Running Head: COGNITIVE ABILITY AND VICTIMIZATION

Get Smarty Pants: Cognitive Ability, Personality, and Victimization

**Eugene Kim**

Carlson School of Management

University of Minnesota

612-626-9942

Kimx0897@umn.edu

**Theresa M. Glomb**

Carlson School of Management

University of Minnesota

*Under 3rd review at Journal of Applied Psychology*

Get Smarty Pants: Cognitive Ability, Personality, and Victimization

Abstract

Drawing on the victim precipitation model, this study provides an empirical investigation of the relationship between cognitive ability and victimization at work. We propose that people high in cognitive ability are more prone to victimization. This study also examines the direct and moderating effects of victims’ personality traits, specifically the two interpersonally-oriented personality dimensions of agency and communion. Results support the direct positive relationship of cognitive ability and victimization. The positive relationship between high cognitive ability and victimization is moderated by the victims’ personality traits; agency personality traits strengthen the relationship of cognitive ability and victimization, whereas communion personality traits weaken this relationship.

Keywords: cognitive ability, victimization, personality, agency, communion.

Get Smarty Pants: Cognitive Ability, Personality, and Victimization

 Recently, a Seattle Times article described the victimization of Suzuki Ichiro, a high ability baseball player, who achieved 200-hits for eight consecutive years and was the 2007 All Star Game MVP (see Baker, 2008). The article reported that his teammates from the Seattle Mariners stated they “really dislike him” and wanted to “knock him out” because this high ability player cares more about individual records than team records. A popular press article (Bruzzese, 2002) reported that victims of workplace bullying are often employees who are “smart” and “talented,” and organizations which fail to prevent victimization against these talented employees will experience their turnover, decreases in productivity, and increases in health care costs (see also Murphy, 2006). Similarly, a survey of workplace victimization suggests that “bright” people are often targets of interpersonal aggression because of their high level of ability (Namie & Namie, 2000). In the school context, research by Peterson and Ray (2006a, 2006b) on gifted children suggests that many high ability students experience bullying in school because of their intellectual capability. Although each of the above examples provides a mere glimpse into the phenomena of victimization, together they suggest that ability may be a critical precipitating factor in victimization.

 However, there is limited research attention to the possibility that ability, specifically cognitive ability, may be associated with being a target of victimization—the possibility of “smart victims.” Given that Brand (1987) posited “cognitive ability is to psychology as carbon is to chemistry” (p. 257), it is surprising that cognitive ability has not received attention in the workplace victimization literature. This study takes an important first step in establishing the relationship between cognitive ability and victimization in an organizational context; it builds the scholarly knowledge base of workplace victimization and suggests that “smart victims” may be important to consider in attempts to prevent workplace victimization. In doing so, it makes contributions to the literature on cognitive ability, victimization, and an emerging theme in management research suggesting that victims may precipitate aggression from others in the workplace (see Aquino & Thau, 2009 for review). We outline these contributions below.

 First, this study suggests an exception to the generally accepted idea that cognitive ability is associated with various positive outcomes. Previous research confirming that cognitive ability predicts many job and real-life outcomes is plentiful (see Brand, 1987; Jensen, 1998; Kuncel, Hezlett & Ones, 2004; Schmidt & Hunter, 1998); however, typically these outcomes are favorable. In comparison, we propose victimization, a negative outcome, will be higher for those high in cognitive ability. Understanding the relationship between cognitive ability and workplace victimization is particularly relevant because cognitive ability is used in selection decisions (Heneman & Judge, 2005) and strongly related to skill and knowledge acquisition, task performance, and creativity at work (Kuncel et al., 2004). Thus, understanding workplace victimization for those high in cognitive ability can reduce the risk of negative outcomes for these highly desirable employees including decreased motivation, job satisfaction, and task performance (Glomb, 2002; in press) and lower team and organizational performance (Aquino & Thau, 2009).

 Second, this study extends the scope of the victim precipitation model, the idea that victims either intentionally or unintentionally provoke potential perpetrators. The limited application of the victim precipitation model emphasizes submissive and provocative victim characteristics (Aquino, 2000; Olweus, 1993), but has not posed the possibility of smart victims (see for exceptions, Namie & Namie, 2000; Peterson & Ray, 2006a, 2006b). By positing and testing the idea that smart victims may also adhere to the victim precipitation model, we extend this theoretical framework beyond the typical submissive and provocative victim typologies.

 Third, we extend previous research by considering two basic personality dimensions—agency and communion (Digman, 1997; Wiggins, 1991)—and their interplay with cognitive ability and victimization. According to Bakan (1966), agency is defined as *individualization in a group*, and it involves independence, dominance, and personal growth; communion is defined as *integration of the individual in a group*, and it involves cooperation, attachment, and caring (see also Wiggins, 1991). The original aim of agency and communion personality traits was to understand and distinguish interpersonal behaviors between individuals (Wiggins, 1991), thereby making agency and communion especially relevant to workplace victimization where the interpersonal relationship of perpetrators and victims is critical for understanding victimization motives (see Schafer, 1977). Drawing primarily on the theory of reciprocity (Gouldner, 1960), we propose that communion is negatively related to victimization, and also buffers the relationship of cognitive ability and victimization, whereas agency is positively related to victimization, and also strengthens the relationship between cognitive ability and victimization.

 In summary, this study advances theoretical and empirical research on workplace victimization by examining the role of cognitive ability in precipitating victimization at work and how personality traits linked to more favorable interpersonal interactions (i.e., agency and communion) may have direct and moderating effects on victimization.

Workplace Victimization

 The prevalence of harmful behaviors among employees has been reflected in a growing body of academic research (e.g., Aquino & Thau, 2009; Barling, Dupré, & Kelloway, 2009; Bowling & Beehr, 2006; Douglas et al., 2008; Glomb, Steel, & Arvey, 2002; Hershcovis et al., 2007; Neuman & Baron, 2005; Sackett & DeVore, 2001). Researchers have examined interpersonal workplace aggression—any form of interpersonal behavior to harm, injure, or discomfort the target at work (Baron & Richardson, 1994; Glomb, 2002)—at the individual-level (e.g., Baron & Neuman, 1996), and have also extended theoretical and empirical frameworks to consider group-level (e.g., Glomb & Liao, 2003) and dyadic relationships (e.g., Andersson & Pearson, 1999). Drawing on theories of victimization (e.g., Curtis, 1974; Schafer, 1968; Sparks, Genn, & Dodd, 1977), researchers have also examined workplace victimization—the self-perception of being a target of interpersonal aggression at work (Aquino, Grover, Bradfield, & Allen, 1999; Aquino & Thau, 2009)—at the individual (e.g., Aquino et al., 1999; Glomb, 2002), group (e.g., Aquino & Byron, 2002), and dyadic level (e.g., Aquino & Lamertz, 2004).

 Drawing on criminology theory which studies victim precipitation (Curtis, 1974) and victim elements (Schafer, 1968), researchers have suggested typical characteristics of victims. For example, Olweus’ work in school settings (1978, 1993) resulted in the proposition of two types of victims. One type of victim is labeled “submissive victim” and is more anxious, cautious, quiet, and sensitive than other students. In contrast to submissive victims, some students who show highly aggressive behaviors can also become the targets of aggression; Olweus (1993) referred to them as “provocative victims.” Although Olweus’ research was in a school setting, similar themes of victim types have been suggested in organizational contexts. For example, Aquino and his colleagues (1999, 2000, 2002) posited that self determination, aggressiveness, dominating interpersonal behavior, and negative affectivity are typical characteristics of victims. Individuals low in self determination are more likely to be targets of aggression (e.g., Aquino et al., 1999) and may be likened to submissive victims. Individuals high in aggressiveness (e.g., Aquino & Bradfield, 2000) and dominating interpersonal behavior (e.g., Aquino & Byron, 2002) may be likened to provocative victims. Individuals high in negative affectivity may be likened to either submissive or provocative victims because negative affectivity is related to either insecurity and anxiety or hostility and aggression (e.g., Aquino & Bradfield, 2000; Aquino et al, 1999). In other words, previous research suggests that certain types of individuals, either submissive or aggressive people, may be more frequent targets of aggression in both school and organizational contexts.

 Although existing research has enhanced our understanding of victimization, there is limited attention to the role of an important individual difference­­­—cognitive ability (see Namie & Namie, 2000; Peterson & Ray, 2006a, 2006b for possible exceptions). Peterson and Ray (2006a) showed that many smart students experienced bullying in school contexts, and that intellectual capability is one of the most frequently reported reasons for being bullied. In their study, 36 percent of smart students were called derogatory names (e.g., dork, geek, nerd, smarty, idiot, moron, retard, dumb) and 19 percent of them were teased about their grades and intelligence. According to Peterson and Ray’s qualitative study (2006b), some high ability students reported that the envy of low ability students contributes to targeting smart students. Interviewees stated that “gifted kids have the upper hand in classrooms” and “good kids usually get what they want” (p. 257). In addition, some students responded that competition between gifted students contributes to targeting one another. One interviewee reported being the target of bullying from “other gifted kids who didn’t like that I was smarter than they were” (p. 258).

