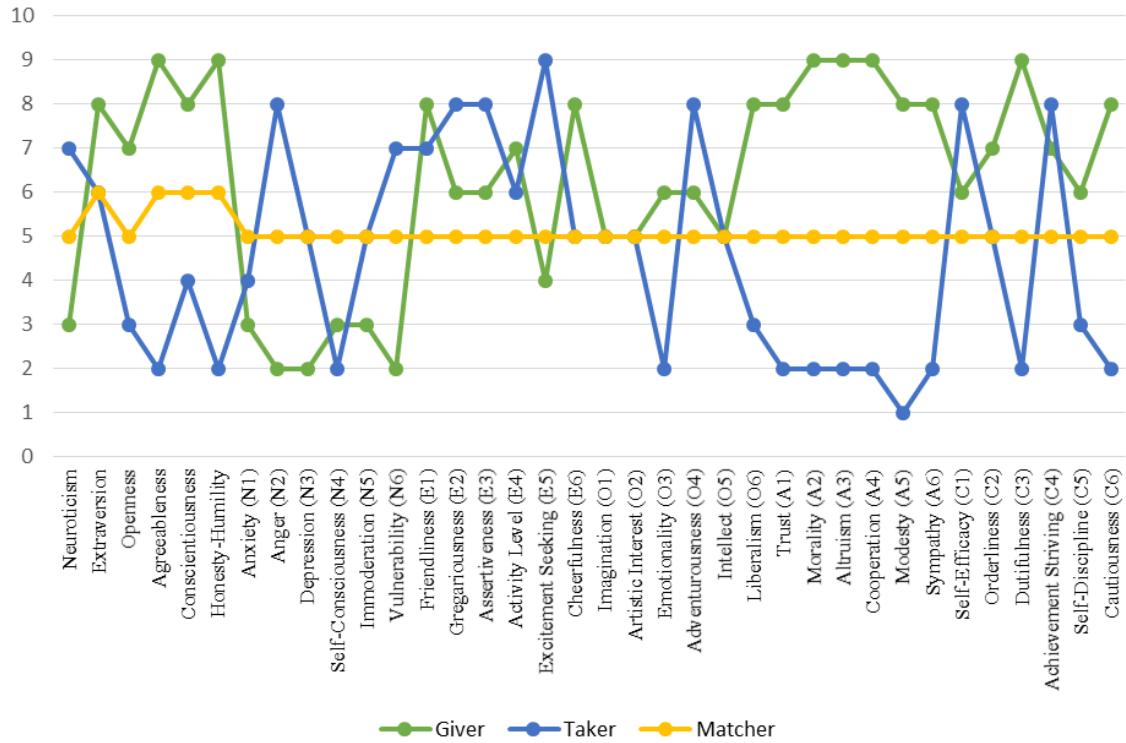


Figure 2:
Give and Take Personality Profiles Based on the IPIP/H-H Facets

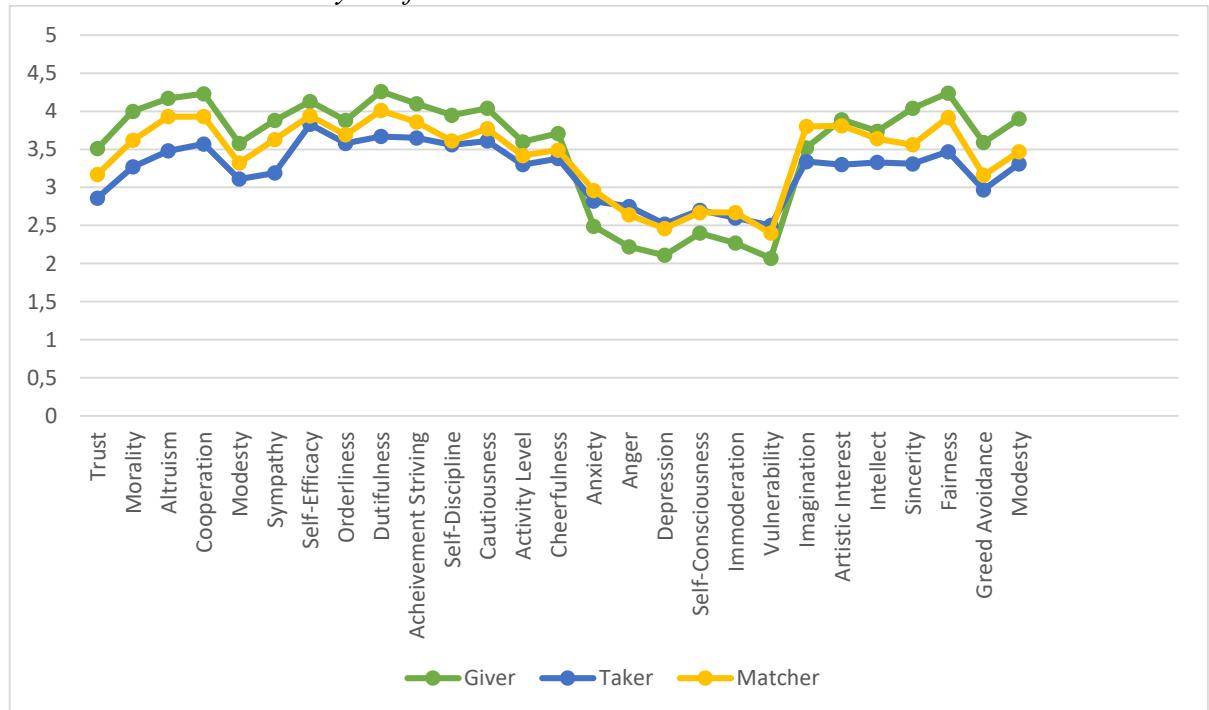
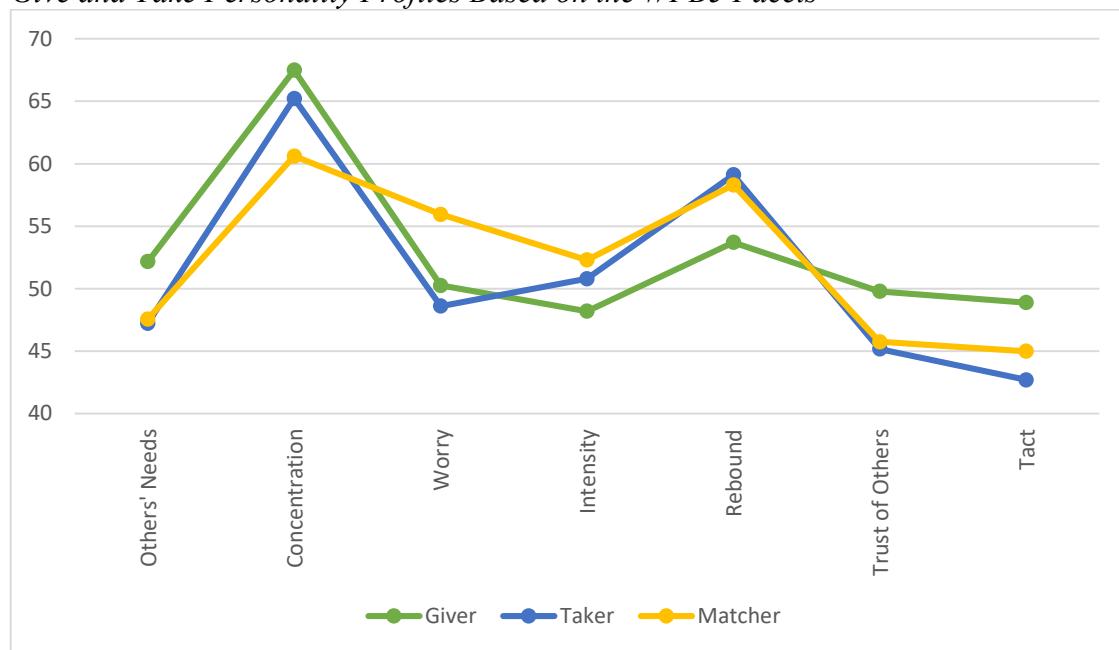


Figure 3:
Give and Take Personality Profiles Based on the WPB5 Facets



Appendix E: Additional Versions of Target Profiles

In addition to the proposed D^2 ANOVA-based target profiles and the linear regression-based profiles, a number of other versions of target profiles were evaluated. The most promising variations were (1) a D^2 approach, using the significant mean differences for a more extreme sample of givers, takers, and matchers (i.e., ANOVA based on obvious styles) (2) a D^2 approach, using facets based on regression analyses (3) a linear approach, based on correlations and (4) a linear approach, based on regression weights. Each of these are described in more detail below. See Appendix C, Table 23 and 24 for the algorithms and Table 25 and 26 for a summary of their accuracy in predicting give and take.

