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## Egoistic and moralistic bias in real-life inventory responses

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### ABSTRACT

Response-faking tendencies can be divided into moralistic and egoistic bias according to the contents of the issue faked (Paulhus & John, 1998). Our hypothesis was that in a work-related selection context faking would occur on the egoistic sub-scales, as these are related to competence and talent, which are issues relevant in selection. To minimize the amount of conscious faking, half of 466 real-life applicants were warned about the presence of a socially desirable responding sub-scale in the Personality Research Form (PRF). Half of the respondents (control group) received standard instructions. Of all the PRF sub-scales, only the ones measuring either egoistic or moralistic traits were studied. The hypothesis was not supported: the warning affected not only some of the egoistic sub-scales, but also some of the moralistic sub-scales.

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### 1. Introduction

The assessment of personality in industrial/occupational psychology is widely based on inventories. However, inventories are vulnerable to socially desirable responding (Piedmont, McCrae, Riemann, & Angleitner, 2000). Socially desirable responding means the tendency to give answers that make the respondent look good (Paulhus, 1991). Socially desirable responding consists of two primary factors: the unconscious side of faking called Self-Deceptive Enhancement (an honest but overly positive self-presentation) and conscious distortion called Impression Management (self-presentation tailored to an audience) (Paulhus, 1984).

Individuals applying for a job, in particular, tend to present themselves in a positive light in personality measures (Barrick & Mount, 1996; Birkeland, Manson, Kisamore, Brannick, & Smith, 2006; Reid-Seiser & Fritzsche, 2001; Rosse, Stecher, Miller & Levin, 1998). As Hough, Eaton, Dunnette, Kamp, and McCloy (1990) point out, faking is one of the main arguments against the use of personality measures. All personality measures are fakable, some more than others (McFarland & Ryan, 2000), and all personality measures can be faked if the instructions especially encourage it (Viswesvaran & Ones, 1999). The higher the socially desirable responding score the person has, the more elevated will his or her scores be on a personality measure (Marshall, de Fruyt, Roland, & Bagby, 2005). To ensure the feasibility of inventories in assessment, it is essential to be aware of the mechanisms affecting

faking – especially in real-life selection contexts. The present study found how warning applicants about controlling for socially desirable responding affects inventory results, especially the egoistic and moralistic biases, in a real-life student selection situation.

Significant individual differences have been detected in the amount of socially desirable responding (Rosse et al., 1998; Viswesvaran & Ones, 1999). To control for these individual differences, many personality inventories contain sub-scales to measure socially desirable responding. Social desirability scales seem to capture faking very well (Ones & Viswesvaran, 1998), and professionals use these scores as a sign of unusual response set or response distortion (Cronbach, 1990). In personnel selection it is common to adjust or correct inventory scores for faking, and 69% of experienced personality test users favour the use of faking corrections (Goffin & Christiansen, 2003). Some studies, however, suggest that socially desirable responding should not be controlled for at all, as doing this does not necessarily increase the validity of personality scales and, moreover, high scores on a socially desirable responding scale may actually be more a function of personality differences than the motivation to fake (e.g. Ellingson, Sackett, & Hough, 1999; Ones & Viswesvaran, 1998; Ones, Viswesvaran, & Reiss, 1996; Pauls & Stemmler, 2003; Reid-Seiser & Fritzsche, 2001). On the other hand, some studies have found that faking among job applicants has significant effect on who is hired (Rosse et al., 1998) and that the criterion-related validity of a personality measure decreases when respondents have high test-taking motivation, as is the case in real-life job application contexts (Schmit & Ryan, 1992). Also Konstabel, Aavik, and Allik (2006) have found that inter-rater agreement on personality traits improves

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significantly when both self-ratings and peer-ratings are controlled for faking. However, Paulhus (1984) has pointed out that it is essential that the socially desirable responding controlled for in inventories is the conscious sub-type, i.e. Impression Management. Controlling for Self-Deceptive Enhancement will actually lower the predictive validity of a personality measure. This element of socially desirable responding is linked to content variance in a personality measure and should therefore not be controlled for (Paulhus, 1991).