 One exception to the lack of research on ability and victimization in organizational contexts is a survey of working adults by Namie & Namie (2000). Although this study was not focused on the relationship between cognitive ability and victimization, their survey data provide insight into this issue. In their survey, more than 20% of survey participants (i.e., targets and witnesses) responded that “bright” people were targets of interpersonal aggression, reporting that perpetrators envied the targets' high level of competence and abilities (21 percent) and perpetrators treated them as competitors or challengers who threatened their superiority (31 percent). The literature on school bullying among gifted children, employee reports of smart victims, and the submissive/provocative victim typology, suggest understanding the relationship between cognitive ability and victimization in an organizational context is valuable.

Linking Cognitive Ability and Victimization

 The victim precipitation model (e.g., Amir, 1967; Curtis, 1974; Gottfredson, 1981; Schafer, 1968, 1977; Sparks et al., 1977) undergirds the proposed relationship between cognitive ability and victimization. The core argument of the model is that victims exhibit behavioral tendencies (either intentionalorunintentional) that provoke potential perpetrators to respond to them with harmful behaviors (see Schafer, 1977; Aquino et al, 1999). In other words, at a minimum, victims unknowingly are at risk of victimization for their individual characteristics; at a maximum, individual characteristics lead to behaviors that elicit victimization from potential perpetrators. Cognitive ability may function as a “victim precipitator” for several reasons.

 First, the desirable characteristics of high cognitive employees may *unintentionally* instigate other employees to react to them with harmful behaviors. As noted above, cognitive ability plays a central role in the prediction of myriad important workplace outcomes including task performance, training performance, counterproductive work behavior, creativity, and career success (e.g., Dilchert, Ones, Davis & Rostow, 2007; Jensen, 1998; Judge, Higgins, Thoresen, & Barrick, 1999; Kuncel et al., 2004; Ng, Eby, Sorensen, & Feldman, 2005; O’Reilly & Chatman, 1994; Schmidt & Hunter, 1998). For example, the validity of cognitive ability in predicting task performance, training performance, and creativity is .51, .57, (Schmidt & Hunter, 1998) and .36 (Kuncel et al., 2004), respectively. However, these favorable outcomes may also create conditions for victimization. Such positive outcomes of high cognitive ability employees make them more likely to be targets of upward or lateral social comparison process within a work group because individuals choose a “standard setter” who has high ability as a comparative target (Feldman & Ruble, 1981; Festinger, 1954). As a consequence, these comparisons may elicit negative cognitive and affective states such as lowered self-evaluation, emotions of envy, shame, hostility, and interpersonal competition (e.g., Garcia, Tor, Gonzalez, 2006; Smith, 2000; Tesser, Millar, & Moore, 1988), which in turn increase the likelihood of becoming the target of victimization. In other words, the positive characteristics of high cognitive ability employees unintentionally place them at risk of being a target because others want to restore their lowered self-evaluation and negative emotions following comparison (see Fein & Spencer, 1997; Smith, 1991). Schafer (1977) categorized this type of victim as someone who has done nothing against the perpetrators, but whose unintentional behaviors or outcomes instigate the perpetrators to commit aggressive behaviors toward the victims.

 Second, the favorable characteristics of high cognitive ability employees may instigate other employees within a work group to react to them with harming behaviors in a more *intentional* way. An experimental study by Menon & Thompson (2007) found that individuals in higher (relative) social comparison positions are more likely to overestimate that they are a threat to others. This perceptual bias leads them to experience uncomfortable interpersonal relationships as “asymmetries in threat appraisal [strain] social interactions during a conflict situation” (p. 56). In their study, people who regarded themselves as threatening elicited less favorable reactions from a counterpart and lower satisfaction with the interaction, even though these perceptions about threat were not communicated explicitly during the interaction. In an organizational context, due to the positive work outcomes of high cognitive ability employees, they are more likely to have favorable views of themselves, perceive that others are threatened by them, and distrust others’ motives (i.e., self-enhancing bias; Menon & Thomson, 2007). In other words, high cognitive employee may overestimate the comparison threat they pose to other group members which may result in a change in behaviors, for example avoidance or condescension, toward other group members. This change in behavior then elicits harming behaviors from others (see Duffy, Shaw, & Schaubroeck, 2008).

 In summary, drawing on the victim precipitation model, we argue that high cognitive ability employees may instigate other individuals to respond to them with interpersonally aggressive behaviors. First, high cognitive ability employees may unintentionally provoke potential perpetrators because of their position as upward or lateral social comparison targets, thereby fostering negative affective and cognitive states in others who turn to harming behaviors. Second, high cognitive ability employees may provoke potential perpetrators because of their overestimates of how threatening they are which result in changed behaviors against coworkers that promote more negative interactions. Accordingly, we hypothesize:

*Hypothesis 1:* High cognitive ability is positively related to victimization.

 We note that the current study is unable to address the specific mechanism for the association between cognitive ability and victimization. Rather, we propose likely theoretical mechanisms and conduct empirical tests that would lend support for this association without testing the exact meditational processes.

The Role of Personality Traits: Agency and Communion

 According to Bakan (1966), there are “two fundamental modalities in the existence of living forms, *agency* for the existence of an organism as an *individual* and *communion* for the participation of the individual in some larger organism of which the *individual is part* [emphasis added]” (p. 14). Wiggins (1991) integrated the idea of Bakan into the personality literature, defining agency and communion as “the condition of *being a differentiated individual* and the condition of *being part of a larger social or spiritual entity* [emphasis added]*”* (p. 89), and proposed the agency-communion model is relevant to understand and distinguish interpersonal behaviors between individuals. Personality researchers have used agency and communion as umbrella terms that broadly cover self-oriented terms including independence, egoistic bias, ambition, self-competence, personal growth, and instrumentality versus group oriented-terms including cooperation, attachment, consideration, warmth, nurturance, and socialization, although these constructs are not exactly the same (e.g., Abele & Wojciszke, 2007; Digman, 1997; Wiggins, 1991). Previous research suggested that two broad dimensions—akin to agency and communion—are independent higher order dimensions of personality in the interpersonal circumplex (e.g., Blackburn, Renwick, Donnelly, & Logan, 2004; Digman, 1997; Wiggins, 1991). With regard to the five factor model of personality, Trapnell and Wiggins (1990) found that agency corresponds primarily to the dominance aspect of extraversion and communion corresponds primarily to agreeableness (see also Peabody & Goldberg, 1989; Wiggins, 1990). Digman (1997) has also derived two independent higher-order factors that correspond to an agency and communion taxonomy; agency corresponds to extraversion and openness (i.e., personal growth) and communion corresponds to agreeableness, conscientiousness, and emotional stability (i.e., socialization) (see also John, 1990; McCrae & Costa, 1996). Recently, Abele and Wojciszke (2007) confirmed previous studies by showing that a pool of 300 trait items (e.g., communion, collectivism, morality, and femininity items for communion; agency, individualism, competence, and masculinity items for agency) are reduced to the two broad dimensions of agency and communion. This idea is well summarized by Abele and Wojciszke (2007) who state: “there is a long tradition in social and personality psychology to distinguish fundamental dimensions for the description of persons and groups: social and intellectual desirability, individualism and collectivism, independent and interdependent self, competence and morality, competence and warmth, dominance and nurturance, masculinity and femininity, and so on. Following Bakan (1966), we call these fundamental dimensions agency and communion.” (p. 759). Put simply, agency and communion personality traits are independent multidimensional constructs (Saragovi, Koestner, Dio, & Aube, 1997) which reflect self-oriented and group-oriented behaviors.

 Given that behaviors are rooted in personality traits (see Fleeson, 2001; Hogan & Holland, 2003; Moskowitz & Cote, 1995) and agency and communion personality traits serve to describe interpersonal behaviors (Wiggins, 1991), we propose that individuals who have more agency traits such as independence, egoistic bias, ambition, and self-competence are involved in agency-driven behaviors such as seeking goals and being less concerned about others. Conversely, individuals who have more communion traits such as communality, socialization, consideration, and warmth are involved in communion-driven behaviors such as helping and nurturing coworkers and developing harmonious interpersonal relationships with coworkers.

 The direct relationship between agency and communion personality traits and victimization is supported by theories of reciprocity. Agency-driven behaviors do not build a norm of positive reciprocity, at best, (Axelrod, 1984) and initiate a norm of negative reciprocity, at worst (Andersson & Pearson, 1999). In the absence of a norm of positive reciprocity, employees do not feel obligated to respond to (positive) actions with other positive actions. Individuals high in agency engage in agency-driven behaviors, which may be at the expense of and harmful to others. A norm of negative reciprocity will perpetuate these harmful behaviors. Thus, aggressive behaviors against individuals who are high in agency may, in fact, increase. This implies higher victimization for people who have agency traits which either block the positive reciprocity norm or elicit the negative reciprocity norm through agency-driven behaviors.

 Conversely, communion-driven behaviors initiate a norm of positive reciprocity between the giver and the taker (Gouldner, 1960). In other words, the taker generally responds to the communion-driven behavior with another communion-driven behavior toward the giver. After building a norm of positive reciprocity, both givers and takers are reluctant to violate this relationship through harming one another because it breaks the social norm and promotes a reputation for being untrustworthy, unkind, and unthankful (Cialdini, 2001; Gouldner, 1960). Thus, individuals who are high in communion traits engage in communion-driven behaviors and perpetuate a norm of positive reciprocity in which they are less likely to be the targets of interpersonal aggression. In a similar vein, Aquino and Bommer (2003) showed that high levels of organizational citizenship behavior decreases victimization; presumably this relationship may be due to a positive reciprocity norm.