(1) The first variation of target profiles was created by analyzing the mean differences of only participants who answered more than 50% of the 15 give and take scenarios in one single direction (i.e., 8 or more give, take, or match answers). These individuals were considered as more obvious givers, takers, and matchers, and should theoretically also have more similar and extreme personality profiles. Within the IPIP sample, 139 individuals with an obvious give and take style were found, out of which 78 were givers, 15 takers, and 46 matchers. Within the WPB5 sample, 89 obvious give and take styles were found, out of which 53 were givers, 9 takers, and 27 matchers. An ANOVA was conducted on each of the samples to evaluate the differences in means among these more extreme givers, takers, and matchers.

For the IPIP-based sample the obvious givers, takers, and matchers differed significantly in most of the facets, including trust, morality, altruism, cooperation, modesty, sympathy, self-efficacy, orderliness, dutifulness, achievement-striving, self-discipline, cautiousness, friendliness, activity level, cheerfulness, anxiety, anger,

depression, immoderation, vulnerability, imagination, artistic interest, intellect, and the four H-H facets sincerity, fairness, greed avoidance, and modesty. See Table 27 for the full ANOVA results for the sub-sample of obvious givers, takers, and matchers within the IPIP sample. The means for this sample of obvious givers and takers were in general more extreme for the givers and the takers, with the matchers reporting more moderate means (i.e., towards the middle of the scale). See Table 28 for the mean differences. The mean scores for the variables identified as significantly distinguishing between givers, takers, and matchers were used in the D^2 algorithm. Using these three revised target profiles instead of the initial full sample ANOVA-based profiles resulted in an overall accuracy prediction rate of 43.5% and the accuracy in prediction for each style was 34.6% for givers, 66.7% for takers, and 46.9% for matchers. This method identified 31.4% givers, 25.8% takers, and 42.9% matchers.

When the same procedure was carried out on the WPB5-based sample the accuracy in prediction was quite different compared to when the full sample was used. ANOVA results suggest the obvious givers, takers, and matchers are significantly different in their level of others' needs, methodicalness, worry, rebound, trust of others, tact, complexity, and scope. Using these three revised target profiles and the means of these three more obvious groups instead of the initial full sample ANOVA-based profiles resulted in an overall accuracy prediction rate of 10.1% and the identification of 100% takers, and no givers and matchers. The accuracy rate in predicting takers was therefore 100% and 0% for givers and matchers. The ANOVA results and mean differences for the more extreme WPB5-sample can be Table 29 and 30, respectively.

(2) The second attempt to refine the profiles was based on regression analyses. Regression-based profiles were obtained through automatic linear modeling, which

automatically evaluates all variables included in the analyses, which was either all the IPIP facets or all the WPB5 facets. The variables were evaluated against the frequency scores for give, take, and match (i.e., the dependent variable in the analyses was the frequency of choosing give, take, or match answers on the Give and Take measure), resulting in one regression model for each style and each personality assessment. The method that was used was a forward stepwise process, where the variables that have a significant effect on the target variable (i.e., give, take, or match frequency) are identified and included in the final model. The fit of the final model is evaluated through an information criterion value (i.e., the Akaike Information Criterion Corrected; AICC), where smaller numbers indicate a better model fit.

Regression results suggest that the IPIP and H-H scores that uniquely contribute to the frequency of giver answers are higher scores on sincerity (H-H), trust, greed avoidance (H-H), achievement striving, and morality, and low scores on cautiousness and anger. The AICC for this model was 506.570, indicating an adjusted R^2 of .31. The frequency of taker answers was predicted by low scores on greed avoidance, trust, fairness, artistic interest, excitement seeking, achievement striving, and friendliness, and high scores on orderliness, and gregariousness. The AICC for this model was 393.265, indicating an adjusted R^2 of .29. Lastly, the frequency of matcher answers is predicted by low scores on sincerity, and cheerfulness, and high scores on imagination and artistic interest. The AICC for this model was 399.038, indicating an adjusted R^2 of .10. Using these three revised target profiles based on regressions, the overall accuracy prediction rate was 37.9%. The algorithms failed to accurately identify an acceptable ratio of give and take as 100% matchers were identified and no givers and takers. The accuracy rate in predicting matchers were therefore 100% and 0% for givers and takers. Although the

three D^2 statistics were standardized, it is easier to fit well with a model including fewer variables, which is likely why 100% matchers were identified.

Results for the regression analyses including the WPB5 variables indicate the frequency of give answers was predicted by high scores on others' needs, trust in others and humility, and low scores on quick rebound time. The AICC for this model was 382.643, indicating an adjusted R^2 of .18. Frequency of take answers was predicted by low scores on complexity, warmth, reserve, concentration, activity mood, agreement, and humility, and high scores on perfectionism. The AICC for this model was 292.196, indicating an adjusted R^2 of .17. Lastly, frequency of match answers was predicted by low scores on other's needs, and high scores on worry. The AICC for this model was 264.229, indicating an adjusted R^2 of .08. Using these target profiles the percentage of accurate predictions overall was 33.5% but just like with the IPIP regression-based approach, the ratio of give and take was not acceptable. Specifically, 59.2% takers and 40.8% matchers were identified, with no participants classified as givers. The accuracy rate in predicting takers was 93.8%, 48.8% for matchers, and 0% for givers.

Additionally, the regression based approach was applied in combination with the means from the two sub-samples of obvious givers, takers, and matchers, as an attempt to make the target profiles more extreme. Results from these analyses were not found to be any better than the other approaches described above. The overall prediction accuracy for the regression-based approach with the IPIP variables and the obvious give and take sub-sample means was 34.5%, and enabled the identification of 6.8% givers, 14% takers, and 79.2% matchers. The accuracy rate in predicting each style was 5.1% for give, 26.7% for take and 90% for match. The overall prediction accuracy for the regression-based approach with the WPB5 variables and the obvious give and take sub-

sample means was 18.9%, and enabled the identification of 95.6% takers, 4.4% matchers, and no givers. The accuracy in predicting each style was 0% for give, 100% for take, and 11.1% for match.

(3) Thirdly, after a careful evaluation of the relationship between the frequency of answering in a giving, taking, and matching manner and the various personality facets, a correlation-based approach was tested. Correlational analyses revealed an interesting pattern of correlations, suggesting that the frequency of answering in a giving versus taking way was significantly related to a number of personality facets in opposite directions, with the matchers for the most part falling in between and demonstrating a non-significant relationship with the various facets.

For the WPB5, a total of 12 facets significantly related to give frequency, 11 significantly related to take, and only one was significantly related to match. Out of the 12 facets relating to give, 9 were also related to take, and all of them in the opposite direction compared to give. The only facet relating to match was worry, which was found positively related to match and take, and negatively related to give. These relationships can be seen as an indication of a linear relationship between these facets and givers and takers, with the matchers possibly falling somewhere in between the more extreme scores of givers and takers.

To test this approach to predicting give and take, a linear algorithm, including the significant facets for giver frequency, was first applied to the WPB5 sample, because it was considered most important to find an accurate algorithm for that sample due to Study 3. Instead of identifying the best matching style, as with the D^2 approach, the linearity-based algorithm served the purpose of rank ordering the participants based on how well their personality profile matched with a giver profile. According to this

method, the givers were the individuals with the highest scores, the takers those with the lowest scores, and the matchers the individuals towards the middle of the ranking list. Based on the significant facet correlations, the giver algorithm included trust of others, tact, worry, intensity, interpretation, rebound, complexity, change, scope, others' needs, organization, and concentration. Based on the direction of the different relationships, the algorithm that was applied to each individual's personality profile was $\sum = (E5+E6-N1-N2-N3-N4+O2+O3-O4+A1+C2+C4)$. The correlations between the frequencies of give, take, and match answers and the WPB5 facets are presented in Appendix C, Table 31.

Based on the findings in Study 1 suggesting give and take is a three dimensional construct, individuals were first categorized as either givers, takers, or matchers based on the ratio of givers, takers, and matchers found in Study 2. In an attempt to maximize accuracy in identifying the true givers and takers, the obvious give and take ratios were used. As mentioned earlier, the obvious give and take ratios were based on the number of individuals answering towards one single style 8 or more times. Among the 206 participants in Study 2, 25.7% ($N = 53$) were identified as obvious givers and 4.4% ($N = 9$) as obvious takers. The rest of the sample had either a dominant matcher style or did not have a dominant style, in which case they were categorized as matchers.

