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Do Nice Guys – and Gals – Really Finish Last? The Joint Effects of Sex and Agreeableness on  
Income

Timothy A. Judge

Mendoza College of Business

University of Notre Dame

Beth A. Livingston

School of Industrial and Labor Relations

Cornell University

Charlice Hurst

Richard Ivey School of Business

University of Western Ontario

In press, *Journal of Personality and Social Psychology*

## Abstract

Sex and agreeableness were hypothesized to affect income, such that women and agreeable individuals were hypothesized to earn less than men and less agreeable individuals. Because agreeable men disconfirm (and disagreeable men confirm) conventional gender roles, agreeableness was expected to be more negatively related to income for men (i.e., the pay gap between agreeable men and agreeable women would be smaller than the gap between disagreeable men and disagreeable women). The hypotheses were supported across four studies. Study 1 confirmed the effects of sex and agreeableness on income and that the agreeableness – income relationship was significantly more negative for men than for women. Study 2 replicated these results, controlling for each of the other Big Five traits. Study 3 also replicated the interaction, and explored explanations and paradoxes of the relationship. A fourth study, using an experimental design, yielded evidence for the argument that the joint effects of agreeableness and gender are due to backlash against agreeable men.

Keywords: personality, agreeableness, sex, income, pay, gender wage gap

## Do Nice Guys – and Gals – Really Finish Last? The Joint Effects of Sex and Agreeableness on Income

In 1948, speaking of the New York Giants, legendary baseball manager Leo Durocher was quoted as saying that “nice guys finish last.” Though Durocher (not known to be a very nice guy himself) maintained that his words were taken out of context (George & Boller, 1989), his statement has virtually become a truism in United States business culture, where assertiveness and competitiveness are vaunted attributes (Hofstede, 1980). Despite rather wishful articles in the popular press extolling a shift in culture toward “the power of nice” (Thaler & Koval, 2006) and a “kindness revolution” (Horrell, 2006), Durocher’s words receive some support from the research literature. “Niceness”—in the form of the trait of agreeableness—does not appear to pay.

Agreeable individuals place greater value on their interpersonal relationships (Graziano & Tobin, 2002), are more motivated to maintain these relationships (Digman, 1997), are more prosocial (Graziano, Habashi, Sheese, & Tobin, 2007; Penner, Dovidio, Piliavin, & Schroeder, 2005; Penner, Fritzsche, Caiger, & Freifeld, 1995), are more cooperative and helpful (Graziano & Eisenberg, 1997; LePine & Van Dyne, 2001), and, as a result, are better liked by their peers (Jensen-Campbell, Adams, Perry, Workman, Furdella, & Egan, 2002). Despite—or perhaps because of—its social benefits, empirical evidence suggests that agreeableness is negatively related to income and earnings (Bozionelos, 2004; Ng, Eby, Sorensen, & Feldman, 2005; Mueller & Plug, 2006; Nyhus & Pons, 2005; Rode, Arthaud-Day, Mooney, Near, & Baldwin, 2008; Spurk & Abele, 2010).

Although the cliché attributed to Durocher does have an element of truth, it might also need to be qualified. In 1948, nice guys may have finished last because they were competing

almost entirely against other guys. Over the years since, their pool of competitors has increasingly included women. Based on the persistent wage gap between men and women in the United States (e.g., Blau & Ferber, 1992; Bureau of Labor Statistics, 2006), it seems likely that women finish behind nice guys, with nice “gals” coming in last; however, social role and role congruity theories (Eagly, 1987; Eagly & Karau, 2002) also suggest that men do take a hit for being highly agreeable, while women may not reap the same benefits for low agreeableness that men do.

Due to the association of agreeableness with strongly prescribed-and opposing-behavioral norms for men and women, the effect of agreeableness on income might be quite different for women than for men. In order to test this association, we present findings from four studies. In the next section of the paper, we discuss the separate associations of gender and agreeableness with income and their hypothesized joint effect on income.

### Gender and Earnings

There is a persistent gender wage gap in the United States. This gap is apparent in the analysis of census data from 1955 until the present (e.g., Blau & Ferber, 1992; Bureau of Labor Statistics, 2006). Researchers have been attempting to explain components of the gap for decades (e.g., Blau & Ferber, 1992; Blau & Kahn, 1994; Weinberger & Kuhn, 2010). It narrowed considerably in the 1980s, but convergence slowed in the 1990s (Blau & Kahn, 2006) and, despite the many contributing factors studied, researchers have not been able to explain the gender wage gap entirely.

Traditionally, there are two categories of explanations for the gender wage gap. Demand-side explanations are based on examinations of the influence of structural and institutional characteristics of the labor market (e.g., discrimination; Auster, 1989; Blau & Ferber, 1986).

Supply-side explanations are drawn from investigations of the effects of differences in human capital (e.g., Weinberger & Kuhn, 2010) and career decision making (e.g., Jackson & Grabski, 1988) between men and women. These categories of explanations may also help explain the effect of agreeableness on income and the joint influence of agreeableness and gender.

### Agreeableness and Earnings

One has simply to look to Costa and McCrae's (1992) six facets of agreeableness—trust, straightforwardness, altruism, compliance, modesty, and tender-mindedness—to get an idea of what an agreeable person is like. But what of people low in agreeableness? Are they antagonistic boors with no concern for their relationships? On the one hand, research on the variability of trait manifestation in behavior (Fleeson & Gallagher, 2009), indicates that, on average, people low in agreeableness are basically amicable. They are just slightly more likely than people high in trait agreeableness to behave disagreeably in certain situations by, for instance, aggressively advocating for their position during conflicts (van de Vliert & Euwema, 2004). On the other hand, high levels of disagreeableness may be associated with psychopathy (Derefinko & Lynam, 2006), suggesting that disagreeable individuals may be predisposed toward antisocial or deviant behaviors (Decuyper, De Pauw, De Fruyt, De Bolle, & De Clercq, 2009). However, most disagreeable individuals are unlikely to suffer from clinical psychological disorders, and as evident in the myriad acts of corporate malfeasance reported in the literature (Balch & Armstrong, 2010), antisocial behaviors do not preclude earning higher incomes.

Agreeableness is only modestly related to job performance in general, but it does confer benefits in the interpersonal dimension of job performance (Hurtz & Donovan, 2000). Given the increasing reliance of organizations on teams, it would seem that people high in agreeableness would have at least a slight economic advantage over those low in agreeableness. The fact that

researchers repeatedly report the opposite is puzzling (Ng et al., 2005; Mueller & Plug, 2006; Nyhus & Pons, 2005; Rode et al., 2008; Spurk & Abele, 2010) and none have offered more than minimal explanations for this finding. Yet, as with the association between gender and income, both supply- and demand-side forces may be responsible.

From the supply side, people high in agreeableness may not translate their human capital into financial gain as well as people low in agreeableness. According to McCrae and Costa's (1996) five-factor conceptualization, personality traits affect individuals' adaptations to their environment, including the ways in which they self-regulate. If highly agreeable people are primarily motivated by the goal to build and maintain positive relationships with others (Digman, 1997), this may conflict with other types of goals that promote extrinsic career success, as suggested by Spurk and Abele's (2010) finding that the negative relationship between agreeableness and income was mediated by career advancement goals. Setting goals to build their reputation or advance their organizational position might be viewed by highly agreeable people as competitive behavior, undermining their desire to maintain social harmony. On the other hand, because people low in agreeableness do not prize smooth interpersonal interactions as a basic goal and, in fact, value competition, they may be more likely to behave in ways that advance their interests relative to others. In particular, possibly stemming from their high sense of psychological entitlement (Campbell, Bonacci, Shelton, Exline, & Bushman, 2004) and lower level of willingness to compromise their self-interests (Barry & Friedman, 1998), disagreeable bargainers reach more favorable individual settlements in distributive negotiations (Barry & Friedman, 1998; Liu, Friedman, & Chi, 2005). This may be one of the primary reasons for the negative relationship between agreeableness and earnings—disagreeable individuals are less

likely to settle for less favorable outcomes when engaged in negotiations over their pay or other outcomes.

The aspiration toward harmonious social relationships may also lead highly agreeable people to adhere excessively to social norms (Paulhus & Trapnell, 2008). There is evidence that, although people high in agreeableness engage in more altruistic behaviors at work (LePine & van Dyne, 2001; Ilies, Scott, & Judge, 2006), they are less likely to enact voice behaviors that constructively challenge existing practice (LePine & van Dyne, 2001). Although altruistic behaviors are a facet of performance, they involve self-sacrifice and are often not rewarded (LePine & van Dyne, 2001). Voice behaviors may, on the other hand, attract rewards, particularly when they are directed toward persuading others of the value of one's ideas.

From a demand-side perspective, it is perhaps counter-intuitive that employers may favor people low in agreeableness. People evaluate each other on the two basic dimensions of warmth/communion and competence/agency (Able, Cuddy, Judd, & Yzerbyt, 2008). Generally, communion is privileged over competence in overall evaluations of people (Wojciszke & Abele, 2009). Based on this, one might expect for employers to value highly agreeable people more. But Wojciszke and Abele (2009) found that, when an individual's goal achievement is entwined with the behavior of the person they are evaluating, as in the work environment, the ranking of communion and agency are flipped: perceptions of agency become more important. Thus, agreeable people would not necessarily reap advantages from being perceived as highly warm by their employer. Yet, less agreeable people might gain from not being perceived as warm.

Although being disagreeable does not mean that one is more competent or agentic—communion and agency are not opposite ends of the same construct (Wiggins, 1991)—it may imply as much in the minds of employers. People who are low in agreeableness may be

perceived as more competent by virtue of their lack of warmth (Benyus, Bremmer, Pujadas, Christakis, Collier, & Warholz, 2009). Amabile and Glazebrook (1982) found that people who were highly critical of others were rated as more competent than those offering favorable evaluations. Furthermore, in an experimental study, Tieden (2001) found that people recommended a higher-status position and higher pay for job applicants who expressed anger—a display that is more likely among disagreeable people (Jensen-Campbell, Knack, Waldrip, & Campbell, 2007; Meier & Robinson, 2004). The relationship between anger and recommendations for status and pay was mediated by competence perceptions; liking of the applicant, on the other hand, had no effect on recommendations. Thus, while agreeable people might be well-liked, their warmth may undermine perceptions of their competence relative to their disagreeable peers who may, in fact, be no better equipped for the job. Disagreeable behaviors, particularly in settings where competitiveness and aggressiveness are valued, seem to signal ability and promise.