 Overall, targets who have high agency personality traits do not engage in the positive reciprocity cycle and are more likely to be engaged in the negative reciprocity circle which increases the likelihood of victimization. Targets who have high communion personality traits are more likely to be engaged in the positive reciprocity circle with coworkers which decreases the likelihood of victimization. Therefore, we hypothesize:

*Hypothesis 2*: High agency is positively related to victimization.

*Hypothesis 3:* High communion is negatively related to victimization.

 Integrating the victim precipitation model with theories of reciprocity, we propose the moderating roles of agency and communion personality traits on the relationship between cognitive ability and victimization. Although high levels of cognitive ability and competence may make someone predisposed to victimization, this may depend on their interpersonal interactions with others as influenced by their agency and communion personality traits. Because agency-driven behaviors do not build a norm of positive reciprocity or possibly initiate a norm of negative reciprocity, it strengthens the positive relationship between targets’ cognitive ability and victimization. For example, employees who are high in cognitive ability and agency traits may use their talent to increase individual performance, which may negatively impact other group members. Conversely, because communion-driven behaviors initiate a norm of positive reciprocity between the giver and the taker, it circumvents or buffers the positive relationship between targets’ cognitive ability and victimization. For example, employees who are high in both cognitive ability and communion traits may use their talent to increase group performance (e.g., help coworkers with workloads or problems). Such behaviors contribute to build the positive reciprocity cycle with coworkers, and thereby weaken the likelihood of victimization due to high cognitive ability. Put simply, being smart and focused on oneself will lead to more victimization, but being smart and focused on group members will lead to less victimization.

 Although there is no direct empirical evidence suggesting an interactive effect of cognitive ability and agency and communion traits on victimization, recent studies hint at the plausibility of such an effect. For example, Fiske and her colleagues (2006) suggested that people differentiate one another by competence as well as likability, which in turn affects their cognitive and affective content of interpersonal perception (see also Collins, 1981). Similarly, Casciaro and Lobo (2005) suggested the importance of competence and likability in a work setting; when individuals are high in both competence and likability, coworkers treated them as “lovable stars,” but when individuals are high in competence and low in likability, coworkers treated them as “competent jerks.” Consistent with the previous conceptual arguments, Casciaro and Lobo (2008) show that individuals who are competent and likable form more task interaction networks, whereas individuals who are competent and dislikable fail to form task interaction networks. Although failure to form task networks with “competent jerks” is distinct from victimizing them, this work does suggest withholding something favorable from them—a behavior that is consistent with some passive, indirect forms of victimization examined here (e.g., withholding information or resources). In line with this research, we predict that two interpersonally-oriented personality dimensions that affect likability play a critical role in the relationship between cognitive ability and victimization; smart individuals who are high in agency traits may experience more victimization, whereas smart individuals who are high in communion traits may experience less victimization. Therefore, we hypothesize:

*Hypothesis 4:* The relationship between cognitive ability and victimization is moderated by agency, such that when targets are high in cognitive ability, targets high in agency will experience more victimization than those lower on agency.

*Hypothesis 5:* The relationship between cognitive ability and victimization is moderated by communion, such that when targets are high in cognitive ability, targets high in communion will experience less victimization than those lower on communion.

Method

*Participants and Procedure*

 Two hundred seventeen employees of an organization that manages health care homes for individuals with disabilities voluntarily completed paper-and-pencil surveys during on-site survey administration with researchers. Participants were guaranteed confidentiality. Employees within a health care home worked closely with one another to provide excellent care and service for the residents and constitute our work groups. Ninety-five percent of respondents were Caucasian, 74% were women, and 35% were employed full time. Average tenure was 22 months, and average age was 24 years.

 The organization had administered the Wonderlic Personnel Test and California Psychological Inventory (CPI) to job applicants prior to hire, and the Wonderlic and CPI scores of our respondents were linked to the survey data from the current study using identifiers. Fifty employees who did not have Wonderlic and CPI scores were excluded. After listwise deletion of individuals with incomplete information, the final sample was composed of 133 employees in 27 groups (i.e., health care homes). Group size ranged from 2 to 10 members (average = 5.84). Comparisons between those respondents who were in our final sample and those who were deleted due to missing data revealed only one significant difference; excluded employees had slightly lower negative affectivity scores (*p* < .05).

*Measures*

 *Cognitive Ability.* Cognitive ability was assessed using the Wonderlic Personnel Test prior to hire. The Wonderlic is a 50-item, 12-20 minute omnibus test of intelligence, and originally designed to measure general mental ability for personnel selection**.** The manual reports test-retest reliability ranges from .82 to .94, and interform reliabilities ranged from .73 to .95 (Wonderlic, 1984).

  *Victimization.* Victimization was assessed using the 20 item Aggressive Experiences Scale (AES)-Target (Glomb, in press; Glomb & Liao, 2003). Illustrative items are “how often has a coworker or supervisor made angry gestures toward you,” “how often has a coworker or supervisor spread rumors about you,” and “how often has a coworker or supervisor belittled your opinions in front of others.” Respondents indicated the frequency of their victimization experience using a five-point scale from 1 (*never*) to 5 (*once a week or more*). One item was removed because of zero variance (“how often has a coworker or supervisor physically assaulted you”). The coefficient alpha of the AES-Target scale was .87.

 *Agency and Communion.* At present, there are not commonly accepted assessments of agency and communion, perhaps because of their designation as higher order constructs. Agency and communion have been measured by the Masculinity and Femininity scales from several personality inventories including Personal Attributes Questionnaire (PAQ) and Bem Sex Role Inventory (BSRI) (see Helgeson, 1994; Saragovi et al., 1997 for review). Agency and communion have also been measured using the five factor model; Wiggins (1991) suggested using the extraversion (i.e., dominance facet only) and agreeableness scales because these capture a substantial portion of variance in agency and communion respectively (see also Peabody & Goldberg, 1989; Trapnell & Wiggins, 1991 for empirical support). Also using the big five framework, Digman (1997) suggested using extraversion and openness scales for agency (i.e., personal growth) and agreeableness, conscientiousness, and emotional stability scales for communion (i.e., socialization).

 In this study, agency and communion were operationalized using both Wiggins’ (1991) specific measure approach and Digman’s (1997) broad measure approach.Following Wiggins’ (1991) approach, we selected the CPI scale of dominance (*α* = .83) for agency and the CPI scale of communality (*α* = .71) for communion. The CPI-dominance is highly correlated with extraversion (*r* =.82, Fleenor & Eastman, 1997) and dominance is a key facet of extraversion (DeYoung, Quilty, & Peterson, 2007). The construct definition also supported our choice; individuals high in dominance are assertive, dominant, and task-oriented; individuals low in dominance are quiet and cautious. The CPI-communality is highly correlated with agreeableness (*r* =.90, Fleenor & Eastman, 1997), and agreeableness corresponds to communion (Wiggins, 1991). The construct definition of communality supports our decision; individuals who are high in communality are likely to be team players who fit in with other people easily, are agreeable, cooperative, reasonable, approachable for advice, dependable and contented; individuals who are low in communality are likely to be non-conformers, changeable, moody, and reckless (Gough & Bradley, 1996; Groth-Marnat, 1990).

 Following Digman’s (1997) broader approach to agency measurement, we selected the CPI scale of social presence (*α* = .72), capacity for status (*α* = .72) and independence (*α* = .74) in addition to dominance. These additional three scales have been identified as compound traits of extraversion and openness (Fleenor & Eastman, 1997) and extraversion and openness correspond to agency (Digman, 1997). CPI-social presence also corresponds to the dominance facet rather than the sociability facet of extraversion (Hough & Ones, 2001). The construct definition supported our choice; individuals high in social presence are self-assured in social settings, and individuals low in social presence are reserved; individuals high in capacity for status are likely to be ambitious and have high desire to succeed, and individuals low in capacity for status dislike competition; individuals high in independence are likely to be self-sufficient, persistent in seeking goals whether others agree or not, aggressive, and assertive, and individuals low in independence are likely to seek support from others, avoid conflict, be meek, and mild (Gough & Bradley, 1996). We used similar conceptual and construct evidence for the communion scale. In addition to CPI-communality, we selected the CPI scales of socialization (*α* = .78) and responsibility (*α* = .77) because these two scales have been identified by Hough and Ones (2001) as compound traits of agreeableness, conscientiousness, and emotional stability (see also Fleenor & Eastman, 1997), and Digman (1997) suggests communion corresponds to agreeableness, conscientiousness, and emotional stability. The construct definition of these two components also supported our decision; individuals high in socialization are likely to be conscientious and easy to conform to others whereas individuals low in socialization are likely to be rebellious and have unconventional attitudes; individuals high in responsibility are responsible and ethically perceptive whereas individuals low in responsibility are likely to be self-indulgent and careless (Gough & Bradley, 1996). In summary, the agency scale is composed of the CPI scales of dominance, social presence, capacity for status, and independence, and the communion scale is composed of the CPI scales of communality, socialization, and responsibility.[[1]](#footnote-1) Given the typical conceptualization of agency and communion as broad traits, we consider the broad operationalization in our primary analyses and conduct additional analyses for the narrow, one variable conceptualization.