Again, the accuracy in prediction was evaluated by comparing the assigned style with the participants' self-reported style. The overall accuracy in prediction using this method was 49.5%, and the method accurately predicted 69.8% of the givers, 11.1% of the takers and 44.4% of the matchers.

Additional linearity-based versions that were tested included applying specific taker and matcher linearity-based algorithms, as well as applying different ratios of

give, take, and match. However, none of these approached resulted in a higher accuracy in prediction than the linearity-based approach, including the facets significantly correlating to give, described above.

Because of the more promising findings applying the correlation-based approach using the WPB5 measure, the same method was tested using the IPIP facets and the Honesty-Humility facets. Based on the significant correlations for the IPIP and H-H variables, the facet-based algorithm included anxiety, anger, depression, self-consciousness, immoderation, vulnerability, friendliness, activity level, cheerfulness, artistic interest, trust, morality, altruism, cooperation, modesty, sympathy, self-efficacy, orderliness, dutifulness, achievement striving, self-discipline, cautiousness, sincerity, fairness, greed avoidance, and modesty. Based on the direction of the different relationships the algorithm that was applied to each individual's personality profile was $\sum (E1+E4+E6-N1-N2-N3-N4-N5-N6+O2+A1+A2+A3+A4+A5+A6+C1+C2+C3+C4+C5+C6+HH1+HH2+HH3+HH4)$. The correlations between the frequency of give, take, and match answers and the IPIP and H-H facets are presented in Table 32, with the variables included in the algorithm highlighted in bold.

Three different ratios were tested to categorize the sample into givers, takers, and matchers. The first ratio was based on the self-reported ratios, which were 43% givers, 19% takers, and 38% matchers. Applying this ratio resulted in a total accuracy in prediction of 50%, with a prediction accuracy of 62.6% for the givers, 32.8% for the takers, and 44.3% for the matchers. The second ratio that was tested was based on previous research (i.e., 50% matchers, 30% givers, and 20% takers). When this ratio was applied, the total accuracy was 46%, 63% for givers, 32.8% for takers, and 44.3% for matchers. Lastly, a more stringent ratio was applied, based on the ratio of obvious

givers and takers (i.e., those with 8 or more giver versus taker answers). The application of this ratio resulted in a total accuracy of 45.3%, 62.6% for give, 27.7% for take, and 40.6% for match. In general, results indicate that using a linear approach, involving the facets that are significantly related to the frequency of answering in a giving versus taking direction is to prefer over the D^2 approach.

However, because of the large number of correlating facets, mainly when the IPIP/H-H facets were used, regression analyses were conducted to identify which facets uniquely contribute to give and take frequency. This decreased the number of predicting facets and still produced a very similar accuracy in predicting give and take. This approach is described as part of the results.

(4) The final attempt to increase the accuracy in prediction was applying the regression weights to the linear algorithm based on the facets identified as significantly contributing to give and take frequency through regression. This was only done to the WPB5 sample to ensure adding the regression weights to the algorithm did not change the results. The application of the weighted algorithm for predicting givers resulted in an accuracy rate for predicting givers of 57% both when the give ratio was set to 27% and when the give ratio was set to 46% (i.e., the self-reported ratio). The application of the weighted take algorithm for predicting takers resulted in an accuracy rate of 39% both when the take ratio was set to 20% and to 16% (i.e., the self-reported ratio). See Appendix C, Table 37 and Table 38, for the regression results for the WPB5 and IPIP/H-H facets, respectively.

Appendix F: Item Measures

Give & Take

(Grant, 2013)

Instructions: Please read the following 15 scenarios carefully and indicate which one of the three alternatives you think best applies to you.

1. You and a stranger will both receive some money. You have three choices about what you and the stranger will receive, and you'll never see or meet the stranger.
Which option would you choose?
 - a. I get \$5, and the stranger gets \$5 (M)
 - b. I get \$8, and the stranger gets \$4 (T)
 - c. I get \$5, and the stranger gets \$7 (G)

2. You're applying for a job as a manager, and a former boss writes you a glowing recommendation letter. What would you be most likely to do?
 - a. Look for ways to help my former boss, so I can pay it back (M)
 - b. Offer to write a recommendation letter for one of my own former employees, so I can pay it forward (G)
 - c. Go out of my way to make a good impression on my new boss, so I can line up another strong recommendation for the future (T)

3. A new colleague joins your organization in a different department. When you meet her, she mentions that her husband is searching for a job and doesn't have many contacts in the area. She asks if you happen to know anyone at Kramerica Industries, a local firm, and you say yes. The next day, you remember that you have connections at three other local companies that do very similar work to Kramerica's. What would you do?
 - a. Put her husband in touch with all four companies (G)
 - b. Find out if there are ways that she or her husband can do me a favor, and then decide whether to connect her only with Kramerica or with the other three as well (T)
 - c. Put her husband in touch with Kramerica, and see what type of impression he makes before deciding about the other three (M)

4. You've signed a deal on new office space, and you're scheduled to move in three months. You receive a call from the leasing agent stating that the previous tenant moved out early, and the space is open now. You would be happy to move now: the new office space is nicer than your current space, and it only costs \$10 more per month. However, the leasing agent assumes that your preference is to wait, and you know the agent doesn't want to leave the property vacant for three months. What would you be most likely to say?
 - a. I'm willing to move now if you can match the price of my current office space (M)
 - b. I really prefer to wait, but I'm willing to move now if you give me a significant discount (T)
 - c. I'd love to move now, so I'll be glad to accommodate (G)

5. You're working on a project with two colleagues, and there are three tasks that need to get done. As you discuss how to divide the tasks, it becomes clear that all three of you are extremely interested in two of the tasks, but view the third as quite boring. What would you do?
- Try to convince one of my colleagues to do the boring task (T)
 - Volunteer for the boring task and ask my colleagues for a favor later (M)
 - Volunteer for the boring task without asking for anything in return (G)
6. It's 1pm, and you're heading to the airport at 2pm for a business trip out of the country. You receive three requests from people who are looking for your feedback on presentations, and you only have time to grant one. The first request is from your boss's boss, who is seeking your immediate input on a slide deck that he'll be presenting next week. The second request is from a coworker who gave you insightful comments on a major presentation last week. The coworker is a gifted speaker, and has asked for your assistance in fine-tuning some of the language on his slides for a presentation tomorrow. The third request is from a junior colleague, who is nervous about giving his first presentation at the company this afternoon and is hoping for your feedback. Who would you be most likely to help?
- My boss's boss (T)
 - My coworker (M)
 - My junior colleague (G)
7. A colleague leaves your company and starts a software business that is doing quite well. In search of advice for expanding the business, he asks if you can introduce him to the CEO of a successful technology company, who happened to be your neighbor growing up. You haven't spoken to the CEO in five years, and you were hoping to reach out to him in a few months for advice on your own startup ideas. What would you do?
- Tell him I'll make the introduction (G)
 - Tell him I'll make the introduction, and then ask him for help with my startup (M)
 - Tell him I don't feel comfortable making the introduction, since I'm no longer in touch with the CEO (T)
8. Unexpectedly, a former boss of yours writes you a positive recommendation on LinkedIn. What would be your first response?
- Add my former boss to my list of references (G)
 - Write a recommendation for my former boss (M)
 - Write a recommendation for someone else (T)
9. You receive a call out of the blue from an NYU senior who's interested in your field, and you spend 20 minutes on the phone providing some career advice. At the end of the call, the student asks if you have any connections who might be able to help with preparation for job interviews at Google. You tell the student that you'll think about it and get back with an answer. After the call, you look through your LinkedIn connections and see that an acquaintance from college is now working at Google. Later that night at a family dinner, your cousin, who's in high school, tells you that

NYU is her dream school and she's just starting to work on her application. You sit down to write an email to the NYU student. How would you respond?