#### Differential Agreeableness – Income Relationship by Gender

Research on reactions to those who violate gender norms in employment contexts suggests that, although disagreeableness may advantage both men and women in their pursuit of extrinsic success, it should particularly do so for men because disagreeable men have the additional advantage of conforming to gender role expectations. Whereas disagreeable men reap a double benefit—their disagreeableness helps them better translate their human capital into earnings advantage, and the same behavior conforms to expectations of “masculine” behavior—agreeable men are disproportionately disadvantaged. Therefore, although we expect that agreeableness will be negatively related to income for both men and for women, it will be more strongly so for men because it conflicts with social norms of masculinity. Likewise, because low

agreeableness is at odds with norms for feminine behavior, disagreeableness will not likely be the same asset for women as it is for men. Thus, we would expect to see a greater difference in income between men high and low in agreeableness compared to the difference between women high and low in agreeableness. Put another way, the gender pay gap should be higher for disagreeable women versus disagreeable men than for agreeable women vs. agreeable men (though the gap should favor men—there will be a gender pay gap even taking agreeableness and its interaction with gender into account).

According to social role and role congruity theories (Eagly, 1987; Eagly & Karau, 2002), social roles prescribe socially shared expectations of members of a particular social category (Biddle, 1979). These expectations are also normative, in that they describe qualities believed to be desirable for each sex (Eagly, 1987). Gender norms, or stereotypes, follow from observations of people in sex-typical social roles (e.g., Eagly et al., 2000) and are often organized according to communal and agentic attributes (see Bakan, 1966; Eagly, 1987). Men are expected to be high in agency and low in communion, while the opposite is expected of women (Eagly, 1987; Eagly & Steffen, 1984; Graziano & Eisenberg, 1997). Both men and women who act in ways that are contrary to expected behaviors in certain contexts may encounter backlash when they do not conform to stereotyped expectations. Backlash refers to social and economic sanctions for counterstereotypical behavior (Rudman & Fairchild, 2004). Counterstereotypical behavior often results in less favorable personnel decisions such as decreased recognition, compromised opportunities for advancement (Brescoll & Uhlmann, 2008; Rudman & Glick, 1999, 2001; Rudman & Phelan, 2008), and, at worst, sabotage directed against “deviants” (Rudman & Fairchild, 2004).

Penalties for violation of gender norms have been investigated most often with regard to women engaging in “masculine” behavior or operating in traditionally masculine roles (Brescoll & Uhlmann, 2008; Eagly, Makhijani, & Klonsky, 1992; Heilman & Okimoto, 2007; Heilman, Wallen, Fuchs, & Tamkins, 2004; Parks-Stamm, Heilman, & Hearn, 2008; Phelan, Moss-Racusin, & Rudman, 2008). Numerous studies have found that women who have been successful at traditionally masculine jobs are derogated for a lack of interpersonal warmth (Heilman & Okimoto, 2007; Heilman et al., 2004; Parks-Stamm et al., 2008). A few studies have demonstrated that men, like women, could face backlash for behaving counter to gender norms. Rudman (1998) found that self-promoting women and self-effacing men were considered less socially attractive and less qualified than self-effacing women and self-promoting men, respectively. In fact, self-effacement seemed more of a losing strategy for men than self-promotion was for women, which is consistent with Heilman and Wallen’s (2010) argument that men are likely to be penalized for the very behaviors that are prescribed for women. Their experimental study revealed that men who succeeded at female gender-typed jobs were cast by study participants as more ineffectual and less deserving of respect than women in the same job and men in a male gender-typed job. The authors argued that this pattern of ratings arose because success in a gender-inconsistent job implies a deviation from prescriptive gender norms.

Framed in an analogous manner, while individuals desiring higher extrinsic rewards might be advised to be more competitive and self-interested (i.e., less agreeable), women’s efforts may be neutralized because such actions violate gender norms. Thus, women may face a “no win” situation in the sense that, should they be agreeable, they are, like men, prone to exploitation by others (Barry & Friedman, 1998; Liu et al., 2005) and are less likely to be perceived as competent (Rudman & Glick, 1999, 2001). Should they be disagreeable, however,

the income advantages of disagreeableness may be dampened because their behavior violates gender role norms (Brescoll & Uhlmann, 2008).

In addition to the stereotype-related penalties for low agreeableness that women face, there are myriad other factors shown in previous research to contribute to the gender gap. We do not expect low agreeableness to compensate for all of these other variables. Thus, we expect that women low in agreeableness will earn more than women high in agreeableness, but still will not earn as much as men high or low in agreeableness. Yet, we expect a narrower gap between disagreeable women and highly agreeable men; the latter, we expect, will earn considerably less than disagreeable men, who are doubly advantaged by their standing on the trait via their tendency toward self-interested behavior that conforms to social roles.

#### Effect of Job and Occupation and Other Controls

Each of the three expected relationships—that women earn less than men, that agreeable individuals earn less than the disagreeable, and that the effect of agreeableness on earnings is more negative for men—might be biased by the failure to control for job or occupational characteristics. Specifically, regarding our first expected relationship (effect of sex on earnings), the occupational segregation literature consistently shows that women are sorted into lower-earning, less prestigious occupations (e.g., Duncan & Prus, 1992). Regarding our second expected relationship (effect of agreeableness on earnings), although occupational choice and selection based on agreeableness is much less well understood, R. Hogan's (1983) socioanalytic theory and Barrick, Stewart, and Piotrowski's (2002) results suggests that personality may affect choice of situations (J. Hogan & Holland, 2003)—in this case that agreeable individuals, being more motivated to “get along” than “get ahead,” may choose to work in lower-status, more service-oriented occupations. Finally, regarding the final and focal relationship (differential

effect of agreeableness on income for men vs. women), it is possible that the differential association of agreeableness with income for men and women might be affected by job and occupational characteristics. In short, it is possible that agreeableness disproportionately affects men's earnings because agreeable men (as opposed to disagreeable men) are less likely to pursue prestigious work.

Accordingly, in the third study, we tested the hypotheses controlling for various job and occupational characteristics. Across all three field studies, we included three relevant control variables: educational attainment, marital status, work history, and hours worked to control for possible third order variables that may be related to gender, agreeableness, and earnings. Below, we introduce the individual studies and the nuances of each approach.

### Study 1

In Study 1, the hypothesized relationships among gender, agreeableness, and income are tested on a large sample of working adults. In addition to the aforementioned control variables, Study 1 also controls for two other Big Five traits: neuroticism and extraversion. Neuroticism is a trait (along with agreeableness) that demonstrates the most consistently large gender effects over time (Bouchard & Loehlin, 2001), such that men are less neurotic than women.

Additionally, neuroticism (or its converse, emotional stability) and extraversion have been found to be related to career success (e.g., Ng et al., 2005). Thus, controlling for these traits allows us to exclude two potential confounding factors. We also control for income at the time agreeableness was measured, so that gender, agreeableness, and their interaction predict prospective changes in income.

## Method

### Participants and Procedure

Participants in Study 1 were individuals enrolled in the National Longitudinal Surveys of Youth (NLSY97). The NLSY97 is sponsored by the Bureau of Labor Statistics, U.S. Department of Labor, and conducted by the National Opinion Research Center (NORC) at the University of Chicago with assistance from the Center for Human Resource Research (CHRR) at The Ohio State University. The NLSY97 consists of a nationally representative sample of approximately 9,000 youths who were aged 12-16 at the initiation of the study in 1997. Since 1997, participants have been interviewed annually, though 2008 is the most recent year for which data are available. Although the primary focus of the NLSY97 was to document the transition from school to the labor market, in 2002, data on participants' personalities were collected.

Most interviews were conducted in participants' households (in the relatively small [approximately 13%] of cases where this was not possible, participants were interviewed over the phone). Participants were provided small (typically \$10) incentives for participating in each round of interviews. Naturally, some sample attrition occurred over time, though the level of attrition was relatively low, averaging roughly 2% per time period. Because many of the participants were of college age over the time period when income was assessed, we limited the study to those individuals who were (a) working outside the home, (b) not enrolled in college full-time, and (c) working at least 1,000 hours per year. These restrictions reduced the sample size to  $N=560$ .

### Measures

**Agreeableness.** We measured participant agreeableness by their responses to three questions that were asked in the 2002 survey. These three questions were: (1) "How much do

you feel that agreeable describes you as a person, where 1 means quarrelsome and 5 means agreeable?"; (2) "How much do you feel that difficult describes you as a person, where 1 means cooperative and 5 means difficult?"; and (3) "How much do you feel that stubborn describes you as a person, where 1 means flexible and 5 means stubborn?" The last two items were reverse-scored, and then the three responses were averaged. The coefficient alpha reliability estimate of this scale was  $\alpha=.79$ .<sup>1</sup>

Neuroticism and extraversion. Neuroticism was measured with a four-item scale ( $\alpha=.77$ ) on the 2002 survey: (1) "How much of the time during the last month have you been a very nervous person?"; (2) "How much of the time during the last month have you felt calm and peaceful?"; (3) "How much of the time during the last month have you felt downhearted and blue?"; and (4) "How much of the time during the last month have you been a happy person?" Responses to these questions were evaluated on a 1=all of the time; 2=most of the time; 3=some of the time; and 4=none of the time scale. Responses to the second and fourth questions were reverse-scored, and then participants' responses were averaged. Extraversion was measured with a two-item scale ( $\alpha=.43$ ), completed in 2008, where participants evaluated how well two pair of traits ("extraverted, enthusiastic" and "reserved, quiet") described them. Responses were anchored on a 1=*disagree strongly* to 7=*agree strongly* scale. For the extraversion scale, responses to the second item pair were reverse scored, and responses to the two items were averaged.

Sex. Participants' sex was noted by the interviewer in the initial interview and was coded 1=male, 2=female.