 The reliability scores of multidimensional agency and communion scales were .87 and .84, respectively (see Cronbach, 1951; Rogers, Schmitt, & Mullins, 2002). We conducted confirmatory factor analysis to assess whether the CPI scales load on the higher order common latent constructs of agency and communion using LISREL 8 (Jöreskog & Sörbom, 1996). The results for the agency and communion scales revealed that a two-factor model (χ2(12) = 19.43; IFI = .98; CFI = .98; SRMR = .06; RMSEA = .07) fit the data quite well and fit significantly better than a one-factor model (χ2(13) = 49.96; IFI = .91; CFI = .90; SRMR = .10; RMSEA = .15) providing evidence that subscales load on the higher order measures of agency and communion. In addition*,* agency and communion correlate .16 (*n.s.*) in our study which is comparable to correlations reported in previous studies [e.g. Abele & Wojciszke, 2007 (*r =* -.03, -.05); Bruch, 2002 (*r* = .05, .11); Conway, Pizzamiglio, & Mount, 1996 (*r* = .27, .32)]. We also assessed the criterion-related validity of the agency and communion scales by examining whether they are significantly related to variables shown to be related to agency and communion measures in the broader personality psychology literature. Specifically, we assessed life satisfaction and burnout in our study but did not examine these variables in our substantive hypotheses. Correlations in our data are similar to those in prior literature using alternative operationalizations of communion and agency. Specifically, results showed that our communion scale is significantly related to well-being outcomes such as life satisfaction (*r* = .24, *p* < .01 compared to *r* = .26 for women and .28 for men in Saragovi et al., 1997) and our agency scale is significantly related to psychological health outcomes such as emotional exhaustion (*r* = -.21, *p* < .01 compared to *r* = -.25 in Roos & Cohen, 1987).

 *Control Variables.* Based on previous workplace victimization research (e.g., Aquino et al., 1999; Aquino & Thau, 2009; Bowling & Beehr, 2006; Hentig, 1948; Schafer, 1968), we controlled for several variables to reduce the potential impact of unmeasured variables on victimization. Empirical evidence on the relationship between employee demographics and victimization shows mixed findings (Bowling & Beehr, 2006); we control for an employee’s age, sex, and tenure in the organization. There is a compelling theoretical link between organizational hierarchy and victimization (see Aquino et al., 1999); we control for supervisory versus non-supervisory status. Individual differences such as positive and negative affectivity show mixed relationships with victimization (see Bowling & Beehr, 2006); we use the Positive Affect Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) to control for positive affectivity (α = .86) and negative affectivity (α = .86). Stress may generate negative affective and behavioral responses that spark victimization (Bowling & Beehr, 2006); we use the Stress Diagnostic Survey (Matteson & Ivancevich, 1982) to control for job, work group, and organizational stress (α = .79 for job, α = .89 for work group, and α = .87 for organizational stress). Interpersonal aggression engagement has been proposed as an antecedent of victimization based on social exchange theory (Andersson & Pearson, 1999; Bandura, 1973), and Glomb and her colleagues (e.g., Glomb, 2002; Glomb & Liao, 2003) provided empirical support for the idea of reciprocal aggression. Interpersonal aggression engagement was assessed by the AES-Engaged In scale (Glomb, in press; Glomb & Liao, 2003). The AES-Target (discussed above) and AES-Engaged In scales have the same item content except that one asks about behaviors you were the target of and the others asks about behavior you engaged in. We removed three items from the AES-Engaged In scale (α = .80) because of zero variance.

Results

 Descriptive statistics and zero-order correlations are presented in Table 1. Cognitive ability is significantly correlated with victimization (*r* = .18, *p* < .05). Agency and communion are not significantly correlated with victimization. Several control variables including age (*r* = .21, *p* < .01), job, workgroup, organizational stress (*r* = .41, .24, .41 respectively, *p* < .01), and aggression engagement (*r* = .54, *p* < .01) are significantly correlated with victimization. The control variables of positive and negative affectivity and hierarchical status suggest non-significant associations with victimization.

 Table 2 presents the regression results using the broad operationalization of agency and communion (see Digman, 1997). Since individuals in the same work group are not independent, the independent assumption of traditional ordinary least squares regression is violated, causing biased estimators. Therefore, we used a clustered regression with a White-correction in STATA that allows covariance between individuals within groups and corrects for heteroscedasticity across groups (see Rogers, 1993). We report unstandardized regression coefficients and regular R-square because standardized coefficients and adjusted R-square are not valid with the cluster option (see Glomb & Liao, 2003; Rogers, 1993). We tested the degree of multicollinearity with the variance inflation factor (VIF); values ranged from 1.05 to 1.94 with an average VIF of 1.37, suggesting it was not a critical problem. Control variables explain 42 % of the variance in victimization (Model 1). Model 2 includes cognitive ability, agency, and communion. Results suggest a significant relationship between cognitive ability and victimization (*b* = .17, *p* < .01), supporting Hypothesis 1. Agency and victimization were also significantly associated (*b* = .08, *p* < .05), supporting Hypothesis 2. This association is different from the non-significant zero-order correlation, suggesting the association exists after controlling for other variables. Consistent with the zero-order correlations, communion was not significantly associated with victimization; Hypothesis 3 was not supported. These variables explain an additional 4% of the variance in victimization.

 To test the moderating effects of personality traits, we used hierarchical moderated regression with centered interaction terms. Interaction terms explain an additional 4% of the variance in victimization (Model 3). Hypothesis 4, which predicts the moderating role of agency personality traits on the association between cognitive ability and victimization, was supported (*b* = .02, *p* < .05). Hypothesis 5, which predicts the moderating role of communal personality traits on the association between cognitive ability and victimization, was also supported (*b* = -.05, *p* < .05). The interactions were plotted using Aiken & West’s method (1991) and are shown in Figures 1 and 2. Figure 1 illustrates that as cognitive ability increases, for those high in agency victimization increases compared to those low in agency. Figure 2 illustrates that as cognitive ability increases, for those low in communion victimization increases and for those high in communion victimization decreases. These results suggest that agency traits exacerbate and communion traits buffer the relationship of cognitive ability to victimization.

 We tested the same regression model using specific measures of agency and communion, which is consistent with Wiggins (1991)’s operationalization (i.e., CPI-dominance for agency and CPI-communality for communion). These results suggest similar empirical findings, which confirm the role of cognitive ability, agency, and communion on victimization at work. Table 3 presents the regression results. In model 4, results suggest a significant relationship between cognitive ability and victimization (*b* = .15, *p* < .05), supporting Hypothesis 1. Dominance and victimization were significantly associated (*b* = .11, *p* < .05), supporting Hypothesis 2. Communality was also significantly associated with victimization (*b* = -.18, *p* < .05), supporting Hypothesis 3. This finding is different than the broad communion index where the association was not significant. These variables explain an additional 6% of the variance in victimization. In model 5, interaction terms explain an additional 2% of the variance in victimization. Hypothesis 4, which predicts the moderating role of agency personality traits on the association between cognitive ability and victimization, was marginally supported (*b* = .01, *p* <.10). Hypothesis 5, which predicts the moderating role of communion personality traits on the association between cognitive ability and victimization, was supported (*b* = -.03, *p* < .05).

Discussion

 The primary purpose of this study was to examine the role of cognitive ability in workplace victimization, a topic that has received scant research attention. Cognitive ability predicts many job and real-life outcomes (see Brand, 1987) and thus it is important to include in the portfolio of variables associated with victimization such as personality, demographics, behaviors, and organizational characteristics (see Aquino & Thau, 2009; Bowling & Beehr, 2006). Consistent with a victim precipitation model, our results suggest that cognitive ability is associated with workplace victimization.

We also tested the relationship between agency and communion, two interpersonally-oriented personality dimensions, and victimization. Consistent with a negative reciprocity cycle and a provocative victim typology, our results suggest that individuals high in agency personality traits experience victimization at work. Counter to expectations, we did not find a significant relationship between communion and lower victimization in our primary analyses. This non-significant finding may be explained by the “positive-negative asymmetry effect” (see Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Taylor, 1991) which would suggest that positive interpersonal interactions carry less weight than negative social interactions, and therefore it may cause a non-significant finding. The non-significant findings may also be caused by the broad communion measure the components of which might evidence differential relationships with victimization. A previous study found that victimization is significantly associated with agreeableness (*β* = – .21, *p* < .05), but not significantly associated with conscientiousness and emotional stability (*β* = – 0.02 and 0.10 respectively, Jensen-Campbell et al, 2002), which are captured in our index. These results are consistent with our supplemental analysis; when we adopted the specific scale of communion (i.e., CPI-communality for agreeableness; see Wiggins, 1991), we found a significant relationship between communion and victimization (*b*= -.18*, β* =. – 15, *p* < .05). More studies are necessary to have greater confidence in the relationship between communion personality traits and victimization at work.

Finally, our results demonstrate the moderating effects of agency and communion on the relationship between cognitive ability and victimization. Results suggest the relationship between cognitive ability and victimization is exacerbated by agency personality traits, which is manifested in self-oriented behaviors (i.e., independence, dominance, capacity for status, and social presence) in a work group. Conversely, results suggest that the increased propensity to be victimized due to one’s high cognitive ability can be mitigated by communion personality traits, which is manifested in other-oriented or “team player” behavior (i.e., communality, responsibility, and socialization) in a work group.