- a. Ask the NYU student to help my cousin, but don't make the introduction to my Google contact—I've already given 20 minutes of my time (T)
 - b. Ask the NYU student to help my cousin and offer to make the introduction to my Google contact—I'll follow through if the student helps my cousin (M)
 - c. Make the introduction to my Google contact, but don't ask the NYU student for help—I know the job search can be hectic and stressful (G)
10. You work in advertising, and you're leading the development of a commercial to encourage people to drink milk. An intern suggests the tag line, "Got milk?" You decide to use it, and spend the next eight months creating the commercial. You manage to get famous people to wear milk mustaches, and it's a huge hit. One day, the intern makes a comment about not being creative enough to generate a line as creative as "Got milk?" and tells you that he has been accepted to medical school. A few months later, after the intern has left the firm and started medical school, you learn that the commercial will be receiving a major advertising award. You know the intern doesn't remember generating the line, and you're up for a major promotion. You need to list the authorship of the commercial for the awards ceremony. What would you do?
- a. List the intern as the first author and myself as the second author, since the intern was the one who generated the memorable slogan (G)
 - b. List myself as the first author and the intern as the second author, since this fairly represents our contributions (M)
 - c. List myself as the sole author of the commercial, since I did the work and the intern won't ever know or be affected by it (T)
11. In January, you offer a job to a very impressive candidate, with a start date of June. You ask the candidate to make a decision by March, with an early signing bonus of \$ 5000. In February, the candidate calls you and asks for an extension until April, expressing a desire to finish interviewing with other companies to make an informed decision. You know that if you extend the deadline, you'll run the risk of losing the candidate, and your next best candidate is not as strong. What would you do?
- a. Decline the candidate's request for an extension, and ask for a decision by March as originally requested (T)
 - b. Grant the candidate's request for an extension until April, and extend the signing bonus as well (G)
 - c. Grant the candidate's request for an extension until April, but explain that the signing bonus will expire in March (M)
12. After growing up in a poor city in El Salvador, Pat earned a scholarship to Stanford. In an essay, Pat expressed the desire to become the president of El Salvador. After graduating from Stanford, Pat returned to El Salvador and helped former teachers improve their lesson plans based on knowledge from Stanford. What is the most likely reason for Pat's decision?
- a. To give back to the teachers who made attending Stanford possible (M)
 - b. To improve educational opportunities for students (G)
 - c. To begin building a strong reputation for political advancement (T)

13. A few years ago, you helped an acquaintance named Jamie find a job. You've been out of touch since then. All of a sudden, Jamie sends an email introducing you to a potential business partner. What's the most likely motivation behind Jamie's email?
- Jamie genuinely wants to help me (G)
 - Jamie wants to pay me back (M)
 - Jamie wants to ask me for help again (T)
14. In 2006, after the devastation caused by Hurricane Katrina, a U.S. bank executive led a team of employees on a trip to help rebuild New Orleans. Why do you think he did this?
- He felt compassion for the victims and wanted to do whatever he could to help (G)
 - He wanted to make headlines for being a generous, giving organization (T)
 - He wanted to show his support for bank employees who had family members in New Orleans (M)
15. A colleague is writing an article on how workplaces are changing. The colleague needs to add some information about social media, which happens to be one of your areas of expertise. You spend several hours making a list of relevant resources and readings. A few weeks later, the colleague finishes writing the article, and it appears in a major newspaper. A section of the article is based on your recommendations, but you're never mentioned, let alone thanked or acknowledged. What would your first reaction be?
- I should approach the colleague and ask for a correction to be printed (T)
 - My colleague owes me now, so I can bring this up in the future if I need something (M)
 - It's not a big deal; I was glad to be helpful (G)

Self- and Other Interest Inventory

(Gerbasi & Prentice, 2013)

Instructions: For the next set of statements, please indicate to what extent you strongly disagree or strongly agree to the statement.

Rating Scale: *Strongly Disagree* (1) to *Strongly Agree* (7)

Self-Interest Inventory

- I am constantly looking for ways to get ahead
- Hearing others praise me is something I look forward to
- Doing well in my pursuits is near the top of my priorities
- I try to make sure others know about my success
- I look for opportunities to achieve higher social status
- Success is important to me
- Having a lot of money is one of my goals in life
- I keep an eye out for my own interests
- I am constantly looking out for what will make me happy

Other-Interest Inventory

- I am constantly looking for ways for my acquaintances to get ahead
- Hearing others praise people I know is something I look forward to

12. I want to help people I know to do well
13. I try to help my acquaintances by telling other people about their successes
14. I look for opportunities to help people I know achieve higher social status
15. The success of my friends is important to me
16. I look out for ways for my friends to have more money
17. I keep an eye out for other's interests
18. It is important to me that others are happy

Helping Orientation Questionnaire

Romer, Gruder, & Lizzadro (1986)

Instructions: This questionnaire contains a number of real-life situations with a set of responses that people often make. Please imagine yourself in these situations and choose the action that is most descriptive of what you would do. Mark the letter (A, B, C, or D) on the answer sheet corresponding to the action you choose.

1. You have come across a lost wallet with a large sum of money in it as well as identification of the owner. You:
 - A. return the wallet without letting the owner know who you are. (A; 38%)
 - B. return the wallet in hopes of receiving a reward. (R; 47%)
 - C. keep the wallet and the money. (S; 13%)
 - D. leave the wallet where you found it. (I; 2%)
2. A child riding his or her tricycle past your house appears to be lost. You:
 - A. ignore the child so you avoid potential entanglements and misunderstanding. (S; 4%)
 - B. figure the child can find his or her own way home. (I; 9%)
 - C. ask the child where he or she lives and take him or her home. (A; 79%)
 - D. take the child into your home and notify the police. (R; 9%)
3. Which would you be most likely to do on a Saturday afternoon?
 - A. find someone to help you on a long overdue project (S; 13%)
 - B. go to a movie alone (I; 10%)
 - C. work on a part-time job (R; 51 %)
 - D. help a friend panel his basement (A; 27%)
4. A man who confronts you in Chicago's Loop does not speak English but appears to need directions. You:
 - A. keep on walking so you won't be late. (S; 4%)
 - B. pretend you don't hear him. (I; 5%)
 - C. decide what to do on the basis of his appearance. (R; 32%)
 - D. help him in any way you can. (A; 59%)
5. The night before an important exam, a student shows you a stolen copy of the test. You:
 - A. inform the instructor that a copy has been stolen. (R; 3%)
 - B. refuse to look at the stolen copy and say nothing to the instructor. (I; 31%)
 - C. study the stolen exam and get a good grade. (S; 62%)
 - D. leave an anonymous note informing the instructor the exam has been stolen. (A; 4%)
6. When it comes to cooperating when I would rather not, I usually:
 - A. cooperate if it is helpful to others. (A; 61 %)

- B. cooperate if it is helpful to me. (R; 20%)
 - C. refuse to get involved. (I; 3%)
 - D. avoid situations where I might be asked to cooperate. (S; 16%)
7. A friend asks to borrow an article of clothing. You:
- A. say you don't like to lend clothing. (S; 12%)
 - B. say no. (I; 6%)
 - C. lend the article if you may borrow something in return on another occasion. (R; 13%)
 - D. lend the article if you know the person really wants it. (A; 69%)
8. A person in one of your classes is having trouble at home and with school work. You:
- A. help the person as much as you can. (A; 86%)
 - B. tell the person not to bother you. (S; 1 %)
 - C. leave the person alone to work out his or her own problems. (I; 9%)
 - D. agree to tutor the person for a reasonable fee. (R; 4%)
9. You are on the second floor of a building and notice a man stumbling around and appearing to be in trouble. You:
- A. ignore him. (I; 14%)
 - B. call the police fearing possible danger. (S; 22%)
 - C. go out to help only if you recognize him. (R; 21%)
 - D. go out to assist him regardless of whether you know him. (A; 43%)
10. You are approached by someone asking for a contribution to a well-known charity. You:
- A. give if there is something received in return. (R; 4%)
 - B. refuse to contribute. (S; 11%)
 - C. give whatever amount you can. (A; 70%)
 - D. pretend you are in a hurry. (I; 15%)
11. A neighbor calls you and asks you for a ride to the store that is six blocks away. You:
- A. refuse, thinking you will never need a favor from him. (S; 1%)
 - B. explain that you are too busy at the moment. (I; 10%)
 - C. immediately give the ride and wait while the neighbor shops. (A; 33%)
 - D. consent if the neighbor is a good friend. (R; 56%)
12. Alone in your home, you hear a woman outside calling for help. You:
- A. go to her aid. (A; 44%)
 - B. call the police and join them at the scene. (R; 49%)
 - C. are afraid to intervene directly, so you take no action. (S; 1%)
 - D. are sure someone else has heard her so you wait. (I; 6%)
13. You are driving to school and notice a person of the same sex and about your age who appears to have car trouble. You:
- A. stop because the person is in one of your classes. (R; 27%)
 - B. stop to help even though the person is a stranger. (A; 24%)
 - C. drive by. (I; 26%)
 - D. do not stop because you know it can be dangerous. (S; 23%)
14. When asked to volunteer for a task in which you will receive no pay, you:
- A. avoid or put off answering. (I; 27%)
 - B. explain that you don't agree with the objectives to be accomplished and therefore couldn't volunteer. (S; 12%)