Education, marital status, hours worked, and work history. Participant education was measured with a variable that was created to reflect, on an ordinal scale, the highest degree

received as of 2004. Responses ranged from 0=none to 7=doctoral-level degree. Marital status was measured by the interviewer recording, during the 2003 interview, whether the participant was married or had a partner in the household (coded 1) or was single, divorced, separated, or widowed (coded 0). Participant hours worked was measured by computing the average hours the participant worked 2004-2008. Continuous work history and unemployment pay were assessed, respectively, by averaging whether or not the participant was employed over the study (1997-2008) and whether or not the participant drew unemployment compensation over the study (1997-2008).

**Income and prior income.** We measured income by averaging, across 2004-2008, participants' responses to the question, "During (YEAR), how much income did you receive from wages, salary, commissions, or tips from all jobs, before deductions for taxes or for anything else?" Because we controlled for this variable as measured in 2003, our regression estimates changes in income over time (Edwards, 1995), after agreeableness was measured.

## Results

The descriptive statistics for and intercorrelations among the Study 1 variables are provided in Table 1. The regression results predicting income with gender, agreeableness, and the control variables are provided in Table 2. We estimated one pooled regression (for men and women combined), as well as separate regressions for men and women.<sup>2</sup> Because the raw (unstandardized) coefficients are in practically meaningful units, we report both raw (B) and standardized ( $\beta$ ) regression coefficients.

As shown in Table 2, in the overall regression, agreeableness and gender both negatively predict earnings, meaning that women and those who score high on agreeableness earn less than men and those who score low on agreeableness. The effect sizes were such that women earned,

on average, \$4,787 less than men, even controlling for education, marital status, hours worked per week, and work force continuity. Given the average salary in Study 1, this amounts to a 14% income difference. The regression results in Table 2 also show that the effect of agreeableness on income was stronger for men ( $B=-\$6,958$ ,  $\beta=-.21$ ,  $p < .01$ ) than for women ( $B=-\$1,100$ ,  $\beta=-.05$ , ns). To test whether the effect of agreeableness on earnings differed for men and women, we used the formula provided by Paternoster, Brame, Mazerolle, and Piquero (1998; see also Clogg, Petkova, & Haritou, 1995). Using this test statistic, the coefficients for agreeableness in Table 2 were significantly different for men and women ( $t = -3.53$ ,  $p < .01$ ). The top half of Figure 1 provides a graph of the regression results for men and women. As the figure shows, the negative effect of agreeableness on income is stronger for men than for women. At low levels of agreeableness (1 standard deviation below the mean on agreeableness), the gender wage gap is roughly double that at high levels of agreeableness (1 standard deviation above the mean).

The variables of neuroticism and extraversion (also Big Five personality traits) were also included in the regressions for men and for women. Neuroticism was negatively related to pay for men ( $B=-\$6,789.45$ ,  $\beta=-.12$ ,  $p < .05$ ) but not significantly so for women ( $B=-\$6,280.13$ ,  $\beta=-.16$ ,  $p > .05$ ). Extraversion was not significantly related to pay for men ( $B=\$1,628.01$ ,  $\beta=.07$ ,  $p > .05$ ) or for women ( $B=\$1,118.22$ ,  $\beta=.08$ ,  $p > .05$ ). For men, neuroticism tends to result in significantly less pay than it does for women, but extraversion does not affect the income reported by men or by women.

### Study 2

A limitation of Study 1 is that, beyond agreeableness, only two Big Five traits—neuroticism and extraversion—were controlled. In Study 2, we seek to replicate the Study 1 results with another sample of working adults. Unlike Study 1, all of our expected relationships

are tested controlling for all four of the other Big Five traits (i.e., neuroticism, conscientiousness, openness to experience, and extraversion) in order to ensure that our observed effects are due to agreeableness and not to the confounding effects of one of the other traits.

## Method

### Participants and Procedure

Participants in Study 2 were individuals enrolled in the National Survey of Midlife Development in the United States (MIDUS), an investigation of patterns, predictors, and consequences of midlife development in the areas of physical health, psychological well-being, and social attitudes. Participants were drawn from a nationally representative random-digit-dial sample of non-institutionalized, English-speaking adults, age 25-74, selected from working telephone banks in the coterminous United States. Individuals who first participated in an initial telephone interview subsequently responded to two mail surveys. The initial phone interview (lasting approximately 30 minutes) and subsequent mail surveys (taking an average of two hours to complete in total) were completed in one year's time, 1995-1996. Participants were instructed that the survey was being carried out through Harvard Medical School and that their individual responses would remain strictly confidential. Those who participated received a boxed pen and a check for \$20.

Of the sample of individuals originally targeted for participation, approximately 70% agreed to participate in the telephone interview and, of those, roughly 87% completed the mailed surveys. Of the 3,032 individuals who completed both the telephone interview and mailed surveys, our sample size was further limited by restricting the analysis to individuals employed full-time outside the home. All told, 1,681 individuals met these criteria, of whom 1,000 were men and 681 were women.

## Measures

Agreeableness. Agreeableness was measured, along with the other Big Five traits, with a series of adjectives, preceded by the instructions, “Please indicate how well each of the following describes you.” Each adjective was evaluated using a 1=A LOT, 2=SOME, 3=A LITTLE, and 4=NOT AT ALL response scale. The seven adjectives assessing agreeableness were: (a) helpful; (b) friendly; (c) warm; (d) caring; (e) softhearted; (f) outspoken; and (g) sympathetic. So that high scores reflected high levels of agreeableness, all items – except item “f” – were reverse-scored. Agreeableness scores were then computed by averaging responses to the seven items. The coefficient alpha reliability estimate for this scale was  $\alpha=.76$ .<sup>3</sup>

Other Big Five traits. The other four Big Five traits were assessed with the same adjectival measure described above. Extraversion was measured with eight items (e.g., outgoing, assertive, talkative),  $\alpha=.81$ ; conscientiousness was measured with eight items (e.g., organized, hardworking, careless [reverse-scored]),  $\alpha=.75$ ; neuroticism was measured with five items (e.g., moody, self-confident [reverse-scored], nervous),  $\alpha=.74$ ; openness was measured with six items (e.g., creative, curious, broad-minded),  $\alpha=.75$ .

Sex. Sex of the participant was recorded in the initial interview and, as in the other studies, was coded as 1=male, 2=female.

Education, marital status, hours worked, and work history. Education was measured with an item in which participants were asked, "What is the highest grade of school or year of college you completed?" Responses were categorized as: (1) some grade school to some high school, (2) GED or graduated from high school, (3) some college (no bachelor's degree), and (4) graduated from college or obtained other professional degree. From this, we created a dummy variable indicating whether the participant had a college degree. Marital status was measured with a

question asking participants, “Are you married, separated, divorced, widowed, or never married?” From this, we created a dummy variable indicating whether the participant was married (coded 1) or not (coded 0). Hours worked was measured by participants’ responses to the question, “In an average week, how many hours do you work for pay?” Unemployment status was assessed (0=no, 1=yes) if individuals were currently unemployed or looking for work. Continuous work history was assessed by respondents’ answers to the question: “Starting from the year you first worked for six months or more, and continuing up to the present, how many years were you employed at least six months out of the year?”

*Job complexity.* Job complexity was measured with a seven-item composite ( $\alpha=.88$ ) variable reflecting, among others, the numeric aptitude required in the job, the degree to which the job involved responsibility for the direction, control or planning of an activity, the complexity of the work in dealing with things or objects, complexity of the work in dealing with data, and adaptability required in giving and receiving instructions.

*Income.* Income was measured with participants’ responses to the question, “What was your own personal earnings income in the past 12 months, before taxes?”

## Results

The descriptive statistics and correlations among Study 2 variables are provided in Table 3. The regression results for the sample overall, and for men and women separately, are provided in Table 4. As Table 4 shows, sex and agreeableness negatively predicted earnings, meaning that women and agreeable individuals earn less than men and less agreeable individuals. This replicates our findings in Study 1.

As with Study 1, we estimated separate equations for men and women, the results of which are reported in Table 4. In this study, like the previous one, agreeableness significantly

negatively predicted earnings for men ( $B = -\$10,326$ ,  $p < .01$ ), whereas the effect for women was much weaker ( $B = -\$3,213$ ,  $p < .05$ ), albeit statistically significant in this study. Moreover, using the same test as before, the coefficients in Table 4 were significantly different ( $t = -4.32$ ,  $p < .01$ ), and in the predicted direction, such that agreeableness impacted earnings more negatively for men than for women. The separate regression results are plotted for men and women in the bottom half of Figure 1. As the figure shows, although increasing levels of agreeableness led to decreased earnings for men and women alike, the effect was stronger for men.

### *Changes in Income*

Because the MIDUS study included a follow-up roughly 10 years after the first wave of data collection, we sought to replicate the finding in Study 1 that the differential effects of agreeableness on changes in earnings for men and women were replicated. Accordingly, we used the second wave measure of income (for this second wave, income was broken into 42 categories (1=less than \$0, 2=\$0 ... 41=\$175,000 – \$199,999, 42=\$200,000 or more). As in Study 1, we used the previous measure of income as an independent variable, which renders the dependent variable a change in income since agreeableness was measured. We used the same control variables as those in Table 4, updated where possible to reflect the timing of the second wave.

Regression results indicated that agreeableness negatively predicted change in income for men ( $\beta = -.13$ ,  $p < .05$ ), whereas for women, agreeableness was not significantly related to change in income ( $\beta = .06$ , *ns*). Utilizing the Chow (1960) test, these coefficients were significantly different ( $p < .01$ ). Moreover, as before, when a single equation was estimated with an agreeableness  $\times$  sex interaction, the interaction was significant ( $t = 2.15$ ,  $p < .05$ ). Thus, it appears as in Study 1, the differential effect of agreeableness by gender operates not only for income, but for post-agreeableness changes in income.