 We acknowledge that we do not study possible mediating mechanisms and that cognitive ability may be operating as a proxy for other variables relevant to workplace success. For example, it may be that high performing individuals, rather than high cognitive ability individuals, are those that are most likely to be the targets of interpersonal aggression. Similar theoretical processes of social comparison would also apply to high performance, but in this case, cognitive ability operates as a proxy for performance. As noted, cognitive ability is related to myriad positive outcomes on the job and we acknowledge that it may be those proximal favorable job outcomes, rather than the more distal individual difference of cognitive ability, that are mediating explanatory variables.

*Theoretical implications*

 This study contributes to the cognitive ability, personality, and workplace victimization literatures in a variety of ways. First, we extend the scope of the victim precipitation model by proposing and testing the possibility of smart victims. Second, contrary to the existing cognitive ability literature, our finding indicates a potential downside to high cognitive ability (e.g., see Wilson & Herrnstein, 1985 for another possible exception such as clever concealer effects). This study moves cognitive ability research in a new direction by positing and testing a potential downside to high cognitive ability in the workplace. Third, our study examined two broad interpersonally-oriented personality dimensions, agency and communion, and their association with workplace victimization. Although personality researchers have confirmed that the agency and communion model is useful in terms of investigating interpersonally-oriented outcomes (see Abele & Wojciszke, 2007; Bruch, 2002; Digman, 1997; Helgeson, 1994; Wiggins, 1991), this model is currently less popular than the big five model in organizational scholarship, perhaps due to the absence of an agreed upon operationalization of these multidimensional traits (see Helgeson, 1994; Saragovi et al., 1997). Although the big five is certainly a useful taxonomy, since we are interested in workplace victimization and the interpersonal relationships between victims and perpetrators, the agency and communion framework may be useful for future victimization research. Fourth, the interplay of two key individual differences—cognitive ability and personality traits—on victimization provides an integration of two complementary theories, which adhere to the social and personality psychological models of social interactions. Although previous workplace victimization literature integrated the victim precipitation model with structural theory (e.g., Aquino et al., 1999; Aquino, 2000), and reciprocity theory with structural theory (e.g., Aquino & Bommer, 2003), the integration of the victim precipitation model and reciprocity theory has not received research attention. This study takes the first step by integrating victim precipitation with reciprocity theory to demonstrate the interactive effects of cognitive ability and agency–communion personality traits on workplace victimization. This approach is consistent with social psychological literatures suggesting the multiplicative effect of competence and likability on social interactions (see Fiske, Guddy, & Glick, 2006; Casciaro & Lobo, 2008).

*Organizational Implications*

 In the 1950 movie *Harvey*, Jimmy Stewart’s character Elwood Dowd says, "Years ago my mother used to say to me... She'd say 'In this world Elwood, you must be oh-so smart or oh-so pleasant.' Well, for years I was smart.... I recommend pleasant.” Based on our findings, we recommend that if you are going to be “oh-so smart” then you should also be “oh-so pleasant” to avoid workplace victimization. Beyond individual advice, the results also have important practical implications for managers. First, managers need to be aware of this potential dark side of high cognitive ability at work. Managers are familiar with the positive side of high cognitive ability, but initial evidence of smart victims suggests managers may need to be on the lookout for and take precautions to deter the workplace victimization of smart employees. The strong and consistent relationship between cognitive ability and many elements of performance suggest that these individuals may be among the most important to keep satisfied, productive, and retained. Tactics helpful in preventing the victimization of high cognitive ability employees may reduce both the proximal and distal costs of workplace victimization.

 Second, our results suggest that high cognitive ability does not predestine employees to be victimized—their personality also plays a role. Although managers attend to personality during the selection process because it predicts job performance (see Dunn, Mount, Barrick, & Ones, 1995), our results suggest that personality can also have either a protective (i.e., communion) or intensifying (i.e., agency) role in victimization. We do not suggest that organizations should not select applicants who are high in agency traits because they are more vulnerable to victimization at work. Personality traits have their own bright and dark sides (see Judge & Lepine, 2007). For example, although our results showed that employees who are high in agency traits are more likely to be victims at work, research also shows that traits under the agency umbrella are associated with being a leader (e.g., extraversion; Judge, Bono, Ilies, & Gerhardt, 2002). Further, although high ability employees who are also high in communion are less likely to be victims at work, research also suggests that traits under the communion umbrella are associated with the use of more lenient standards to evaluate coworker performance (e.g., agreeableness; Bernardin, Cooke, & Villanova, 2000). Thus, organizations need to consider both the benefits and costs of the communion and agency personality traits of employees and be aware of their correlates, both favorable and unfavorable. Regardless of the composition of agency and communion in the workforce, organizations can attempt to modify individual behaviors by creating strong situations (e.g., human resource practices, organization culture) that minimize the link between personality and behaviors and enhance positive reciprocity norms between employees.

*Limitations and Future Directions*

This study is not without limitation. First, range restriction in cognitive ability may cause reduced sample correlations. However, given that range restriction reduces the strength of relationships due to limited variance (Sackett & Yang, 2000), this seems to be a minor issue. Further, the degree of variability of cognitive ability is similar to that in other studies (e.g., Chan, 1997; Mumford, Van Iddekinge, Morgeson, & Campion, 2008; Sackett & Ostgaard, 1994).

 Second, the external validity of these findings is limited. This data set is small and from a predominantly Caucasian sample of health care workers. The context of a health care home is interesting because employees may be more empathetic and less competitive given self-selection into this caring profession. They are also more likely to be exposed to victimization; the health care industry continually reports some of the highest levels of workplace aggression and victimization (see Rippon, 2000), though victimization is often perpetrated by patients and our study examined victimization from coworkers and supervisors. Examining our relationships in other business contexts and employee groups is necessary.

 Third, the construct validity of our agency and communion measures may be questioned. Given that there is not a generally accepted method of transforming the CPI scales into the broad indices of agency and communion, we created our own measures guided by previous literature and linkages of the content of the scales (e.g., Digman, 1997; Gough & Bradley, 1996; Hough & Ones, 2001). In the field of personality psychology, there have been calls for the development and study of agency and communion scales (see Helgeson, 1994); we concur and believe the development of valid and concise measures of agency and communion traits might promulgate the use of these interpersonally-oriented personality constructs.

 Fourth, measures were self-report from a single source and thus common method bias is a potential problem. However, cognitive ability and personality traits were measured for personnel selection and perceived victimization was measured 22 months later, on average (i.e., average tenure is 22 months). Since there are large temporal and psychological distances between cognitive ability and perceived victimization measures, the impact of common method bias is not a major concern (see Podsakoff, MacKenzie, Lee & Podsakoff, 2003). We also controlled for positive affectivity and negative affectivity which also impact the cognitive perception and reporting processes (Bowling & Beehr, 2006; Isen, 1987; Podsakoff & Organ, 1986; Schmitt, 1994; Spector, 1994; Watson & Clark, 1984). As Schmitt (1994) suggests, the appropriateness of methods should be based upon the stage of development of the research; given the lack of research in this area, self-report data would be deemed acceptable. Further, as noted by others (e.g., Aquino & Lamertz, 2004; Spector, 1994), it is difficult to envision circumstances in which non-self report data would be superior to self-report victimization data given that victimization is inherently a personal experience that is not always open to observation by others. For this reason, victimization researchers are more likely to use self-report victimization or use both self-report and observer-report together (see Aquino & Thau, 2009; Bowling & Beehr, 2006 for review).

 However, common method concerns make possible alternative explanations which suggest that results may be due to participants’ personal characteristics influencing reports of victimization. High cognitive ability reflects “not only narrow test-taking smarts but also broad capability for comprehending our surroundings” (The Industrial-Organizational Psychologist, 1995, p.67). Thus, high cognitive ability people may perceive other employees’ aggressive behaviors against them more sensitively and easily and thus report more victimization events. However, this explanation is at odds with our data. If cognitive ability were associated with being more perceptive of aggression towards oneself, then we would see an association between cognitive ability and reports of more indirect, covert forms of aggression. Such a relationship was not found; the regression coefficient between cognitive ability and items characterized as covert (Buss, 1961) was non-significant. Rather, our data show high correlations between cognitive ability and physically or verbally direct aggressive behaviors such as hostile body language (*r* = .29), angry gestures (*r* = .17), insulting, criticizing you (*r* = .20), and belittling your opinions in front of others (*r* = .21). Furthermore, one could also make the opposite prediction that cognitive ability may lead to less reporting of victimization because high cognitive ability individuals are not as influenced by events. Evidence indicates that gifted children have higher resilience (Bland, Sowa, & Callahan, 1994) and more effective coping strategies (Tomchin, Callahan, Sowa, & May, 1996) which may reduce the impact and reporting of victimization. In summary, alternative explanations for the association between cognitive ability and victimization do not seem to be driving the results in the present study.

 Fifth, our data do not address victimization from the perpetrator’s perspective. We see this study as a first step in establishing the link between cognitive ability and interpersonal aggression through the lens of the target, and encourage researchers to complement our finding by investigating the link through the lens of the perpetrator (e.g., Dilchert et al., 2007). Consistent with the relational model by Aquino & Lamertz (2004) and social comparison theories (Duffy et al., 2008; Goodman & Haisley, 2007), it would be insightful to consider both victims and perpetrators’ perspectives by applying social network analysis to associate targets’ cognitive ability and victimization and the perpetrators’ cognitive processes.

 Despite these limitations, the current study makes an initial contribution to the investigation of the relationship between cognitive ability and victimization in the workplace. Given these findings, future research on the relationship between cognitive ability and victimization is needed to fill the gap in this domain.