- C. compromise and help if you will receive some recognition. (R; 27%)
D. volunteer without questions. (A; 35%)
15. An elderly lady standing on a street corner appears to be lost. You:
A. go and help her. (A; 76%)
B. help her only if she is dressed nicely. (R; 7%)
C. assume someone else will help her. (I; 7%)
D. leave her alone, fearing she may think you are a purse snatcher. (S; 10%)
16. Your religious group sponsors a pancake breakfast (all you can eat) to benefit a needy organization. You:
A. purchase a ticket, not intending to go. (A; 30%)
B. purchase a ticket and go. (R; 46%)
C. purchase a ticket and eat all you can. (S; 13%)
D. don't purchase a ticket. (I; 12%)
17. A hitchhiker is thumbing for a ride late in the evening. It is raining and few cars are on the road. You:
A. offer a ride if the person looks like someone you want to talk to. (R; 6%)
B. drive by fearing for your safety. (S; 37%)
C. drive by and avoid the person. (I; 47%)
D. stop and offer a ride. (A; 10%)
18. You are in a waiting room with another person. If you heard a scream in the adjoining room and the other person failed to respond, you would:
A. help the screaming person whether the other person helps or not (A; 50%)
B. help the screaming person only if the other person does too. (R; 10%)
C. wait to see if the screaming continues. (I; 34%)
D. leave the room. (S; 6%)
19. Which type of group would you be most likely to join?
A. a club devoted to leisure activities (S; 34%)
B. a club that provides help for others and also activities for yourself (R; 44%)
C. a club devoted primarily to helping others (A; 7%)
D. not join any (I; 15%)
20. A poorly dressed person confronts you on a deserted street seeking a dime. You:
A. ignore him. (I; 31%)
B. ask him what the money is for. (R; 16%)
C. give him the dime, without asking any questions. (A; 45%)
D. refuse him the dime because it's just too much trouble. (S; 9%)
21. Which of the following would you be most likely to do?
A. I like to help my friends. (A; 56%)
B. I like to deal with my problems on my own. (I; 23%)
C. I like to help my friends if they are likely to help me. (R; 15%)
D. I like it when other people help me. (S; 5%)
22. When asked to volunteer for a needy cause for which you will receive pay, you:
A. volunteer but don't accept the pay. (A; 20%)
B. volunteer and except the pay (R; 62%)
C. do not volunteer. (I; 10%)
D. volunteer if you are certain of getting paid and if the work is not demanding (S; 9%)
23. A friend from another college visits your roommate for a weekend. He wants to use your meal pass in order to eat in the cafeteria for free. You:

- A. give him your meal pass if your roommate promises to do the same for you sometime. (R; 56%)
- B. pretend that you don't have a meal pass. (I; 13%)
- C. give him your meal pass if he will pay you something. (S; 15%)
- D. give him your meal pass without eating yourself. (A; 16%)

Theories of Self- versus Other Relations

(Gerbasi & Prentice, 2013)

Instructions: Please indicate your level of agreement with the following statements on a scale ranging from 1-7 (*1 = strongly disagree to 7 = strongly agree*).

1. I am concerned about doing as well or better than those around me. (SC)
2. It is the total amount of benefit that everyone receives that matters most. (PS)
3. I make sure that what I am getting is better than what other people are getting. (SC)
4. I am happy to help others as long as I know that I am doing okay first. (SP)
5. I look out for myself first, and then I try to make sure others are doing okay. (SP)
6. I try to make sure I stay ahead of the curve. (SC)
7. I am concerned with overall best interest for everyone. (PS)
8. When I'm not doing well, I can't be expected to try to take care of other people. (SP)
9. I think people should take care of themselves. (SM)
10. I look out for my own outcomes and don't concern myself with what happens to other people. (SM)
11. I only care about my interests. (SM)
12. I would be happy to give up a little of something that I wanted if it meant that everyone is better off in the long run. (PS)

Note. SC _ self-comparative relation; PS _ prosocial subscale; SM _ self-maximizing relation; SP _ self-prioritizing relation.

Scores are averaged across the three items comprised by each subscale.

Equity Sensitivity

Sauley & Bebeian, (2000)

Instructions: Please indicate the extent to which you disagree or agree to the following statements.

Rating Scale: *Strongly Disagree* (1) to *Strongly Agree* (7)

1. I prefer to do as little as possible at work while getting as much as I can from my employer
2. I am most satisfied at work when I have to do as little as possible
3. When I am at my job, I think of ways to get out of work
4. If I could get away with it, I would try to work just a little bit slower than the boss expects
5. It is really satisfying to me when I can get something for nothing at work
6. It is the smart employee who gets as much as he/she can while giving as little as possible in return

7. Employees who are more concerned about what they can get from their employer rather than what they can give to their employer are the wise ones
8. When I have completed my task for the day, I help out other employees who have yet to complete their tasks
9. Even if I received low wages and poor benefits from my employer, I would still try to do my best at my job
10. If I had to work hard all day at my job, I would probably quit
11. I feel obligated to do more than I am paid to do at work
12. At work, my greatest concern is whether or not I am doing the best job I can
13. A job which requires me to be busy during the day is better than a job which allows me a lot of loafing
14. At work, I feel uneasy when there is little work for me to do
15. I would become very dissatisfied with my job if I had little or no work to do
16. All other things being equal, it is better to have a job with a lot of duties and responsibilities than one with few duties and responsibilities

Prosocial Motivation

Grant (2008)

Instructions: Each statement proceeds with the question “Why are you motivated to do your work? All items are rated on a seven-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

1. I prefer to work on tasks that allow me to have a positive impact on others
2. I am most motivated when I have the opportunity to use my abilities to benefit others
3. I like to work on tasks that have the potential to benefit others
4. I get energized by working on tasks that have the potential to benefit others
5. I do my best when I’m working on a task that contributes to the well-being of others

Competitive Motivation

(Cardador & Wrzesiewski, 2015)

Instructions: Please indicate your level of agreement with the following statements:

Rating Scale: Strongly Disagree (1) to Strongly Agree (7)

1. I am most motivated when I am doing better than others.
2. I am most motivated when I am competing with others.
3. I care about performing better than my coworkers.
4. I prefer working on tasks when I am in a leadership position.
5. I prefer being in charge of others.
6. I get energized by being I am praised for my work.

The Personal Norm of Reciprocity Scale

(Perguini, Gallucci, Presaghi, & Ercolani, 2003)

Instructions: Please indicate your level of agreement with the following statements:

Rating Scale: *Strongly Disagree* (1) to *Strongly Agree* (7)

Original instructions: Please indicate the extent to which you agree with the following statements, using the rating scale provided ranging from (1) *not true for me* to (7) *very true for me*.

| <u>Original Items</u> from the Beliefs in Reciprocity Scale | <u>Modified items</u> as used in Study 1 <u>Stem:</u> I am motivated to... |
|---|---|
| 1. To help somebody is the best policy to be certain that s/he will help you in the future | 1.* help someone because I believe doing so is the best policy to be certain that s/he will help me in the future |
| 2. I do not behave badly with others so as to avoid them behaving badly with me | 2. behave nicely to avoid others who I have behaved badly with behaving badly with me |
| 3. I fear the reactions of a person I have previously treated badly | 3.* treat others nicely because I fear the reactions of a person I have previously treated badly |
| 4. If I work hard, I expect it will be repaid | 4.* work hard because I expect it will be repaid |
| 5. When I pay someone compliments, I expect that s/he in turn will reciprocate | 5. pay someone compliments because I expect that s/he in turn will reciprocate |
| 6. I avoid being impolite because I do not want others being impolite with me | 6. avoid being impolite because I do not want others being impolite with me |
| 7. If I help tourists, I expect that they will thank me nicely | 7. help tourists because I expect that they will thank me nicely |
| 8. It is obvious that if I treat someone badly s/he will look for revenge | 8. treat someone nicely because it is obvious that if I treat someone badly s/he will look for revenge |
| 9. If I don't leave a good tip in a restaurant, I expect that in future I will not get good service | 9.* leave a good tip in a restaurant because I expect that in future I will not get good service if I don't |

Note: *Additional minor changes were made to the item for readability purposes.

Impression Management Motives

Adapted from the Citizenship Motives Scale (Rioux & Penner, 2001). Modifications are highlighted in **bold**.