Paulhus and John (1998) have proposed that both Impression Management and Self-Deception can be divided in two sub-types. Their taxonomy is a cross-tabulation of the degree of awareness (conscious vs. unconscious distortion) and content (agentic/egoistic vs. communal/moralistic content). This latter dimension, content, consists of two “meta-factors”, or constellations of values, motives and biases. They are called Alpha (egoistic) and Gamma (moralistic), and they can be distinguished in terms of personality content (Paulhus & John, 1998). Egoistic content is associated with issues such as being a strong and competent person, while moralistic content refers to traits related to being a nice person and a good citizen. Self-Deceptive Enhancement and Impression Management styles are associated with both of these factors. From the content perspective, conscious Impression Management can be divided into two different styles: Agency Management and Communion Management, whereas the unconscious side of faking is divided into Self-Deceptive Enhancement and Self-Deceptive Denial. Both Agency Management and Self-Deceptive Enhancement reflect an egoistic bias, a tendency to exaggerate one's social and intellectual status, while Communion Management and Self-Deceptive Denial reflect a moralistic bias, a tendency to deny socially-deviant impulses and claim sanctimonious, “saint-like” attributes (Paulhus, 2002; Paulhus & John, 1998).

As faking is, at least in part, conscious, the tendency to socially desirable responding should diminish when test-takers are warned that the inventory contains methods for detecting faking (Paulhus, 1991), such as a hidden sub-scale in a personality inventory measuring socially desirable responding. The fact that the warning is explicit should reduce at least the conscious element of faking – the aspect of faking which personnel professionals are the most interested in. McFarland (2003) found that warning respondents about the inclusion of a socially desirable responding scale reduced personality scale scores, Impression Management scores and self-reported faking. Kluger and Colella (1993) found also that warning reduces the amount of extreme item responses. Some findings suggest that the unconscious side of faking might also react to instructions (Paulhus, 2002; Pauls & Crost, 2004; Reid-Seiser & Fritzsche, 2001).

Faking does not take place evenly across a personality inventory (Butcher, Atlis, & Fang, 2000; Griffin, Hesketh, & Grayson, 2004). Job applicants do not distort their responses on every sub-scale, but are particularly prone to distort their responses on scales that they view as relevant to the job, in expectation that this will increase their chances of getting hired (Birkeland et al., 2006; Kluger & Colella, 1993; Rosse et al., 1998). In real-life settings, respondents tend to inflate their scores mostly on the Conscientiousness and Emotional stability scales (Birkeland et al., 2006).

Since the egoistic side of personality is linked to competence and ability, it can be considered to be job-related. As distortion occurs in particular in job-related sub-scales, in a work-related assessment a warning should logically affect egoistic sub-scales rather than moralistic. Therefore, we expected the warning to diminish scores on egoistic sub-scales, but to have no effect on the results of the moralistic sub-scales. The goal of the present study was to find out whether or not this was the case.

## 2. Method

### 2.1. Participants

The participants in the study comprised 466 persons (334 males and 132 females), who were applying for admission to a school for fire and rescue personnel in Finland during 2004–2005. Each participant was applying for one of three alternative training programmes: rescuer (fire-fighter), emergency exchange personnel, or fire and rescue management. Only one female applied for the fire-fighter programme, and in order to avoid distortion in the groups, she was excluded from the data. The ages of the participants ranged from 19 to 53 with a median age of 25 years (SD 7.4).

### 2.2. Procedure

The entrance examination included physical and psychological tests. Participants had to pass the physical part of the test before proceeding to the psychological section. The psychological part of the entrance examination consisted of several inventories (including the Personality Research Form, PRF), ability tests, a group discussion exercise, and two interviews. After completing the whole examination, the participants (501) were asked to give their consent for their results to be used in scientific research. Consent was given by 93% of the participants (467).