In Study 2, we also examined the other four Big Five personality traits and their effects on income for men and for women. Unlike in Study 1, neuroticism was not related to income for men ( $B = \$1,695$ ,  $p > .05$ ) or for women ( $B = -\$184$ ,  $p > .05$ ) in this sample. Extraversion, on the other hand, mimicked the same results as observed in Study 1: no significant effects for men ( $B = -\$252$ ,  $p > .05$ ) or for women ( $B = \$1,531$ ,  $p > .05$ ). Conscientiousness ( $B = \$4,815$ ,  $p < .01$ ) and openness ( $B = \$4,090$ ,  $p < .05$ ), however, were both significantly positively related to income for men but not for women (conscientiousness:  $B = \$2,394$ ,  $p > .05$ ; openness:  $B = -\$1,108.79$ ,  $p > .05$ ). In this sample, men who are conscientious and open tend to report higher incomes while the same traits have no effect on women's income.

#### *Differential Effects of Agreeableness on Other Outcomes*

How generalized is the gendered nature of the agreeableness effect? Is it limited to pay or does it apply to other outcomes as well. To answer these questions, in Study 2, we examined whether agreeableness differentially affected, for men and women, the following outcomes: current employment status (whether the individual was currently employed), proportion of time the individual was employed full-time from 1994 to 2003, the total length of unemployment in their working careers (coded as 0 for individuals who had never been unemployed), the longest interval of unemployment (again coded 0 for those never unemployed), whether the individual currently supervises others (recoded 1=yes, 0=no), whether the individual had ever been fired (recoded 1=yes, 0=no), the number of times an individual had been fired (coded as 0 for those reporting never to have been fired), the number of times the individual was not given a promotion for which s/he was eligible, and job complexity. In a few cases agreeableness predicted these outcomes: agreeable individuals were slightly less likely to have been fired from their job ( $\beta = -.08$ ,  $p < .05$ ), agreeable individuals' jobs were less complex ( $\beta = -.11$ ,  $p < .01$ ).

However, in no case was there a differential relationship of agreeableness with these variables by gender. Thus, it does not appear that the differential effects of agreeableness by gender generalize to non-pay variables, at least within the limits of Study 2 data.

### Study 3

Though the previous analyses support the effect of gender and agreeableness on earnings—and the differential effect of agreeableness by gender—they do not eliminate two important potential confounds. It is possible that the results were observed due to occupational segregation (at least that not captured by job complexity). Specifically, if men or disagreeable people earn more because they occupy jobs with greater responsibilities, they may earn more simply for this fact. Similarly, if men or disagreeable individuals work in higher status occupations—attorneys and engineers rather than social workers or elementary school teachers—the earnings advantages enjoyed by disagreeable men may be confounded with the occupations they occupy. Accordingly, in Study 3, we sought to replicate the earlier results, controlling for job responsibility and occupational status, and to investigate possible mediators and paradoxes underlying the agreeableness – gender interaction.

### Method

#### Participants and Procedure

Participants in Study 3 were enrollees in The Wisconsin Longitudinal Study (WLS). The WLS is a long-term study of a random sample of 10,317 men and women who graduated from Wisconsin high schools in 1957. The WLS – administered by the University of Wisconsin-Madison and, since 1991, funded by the National Institute on Aging – includes survey data from in 1957, 1964, 1975, and 1992-1993. Although the primary focus of the WLS was to gather socioeconomic data (social background, education, military service, family formation, labor

market experiences), in 1992 participants were surveyed about their personality. Accordingly, for this study, all variables except gender were assessed in the 1992-1993 interview.

As before, we limited the sample based on several conditions: (1) individuals were employed full-time (not retired or semi-retired); and (2) individuals who reported positive income for the year (the few individuals with negative income values were excluded). This reduced the sample to 1,691 individuals, of which 1,157 were men and 534 were women.

### Measures

**Agreeableness.** Agreeableness was measured in the 1992-1993 survey with a series of questions which included other Big Five traits. In this section, participants were instructed: “This section lists a number of characteristics that may or may not apply to you. Please read the statements below and decide the extent to which each statement describes you. I see myself as someone who...”. For each item, participants were presented with six numbers: 1=agree strongly, 2=agree moderately, 3=agree slightly, 4=disagree slightly, 5=disagree moderately, and 6=disagree strongly. The seven agreeableness items were: (1) has a forgiving nature; (2) tends to find fault with others; (3) is sometimes rude to others; (4) is generally trusting; (5) can be cold and aloof; (6) is considerate to almost everyone; and (7) likes to cooperate with others. The response scale was reversed so that high scores represented high levels of agreeableness, the second, third, and fifth items were reverse-scored, and then the items were averaged. The reliability of this seven-item scale was  $\alpha=.74$ .

**Other Big Five traits.** The other four Big Five traits were measured with a series of questions; as with agreeableness, the stem preceding each question was: “To what extent do you agree that you see yourself as someone who...” The responses were anchored on the same 1=agree strongly to 6=disagree strongly scale. Extraversion was measured with eight items (e.g.,

“is outgoing and sociable” and “is reserved” [reverse-scored]); the reliability of this scale was  $\alpha=.82$ . Conscientiousness also was measured with an eight-item scale (e.g., “can be somewhat careless” [reverse-scored] and “does a thorough job”); the reliability of this scale was  $\alpha=.71$ . Neuroticism was measured with seven items (e.g., “is relaxed and handles stress well” [reverse-scored] and “is emotionally stable, not easily upset” [reverse-scored]); the reliability of the scale was  $\alpha=.83$ . Finally, openness was measured with eight items (e.g., “values artistic, aesthetic experiences” and “is inventive”); the reliability of the scale was  $\alpha=.69$ .

Sex. In the initial 1957 interview, interviewers recorded participants’ sex and coded it as 1=male, 2=female.

Education, marital status, hours worked, and work history. Education was measured with a variable reflecting the highest level of education attained by participants, which was coded 0=high school diploma, 1=associate’s degree, 2=baccalaureate degree, 3=master's degree, 4=doctoral degree. Marital status was measured with a question on the 1992-1993 survey asking about the current marital status of the participant; this variable was subsequently recoded as 1=married, 0=otherwise. As for hours worked per week, individuals were asked to report total hours worked per week on all jobs. Finally, continuous work history was assessed by a variable scored as 1 if the individual was employed throughout the frame of the study and 0 otherwise, and unemployment experience was measured with a variable scored as 1 if the individual had collected unemployment compensation for any time during the study frame and 0 otherwise.

Job responsibility. Job responsibility was measured by participants’ responses to four questions about the authority and responsibilities in their current job (in 1992-1993). Example items are: “Do you have authority to hire or fire others?” and “Can you influence or set the rate of pay received by others?” Participants responded to the questions by answering either yes

(coded 1) or no (coded 0). An overall job responsibility scale was computed by averaging responses to the four questions. The reliability of this four-item scale was  $\alpha=.76$ .

Occupational status. Occupational status was measured with Nakao and Treas' (1992) rating of the prestige of occupations listed in the National Opinion Research Center's General Social Survey. To reflect occupational changes over time, Nakao and Treas (1992) updated previous measures of occupational status. Theoretically, status scores range from 0, reflecting low status, to 100 reflecting high status, though the actual range of scores is somewhat narrower. Example occupational status ratings are: dishwasher=16.78; bartender=24.53; cosmetologist=36.08; insurance agent=44.85; dietician=55.61; airline pilot=61.02, architect=73.05, physician=86.05. These ratings were then applied to the occupations provided by Study 3 participants.

Income. In the 1992-1993 interview, respondents were asked to report their total income in the past 12 months.

## Results

Table 5 contains the descriptive statistics and intercorrelations among Study 3 variables. The regression results for Study 3 are provided in Table 6. As before, the results of three regressions are reported—a pooled regression and separate regressions for men and women. However, in this study, two new variables are added as controls: job responsibilities and occupational status. As in Studies 1 and 2, in the overall regression, both sex and agreeableness negatively predicted earnings, meaning that women and more agreeable individuals earned less than men and more agreeable people even when controlling for job responsibility and occupational status (both of which positively predicted income).

The separate regression results for men and women in Table 6 show that the effect of agreeableness on income was considerably stronger for men ( $B = -\$12,032$ ,  $p < .01$ ) than for women ( $B = -\$1,174$ , ns). Using the same test statistic as before, the coefficients for agreeableness in Table 8 were significantly different for men and women ( $t = -4.48$ ,  $p < .01$ ). Figure 2 provides the regression results for men and women. As the figure shows, even controlling for job responsibility and occupational status, agreeableness has a much stronger negative effect on earnings for men than for women, meaning that low agreeableness exacerbates the gender wage gap; although agreeable men earn more than agreeable women, this gap almost doubles for disagreeable men and women.<sup>4</sup>

As in Study 2, we included the other four Big Five traits. In Study 3, the effects of neuroticism replicated those in Study 1, such that it was a significant predictor of income for men ( $B = -\$6,041$ ,  $p < .05$ ) but not for women ( $B = -\$1,966$ ,  $p > .05$ ). Extraversion and openness were both not significantly related to income for men (extraversion:  $B = \$1,424$ ,  $p > .05$ ; openness:  $B = -\$2,086$ ,  $p > .05$ ) or for women (extraversion:  $B = -\$2,454$ ,  $p > .05$ ; openness:  $B = -\$2,808$ ,  $p > .05$ ). Finally, in contrast to Study 2, Conscientiousness was not significantly related to income for men ( $B = \$1,504$ ,  $p > .05$ ) or for women ( $B = \$1,646$ ,  $p > .05$ ).

#### *Possible Explanations for Differential Agreeableness – Income Relationship by Sex*

While the results thus far suggest that agreeableness is negatively associated with earnings, especially for men, they do not explain why. Some of the control variables argue against some possible explanations (i.e., it does not appear that disagreeable individuals earn more because they occupy more complex or higher status jobs), but do not suggest where the explanation may lie. Accordingly, on an exploratory basis, we investigated two possible explanations. First, disagreeable individuals may earn more because they value money more than

their more agreeable counterparts. Money motives have been linked to lower subjective well-being (Kasser & Ryan, 1993; Srivastava, Locke, & Bartol, 2001), but that, of course, does not address the question of whether such motives may mediate the relationship between agreeableness and earnings. Second, agreeable individuals may earn less because they emphasize friendships (communion) over economic success (agency) (Graziano & Eisenberg, 1997). To be sure, communal relationships may produce tangible benefits (Grant & Gino, 2010), but there are only so many hours in a day. It is not always easy to balance communal activities with agentic ones, and emphasizing communion may come at some cost to agency (Abele, Uchrowski, Suitner, & Wojciszke, 2008).