References

Abele A. E., & Wojciszke, B. (2007). Agency and communion from the perspective of self

 versus others. *Journal of personality and social psychology, 93,* 751-763.

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions.*

Newbury Park, CA: Sage.

Amir, N. (1967). Victim precipitated forcible rape. *Journal of Criminal Law, Criminology, and Police Science, 58*, 493-502.

Andersson, L. M., & Pearson, C. M. (1999). Tit for tat? The spiraling effect of incivility in the

 workplace. *Academy of* *Management Review*, *24*, 452-471.

Aquino, K. (2000). Structural and individual determinants of workplace victimization: The

 effects of hierarchical status and conflict management style. *Journal of Management, 26,*

171-193.

Aquino, K., & Bommer, W. H. (2003). Preferential mistreatment: How victim status moderates

 the relationship between organizational citizenship behavior and workplace victimization.

 *Organization Science, 4,* 274-285.

Aquino, K., & Bradfield, M. (2000). Perceived victimization in the workplace: The role of

 situational factors and victim characteristics. *Organization Science*, *11*, 525-537.

Aquino, K., & Byron, K. (2002). Dominating interpersonal behavior and perceived victimization

 in groups: Evidence for a curvilinear relationship. *Journal of Management, 28,* 69-87.

Aquino, K., Grover, S., Bradfield, M., & Allen, D. G. (1999). The effects of negative affectivity,

 hierarchical status, and self-determination on workplace victimization. *Academy of*

 *Management Journal, 42,* 260-272.

Aquino, K., & Lamertz, K. (2004). A relational model of workplace victimization: Social roles

 and patterns of victimization in dyadic relationships. *Journal of Applied Psychology, 89,*

1023-1034.

Aquino, K., & Thau, S. (2009). Workplace victimization: Aggression from the target's

 perspective. *Annual Review of Psychology, 60,* 717-741.

Axelrod, R. (1984). *The evolution of cooperation.* New York: Basic Books,

Bakan, D. (1966). *The duality of human existence.* Reading, PA: Addison-Wesley.

Baker, G. (2008, Sep 25). Rebuilding the mariners, *The Seattle Times.*

Bandura, A. (1973). *Aggression: A social learning analysis.* Englewood Cliff, NJ: Prentice Hall.

Barling, J., Dupré, K. E., & Kelloway, E. K. (2009). Predicting workplace aggression and

 violence. *Annual Review of Psychology, 60,* 671-692.

Baron, R. A., & Neuman, J. H. (1996). Workplace violence and workplace aggression: Evidence

 on their relative frequency and potential causes. *Aggressive Behavior, 22*, 161-173.

Baron, R. A., & Richardson, D. R. (1994). *Human aggression.* New York: Plenum Press.

Baumeister, R. F., Bratslavsky, E., Fickenauer, C., & Vohs, K. D. (2001). Bad is stronger than

 good. *Review of General Psychology, 5,* 323–370.

Bernardin, H. J., Cooke, D. K. & Villanova, P. (2000). Conscientiousness and agreeableness as predictors of rating leniency. *Journal of Applied Psychology*, *85,* 232–236.

Blackburn, R., Renwick, S. J. D., Donnelly, J. P., & Logan, C. (2004). Big Five or Big Two?

 Superordinate factors in the NEO five factor inventory and the antisocial personality

 questionnaire. *Personality and Individual Differences, 37*, 957-970.

Bland, L. C., Sowa, C. J., & Callahan, C. M. (1994). An overview of resilience in gifted children.

 *Roeper Review, 17*, 77-80.

Bowling, N. A., & Beehr, T. A. (2006). Workplace harassment from the victim's perspective: A

 theoretical model and meta-analysis. *Journal of Applied Psychology*, *91,* 998-1012.

Brand, C. (1987). The importance of general intelligence. In S. Modgil & C. Modgil (Eds.),

 *Arthur Jensen: Consensus and controversy* (pp. 251–265). New York: Falmer.

Bruch. M. A. (2002). The relevance of mitigated and unmitigated agency and communion for

 depression vulnerabilities and dysphoria. *Journal of Counseling Psychology, 49*, 449-

 459.

Bruzzese, A. (2002, Nov 12). Get rid of bullies in the workplace. *USA Today.*

Buss, A. H. (1961). *The psychology of aggression.* New York: Wiley.

Casciaro, T., & Lobo, M. S. (2005). Competent jerks, lovable fools, and the formation of social

 networks. *Harvard Business Review, 83*(6), 92–99.

Casciaro, T. & Lobo, M. S. (2008). When competence is irrelevant: The role of interpersonal

 affect in task-related ties. *Administrative Science Quarterly*, *53*(4), 655-684.

Chan, D. (1997). Racial subgroup differences in predictive validity perceptions on personality

 and cognitive ability tests. *Journal of Applied Psychology, 82*, 311-320.

Cialdini, R. B. (2001). *Influence: Science and practice.* Allyn & Bacon, Boston. MA.

Conway, M., Pizzamiglio, M. T., & Mount, L. (1996). Status, communality, and agency:

 Implications for stereotypes of gender and other groups. *Journal of Personality and*

 *Social Psychology, 71,* 25-38.

Collins, R. (1981) On the microfoundations of macro-sociology. *American Journal of Sociology*,

 *86*, 984-1014.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16,* 297-334.

Curtis, L. A. (1974). Victim precipitation and violent crimes. *Social Problems, 21,* 594-605.

Digman, J. M. (1997). Higher-order factors of the Big Five. *Journal of Personality and Social*

 *Psychology, 73,* 1246-1256.

Dilchert, S., Ones, D. S., Davis, R. D., & Rostow, C. D. (2007). Cognitive ability predicts

 objectively measured counterproductive workplace behaviors*. Journal of Applied*

 *Psychology, 92,* 616-627.

DeYoung, C. G., Quilty, L. C., & Peterson, J. B. (2007). Between facets and domains: 10

 aspects of the Big Five, *Journal of Personality and Social Psychology, 93,* 880-896.

Douglas, S. C., Kiewitz, C., Martinko, M. J., Harvey, P., Kim, Y., & Chun, J. U. (2008).

 Cognitions, emotions, and evaluations: An elaboration likelihood model for workplace

 aggression. *Academy of Management Review, 33*, 425-451.

Duffy, M. K., Shaw, J. D., & Schaubroeck, J.M. (2008). Envy in organizational life. In R. Smith

 (Ed.), *Envy: Theory and research*. Oxford.

Dunn, W. S., Mount, M. K., Barrick, M. R., & Ones, D. S. (1995). Relative importance of personalityand general mental ability in managers’ judgments of applicant qualifications. *Journal of Applied* *Psychology, 80,* 500–509.

Fein, S., & Spencer, S. J. (1997). Prejudice as self-image maintenance: Affirming the self

 through derogating others. *Journal of Personality and Social Psychology, 73,* 31-44.

Feldman, N. S., & Ruble, D. N. (1981). Social comparison strategies: Dimensions offered and

 options taken. *Personality and Social Psychology Bulletin, 7*, 11-16.

Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, *7*, 117-140.

Fiske, S. T., Cuddy, A. J., & Glick, P. (2006). Universal dimensions of social cognition: Warmth and competence. *Trends in Cognitive Sciences*, *11*, 77–83.

Fleenor J. W. & Eastman, L. (1997). The relationship between the Five-Factor Model of personality and the California Psychological Inventory. *Educational and Psychological Measurement,* 57, 698-703.

Fleeson, W. (2001). Toward a structure- and process-integrated view of personality: Traits as

 density distributions of states. *Journal of Personality* *and Social Psychology, 80,* 1011-

 1027.

Garcia, S. M., Tor, A., & Gonzalez, R. (2006). Ranks and rivals: A theory of competition.

 *Personality and Social Psychology Bulletin*, *32*, 970-982.

Glomb, T. M. (2002). Workplace anger and aggression: Informing conceptual models with data

 from specific encounters. *Journal of Occupational Health* *Psychology, 7,* 20-36.

Glomb, T. M. (in press). Predicting workplace aggression: Reciprocal aggression, organizational,

 and individual antecedents. *International Journal of Organizational Theory and*

 *Behavior.*

Glomb, T. M., & Liao, H. (2003). Interpersonal aggression in work groups: Social influence,

 reciprocal, and individual effects. *Academy of Management Journal, 46,* 486-496.

Glomb, T. M., Steel, P. D. G., & Arvey, R. D. (2002). Office sneers, snipes, and stab wounds:

 Antecedents, consequences, and implications of workplace violence and aggression. In R.

 G. Lord, R. J. Klimoski, & R. Kanfer (Eds.), *Emotions in the workplace: Understanding*

 *the structure and role of emotions in organizational behavior (*pp*.* 227-259). San

 Francisco: Jossey-Bass.

Goodman, P., & Haisley, E. (2007). Social comparison processes in an organizational context: A new direction. *Organizational Behavior and Human Decision Processes,* *102,* 109–125.

Gottfredson, M. R. (1981). On the etiology of criminal victimization. *The Journal of Criminal Law and Criminology, 72,* 714-726.

Gough, H. G., & Bradley, P. (1996). *CPI manual.* Palo Alto, CA: Consulting Psychologists

 Press.

Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American*

 *Sociological Review, 25,* 161-178.

Groth-Marnat, G. (1990). *Handbook of psychological assessment* (2nd ed.). New York: John Wiley.