Half of the participants (208) were given the standard instructions for filling in the PRF (control group). The other half (258) were given additional information: a warning about the presence of a socially desirable responding scale (Desirability) in PRF. They were instructed as follows: ‘This questionnaire gives us many kinds of information. It also shows the level of socially desirable responding, which means the tendency to enhance the impression we give about ourselves. It is therefore recommended that you answer as genuinely and honestly as possible’. While giving this information, the test administrator held the PRF questionnaire in her hand to stress that her message concerned this specific test.

The data were collected during three separate student selection procedures. New students are admitted twice a year, in the spring and in the autumn. Once information about the presence of a socially desirable responding scale has been given to one person or group, controlling its spreading becomes very difficult, especially in such a narrow segment of fire and rescue personnel in a small country. For this reason, the control group (who received no warning) was assembled first, in spring 2004, and the warned group was assembled in autumn 2004 and spring 2005. Although mixing the test and control groups in the same session is recommended for experimental purposes, it was deemed ethical to issue the same instructions to all the participants in a single intake, especially as it was not known how the new instructions would affect the results of the examination.

### 2.3. Measures

*Personality variables.* Personality variables were measured with the Finnish version of the Personality Research Form (PRF) (Niitamo, 1997), which is a translation of Jackson's PRF (Jackson, 1999). Only some of the sub-scales of the original PRF are included in the Finnish version (Dominance, Exhibition, Achievement, Succorance, Affiliation, Nurturance, Cognitive structure, Order, Impulsivity, Defence, Aggression, Harmavoidance, Sentience, Desirability), but the construction of the sub-scales is the same as Jackson's version. Each personality sub-scale is measured by 16 items that the respondent is instructed to mark as either True or False. Answers to each scale are tallied to form a raw score (range 0–16).

The personality sub-scales were rated by three psychologists with long experience in work and organizational psychology and personnel assessments. They use the PRF for personnel assessments on a daily basis. They were asked to independently rate which of the PRF sub-scales reflect moralistic qualities, which reflect egoistic qualities, and which do not represent either of these categories. Raters were given descriptions of egoistic and moralistic biases. They were asked to decide for each PRF sub-scale separately whether, if someone answered in a socially desirable manner, the respondent would be representing him in an egoistically or moralistically biased way. In other words, if someone wanted to score highly on a particular PRF sub-scale, would he then be representing himself as “a proficient and competent fire and rescue worker, a superhero” or as “a nice and friendly person, a saint”. The raters were asked to imagine the mindset of a typical applicant for the fire and rescue field. Following the independent rating procedure, only the sub-scales unanimously allocated in either moralistic or egoistic group were included to the study.

The outcome of the allocation is listed below:

Egoistic sub-scales, representing qualities that describe a “proficient and competent fire and rescue worker”:

- Achievement (Cronbach's  $\alpha = 0.66$ ) e.g. “I often set goals that are very difficult to reach”.
- Dominance ( $\alpha = 0.82$ ) e.g. “I feel confident when directing the activities of others”.
- (low) Harmavoidance ( $\alpha = 0.76$ ) e.g. “I avoid some hobbies and sports because of their dangerous nature”; a low score indicates fearlessness.
- (low) Impulsivity ( $\alpha = 0.79$ ) e.g. “I often say the first thing that comes to my head”; a low score indicates patience.
- (low) Succorance ( $\alpha = 0.63$ ) e.g. “I often seek other people's advice”, low score indicates independence.

Moralistic sub-scales, representing qualities that describe a “nice and friendly person”:

- Affiliation ( $\alpha = 0.74$ ) e.g. “People consider me to be quite friendly”.
- (low) Aggression ( $\alpha = 0.66$ ) e.g. “When I am irritated, I let it be known”; a low score indicates leniency.
- (low) Defenceence ( $\alpha = 0.58$ ) e.g. “I would get into a long discussion rather than admit I am wrong”; a low score indicates accommodation.
- Nurturance ( $\alpha = 0.62$ ) e.g. “I often take younger people under my wing.”