Accordingly, we measured pay importance with a six-item scale ( $\alpha=.71$ ) assessing the degree to which the individual valued high pay over other job attributes such as job security, benefits, on-the-job training, etc. (“Which do you think is more important in a job: \_\_\_\_\_ or getting high pay?”). We measured communal relationships (Crocker & Canevello, 2008) with a four-item scale ( $\alpha=.75$ ) assessing the degree to which the individual was motivated by and found rewarding their social relationships (“To what extent do you agree that you enjoy personal and mutual conversations with family members and friends?”). The pay importance measure was correlated with gender ( $r = -.20, p < .01$ ), agreeableness ( $r = -.10, p < .01$ ), and income ( $r = .27, p < .01$ ), such that those who valued pay were more likely to be male, to be disagreeable, and to earn more. The communal relationships variable also was correlated with gender ( $r = .34, p < .01$ ), agreeableness ( $r = .46, p < .01$ ), and income ( $r = -.16, p < .01$ ), such that women, agreeable individuals, and those who earned less were more oriented toward communal relationships. Moreover, entering these two variables in the regressions specified in Table 6 substantially weakened the effect of agreeableness on earnings for men. For men, entering the two variables

reduced the agreeableness coefficient from  $\beta = -.15$  ( $p < .01$ ) to  $\beta = -.08$  ( $p < .05$ ). For women, entering the two variables had little effect on the agreeableness coefficient, changing it from  $\beta = -.02$  (*ns*) to  $\beta = -.03$  (*ns*). Thus, it appears that the stronger negative effect of agreeableness on earnings for men can be partly explained by the value disagreeable men place on earning money over communal relationships.

### *Paradoxes of Agreeableness and Gender*

A limitation of this investigation is the focus on a single criterion—income. Though income is a central concern in social science research, it certainly does not exhaust the list of important outcomes to which agreeableness may be linked (Cuperman & Ickes, 2009; Jensen-Campbell, Knack, & Gomez, 2010). Accordingly, in this study, we link gender and agreeableness to four other outcomes: (1) life satisfaction, measured with an 14-item scale (“To what extent do you agree that when you look at the story of your life, you are pleased with how things have turned out?”;  $\alpha = .84$ ); (2) stress, measured with a nine-item scale (“To what extent do you agree that you often feel overwhelmed by your responsibilities?”;  $\alpha = .73$ ); (3) social/community involvement, measured with a checklist of whether the individual participated in 10 community/social activities (e.g., involvement with youth groups, church, business/civic groups, parent-teacher associations, etc.); and (4) breadth/depth of friendship networks, measured with a six-item scale assessing the degree to which perceived that they had numerous friendships (“To what extent do you agree that you often feel lonely because you have few close friends with whom to share your concerns?” [reverse-scored];  $\alpha = .79$ ). Results indicated that agreeableness was significantly positively correlated with life satisfaction ( $r = .30$ ,  $p < .01$ ), significantly negatively correlated with stress ( $r = -.21$ ,  $p < .01$ ), and significantly positively correlated with community involvement ( $r = .13$ ,  $p < .01$ ) and friendship networks ( $r = .32$ ,  $p < .01$ ).

Though less strongly, gender also was correlated with these variables, such that women had slightly higher life satisfaction ( $r=.05$ ,  $p < .05$ ), lower stress ( $r=-.07$ ,  $p < .01$ ), were more involved in their communities ( $r=.13$ ,  $p < .01$ ), and possessed more extensive friendship networks ( $r=.12$ ,  $p < .01$ ). These results suggest that if disagreeable men win the earnings war, it is a victory that may come at some cost.

*Curvilinearity: Is the Agreeableness – Income Relationship Linear for Men and for Women?*

As has been shown with respect to other Big Five traits predicting other outcomes (Ames & Flynn, 2007; Le, Oh, Robbins, Ilies, Holland, & Westrick, 2011), it is possible that the agreeableness – income relationship is not linear. If there is a curvilinear relationship, we would expect the negative effects of being agreeable would operate mostly at the high end of the agreeableness distribution, such that the agreeableness – income relationship is steeper (more strongly negative) at high levels than at low levels of agreeableness. Put another way, there is a greater earnings penalty in moving from moderately agreeable to strongly agreeable than in moving from strongly disagreeable to moderately disagreeable. In such a case, one would expect both the linear and the quadratic terms to be negative. Accordingly, in each study, we computed a quadratic term that was the square of agreeableness and entered it into the equations (for men and for women) for Studies 1-3.

In Study 1, for men, both the linear ( $\beta = -.18$ ,  $p < .01$ ) and the quadratic ( $\beta = .15$ ,  $p < .01$ ) terms were significant (for women, the quadratic term was not significant). This means that for men, the agreeableness – income relationship was steeper (more negative) at low levels of agreeableness than at high levels. In Study 2 and in Study 3, the quadratic term was significant for neither men nor women. Thus, the Study 1 results for men notwithstanding, in general the

results did not support a non-linear association between agreeableness and earnings for men or for women.

#### Study 4

In the previous three studies we have established that the effect of agreeableness on earnings is more negative for men than for women. Though we have posited that this is due to a stereotype backlash effect (Rudman, 1998), we have not investigated this process specifically. Thus, Study 4 was designed to provide evidence for the existence of a “demand-side” effect of stereotype-related backlash, such that women who do not act sufficiently “warm” (i.e., feminine) or men who act in stereotypically feminine ways (i.e., warmly) encounter evaluative backlash at work, which serves as one precursor to the earning differentials observed in Studies 1-3.

In the sections above, we noted that disagreeableness may help an individual translate human capital into an earnings advantage, but we also noted that when individuals violate prescriptive gender norms they can encounter backlash via evaluations of competence and potential (Heilman & Wallen, 2010; Rudman, 1998). These evaluations can be very important for the future financial success of individual employees. When employees are expected by their colleagues and managers to be promoted into management, they tend to fulfill such expectations (Pygmalion effect; Eden, 1984), reaping the associated financial rewards of such upward mobility. Thus, we expect that when men enact more stereotypically feminine behaviors (i.e., agreeable, warm behaviors), they will be rated as less likely to be “management” material. As was the case with earnings, we expect that this backlash effect will be more severe for men because they will simultaneously be enacting behaviors that are violations of prescriptive gender roles (e.g., Eagly & Karau, 2002) and are associated with a lack of competence (Tieden, 2001).

## Method

### *Participants and Procedure*

Four hundred and sixty undergraduate students in a large business management class at a Southeastern university participated in this study for extra credit. About half of the participants were female (48%) and the average age was 21.74 years. The majority of the sample was white (65%). Sixteen percent self-reported as Hispanic, 4.3% as Black, and 11.1% as Asian/Pacific Islander.

Students completed the study online, where they were presented with a scenario in which they were to act as human resource managers for a fictional company. Eight entry-level candidates for a consultant position were described in brief paragraphs summarizing the candidate's qualifications and his/her behavior in interactions with others. Participants then determined whether each of the eight candidates should be placed on a fast-track to management. Participants were randomly assigned to eight female or eight male candidates (to disguise the gender component of the study) and, within each group of candidates, four were described as being agreeable and four as disagreeable. A sample candidate description is presented below:

*Carl Q.: Was well organized. Nonverbal behaviors were appropriate. Demonstrated great intelligence via college transcripts. Has good insights on topics. Observation: He seems to be candid and trusting.*

The sentence after "Observation" was varied for each candidate based on agreeableness, but was otherwise kept consistent across applicants (each was described, in some way, as conscientious, smart and insightful). Descriptions of agreeableness were derived from Costa and McCrae (1992) and encompassed trust, straightforwardness, modesty and compliance (disagreeable candidates were described as the opposite). This minimal comparison design

(gender manipulated only by name of candidate and agreeableness by a simple sentence) presents a conservative test of our hypothesis.

### *Measures*

*Management potential.* Participants recommended whether each candidate should be placed on a fast-track to management by answering a dichotomous “yes” or “no” question.

*Agreeableness of rater.* Participants rated their own agreeableness at the end of the experimental task using John’s (1980) Big Five Inventory. The nine-item scale included items such as “I am kind to almost everyone,” and “I like to cooperate with others,” and participants responded to each item using a five-point Likert-type scale ranging from strongly disagree to strongly agree. The agreeableness scale had a reliability of  $\rho = .80$ .

### *Analyses*

Because each participant rated multiple candidates, data were analyzed using HLM 6 (Raudenbush, Bryk, Cheong, & Congdon, 2004). Variables entered at level 2 (the participant level) included rater gender (male or female), gender of candidate slate (male candidates or female candidates), and the agreeableness of the rater. Variables entered at level 1 (candidate-rating level) included candidate agreeableness (nice or not nice), candidate warmth, and candidate competence. The dependent variable (recommendation for management track) was a dichotomous (yes or no). To test the agreeableness-gender interaction, we analyzed cross-level interactions (between the candidate agreeableness at level 1 and candidate-slate gender at level 2).<sup>5</sup>

## Results

Table 7 provides the results of the HLM analysis predicting participants’ advancement recommendations for the hypothetical candidates. As is shown in the table, agreeable candidates

( $B = -.47, p < .05$ ) were less likely to be recommended for advancement. Results approached significance for candidate gender, such that female candidates ( $B = -.09, p < .10$ ) were less likely to be recommended. This is consistent with the field study results presented earlier. Moreover, as in the previous studies, there was an agreeableness-gender interaction ( $B = .25, p < .01$ ).<sup>6</sup>

The agreeableness-gender interaction is displayed in Figure 3. As the figure shows, candidate agreeableness was rather strongly negatively related to advancement recommendations. Gender was as well—albeit less strongly so—in that women were less likely to be recommended for advancement. Consistent with hypotheses and the earlier field study results with respect to pay, the negative effect of agreeableness on advancement recommendation was significantly stronger (more negative) for men than for women. Overall, these experimental results support the field study results, and suggest the importance of “demand-side” (decision-maker) explanations for the joint influences of agreeableness and gender on earnings.<sup>7</sup>

### Discussion

For men, it literally pays to be a contrarian. In the first three studies, the slopes of the negative relationship between agreeableness and income were steeper for men than for women. Indeed, with the exception of Study 2, the effect of agreeableness on income was non-significant for women. Thus, the evidence for any positive effect of low agreeableness on women’s income is weak. Also, while men might benefit more than women from being disagreeable, they are also penalized when they are highly agreeable. Study 3 demonstrated that this is the case even when the possibility that men and women sort themselves into different types of occupations is taken into account. The results from the first three studies receive added credibility from those of study four in which the joint effects of agreeableness and gender on recommendations for higher-status, implicitly better-paid positions closely paralleled their relationship with income.