Instructions: The following statements represent common reasons for why individuals help other people. To what extent do you *strongly disagree* or *strongly agree* that the statement apply to your reasons for helping someone with something?

| Original Items | Modified Items used in Study 1 |
|---|---|
| 1. To avoid looking bad in front of others | 1. To avoid looking bad in front of others |
| 2. To avoid looking lazy | 2. To avoid looking lazy |
| 3. To look better than my co-workers | 3. To look better than others |
| 4. To avoid a reprimand from my boss | 4. To avoid a reprimand from someone with that authority |
| 5. Because I fear appearing irresponsible | 5. Because I fear appearing irresponsible/ careless |
| 6. To look like I am busy | 6. To look like I am busy |
| 7. To stay out of trouble | 7. To stay out of trouble |
| 8. Because rewards are important to me | 8. Because I might get rewarded |
| 9. Because I want a raise | 9. Because I want to get ahead |
| 10. To impress my co-workers | 10. To impress someone |

Life Satisfaction – Study 1

(Cheung & Lucas, 2014).

Instructions: Please indicate your level of satisfaction in relation to the following statements:

Rating Scale: *Very Satisfied* (1) to *Very Dissatisfied* (4)

1. The conditions of my life are excellent
2. My life is close to perfect
3. I have gotten the important things I want in life
4. I am satisfied with my life

Subjective Career Success – Study 1

(Greenhaus et al., 1990)

Instruction: Please indicate the extent to which you disagree/agree to the following statements:

Rating Scale: *Strongly disagree* (1) to *Strongly agree* (5)

1. I am satisfied with the success I have achieved in my career
2. I am satisfied with the progress I have made towards meeting my overall career goals
3. I am satisfied with the progress I have made towards meeting my goals for income
4. I am satisfied with the progress I have made towards meeting my goals for achievement

5. I am satisfied with the progress I have made towards meeting my goals for the development of new skills

Comparative Career Success – Study 1

(Abele & Wiese, 2008)

Instructions: Please answer the following question:

Rating Scale: *Less successful* (1) to *More successful* (5)

1. Compared with your fellow students/colleagues, how successful do you think you think your career development has been so far?

Life Satisfaction – Study 2

(Cheung & Lucas, 2014)

Instructions: Please indicate your level of satisfaction in relation to the following statement:

Rating Scale: *Very satisfied* (1) to *Very dissatisfied* (4)

1. In general, how satisfied are you with your life?

Job Satisfaction

(Abele & Spurk, 2009)

Instructions: Please indicate your level of satisfaction/dissatisfaction with the following statement:

Rating Scale: *Very satisfied* (1) to *Very dissatisfied* (5)

1. All in all, how satisfied are you with your job at the moment?

Comparative Career Success

(Abele & Spurk, 2009).

Instructions: Please answer the following question:

Rating Scale: *Significantly more successful* (1) to *Significantly less successful* (5)

1. Compared with your fellow colleagues, how successful do you think your career development has been so far?

Burnout

(Rohland, Kruse, & Rohrer, 2004)

Instructions: Overall, based on your definition of burnout, how would you rate your level of burnout? Please use the rating scale below to provide your answer.

Rating Scale:

1. I enjoy my work. I have no symptoms of burnout
2. Occasionally I am under stress, I don't always have as much energy as I once did, but I don't feel burned out
3. I am definitely burning out and have one or more symptoms of burnout, such as physical and emotional exhaustion
4. The symptoms of burnout that I'm experiencing won't go away. I think about frustration at work a lot
5. I feel completely burned out and often wonder if I can go on. I am at the point where I may need some changes or may need to seek some sort of help.

Social Desirability

(Reynolds, 1982)

Instructions: Please answer the following statements using the rating scale below.

Rating Scale: *True* (T) or *False* (F)

1. It is sometimes hard for me to go on with my work if I am not encouraged
2. I sometimes feel resentful when I don't get my way
3. On a few occasions, I have given up doing something because I thought too little of my ability
4. There have been many times when I have felt like rebelling against people in authority even when I knew they were right
5. No matter who I'm talking to, I'm always a good listener
6. There have been occasions when I took advantage of someone
7. I'm always willing to admit it when I make mistakes
8. I sometimes try to get even rather than forgive and forget
9. I am always courteous, even to people who are disagreeable
10. I have never been irked when people expressed ideas very differently from my own
11. There have been times when I was quite jealous of the good fortune of others
12. I am sometimes irritated by people who ask favors of me
13. I have never deliberately said something that hurt someone's feelings

The Workplace Big Five (WPB5)

(Howard & Howard, 2013)

Instructions: Please answer the following statements using the rating scale below:

-2 = *the opposite is clearly true*, -1 = *the opposite is somewhat true*, 0 = *depends on the situation*, +1 = *true*, +2 = *definitely true*

N: Need for Stability (Steady vs. Reactive)

N1: Worry (At Ease v. Worrying)

1. Gets tense awaiting outcomes (+)
2. Is sensitive to what others think about him/her (+)
3. Takes criticism personally (+)
4. Worries about being understood (+)

N2: Intensity (Cool vs. Hot)

5. Is calm in the middle of conflict (-)
6. Remains calm when mistreated (-)
7. Stays cool even when mistreated (-)

N3: Interpretation (Optimistic vs. Pessimistic)

8. Feels guilty when others are disappointed (+)
9. Takes rejection personally (+)
10. Maintains composure under personal attack (-)
11. Exhibits no self-doubt (-)
12. Rarely experiences a sense of failure (-)

N4: Rebound Time (Rapid vs. Longer)

13. Enjoys juggling multiple priorities (-)
14. Takes some time to recover from bad news (+)
15. Recovers promptly after setbacks (-)

- 16. Bounces back quickly from disappointment (-)
- 17. Keeps adding new and different responsibilities to his/her plate (-)

Extraversion (Introversion vs. Extraversion)

E1: Warmth (Holds Down Positive Feelings vs. Shows Positive Feelings)

- 18. Avoids close friendships with work associates (-)
- 19. Resists getting into chit-chat with associates (-)
- 20. Shares a lot of personal information with work associates (+)
- 21. Works to develop relations with many associates (+)
- 22. Enjoys being the center of attention (+)
- 23. Shows little emotion (-)
- 24. Is a talker (+)

E2: Sociability (Works alone vs. Works with Others)

- 25. Enjoys making calls on others (+)
- 26. Initiates get-togethers (+)
- 27. Prefers writing to talking (-)
- 28. Makes the first move for face-to-face contact (+)
- 29. Prefers to work in solitude (-)
- 30. Would rather talk than write (+)
- 31. Thrives on working with people (+)

E3: Activity Mode (Still vs. Active)

- 32. Has energy to spare (+)
- 33. Is physically active (+)
- 34. Stays on the move (+)
- 35. Strives to stay in top physical condition (+)
- 36. Learns best when physically active (+)

E4: taking Charge (Independent vs. Responsible for Others)

- 37. Likes to direct the work of others (+)
- 38. Resists taking the leadership role (-)
- 39. Dislikes leadership roles (-)
- 40. Likes to tell others what to do (+)

E5: Trusts of Others (Skeptical vs. Trusting)

- 41. Assumes associates will do what they say (+)
- 42. Takes people at their word (+)
- 43. Thinks most people are trustworthy (+)

E6: Tact (Harsh vs. Smooth)

- 44. Disagrees tactfully (+)
- 45. Facilitates discussion effectively (+)
- 46. Inspires others to action (+)
- 47. Is smooth in handling people (+)

O: Originality (Delivery vs. Design)

O1: Imagination (Implementer of Plans vs. Creator of Plans)

- 48. Is an “idea machine” (+)
- 49. Likes to imagine new business concepts (+)
- 50. Prefers carrying out plans to developing them (-)
- 51. Prefers implementing plans to thinking them up (-)

O2: Complexity (Simpler vs. more Complex)

- 52. Explores new theories, both in and out of his/her field (+)
- 53. Is known for breadth of knowledge (+)

54. Prefers complex to simple problems (+)
 55. Is known as a problem solver (+)
O3: Change (Resist vs. Accept Change)
 56. Enjoys rethinking (or re-engineering) processes (+)
 57. Is set in his/her ways (-)
 58. Readily accepts change in the plan (+)
 59. Resists changes to the plan (-)
 60. Seeks innovative approaches (+)
 61. Waits until something needs fixing before improving it (-)

O4: Scope (Attentive to Details vs. Prefers Bigger Picture)

62. Is cautious (-)
 63. Is comfortable with repetitive attention to detail (-)
 64. Is patient while attending to the detail (-)
 65. Enjoys taking care of the details (-)

Accommodation (Challenging vs. Adapting)