Helgeson, V. S. (1994). Relation of agency and communion to well-being: Evidence and potential explanations. *Psychological Bulletin, 116,* 412-428.

Heneman, H. G. III, & Judge, T. A. (2005). *Staffing organizations.* Madison, WI: Mendota House/Irwin.

Hentig, H. V. (1948). *The criminal & his victim: Studies in the sociobiology of crime*. New

 Haven: Yale University Press.

Hershcovis, S. M., Turner, N., Barling, J., Arnold, K. A., Dupre, K. E., Inness, M., et al. (2007).

 Predicting workplace aggression: A meta-analysis. *Journal of Applied Psychology*, *92*,

 228-238.

Hogan, J., & Holland, B. (2003). Using theory to evaluate personality and job performance

 relations: A socioanalytic perspective. *Journal of Applied* *Psychology, 88,* 100-112.

Hough, L. M., & Ones, D. S. (2001). The structure, measurement, validity, and use of personality

 variables in industrial, work, and organizational psychology. In N. Anderson, D. S. Ones,

 H. Sinangil, & C. Viswesvaran (Eds.), *Handbook of industrial, work, and organizational*

 *Psychology* (pp. 233-277). London, UK: Sage.

Isen, A. M. (1987). Positive affect, cognitive processes, and social behavior. In L. Berkowtiz

 (Ed.), *Advances in experimental social psychology* (pp. 203-253). New York:

 Academic Press.

Jensen, A. R. (1998). *The g factor: The science of mental ability.* Westport, CT: Praeger.

Jensen-Campbell, L. A., Adams, R., Perry, D. G., Workman, K. A., Furdella, J. Q., & Egan, S. K.

 (2002). Agreeableness, extraversion, and peer relations in early adolescence: Winning

 friends and deflecting aggression. *Journal of Research in Personality*, *36*(3), 224-251.

John, O. P. (1990). The "Big Five" factor taxonomy: Dimensions of personality in the natural

 language and in questionnaires. In L. A. Pervin (Ed.), *Handbook of personality: Theory*

 *and research* (pp. 66-100). New York: Guilford.

Jöreskog, K. G., & Sörbom, D. (1996). *LISREL 8 user’s reference guide* [Computer software and

 manual]. Chicago: Scientific Software International.

Judge, T. A., Bono, J. E., Ilies, R. & Gerhardt, M.W. (2002). Personality and leadership: a qualitative and quantitative review. *Journal of Applied Psychology, 87,* 765–80.

Judge, T. A., Higgins, C. A., Thoreson, C. J., & Barrick, M. R. (1999). The Big Five personality

 traits, general mental ability, and career success across the life span. *Personnel*

 *Psychology, 52*, 621-652.

Judge, T. A., & LePine, J. A. (2007). The bright and dark sides of personality: Implications for

 personnel selection and team configuration. In J. Langan-Fox, C. Cooper, & R. Klimoski

 (Eds.), *Research companion to the dysfunctional workplace: Management challenges and*

 *symptoms* (pp. 332-355). Cheltenham, UK: Edward Elgar Publishing.

Kuncel, N., Hezlett, S., & Ones, D. S. (2004). Academic performance, career potential,

 creativity, and job performance: Can one construct predict them all? *Journal of*

 *Personality and Social Psychology, 86,* 148-161.

Matteson, M. T., & Ivancevich, J. M. (1982). *Managing job stress and health.* New York:

 Macmillan.

McCrae, R. R., & Costa, P. T. (1996). Toward a new generation of personality theories:

 Theoretical contexts for the five-factor model. In J. S. Wiggins (Ed.), *The five-factor*

 *model of personality: Theoretical perspectives* (pp. 51-87). New York: Guilford.

Menon, T., & Thompson, L. (2007). Don’t hate me because I’m beautiful: Self-enhancing biases

 in threat appraisal. *Organizational Behavior and Human Decision Processes, 104,* 45-60.

Moskowitz, D. S., & Cote, S. (1995). Do interpersonal traits predict affect? A comparison of

 three models. *Journal of Personality and Social Psychology, 69,* 915-924.

Mumford, T. V., Van Iddekinge, C. H.; Morgeson, F. P., & Campion, M. A. (2008). The team

 role test: Development and validation of a team role knowledge situational judgment test.

 *Journal of Applied Psychology*, *93,* 250-267.

Murphy, P. L. (2006, Jan 18). When bullies rule the boardroom. *The Boise Weekly*.

Namie G., & Namie R. (2000). *The bully at work*. Illinois, Sourcebooks.

Neuman, J. H., & Baron, R. A. (2005). Aggression in the workplace: A social-psychological

 perspective. In S. Fox & P. E. Spector (Eds.), *Counterproductive work behavior:*

 *Investigations of actors and targets* (pp. 13-40). Washington, DC: American

 Psychological Association.

Ng, T. W. H., Eby, L. T., Sorensen, K. L., & Feldman, D. C. (2005). Predictors of objective and

 subjective career success: A meta-analysis. *Personnel Psychology, 58,* 367-408.

Olweus, D. (1978). *Aggression in schools: Bullies and whipping boys.* Washington, DC:

 Hemisphere.

Olweus, D. (1993). Bully victim problems among schoolchildren: Long term consequences and

 an effective intervention program. In S. Hodgins (Ed.), *Mental disorder and crime* (pp.

 317-349). Newbury Park, CA: Sage.

O’Reilly, C. A., & Chatman, J. A. (1994). Working smarter and harder: A longitudinal

 study of managerial success. *Administrative Science Quarterly, 39,* 603-627.

Peabody, D, & Goldberg, L. R. (1989). Some determinants of factor structures from personality-

 trait descriptors. *Journal of Personality* *and Social Psychology, 57,* 552-567.

Peterson, J. S., & Ray, K. E. (2006a). Bullying and the gifted: Victims, perpetrators, prevalence,

 and effects. *Gifted Child* *Quarterly, 50*, 148-168.

Peterson, J. S., & Ray, K. E. (2006b). Bullying among the gifted: The subjective experience.

 *Gifted Child* *Quarterly, 50*, 252-269.

Podsakoff, P. M. & Organ, D. O. (1986). Self-reports in organizational research: Problems and prospects. *Journal of* *Management, 12,* 531-544.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method

 biases in behavioral research: A critical review of the literature and recommended

 remedies. *Journal of Applied Psychology, 88,* 879-903.

Rippon T. J. (2000). Aggression and violence in health care professions. *Journal of Advanced*

 *Nursing, 31*, 452-460.

Rogers, W. H. (1993). sg17: Regression standard errors in clustered samples. *Stata Technical*

 *Bulletin, 13,* 19-23.

Rogers, W. M., Schmitt, N., & Mullins, M. E. (2002). Correction for unreliability of multifactor

 measures: Comparison of alpha and parallel forms approaches. *Organizational Research*

 *Methods, 5,* 194–199.

Roos, P. E., & Cohen, L. H. (1987). Sex roles and social support as moderators of life stress adjustment. *Journal of Personality and Social* *Psychology, 52,* 576-585.

Sackett, P. R., & DeVore, C. J. (2001). Counterproductive behaviors at work. In N. Anderson, D.

 Ones, H. Sinangil, & C. Viswesvaran (Eds.), *International handbook of work psychology*

(pp.145-164). London: Sage.

Sackett, P. R., & Ostgaard, D. J. (1994). Job-specific applicant pools and national norms for

 cognitive ability tests: Implications for range restriction corrections in validation

 research. *Journal of Applied Psychology,* *79,* 680-684.

Sackett, P. R., & Yang, H. (1994). Correction for range restriction: An expanded typology.

 Journal of Applied Psychology, 85, 112-118.

Saragovi, C., Koestner, R., Dio, L. D., & Aube, J. (1997). Agency, communion, and well being: Extending Helgeson’s (1994) model. *Journal of* *Personality and Social Psychology, 73,* 593–609.

Schafer, S. (1968). *The victim and his criminal: A study in functional responsibility*. New York:

 Random House.

Schafer, S. (1977). *Victimology: The victim and his criminal.* Reston. A Prentice-Hall.

Schmidt, F. L., & Hunter, J. E. (1998). The validity and utility of selection methods in personnel

 psychology: Practical and theoretical implications of 85 years of research findings.

 *Psychological Bulletin, 124,* 262–274.

Schmitt, N. (1994). Method bias: The importance of theory and measurement. *Journal of Organizational Behavior*, *15*, 393-398.

Smith, R. H. (1991). Envy and the sense of injustice. In P. Salovey (Ed.), *The psychology of*

 *jealousy and envy* (pp. 79-99). New York: Guildford Press.

Smith, R. H. (2000). Assimilative and contrastive emotional reactions to upward and downward

 comparisons. In J. M. Suls & L. Wheeler (Eds.), *Handbook of social comparison: Theory*

 *and research* (pp. 173-200). New York: Kluwer Academic/Plenum Publishers.

Sparks, R. F., Genn, H. G., & Dodd, D. J. (1977). *Surveying victims: A study of the measurement*

 *of criminal victimization, perception of crime, and attitudes to criminal justice.* New

 York: John Wiley & Sons.

Spector, P. E. (1994). Using self-report questionnaires in OB research: A comment on the use of a controversial method. *Journal of Organizational Behavior*, *15*, 385-392.

Taylor, S. E. (1991). Asymmetrical effects of positive and negative events: The mobilization-minimization hypothesis. *Psychological Bulletin, 110,* 67-85.