Overall, across the first three studies, men who are one standard deviation below the mean on agreeableness earn an average of 18.31% (\$9,772) more than men one standard deviation above the mean on agreeableness. Meanwhile, the “disagreeableness premium” for women was only 5.47% (\$1,828). Thus, the income premium for disagreeableness is more than three times stronger for men than for women. There was also an apparent lack of cohort (age) or temporal (year) effects on the gender differences observed. If the gender “double standard” were improving with time, one would expect smaller gender differences in the agreeableness–earnings relationship among younger workers or in more recently conducted studies. In terms of age effects, the largest “gender gap” in absolute terms (i.e., the biggest difference in agreeableness–earnings relationships between men and women) was for the oldest sample (Study 3), but the largest gap in relative terms was for the youngest sample with the most recent data (Study 1). Because our sample size for this analysis is at the study level, one cannot place too much weight on these results. Nevertheless, these cumulative results tend to suggest that the agreeableness–earnings relationship differs by gender similarly for younger and older employees, and for older as well as newer studies.

The exploratory analysis of non-pay variables in Study 2 suggests that disagreeable men earn more despite their not being more likely to supervise others or to receive promotions that they are eligible for. On the down side, this finding bolsters the notion that disagreeable men are more successful at negotiating pay. It is interesting that the adjunct analysis in Study 2 found that agreeable people were less likely to ever have been fired from a job, which is generally a negative event in terms of pay. It may be that disagreeable people are better able to turn job loss into an advantage by using it as an opportunity to find a job with more advancement opportunities or to negotiate for better pay their next position. The fact that unemployment spells

did not differ by agreeableness also suggests that disagreeable people somehow compensate for being fired more often.

A more heartening conclusion from the supplementary findings in Study 2 is that although agreeable men and women (and disagreeable men) earn less, they do not receive fewer benefits in other aspects of their careers (nor, based on Study 3, in the psychosocial aspects of their lives). There is, however, a strong caveat to findings in Study 2 due to the type of measures available. We were only able to assess the effects of agreeableness on how many times participants had not received promotions for which they were eligible. It is quite possible that women and highly agreeable men did not report being passed over for promotion any more than disagreeable men because they are less often in the position of being considered or expecting to be considered for promotion, a possibility that seems even more likely in light of the findings in Study 3.

#### Future Research

Very little of the research on the influence of personality on income investigates the source of those effects. In the case of disagreeableness, it is important to further explicate the mechanisms behind the advantages it seems to confer on men in terms of income. The easiest and, we think, most unlikely interpretation of our results is that persistent rudeness increases men's salaries. Some may wish the path to career success was so formulaic; however, as noted earlier, disagreeable people behave disagreeably only slightly more often than agreeable people (Fleeson & Gallagher, 2009). And, since agreeableness is a multi-faceted construct, it is not clear that being rude is the mechanism by which low levels of the trait effect higher income. One might predict stronger effects for assertiveness (Costa, Terracciano, & McCrae, 2001) than for other facets of agreeableness such as politeness (DeYoung, Quilty, & Peterson, 2007). Also, as

suggested in Study 3, disagreeable people may value money more highly and, thus, make higher investments in their extrinsic success. For instance, a disagreeable individual might choose to move for a promising promotion that will put him at a distance from extended family while an agreeable man might choose to stay put, concerned with balancing the desire for career advancement with the motivation to maintain strong familial ties. Rudeness plays no part in that equation for either the agreeable or the disagreeable person.

In general, there is little research on gender differences in the influence of personality on career and life outcomes. Given the magnitude of the discrepancies revealed here, further examination in this area is warranted. Similar patterns of differences may emerge for other personality traits that overlap with cultural expectations regarding masculine and feminine behavior and successful navigation in the workplace. In fact, while extraversion has a generally positive relationship with salary (Ng et al., 2005), one study found that this was only the case for men (Gelissen & Graaf, 2006). Another study found that, in mixed-sex contexts, self-monitoring more positively influenced group status and negotiation outcomes for women than for men (Flynn & Ames, 2006). In the case of agreeableness, and perhaps other traits as well, we think it possible that women are more constrained in their career choices such that personality has less influence. Take the example of moving for a promotion, offered in the preceding paragraph. An agreeable man may *choose* to remain close to family. On the other hand, agreeable or not, women's career decisions related to relocation and other forms of investment are more sensitive to parenting constraints and to their spouse's job demands than are men's decisions (Baldrige, Eddleston, & Veiga, 2006; Maume, 2006). It is also important to examine the micro-processes underlying the differential agreeableness effects by gender. For instance, our earlier arguments rested on ample research suggesting that both men and women are likely to be penalized for

counterstereotypic behavior (Heilman & Okimoto, 2007; Heilman et al., 2004; Heilman & Wallen, 2010; Parks-Stamm et al., 2008; Phelan et al., 2008; Rudman, 1998; Rudman & Glick, 1999, 2001). But there is also evidence that men are actually rewarded for altruism (Heilman & Chen, 2005), which is a facet of agreeableness. Based on scenario ratings, Heilman and Chen found that men who helped a coworker experiencing a serious, work-related problem actually benefited from enhanced evaluations and rewards whereas women did not, apparently because such behavior was simply expected from women. On one hand, these findings provide one explanation why, in our studies, men high in agreeableness earn considerably more than highly agreeable women. On the other hand, extending the logic from Heilman and Chen's study to ours, rewards for disagreeableness should accrue to women, but not to men; however, disagreeable behavior is probably more risky, more fraught with ambivalence. Helping others seems almost universally-prescribed, but it is rarely clear that a situation would be best handled by behaving in an angry, demanding, or uncooperative fashion. Evaluations of the appropriateness of such behavior may rest more heavily on the extent to which it is consistent with gender norms.

Moreover, altruistic behavior may not be as strictly associated with femininity as other aspects of agreeableness. Examples of male superheroes and "strong, silent" saviors abound in popular culture. One can "save the day" in a manly way. There are no such equally and unequivocally-favored prototypes of women behaving disagreeably. In addition, men who engage in altruistic behavior in certain instances where that seems especially appropriate might benefit from being seen to be willing to "go above and beyond," particularly if the behavior can be readily attributed to external causes (Brescoll & Uhlmann, 2008), as in the Heilman and Chen study. On the other hand, men who habitually violate gender norms by engaging in affiliative

behavior may be appreciated less for their citizenship and, rather, penalized for being overly “feminine” (Heilman & Wallen, 2010). This is akin to evidence that men are often praised for “helping” with child care (Coltrane, 1989, Deutsch & Saxon, 1998), but are derogated when child care is their full-time pursuit (Brescoll & Louis-Uhlmann, 2005). Indeed, in contrast with Heilman and Chen’s (2005) study, which investigated ratings of individuals based on a discreet incident, the scenarios we presented to participants in Study 4 suggested habitual differences in agreeableness. People might differ in their evaluations of others when asked to consider global assessments versus behavior in particular situations. Only future research can shed light on whether this is, indeed, the case.<sup>8</sup>

It is also possible that low scores on agreeableness scales may not translate into correspondingly disagreeable behavior for women. There is evidence that women who fear backlash for behaving counter to gender norms will behave in a more normative fashion (Rudman & Fairchild, 2004; Moss-Rascusin & Rudman, 2010). It is likely that most women who are low in agreeableness have learned through experience that competitive behavior is not considered feminine. They may even have received negative feedback about such behavior at work. As a result, they may “tone down” their behavior, thinking it a better strategy for achieving their goals. If women who rate themselves low in agreeableness make more of an effort to get along with others than disagreeable men, this could help explain why they reap little benefit. Disagreeable women, for example, may make fewer demands in salary negotiations or may not take the risk of voicing opinions that might draw disapproval than they would if they were not concerned about backlash. Future research could, therefore, examine to what extent women high in agreeableness are aware of the potential for backlash and the strategies they adopt to minimize it.

### Implications for Work and Society

Nice guys do not necessarily finish last, but they do finish a distant second in terms of earnings. From a humanistic perspective, it seems remarkably unfair that men who are amiable would be so heavily penalized for not conforming to gender norms. Yet, seen from the perspective of gender equity, even the nice guys seem to be making out quite well relative to either agreeable or disagreeable women. Thus, exhortations for women not to be nice (Pfeffer, 2010) might be overblown. Nice girls might not get rich, but “mean” girls do not do much better. Even controlling for human capital, marital status, and occupation, highly disagreeable women do not earn as much as highly agreeable men. The gaps between the two (between agreeable men and disagreeable women), in fact, are about as large as the within-gender gaps for men.

In spite of the limited instrumentality for women of behaving less agreeably, their behaviors may be changing. Twenge (2001) found that 14% of the variance in assertiveness among women was explained by changes among birth cohorts from 1931 to 1993. Assertiveness rose steadily among women from 1968 to 1993 while there was no significant change for men; some of the more recent measures showed no sex differences. Changes in women’s assertiveness over time were related to changes in their sociocultural position, indicating that the assumption of higher-status roles and entry into traditionally male occupations have shaped women’s personality development. If women are becoming less nice simply by virtue of their rising social status, it could be damaging to organizational effectiveness if large numbers of women are stymied in their efforts to get ahead using the same tactics that work for their male colleagues.