A1: Others' Needs (Focused on Personal Agenda vs. Focused on Others' Agenda)

66. Interrupts others (-)
 67. Prefers expressing opinions over listening to them (+)
 68. Prefers own agenda to focusing on others' needs (-)
 69. Can't keep his/her opinion out of the discussion (-)

A2: Agreement (Engagement vs. Harmony)

70. Enjoys competing (-)
 71. Enjoys persuading others (-)
 72. Avoids direct conflict (+)
 73. Can make unpleasant or unpopular decisions (-)
 74. Backs off in an argument (+)
 75. Is a follower (+)
 76. Needs to win (-)

A3: Humility (Seeks vs. Deflects)

77. Takes credit when deserved (-)
 78. Declines persona credit for success (+)
 79. Enjoys getting credit in front of others (-)
 80. Is uneasy when receiving praise (+)

A4: Reserve (Speaks Up/Out Front vs. Holds Back/In Background)

81. Gives opinions readily (-)
 82. Holds his/her tongue in meetings (+)
 83. Is comfortable staying in the background (+)
 84. Speaks out in meetings (-)
 85. Prefers for others to talk in meetings (+)

Consolidation (Flexible vs. Focused)

C1: Perfectionism (As Is vs. Perfect)

86. Is a perfectionist (+)
 87. Is comfortable with less than perfect results (-)
 88. Is comfortable with clutter (-)
 89. Does not tolerate less than 100% effort (+)
 90. Is focused on achieving high efficiencies (+)

C2: Organization (Random vs. Structured)

91. Gets organized before beginning a task (+)

- 92. Is neat and tidy (+)
- 93. Keeps everything in its place (+)
- 94. Organizes for work effectively (+)
- 95. Spends time searching for misplaced things (-)

C3: Drive (Satisfied vs. Hungry)

- 96. Has clear goals (+)
- 97. Is ambitious (+)
- 98. Is charismatic (+)
- 99. Is driven to be “number one” (+)
- 100. Prefers a slower pace (-)

C4: Concentration (Parallel vs. Serial)

- 101. Is easily distracted (-)
- 102. Readily switches tasks before completion (-)
- 103. Resists distractions (+)

C5: Methodicalness (Spontaneous vs. Planned)

- 104. Has a plan for everything (+)
- 105. Is always prepared (+)
- 106. Prefers organizing work as much or more than the work itself (+)
- 107. Stays organized with minimum effort (+)

International Personality Item Pool

(Maples et al., 2014)

Instructions: On the following pages you will find a series of statements about you. Please read each statement and decide how much you agree or disagree with that statement. Then write your response in the space next to the statement using the following scale:

5 = strongly agree

4 = agree

3 = neutral (neither agree nor disagree)

2 = disagree

1 = strongly disagree

Please answer every statement, even if you are not completely sure of your response.

N1: Anxiety

- 1. Worry about things
- 2. Fear for the worst
- 3. Am afraid of many things
- 4. Get stressed out easily

N2: Anger

- 5. Get angry easily
- 6. Get irritated easily
- 7. Lose my temper
- 8. Rarely get irritated (-)

N3: Depression

- 9. Often feel blue
- 10. Dislike myself
- 11. Am often down in the dumps

12. Have a low opinion of myself

N4: Self-consciousness

13. Find it difficult to approach others

14. Am easily intimidated

15. Am not embarrassed easily (-)

16. Am able to stand up for myself (-)

N5: Immoderation

17. Often eat too much

18. Go on binges

19. Rarely overindulge (-)

20. Am able to control my cravings (-)

N6: Vulnerability

21. Feel that I'm unable to deal with things

22. Know how to cope (-)

23. Am calm even in tense situations (-)

24. Remain calm under pressure (-)

E1: Friendliness

25. Make friends easily

26. Warm up quickly to others

27. Feel comfortable around people (-)

28. Act comfortably with others (-)

E2: Gregariousness

29. Love large parties

30. Talk a lot to different people at parties

31. Don't like crowded events (-)

32. Avoid crowds (-)

E3: Assertiveness

33. Take charge

34. Try to lead others

35. Take control of things

36. Wait for others to lead the way (-)

E4: Activity Level

37. Am always busy

38. Am always on the go

39. Do a lot in my spare time

40. Can manage many things at the same time

E5: Excitement-Seeking

41. Love excitement

42. Seek adventure

43. Love action

44. Enjoy being reckless

E6: Cheerfulness

45. Radiate joy

46. Have a lot of fun

47. Love life

46. Laugh aloud

O1: Imagination

47. Have a vivid imagination

48. Enjoy wild flights of fantasy

49. Love to daydream

50. Like to get lost in thought

O2: Artistic Interests

51. See beauty in things that others might not notice

52. Do not like art (-)

53. Do not like poetry (-)

54. Do not enjoy going to art museums (-)

O3: Emotionality

55. Experience my emotions intensely

56. Seldom get emotional (-)

57. Am not easily affected by my emotions (-)

58. Experience very few emotional highs and lows (-)

O4: Adventurousness

59. Prefer to stick with things that I know (-)

60. Dislike changes (-)

61. Don't like the idea of change (-)

62. Am attached to conventional ways (-)

O5: Intellect

63. Am not interested in abstract ideas (-)

64. Avoid philosophical discussions (-)

65. Have difficulty understanding abstract ideas (-)

66. Am not interested in theoretical discussions (-)

O6: Liberalism

67. Tend to vote for liberal political candidates

68. Believe in one true religion (-)

69. Tend to vote for conservative political candidates (-)

70. Like to stand during the national anthem (-)

A1: Trust

71. Trust others

72. Believe that others have good intentions

73. Trust what people say

74. Distrust people

A2: Morality

75. Use flattery to get ahead (-)

76. Know how to get around the rules (-)

77. Cheat to get ahead (-)

78. Take advantage of others (-)

A3: Altruism

79. Make people feel welcome

80. Love to help others

81. Am concerned about others

82. Turn my back to others (-)

A4: Cooperation

83. Love a good fight (-)

84. Yell at people (-)

85. Insult people (-)

86. Get back at others (-)

A5: Modesty

- 87. Believe that I am better than others
- 88. Think highly of myself
- 89. Have a high opinion of myself
- 90. Make myself the center of attention

A6: Sympathy

- 91. Sympathize with the homeless
- 92. Feel sympathy for those who are worse off than myself
- 93. Suffer from others' sorrows
- 94. Am not interested in other peoples' problems

C1: Self-Efficacy

- 95. Complete tasks successfully
- 96. Excel in what I do
- 97. Handle tasks smoothly
- 98. Know how to get things done

C2: Orderliness

- 99. Like order
- 100. Like to tidy up
- 101. Leave a mess in my room (-)
- 102. Leave my belongings around (-)

C3: Dutifulness

- 103. Keep my promises
- 104. Tell the truth
- 105. Break my promises (-)
- 106. Get others to do my duties (-)

C4: Achievement-Striving

- 107. Work hard
- 108. Do more than what's expected of me
- 109. Set high standards for myself
- 110. Am not highly motivated to succeed (-)

C5: Self-Discipline

- 111. Start tasks right away
- 112. Find it difficult to get down to work (-)
- 113. Need a push to get started (-)
- 114. Have difficulty starting tasks (-)

C6: Cautiousness

- 115. Jump into things without thinking (-)
- 116. Make rash decisions (-)
- 117. Rush into things (-)
- 118. Act without thinking (-)

HEXACO Personality Inventory (Honesty-Humility).

Lee and Ashton, (2004)

Instructions: On the following pages you will find a series of statements about you. Please read each statement and decide how much you agree or disagree with that statement. Then write your response in the space next to the statement using the following scale:

5 = strongly agree

4 = agree

3 = neutral (neither agree nor disagree)

2 = disagree

1 = strongly disagree

Please answer every statement, even if you are not completely sure of your response.