Tesser, A., Millar, M., & Moore, J. (1988). Some affective consequences of social comparison

 and reflection processes: The pain and pleasure of being close. *Journal of Personality*

 *and Social Psychology, 54,* 49-61.

The Industrial-Organizational Psychologist. (1995). Mainstream science on intelligence. *The*

 *Industrial-Organizational* *Psychologist, 32,* 67-72.

Tomchin, E. M., Callahan, C. M., Sowa, C. J., & May, K. M. (1996). Coping and self-concept:

 Adjustment patterns in gifted adolescents. *Journal of Secondary Gifted Education, 8*, 16-

 27.

Trapnell, P. D., & Wiggins, J. S. (1990). Extension of the interpersonal adjective scales to

 include the Big Five dimensions of personality. *Journal of Personality and Social*

 *Psychology, 59,* 781-790.

Watson, D., & Clark, L. A. (1984). Negative affectivity: The disposition to experience aversive

 emotional states. *Psychological Bulletin, 96,* 465-490.

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures

 of positive and negative affect: The PANAS scales. *Journal of* *Personality and Social*

 *Psychology, 54,* 1063-1070.

Wiggins, J. S. (1991). Agency and communion as conceptual coordinates for the understanding

 and measurement of interpersonal behavior. In W. M. Grove & D. Ciccetti (Eds.),

 *Thinking clearly about psychology: Vol. 2. Personality and psychopathology* (pp. 89-

 113). Minneapolis, MN: University of Minnesota Press.

Wilson, J. Q., & Herrnstein, R. J. (1985). Crime and human nature. New York: Simon &

 Schuster.

Wonderlic, E. F. (1984). *Wonderlic personnel test manual.* Northfield, IL: Wonderlic

 Associates.

.

Table 1

*Descriptive Statistics and Correlations*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Mean | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |  11 | 12 | 13  | 14  | 15  |
|  1. Gender | .74 | .44 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  2. Tenure | 1.85 | 2.21 | -.15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  3. Age | 23.77 | 7.41 | -.09 | .28 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  4. Hierarchical status  | .73 | .45 | -.05 | -.20 | -.19 |  |  |  |  |  |  |  |  |  |  |  |  |
|  5. Negative affectivity | 19.24 | 5.22 | .00 | -.04 | -.10 | .14 |  |  |  |  |  |  |  |  |  |  |  |
|  6. Positive affectivity | 37.61 | 5.63 | .11 | -.12 | -.06 | -.05 | -.19 |  |  |  |  |  |  |  |  |  |  |
|  7. Job stress | 11.94 | 3.81 | -.02 | .22 | .33 | -.37 | .06 | -.06 |  |  |  |  |  |  |  |  |  |
|  8. Workgroup stress | 9.63 | 3.63 | -.12 | .18 | .31 | -.05 | .15 | -.29 | .45 |  |  |  |  |  |  |  |  |
|  9. Organizational stress | 14.94 | 5.02 | -.21 | .39 | .28 | -.21 | -.02 | -.13 | .55 | .43 |  |  |  |  |  |  |  |
| 10. Aggression engagement  | 21.33 | 5.06 | -.11 | .28 | .05 | -.09 | .19 | -.10 | .25 | .21 | .31 |  |  |  |  |  |  |
| 11. Agency (index) | 55.55 | 7.98 | .01 | -.16 | -.03 | .15 | -.10 | .27 | -.03 | -.01 | -.22 | -.07 |  |  |  |  |  |
| 12. Communion (index) | 55.21 |  4.25 | -.09 | -.03 | -.06 | .07 | -.23 | .25 | -.01 | -.15 | -.04 | -.05 | .16 |  |  |  |  |
| 13. Agency(CPI-Dominance) | 58.85 | 10.13 | -.03 | -.12 | -.09 | .09 | -.07 | .29 | .01 | -.01 | -.21 | -.07 | .87 | .24 |  |  |  |
| 14. Communion(CPI-Communality) | 54.43 | 5.34 | -.09 | .05 | -.01 | -.07 | -.18 | .09 |  .05 | -.12 | -.01 | .03 | .11 | .54 | .14 |  |  |
| 15. Cognitive ability  | 25.41 | 5.40 | -.18 | -.18 | -.08 | -.05 | -.05 | -.12 | .03 | .12 | .07 | .08 | .13 | .11  | .11 |  .05 |  |
| 16. Victimization  | 23.74 | 6.41 | -.02 | .16 | .21 | -.14 | .00 | -.03 | .41 | .24 | .41 | .54 | .04 | -.10 | .09  | -.09  | .18  |

*N* =133. Correlations greater than .17 are significant at *p <* .05; those greater than .21 are significant at *p* < .01.

Tenure = years. Age = years. Gender: Female = 1, male = 0. Hierarchical status: Subordinate = 1, supervisor = 0.

Table 2

*Results of Hierarchical Regression Analysis for Victimization*

|  |  |
| --- | --- |
|  | Victimization |
|  |  Model 1 | Model 2 | Model 3 |
|   |  |  |  |  |  |  |
| Gender | .92 |  | 1.16 |  | 1.06 |  |
| Tenure | -.03 |  | -.01 |  | -.02 |  |
| Age | .09 |  | .09 |  | .09 |  |
| Hierarchical status  | .55 |  | .81 |  | 1.1 |  |
| Negative affectivity | -.11 |  | -.12 |  | -.15 | \* |
| Positive affectivity | .03 |  |  .05 |  | .04 |  |
| Job stress | .35 | \* | .37 | \* |  .43 | \*\* |
| Workgroup stress | -.03 |  | -.10 |  | -.18 |  |
| Organizational stress |  .24 |  | .25 |  | .27 |  |
| Aggression engagement |  .62 | \*\* |  .60 | \*\* |  .60 | \*\* |
|  |  |  |  |  |  |  |
| Cognitive ability  |  |  | .17 | \*\* | .15 | \* |
| Agency (index) |  |  | .08 | \* | .06 |  |
| Communion (index) |  |  | -.21 |  | -.26 |  |
|  |  |  |  |  |  |  |
| Cognitive ability x Agency |  |  |  |  | .02 | \* |
| Cognitive ability x Communion  |  |  |  |  | -.05 | \* |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| R-squared | .42 | \*\* | .46 | \*\* | .50 | \*\* |
| Δ R-squared |  |  | .04 | \* | .04 | \*\* |

*N* = 133. Regression coefficients are unstandardized because standard regression coefficients are invalid with the cluster option (see Glomb & Liao, 2003; Rogers, 1993).

\* *p* < .05 , \*\* *p* < .01, Two-tailed test

Gender: Female = 1, male = 0. Hierarchical status: Subordinate =1, supervisor = 0

Table 3

*Supplemental Analysis Results of Hierarchical Regression Analysis for Victimization*

|  |  |
| --- | --- |
|  | Victimization |
|  | Model 4  | Model 5  |
|  |  |  |  |  |
| Gender | 1.33 |  | 1.24 |  |
| Tenure | -.01 |  | -.02 |  |
| Age | .11 | \* | .08 | \* |
| Hierarchical status  | .46 |  | .36 |  |
| Negative affectivity | -.11 |  | -.14 |  |
| Positive affectivity |  .00 |  | .00 |  |
| Job stress | .34 | \* |  .35 | \* |
| Workgroup stress | -.14 |  | -.18 |  |
| Organizational stress | .28 |  | .30 |  |
| Aggression engagement |  .61 | \*\* |  .61 | \*\* |
|  |  |  |  |  |
| Cognitive ability  | .15 | \* | .12 |  |
| Agency (CPI Dominance)  | .11 | \* | .10 | \* |
| Communion (CPI Communality) | -.18 | \* | -.18 | \* |
|  |  |  |  |  |
| Cognitive ability x Agency |  |  | .01 | + |
| Cognitive ability x Communion |  |  | -.03 | \* |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | .48 | \*\* | .50 | \*\* |
| Δ R-squared | .06 | \*\* | .02 | \* |

*N* = 133. Regression coefficients are unstandardized because standard regression coefficients are invalid with the cluster option (see Glomb & Liao, 2003; Rogers, 1993).

+ *p* < .10, \* *p* < .05 , \*\* *p* < .01, Two-tailed test

Gender: Female = 1, male = 0. Hierarchical status: Subordinate =1, supervisor = 0

Figure 1

*The moderating role of agency personality traits on the relationship between cognitive ability and victimization*

Figure 2

*The moderating role of communion personality traits on the relationship between cognitive ability and victimization*

1. Other CPI scales were excluded for one of two reasons: (1) they did not include the core dimensions of Extroversion-dominance for agency or Agreeableness for communion or (2) they included these dimensions, but were contaminated by others as well. These “mixed” scales were the most likely reason for exclusion. Specific mapping of CPI scales to Big 5 (i.e., A: agreeableness, C: conscientiousness, ES: emotional stability, EX: extraversion, O: openness) characteristics are as follows: Self-Acceptance (ES+EX), Empathy (EX+O+C), Well-being (ES+EX), Tolerance (O+A), Achievement with Conformation (O+C), Achievement with independence (ES+EX+O+C), Psychological-Mindedness (ES+O), Flexibility (O+C), Sociability (EX-Sociability), Intellectual Efficiency (O), Self-Control (ES+C), Good Impression (C). [↑](#footnote-ref-1)