Rather than a wholesale shift to less agreeable behavior, more appropriate advice for both men and women who are agreeable might be to adopt a flexible repertoire of behaviors appropriate to the context. For instance, agreeable people tend not to do as well at distributive

bargaining—as in the case of negotiating for pay—presumably because the value they place on interpersonal relationships prevents them from making as many demands as they need to in order to get the best outcomes for themselves (Barry & Friedman, 1998). Flynn and Ames (2006) found that high self-monitoring women achieved better distributive outcomes, without sacrificing integrative outcomes, partly by adjusting their level of assertiveness to that of their interaction partner. The more assertive the partner, the more assertively the high self-monitoring women behaved. This suggests that, rather than adopting a prescription to be aggressive in all pay negotiations, agreeable people could take stock of the person they are negotiating with and adapt their assertiveness level on an as-needed basis. Meanwhile, they do not have to assume that all such situations require them to forgo the prosocial behavior that results in other valuable outcomes positively associated with agreeableness, such as job satisfaction (Judge et al., 2002) and workplace friendships (Klein, Lim, Saltz, & Mayer, 2004).

### Limitations

A primary limitation of this research is our focus on monetary success. In order to achieve a more balanced perspective on the significance of agreeableness in the careers context, future research should investigate whether agreeableness affects career outcomes other than earnings. Solely gauging the relationship of agreeableness with earnings undermines other ways in which people (and society) may benefit from their careers such as the accumulation of social and human capital, impact in one's chosen field, or degree of fulfillment.

While each study has its own methodological, empirical, and conceptual advantages, no study is free of limitations. For example, an advantage of Study 1 was that prior income was controlled, so that agreeableness predicted changes in income only after the trait measurement. Studies 2 and 3 did not have this advantage, but Study 2 did control for job complexity while

Study 3 controlled for all of the Big Five traits and provided some insights into possible paradoxes and explanatory mechanisms. Study 4 provided the rigor and control of experimental manipulations, but only allowed consideration of a hypothetical recommendation by college students with presumably little work experience. Thus, more confidence can be placed in the results given the diversity of the studies; however, this very diversity means that no limitation of one study can be fully answered by the other.

Third, a reviewer on a previous version of the manuscript suggested that since disagreeable individuals promote their own interests to a greater degree than their more agreeable counterparts, this may mean that disagreeable individuals are likely to over-report (inflate) their income. While this is possible, most evidence suggests that agreeable, not disagreeable, individuals are more prone to manage impressions (Holden & Passey, 2010). Moreover, Graziano and Tobin (2002) conclude, “If agreeableness is contaminated by self-favoring biases, the contamination is limited in scope” (p. 723). Thus, it does not appear likely that the agreeableness – income results were observed primarily because disagreeable individuals over-report their incomes. Nonetheless, in all three field studies, income was self-reported (either on a questionnaire or to an interviewer).

Finally, we are mindful that much of our data are correlational, making it difficult to corroborate our presumed causal ordering. Indeed, some evidence suggests that work situations can affect personality (Caspi, Roberts, & Shiner, 2005; Roberts, Caspi, & Moffitt, 2003) in general, and reminding individuals about money may cause them to behave less cooperatively (Vohs, Mead, & Goode, 2008). While the possibility of this reciprocity between agreeableness and income must be acknowledged as a limitation, we undertook two steps to bolster our presumed causal order. First, in Study 1, we controlled for income at the time that agreeableness

was assessed.. Second, in Study 4, we manipulated agreeableness and gender as influences on hiring recommendations so as to strengthen our inferences with an experimental design.

Nonetheless, we acknowledge that our study does not demonstrate causal order.

### Conclusion

Overall, our research provides strong evidence that men earn a substantial premium for being disagreeable while the same behavior has little effect on women's income. In general, whether agreeable or not, men still earn more than women. These tendencies hold across cohorts and across occupations. Given the positive contributions made by agreeable people, demonstrated in prior research, it seems that the income penalty for agreeableness is out of proportion with its performance effects. Rather, for men and for women, the effects may be due more to expectations for behavior appropriate to one's gender. This research raises important questions about the standards according to which people are evaluated and sheds further light on the issue of wage inequalities. In particular, it serves as a caveat to popular sources of career advice that either exhort people to be nice—or not. Closing the gender gap seems to hinge less on changing women's behavior than it does on changing the minds of decision makers.

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## Notes

<sup>1</sup> We investigated the convergent validity of this measuring using an independent sample of 914 students enrolled at a Southeastern university (mean age = 20.45; 55% female). The correlation between this agreeableness scale and John's (1990) agreeableness subscale of the Big Five Inventory (BFI;  $\alpha=.77$ ) was significant ( $r = .56, p<.01$ ). To compare this convergent validity to other agreeableness measures, we searched the literature and obtained 53 convergent validity coefficients from 23 articles. (A list of the studies included in this analysis is available from the authors.) Averaging across these 53 correlations, the average convergent validity was  $\bar{r} = .55$  ( $SD_r = .14$ ). Thus, the convergent validity for the Study 1 agreeableness measure is quite similar to the typical convergent validity between agreeableness measures reported in the literature.

<sup>2</sup> Because (1) hierarchical moderated regression assumes that the independent variables equally affect income for men and women, (2) the statistical interaction does not show the differential effect of agreeableness on income for both genders, and (3) moderated regression often relies on artificial subgroups (i.e., in this case, splitting agreeableness into high and low subgroups), to test the differential association of agreeableness with income for men vs. women, we used Kennedy's (2003) subset test, derived from the widely used Chow (1960) test. Chow significance test results are nearly identical to those of moderated regression, but provide more information (separate coefficient estimates for men and women). However, because most readers will be more familiar with moderated regression, in a separate footnote (Footnote 4), we report and discuss the variance explained by the interaction terms in the three studies.

<sup>3</sup> As in Study 1, we investigated the convergent validity of this measure using the same independent sample discussed in Study 1. The correlation between the agreeableness measure used in this study and John's (1990) agreeableness subscale of the Big Five Inventory ( $\alpha=.77$ )

was also significant ( $r = .70, p < .01$ ). This compares favorably to the aforementioned average agreeableness convergent validity reported in the available literature ( $\bar{r} = .55$ ).

<sup>4</sup> Across the three studies, the sex  $\times$  agreeableness interaction term explained the following incremental variance: Study 1,  $\Delta R^2 = .01$  ( $p < .01$ ); Study 2,  $\Delta R^2 = .01$  ( $p < .01$ ); Study 3,  $\Delta R^2 = .02$  ( $p < .05$ ). While these percentages are low, as noted by Azen and Budescu (2003), such estimates are not appropriate guides as to the relative importance of variables within a regression equation. As argued by LeBreton, Ployhart, and Ladd (2004), a problem with these types of “partial effects” variance estimates is that they “are not designed to partition the variance shared between multiple correlated predictors and a criterion” (p. 262), and thus will understate the relative importance of the interaction.

<sup>5</sup> Due to the way in which multilevel data are analyzed in HLM, there is not a computed sex  $\times$  agreeableness (FEMCAN  $\times$  CAGREE) interaction computed as in hierarchical moderated regression analyses. Rather, candidate gender, as a between-individual or Level-2 variable, is used to predict the within-individual or Level-1 slope between candidate agreeableness and advancement recommendation.

<sup>6</sup> One might argue that the negative relationship between agreeableness and income proves the obvious. However, some in the organizational psychology literature extol the career benefits of positive interpersonal relationships at work (e.g., coworker support, leader-member exchange, team cohesion), and some evidence suggests that agreeable employees do better at jobs emphasizing interpersonal interactions (Mount, Barrick, & Stewart, 1998). Moreover, employers agreeableness when hiring employees (Dunn, Mount, Barrick, & Ones, 1995). Thus, though we are not surprised by the negative agreeableness – income relationship, we believe some scholars in personality psychology and organizational psychology may find it more

surprising. Of course, this issue (whether the negative agreeableness – income relationship is obvious) does not address our primary focus: the differential agreeableness – income relationship by gender.

<sup>7</sup> Because agreeableness was a manipulated dichotomous (and thus necessarily linear) variable in Study 4, tests of curvilinearity were not possible in this study.

<sup>8</sup> Using an independent sample (n=511) on an exploratory basis, we observed an identical relationship between gender and agreeableness on *expected future income* ( $B = 23,258.82$ ) as we found in the four studies with actual income. This suggests that some of the effect may be due to income expectations (though that itself may reflect stereotypes).

Table 1

*Means, Standard Deviations, and Intercorrelations Among Study 1 Variables*

Variable	M	SD	1	2	3	4	5	6	7	8	9	10
1. Education	3.26	1.09	---									
2. Married (1=married, 0=other)	0.54	0.50	-.10	---								
3. Hours worked per year	1454.96	627.50	-.11	.03	---							
4. Gender (1=male, 2=female)	1.44	0.50	.17	.09	-.12	---						
5. Agreeableness (2002)	3.67	0.81	.02	.00	-.02	-.02	---					
6. Neuroticism (2002)	1.91	0.46	-.02	-.07	.03	.19	-.22	---				
7. Extraversion (2008)	4.94	1.20	.20	.03	.00	.12	.01	-.15	---			
8. Continuous work history (1997-2008)	0.87	0.10	.11	.04	.16	.00	-.02	-.03	.13	---		
9. Unemployment pay (1997-2008)	0.13	0.36	-.12	.01	-.01	-.05	-.07	.00	.05	-.04	---	
10. Prior income (2003)	33831.61	25979.75	.04	-.04	.05	-.06	-.04	-.02	.04	.05	.00	---
11. Income (2004-2008)	34326.25	23095.11	.09	.00	.04	-.12	-.11	-.13	.10	.03	.01	.22

*Notes.* N=560. Correlations greater than .09 are significant at the  $p < .05$  level. Correlations greater than .12 are significant at the  $p < .01$  level.