Sincerity

1. Don't pretend to be more than I am (+)
2. Use flattery to get ahead (-)
3. Tell other people what they want to hear so that they will do what I want them to do (-)
4. Put on a show to impress people (-)
5. Switch my loyalties when I feel like it (-)
6. Play a role in order to impress people (-)
7. Pretend to be concerned for others (-)
8. Act like different people in different situations (-)
9. Find it necessary to please the people who have power (-)
10. Let people push me around to help them feel important (-)

Fairness

11. Would never take things that aren't mine
12. Would never cheat on my taxes
13. Return extra change when a cashier makes a mistake
14. Would feel very badly for a long time if I were to steal from someone
15. Try to follow the rules
16. Admire a really clever scam (-)
17. Cheat to get ahead (-)
18. Steal things (-)
19. Cheat on people who have trusted me (-)
20. Would not regret my behavior if I were to take advantage of someone (-)

Greed-Avoidance

21. Would not enjoy being a famous celebrity
22. Don't strive for elegance in my appearance
23. Love luxury (-)
24. Have a strong need for power (-)
25. Seek status (-)
26. Am mainly interested in money (-)
27. Wish to stay young forever (-)
28. Try to impress others (-)
29. Prefer to eat at expensive restaurants (-)
30. Am out for own personal gain (-)

Modesty

31. Don't think that I'm better than other people
32. See myself as an average person
33. Am just an ordinary person
34. Consider myself an average person
35. Would like to have more power than other people (-)
36. Believe that I am better than others (-)

37. Like to attract attention (-)
38. Am more capable than most others (-)
39. Am likely to show off if I get the chance (-)
40. Boast about my virtues (-)

Counterproductive Work Behavior (CWB)

(Bennett & Robinson, 2000)

Instructions: Please rate the following statements, using the rating scale below, with respect to the extent to which you have engaged in the various behaviors in the past year.

- 1 = Never
- 2 = Once a year
- 3 = Twice a year
- 4 = Several times a year
- 5 = Monthly
- 6 = Weekly
- 7 = Daily

Interpersonal Deviance

1. Made fun of someone at work
2. Said something hurtful to someone at work
3. Made an ethnic, religious, or racial remark at work
4. Cursed at someone at work
5. Played a mean prank on someone at work
6. Acted rudely toward someone at work
7. Publicly embarrassed someone at work

Organizational Deviance

8. Taken property from work without permission
9. Spent too much time fantasizing or daydreaming instead of working
10. Falsified a receipt to get reimbursed for more money than you spent on business expenses
11. Taken an additional or longer break than is acceptable at your workplace
12. Came in late to work without permission
13. Littered your work environment
14. Neglected to follow your boss's instructions
15. Intentionally worked slower than you could have worked
16. Discussed confidential company information with an unauthorized person
17. Used an illegal drug or consumed alcohol on the job
18. Put little effort into your work
19. Dragged out work in order to get overtime

Leading Managers 360

(Center for Creative Leadership, 2014)

All raters are asked to indicate the extent to which the individual display specific behaviors, using the following rating scale:

- 1 = To a very little extent

2 = To a little extent

3 = To some extent

4 = To a great extent

5 = To a very great extent

DK = Don't Know/Not Applicable

Self-awareness

1. Sorts out his/her strengths and weaknesses fairly accurately (i.e., knows him/herself)
2. Does an honest self-assessment
3. Seeks corrective feedback to improve him/herself.
4. Makes needed adjustments in own behavior.
5. Is aware of his/her feelings.

Learning agility

6. Seeks out new and diverse work experiences
7. Seeks experiences that will change his/her perspective
8. Tries new approaches
9. Learns a new skill quickly
10. Quickly masters new vocabulary and operating rules needed to understand how the business works

Communication

11. Expresses ideas fluently and eloquently
12. Clearly articulates even the most complex concepts
13. Tailors communication based on other's needs, motivations, and agendas
14. Listens to individuals at all levels in the organization
15. Prevents unpleasant surprises by communicating important information
16. Encourages direct and open discussions about important issues
17. Involves others before developing plan of action

Influencing higher management

18. Does his/her homework before making a proposal to top management
19. Works effectively with higher management (e.g., presents to them, persuades them, and stands up to them if necessary)
20. Understands higher management values, how higher management operates, and how they see things
21. Has solid working relationships with higher management

Influencing across the organization

22. When working with a group over whom he/she has no control, gets thing done by finding common ground
23. When working with peers from other functions or units, gains their cooperation and support
24. Is good at promoting an idea or vision; persuading
25. Is able to inspire, motivate people; sparks others to take action
26. Influences others without using formal authority
27. Possesses extensive network of contacts necessary to do the job
28. Has an astute sense of "politics"

Acting systematically

29. Understands the political nature of the organization and works appropriately within it
30. Considers the impact of his/her actions on the entire system

31. Deals effectively with contradictory requirements or inconsistencies in the organization

32. Establishes strong collaborative relationships

33. Effectively creates alliances throughout the organization

Responding to complexity

34. Recognizes that every decision has conflicting interests and constituencies

35. Balances what will pay off in the short run with what will provide long-term improvements

36. Knows when to hold fast to personal values and when to consider others' values

37. Recognizes ethical dilemmas when they occur

38. Sees underlying concepts and patterns in complex situations

Broad organizational perspective

39. Understands the perspective of different functional areas in the organization

40. Knows how the various parts of the organization fit together

41. Has solid understanding of our products and services

Resiliency

42. Puts stressful experiences into perspective and does not dwell on them

43. Balances life in a way that allow him/her to maintain emotional equilibrium

44. Anticipates the kinds of situations that cause him/her excessive stress

45. Tolerates ambiguity or uncertainty well

46. Handles mistakes or setbacks with poise and grace

47. Maintains composure under stress

Balance between personal life and work

48. Acts if there is more to life than just having a career

49. Has activities and interests outside of career

50. Does not let job demands cause family problems

51. Does not take career so seriously that his/her personal life suffers

Negotiation

52. Is effective at managing conflict

53. Negotiates adeptly with individuals and groups over roles and resources

54. Uses good timing and common sense in negotiating; makes his/her points when the time is ripe and does it diplomatically

55. Accurately senses when to give and take when negotiating

Selecting and developing others

56. Finds and attracts highly talented and productive people

57. Provides prompt feedback, both positive and negative

58. Coaches employees in how to meet expectations

59. Develops employees by providing challenges and opportunities

60. Actively promotes his/her direct reports to senior management

Taking risks

61. Has vision; often brings up ideas about potentials and possibilities for the future

62. Is entrepreneurial; seizes new opportunities

63. Will persevere in the face of obstacles or criticism when he/she believes what he/she is doing is right

64. Acts when others hesitate or just talk

65. Is willing to go against the grain

Implementing change

66. Accepts change as positive

- 67. Takes into account people's concerns during change
- 68. Effectively involves key people in the design and implementation of change
- 69. Effectively manages others' resistance to organizational change
- 70. Is straightforward with individuals about consequences of an expected action or decision

Managing globally dispersed teams

- 71. Effectively selects and develops people in multiple cultural settings
- 72. Can evaluate the work of others in a culturally neutral way
- 73. Can motivate multicultural teams effectively
- 74. Can inspire information sharing among individuals who do not know/see each other and who may represent different cultures
- 75. Can adapt to meet cultural expectations

Problems That Can Stall A Career

(Leading Managers 360; CCL, 2014)

Problems with interpersonal relationships

- 95. Is arrogant (e.g., devalues the contribution of others)
- 96. Is dictatorial in his/her approach
- 97. Makes direct reports feel stupid or unintelligent
- 98. Has left a trail of bruised people
- 99. Is emotionally volatile and unpredictable
- 100. Is reluctant to share decision making with others
- 101. Adopts a bullying style under stress
- 102. Orders people around rather than working to get them on board

Difficulties building and leading a team

- 103. Does not resolve conflict among direct reports
- 104. Hires people with good technical skills but poor ability to work with others
- 105. Does not motivate team members to do the best for the team
- 106. Selects people for a team who don't work well together
- 107. Is not good at building a team
- 108. Does not help individuals understand how their work fits into the goals of the organization
- 109. Fails to encourage and involve team members

Difficulty changing or adapting

- 110. Cannot adapt to a new boss with a more participative management style
- 111. Has not adapted to the culture of the organization
- 112. Is unprofessional about his/her disagreement with upper management
- 113. Has an unresolved interpersonal conflict with boss
- 114. Is not adaptable to many different types of people
- 115. Resists learning from his/her mistakes
- 116. Does not use feedback to make necessary changes to his/her behaviors
- 117. Does not handle pressure well
- 118. Has not adapted to the management culture
- 119. Can't make the mental transition from technical manager to general manager

Failure to meet business objectives

- 120. Neglects necessary work to concentrate on high-profile work

- 121. Is overwhelmed by complex tasks
- 122. May have exceeded his or her current level of competence
- 123. Over-estimate his/her own abilities
- 124. Has difficulty meeting the expectations of his/her current position
- 125. Is self-promoting without the results to support it

Too narrow of a functional orientation

- 126. A promotion would cause him or her to go beyond their current level of competence
- 127. Is not ready for more responsibility
- 128. Would not be able to manage in a different department
- 129. Could not handle management outside of current function
- 130. Doesn't understand how other departments function in the organization