This allocation is also supported theoretically and by previous research. Paulhus and John (1998) list Achievement and Dominance as egoistic traits and Affiliation and Nurturance as moralistic traits. They also mention boldness and risk-taking as features linked to Alpha-bias; which suggests that (low) Harmavoidance (fearlessness) is an egoistic sub-scale. Also Paulhus (2002) mentions fearlessness and dominance as egoistic traits and agreeableness (Affiliation) as a moralistic trait. Pauls and Stemmler (2003) found that egoistic bias showed as overestimation of Emotional Stability, Extraversion and Openness, and moralistic bias as self-favouring on Agreeableness and Conscientiousness. Costa and McCrae (1988) found a correlation ( $-.48$ ) between Aggression and Agreeableness. This justifies the allocation of (low) Aggression as a moralistic sub-scale. Succorance correlates (.31) with Neuroticism (Costa & McCrae, 1988), and Emotional Stability scores were affected by egoistic bias (Pauls & Stemmler, 2003); therefore, Succorance is an egoistic sub-scale. Moreover, in the PRF manual (Jackson, 1999) sub-scales are organized into units based on theoretical considerations and a number of factor analytic studies. All the sub-scales listed as moralistic in the present study are also listed in the manual as belonging to a single category of “Measures of Degree and Quality of Interpersonal Orientation”.

Allocation of two of the PRF sub-scales, Impulsivity and Defenceence, was found to be ambiguous in previous research. Impulsiveness is a part of Emotional Stability in the NEO PI-R (Costa & McCrae, 1992), which indicates that Impulsivity would be an egoistic sub-scale; however, Paulhus (2002) says exaggeration of restraint (opposition of Impulsivity) shows as moralistic bias. The allocation of Defenceence as a moralistic sub-scale was also ambiguous, as Costa and McCrae (1988) reported a correlation (.33) between PRF Defenceence and Emotional Stability, which would put Defenceence into the egoistic group, but also a correlation ( $-.24$ ) between Defenceence and Agreeableness, which suggests that Defenceence is a moralistic sub-scale. Therefore, the allocation of these two sub-scales was based solely on the raters' voting.

### 3. Results

*Descriptive results.* The correlations between the PRF scales and age for the warned and un-warned groups are presented in Table 1. As age correlates with many of the PRF scales, it was necessary to control for it in the analyses. Differences in PRF profiles between the three groups applying for different training programmes and gender differences were studied with multivariate analysis of variance (MANOVA, Pillai's Trace). The analyses showed that the PRF results for the training programmes ( $F = 4.65, p < 0.001$ ) and for genders ( $F = 2.71, p < 0.01$ ) were different, and therefore training programme and gender had to be controlled for in the analyses.

**Table 1**  
Correlations between age and PRF scales

PRF sub-scale	Age	1	2	3	4	5	6	7	8	9
Age		-.20**	-.16*	.19**	.06	-.01	-.26**	.09	-.02	.02
1. Achievement	-.21**		.43**	-.15*	-.21**	-.00	.33**	-.14*	.06	.28**
2. Dominance	-.24**	.36**		-.23**	-.26**	.00	.25**	.02	.11	.11
3. Harmavoidance	.25**	-.21**	-.29**		-.16*	.16**	-.08	.00	.04	.01
4. Impulsivity	.15*	-.29**	-.17*	-.00		-.11	-.04	.37**	.14*	.05
5. Succorance	-.03	.03	.04	.10	.10		.38**	-.13*	-.12	.46**
6. Affiliation	-.31**	.36**	.32**	-.12	-.08	-.27**		-.22**	-.12	.48**
7. Aggression	.17*	-.22**	.24**	.01	.30**	.02	-.11		.40**	-.15*
8. Defenceence	.03	-.17*	.11	.08	.16*	.01	-.08	.36**		-.08
9. Nurturance	.14*	.37**	.04	.03	-.08	.30**	.27**	-.10	-.03	

The correlations of the un-warned group are displayed on the lower left-hand side and the correlations of the warned group on the upper right-hand side.

\*  $p < 0.05$ .