Table 2

*Effects of Agreeableness and Sex on Earnings: Study 1*

Independent Variable	Overall			Men			Women		
	B(\$)	SE <sub>B</sub>	β	B(\$)	SE <sub>B</sub>	β	B(\$)	SE <sub>B</sub>	β
Education	1973.65*	903.20	.09*	2841.86*	1353.21	.12*	706.04	1102.56	.04
Married	641.73	1901.86	.01	800.42	2937.37	.02	719.71	2289.86	.02
Hours worked per year	1.15	1.53	.03	3.27	2.06	.09	-3.74	2.34	-.10
Sex (male=1, female=2)	-4787.32*	1987.78	-.10*	---	---	---			
Agreeableness	-3920.84**	1188.47	-.14**	-6958.08**	1866.77	-.21**	-1100.00	1357.21	-.05
Neuroticism	-6513.27**	2158.80	-.13**	-6789.45*	3247.56	-.12*	-6280.13	2576.98	-.16
Extraversion	1294.65	813.17	.07	1628.01	1269.54	.07	1118.22	929.83	.08
Continuous work history	-2877.03	9412.56	-.01	-13494.95	14436.06	-.05	11660.12	11188.05	.07
Unemployment pay	166.54	2642.40	.00	-435.39	3640.20	-.01	-387.20	3680.06	-.01
Prior income	0.18**	0.04	.20**	0.23**	0.06	.22**	0.11	0.04	.17
Multiple R	---	---	.32**	---	---	.36**	---	---	.30**
R <sup>2</sup>	---	---	.11**	---	---	.13**	---	---	.09**

Notes. N(overall)=560. N(men)=312. N(women)=248. \* p < .05 (two-tailed). \*\* p < .01 (two-tailed).

Table 3

*Means, Standard Deviations, and Intercorrelations Among Study 2 Variables*

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. College graduate (1=yes, 0=no)	0.69	0.46	---											
2. Married (1=married, 0=other)	0.62	0.49	-.07	---										
3. Hours worked per week	44.14	9.10	.05	.05	---									
4. Gender (1=male, 2=female)	1.46	0.50	-.03	-.22	-.29	---								
5. Extraversion	2.89	0.55	.07	.01	.07	-.01	---							
6. Agreeableness	3.31	0.43	-.08	-.04	-.09	.27	.16	---						
7. Conscientiousness	3.31	0.43	.05	.03	.02	.09	.40	.30	---					
8. Neuroticism	2.16	0.60	-.09	-.10	-.04	.12	-.25	-.08	-.35	---				
9. Openness to experience	3.09	0.53	.21	-.06	.05	-.07	.56	.24	.37	-.25	---			
10. Continuous work history	22.42	10.86	-.06	.10	.07	-.13	.01	.02	.11	-.14	.01	---		
11. Unemployment status	0.01	0.10	-.01	-.02	.00	.00	.01	.00	.03	.03	.03	-.06	---	
12. Job complexity	0.05	0.74	.44	.01	.13	-.01	.08	-.03	.09	-.10	.19	.00	-.04	---
13. Income	36010.12	23916.67	.27	.14	.33	-.32	.07	-.19	.07	-.10	.13	.18	-.08	.38

*Notes.* N=1827. Correlations greater than .05 are significant at the  $p < .05$  level. Correlations greater than .07 are significant at the  $p < .01$  level.

Table 4

*Effects of Agreeableness and Sex on Earnings: Study 2*

Independent Variable	Overall			Men			Women		
	B(\$)	SE <sub>B</sub>	β	B(\$)	SE <sub>B</sub>	β	B(\$)	SE <sub>B</sub>	β
College graduate	5979.83**	1126.17	.12**	6948.42**	1774.16	.12**	5297.80	1274.64	.14**
Married	3610.23**	977.24	.07**	7790.76**	1629.31	.14**	-762.43	1067.58	-.02
Hours worked per week	527.64**	52.96	.20**	535.09**	75.74	.20**	517.54	70.50	.22**
Sex (male=1, female=2)	-9297.16**	1042.10	-.19**	---	---	---	---	---	---
Extraversion	153.59	1051.29	.00	-251.80	1681.28	-.01	1531.21	1180.05	.05
Agreeableness	-7524.21**	1192.99	-.13**	-10326.21**	1712.52	-.18**	-3213.12	1560.93	-.07*
Conscientiousness	3874.84**	1276.03	.07**	4814.79*	1906.78	.08*	2394.44	1539.82	.06
Neuroticism	743.35	839.14	.02	1695.47	1335.04	.04	-184.15	942.77	-.01
Openness	1753.26	1131.11	.04	4090.32*	1767.83	.08*	-1108.79	1299.11	-.03
Continuous work history	299.43**	43.26	.14**	329.10**	65.79	.14**	210.67	52.30	.12**
Unemployment status	-13014.73**	4407.81	-.06**	-21587.32**	6821.23	-.09**	-3424.92	5106.83	-.02
Job complexity	9177.42**	696.95	.29**	9414.09**	1023.70	.29**	8537.29	866.55	.33**
Multiple R	---	---	.58**	---	---	.52**	---	---	.54**
R <sup>2</sup>	---	---	.34**	---	---	.28**	---	---	.29**

*Notes.* N(overall)=1828. N(men)=991. N(women)=837. \* p < .05 (two-tailed). \*\* p < .01 (two-tailed).

Table 5

*Means, Standard Deviations, and Intercorrelations Among Study 3 Variables*

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Education	2.38	0.75	1.00													
2. Married (1=married, 0=other)	0.67	0.47	.03	1.00												
3. Hours worked per week	50.21	10.43	.14	.00	1.00											
4. Gender (1=male, 2=female)	1.32	0.47	-.22	-.19	-.15	1.00										
5. Extraversion	3.99	1.05	-.01	-.01	.15	.09	1.00									
6. Agreeableness	4.75	0.79	-.08	.00	-.03	.16	.14	1.00								
7. Conscientiousness	4.87	0.80	.04	.02	.07	.04	.14	.18	1.00							
8. Neuroticism	3.03	1.06	-.02	.00	-.02	.07	-.17	-.32	-.26	1.00						
9. Openness	4.43	0.82	.10	-.11	.13	.08	.31	.11	.12	-.17	1.00					
10. Unemployment	0.15	2.40	.00	.01	-.02	.00	-.02	-.02	.00	.00	.03	1.00				
11. Continuous work history	1.00	0.07	.05	-.01	-.02	-.06	-.02	-.03	.00	-.05	.01	.00	1.00			
12. Job responsibility	0.38	0.75	.20	.04	.24	-.38	.07	-.06	.06	-.08	.09	.01	.05	1.00		
13. Occupational status	71.62	17.39	.32	.04	.03	-.07	.00	-.05	.03	.00	.04	-.03	.05	.07	1.00	
14. Income	68111.20	61658.84	.25	.07	.18	-.30	.03	-.14	.02	-.08	.01	-.04	.06	.31	.16	1.00

*Notes.* N=1,691. Correlations greater than .07 are significant at the .01 level. Correlations greater than .05 are significant at the .05 level.

Table 6

*Effects of Agreeableness and Sex on Earnings Controlling for Job Responsibility and Occupational Status: Study 3*

Independent Variable	Overall			Men			Women		
	B(\$)	SE <sub>B</sub>	β	B(\$)	SE <sub>B</sub>	β	B(\$)	SE <sub>B</sub>	β
Education	11336.42**	1996.40	.14**	11419.35**	2490.71	.14**	8889.58**	3060.57	.13**
Married	3922.84	2948.14	.03	6417.01	4104.25	.04	-5591.11	3360.50	-.07
Hours worked per week	473.52**	136.83	.08**	458.60*	180.83	.07*	325.36	172.11	.08
Sex (male=1, female=2)	-19427.12**	3351.84	-.15**	---	---	---	---	---	---
Extraversion	1958.71	1392.66	.03	1424.19	1839.51	.02	1504.16	1774.62	.04
Agreeableness	-9212.26**	1862.09	-.12**	-12031.63**	2413.18	-.15**	-1173.64	2454.11	-.02
Conscientiousness	192.77	1791.73	.00	1646.43	2407.00	.02	-2453.77	2156.33	-.05
Neuroticism	-4885.46**	1423.44	-.08**	-6041.08**	1917.46	-.10**	-1965.52	1699.39	-.05
Openness	-2115.00	1784.33	-.03	-2085.56	2362.26	-.03	-2808.03	2226.36	-.06
Unemployment	-954.43	565.80	-.04	-1075.44	676.62	-.04	-806.67	1029.90	-.03
Continuous work history	21547.81	19857.58	.02	38952.28	43889.09	.02	22112.36	15509.01	.06
Job responsibility	15191.78**	2023.58	.19**	25008.32**	3300.52	.22**	6660.54**	1880.29	.15**
Occupational status	282.27**	82.50	.08**	301.77**	114.76	.08**	245.30**	92.18	.12**
Multiple R	---	---	.44**	---	---	.37**	---	---	.33**
R <sup>2</sup>	---	---	.19**	---	---	.14**	---	---	.11**

Notes. N(overall)=1691. N(men)=1157. N(women)=534. \* p < .05 (two-tailed). \*\* p < .01 (two-tailed).

Table 7

*Effect of Experimentally Manipulated Candidate Sex and Agreeableness on Advancement**Recommendation: Study 4*

	Hierarchical Linear Modeling (HLM) Coefficient		
	B	SE	T-value
<i>Intercept</i>	.28	.18	1.58
<i>Control Variables</i>			
Female Rater <sup>O</sup>	-.07	.04	-1.68 <sup>†</sup>
Rater Agreeableness <sup>O</sup>	-.01	.04	-.27
<i>Hypothesized Variables</i>			
Female Candidate (FEMCAN) <sup>M</sup>	-.09	.05	-1.70 <sup>†</sup>
Candidate Agreeableness (CAGREE) <sup>M</sup>	-.47	.09	-4.99 <sup>**</sup>
FEMCAN × CAGREE	.25	.06	4.21 <sup>**</sup>

*Notes.* M superscript denotes manipulated variable across eight scenarios. O superscript denotes naturally observed rater characteristics.

<sup>†</sup>  $p < .10$  (two-tailed). \*  $p < .05$  (two-tailed). \*\*  $p < .01$  (two-tailed).

## Figure Captions

*Figure 1.* Joint effect of agreeableness and gender on income, Study 1 (top). Joint effect of agreeableness and gender on income, Study 2 (bottom). (*Notes.*  $\pm 1$  SD represent agreeableness scores one standard deviation above and below the average score on agreeableness.)

*Figure 2.* Joint effect of agreeableness and gender on income controlling for job responsibility and occupational status, Study 3. (*Notes.*  $\pm 1$  SD represent scores one standard deviation above and below the average score on agreeableness.)

*Figure 3.* Joint effect of agreeableness and gender on recommendations for management track, Study 4 (*Notes.*  $\pm 1$  SD represent scores one standard deviation above and below the average score on agreeableness.)