\*\*  $p < 0.01$ .

**Table 2**  
Means (*M*), standard deviations (*SD*) and differences (ANCOVA) between the warned and un-warned groups on PRF scales, raw scores

PRF sub-scale range 0–16	Warned ( <i>N</i> = 258)		Un-warned ( <i>N</i> = 208)		<i>F</i> (1,460)
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
<i>Egoistic</i>					
Achievement	9.91	3.06	10.98	2.46	4.49*
Dominance	8.97	3.65	10.66	3.66	1.40
Harmavoidance (opp. "fearlessness")	6.36	3.16	5.48	2.99	2.57
Impulsivity (opp. "patience")	5.89	3.62	5.27	3.39	0.80
Succorance (opp. "independence")	10.80	2.73	10.15	2.62	3.97*
<i>Moralistic</i>					
Affiliation	12.32	2.99	12.76	2.70	0.00
Aggression (opp. "leniency")	6.76	3.16	6.36	2.78	0.04
Defendence (opp. "accommodation")	4.78	2.56	3.97	2.30	6.35*
Nurturance	10.64	2.80	10.89	2.43	7.54**

Age, gender and the training programme (three options) were controlled for.

\*  $p < 0.05$ .

\*\*  $p < 0.01$ .

*Differences between warned and un-warned groups.* The data were processed using multivariate analysis of covariance (MANCOVA, Pillai's Trace) to see the main effect of the manipulation and analyses of covariance (ANCOVA) to locate the differences in mean raw scores between the warned and un-warned groups.

Warning had an effect on the PRF results ( $F = 3.46$ ,  $p < 0.001$ ). Table 2 shows the results separately for each sub-scale. The PRF results of the warned participants were different from those of the un-warned group on four sub-scales. The warned participants showed lower mean scores for Achievement and Nurturance, and higher levels of Defendence (i.e. lower accommodation) and Succorance (i.e. lower independence) than the un-warned group. In the scores for Dominance, Harmavoidance, Impulsivity, Affiliation and Aggression, no difference could be detected between the groups. Two of the affected sub-scales were moralistic and two were egoistic, no difference between moralistic and egoistic bias was found.

#### 4. Discussion

Warning respondents about the presence of a socially desirable responding scale in a personality inventory led to less desirable inventory profiles. This supports the previous findings that warning against faking reduces faking (e.g. Kluger & Colella, 1993; McFarland, 2003). The warned group had lower scores on Achievement and Nurturance, and higher scores on Defendence and Succorance sub-scales, than the un-warned group. In other words the warned participants admitted being more lazy and uncaring and less accommodating and independent than the un-warned participants. However, contrary to what was expected, warning affected two of the moralistic and two of the egoistic sub-scales, not mainly the egoistic ones.

Previous research has found that job applicants do not distort their responses evenly across the inventory, but tend, in particular, to distort the sub-scales they view as job-relevant (Birkeland et al., 2006; Kluger & Colella, 1993; Rosse et al., 1998). This has been called "job desirability bias" (Kluger & Colella, 1993) or "job desirable responding" (Ones et al., 1996) to separate it from the wider concept of socially desirable responding, which is not particularly related to work. In the present study, participants distorted their results selectively (not evenly across the sub-scales), but on both competence-related and socially relevant sub-scales. In other words, they wanted to represent themselves as achievement-oriented and independent as well as accommodating and nurturing. In Paulhus's (2002) terms, we found both Agency Management

and Communion Management. Appearing as a good organizational citizen or a congenial colleague was considered as relevant as representing oneself as a capable and strong professional, when applying for admission to an educational institution.

Pauls and Stemmler (2003) suggest that bias in Emotional stability, Extraversion and Openness is related to Self-Deceptive Enhancement, the unconscious side of socially desirable responding, while Agreeableness and Conscientiousness are more related to Impression Management, conscious faking. The unconscious side should not react to warning as strongly as the conscious side does. McFarland (2003) found that warning affects scores on Neuroticism, Extraversion and Conscientiousness. Contrary to these findings, sub-scales that reacted to warning in the current study did not fall exclusively on either the conscious or unconscious side, nor were they from any specific Big Five meta-factor, either.

The study has some limitations. Although the effects were statistically significant, the mean differences were all under 0.5SD. This is not a definite indication of the occurrence of distortion, and the study should be replicated in another setting. Nevertheless, when specifically instructed to represent themselves better than they are, respondents have increased their scale scores by no more than from 1/3 to over 1/2 of the standard deviation (Ellingson et al., 1999; Kluger & Colella, 1993; Viswesvaran & Ones, 1999).

Between-subject designs have been criticized (e.g. Ellingson, Sackett, & Connelly, 2007; McFarland and Ryan, 2000; Viswesvaran and Ones, 1999) for the risk of individual differences affecting the results more than the treatment. In the current study, the demographic structure of the study group and the control group were somewhat different. Therefore, age, gender and the training programme were controlled for. This does not, of course, mean that there may not still have been some other unknown differences between the study group and control group. This also includes the possibility that the groups differed by their personality; that is to say the differences detected between groups were due to content, not intentional faking. However, the groups were quite large (both over 200 persons), which ought to even out any differences in personality, especially when the factors most likely to affect personality scores (sex, age, occupation) were controlled for, and the significant factor affecting faking, the real-life selection context, remained constant.

The groups were not randomly selected. The control group was assembled before the research group. This was done due to the impossibility of controlling the spread of the additional information about the existence of the socially desirable scale once this information had been given to someone. Also, it was ethical to keep the procedure standard for one cohort of applicants, as it was not known how the warning would affect the results of the entrance exam. Apart from being a shortcoming, this procedure could also be considered a strength, as the purpose of the study remained unknown to the participants.

It is also possible that the atmosphere in an examination situation may affect the results, as the circumstances surrounding people affect the conscious side of faking. The respondents participated in the exams in random groups of five. The assessment day programme was the same for all the members of one group (for example they attended the group discussion exercise together). The atmosphere will naturally vary from one group to another, depending on the particular mix of personalities who end up in the same group by chance. For example, the level of competitiveness varies greatly between groups of five. A sizeable dose of competitive spirit within the group may contribute to an increase in response distortion and overachieving. This could naturally affect the results.

Despite these limitations, our study has some clear strengths. The setting was a real-life context; the subjects were genuinely

motivated to do their best, to fake or not to fake. A setting, where participants are instructed to fake, measures the skill of faking more than a tendency (Pauls and Crost, 2004). The study concentrated on one occupational field, fire and rescue personnel, and the effect of faking should become more visible, as all the participants can be expected to view the same sub-scales as job-relevant. Although the moralistic or egoistic content of a sub-scale was not found to be the determinant of faking, our study shows that faking is a fine-grained phenomenon, which is not spread evenly across all sub-scales or not even within a single meta-factor such as a Big Five dimension or the egoistic theme. This is supported by previous research by Griffin et al. (2004) and Ellingson et al. (2007), who found that faking behaviour varies from sub-scale to sub-scale. Therefore, a single measure of a faking tendency, such as an IM scale in an inventory, does not tell where exactly or on which sub-scale the faking is likely to occur.

As the pattern of faking seems to be somewhat scattered, it may be difficult for meta-analyses to find the impact of faking on criterion validities. This is especially true when a meta-analysis uses meta-factors, such as the Big Five, as the smallest unit of scale. The impact of faking on one sub-scale may disappear in the array of scales inside a single meta-factor, especially if the scales vulnerable to faking vary from one study to another.

All participants in this study were from one occupational segment and may be prone to fake on selected sub-scales. Distortion depends on the type of job applied for (Birkeland et al., 2006). Therefore, the results cannot be directly generalized to the general population. Future research is needed to clarify whether a similar pattern is found in other occupational fields as well. Also, the sub-scale contents did not appear to be a discriminating factor in faking in the present study and thus future research is needed to further investigate the clustering of faking into these two themes, the egoistic and the moralistic.

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