

Honest People Tend to Use Less—Not More—Profanity: Comment on Feldman et al.’s (2017) Study I

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Abstract

This article shows that the conclusion of Feldman et al.’s (2017) Study I that profane individuals tend to be honest is most likely incorrect. We argue that Feldman et al.’s conclusion is based on a commonly held but erroneous assumption that higher scores on Impression Management Scales, such as the Lie Scale, are associated with trait dishonesty. Based on evidence from studies that have investigated (1) self-other agreement on Impression Management Scales, (2) the relation of Impression Management Scales with personality variables, and (3) the relation of Impression Management Scales with objective measures of cheating, we show that high scores on Impression Management Scales are associated with high—instead of low—trait honesty when measured in low-stakes conditions. Furthermore, using two data sets that included an “I never swear” item, we show that profanity use is negatively related to other reports of HEXACO honesty-humility and positively related to actual cheating.

Keywords

personality, honesty, impression management, Lie Scale, profanity

The increased use of aggressive verbal language and profanities in online communication has been one of the most noteworthy and—to some—worrisome outcomes of the Internet era. It is no surprise, then, that the conclusion by Feldman, Lian, Kosinski, and Stillwell (2017) that a higher rate of profanity use is associated with more honesty has been highly newsworthy. Indeed, their conclusions may have strong real-life consequences. People who use profanities, both online and offline, may feel exonerated by the study because the use of profanities may simply show that their profane outbursts are an honest expression of their feelings. Political representatives may even be stimulated to increase their use of profanities hoping that it may increase the public’s perception of their integrity. Because of its newsworthiness and potential real-life consequences, we believe that the conclusion of a positive association between profanity use and honesty should be examined carefully. Below, we show that this conclusion does not seem to be justified: if anything, there is a *negative* association between profanity use and honesty.

Feldman et al. (2017) conducted three studies. In Study 1 ($N = 276$ Mechanical Turk [MTurk] participants), they gathered three self-report measures of people’s profanity use and correlated each of these with the reversed score on the Eysenck Personality Questionnaire–Revised 12-item “Lie” Scale. Feldman et al. argued that the Lie Scale is an indicator of

“individual differences in lying for socially desirable responding” (p. 7), and hence reversing it would indicate individual differences in the tendency to be honest. Indeed, the Lie Scale was introduced by Eysenck, Eysenck, and Barrett (1985) as a validity scale to assess deliberate distortions in questionnaires. High scores on it are obtained by answering “yes” to items such as “Do you always practice what you preach?” and “no” to items such as “Have you ever taken advantage of someone?” Importantly, people who agree to the former and disagree with the latter statement are believed to dissimulate and are thus believed to be *less* rather than more honest (hence

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the label “Lie Scale”). Feldman et al. found that their measures of profanity use were positively related to low scores on the Lie Scale, and they interpreted this result as showing that profanity use was positively associated with honesty.

In Study 2, Feldman et al. used the text of participants’ Facebook status updates to compute scores for profanity use and for honesty. The latter score was based on participants’ use of words belonging to categories identified by Newman, Pennebaker, Berry, and Richards (2003) as being more heavily used by research participants in deliberate false statements than in deliberate true statements. Feldman et al. reported that participants who used more profanity tended to use more ($r = .20$) of the words in the categories found by Newman et al. to distinguish deliberate false from true statements.¹ The critical problem with Study 2 is that the word use index of Newman et al. was not derived based on its ability to distinguish dishonest from honest persons. Instead, that index was derived based on its ability to distinguish false from true statements as elicited from research participants who were asked to generate such statements. Although this particular index has been applied to naturally occurring statements as a way of obtaining an individual difference measure of honesty (Feldman, Chao, Farh, & Bardi, 2015), there is no construct validity evidence to support such a use of this index.² In the absence of any evidence that individual differences in honesty can be validly assessed by this word use index, the results of Feldman et al.’s (2017) Study 2 do not provide any evidence for a link between profanity use and trait honesty.

In Study 3 ($N = 50$ U.S. states), the authors found a positive relation between state-level aggregated profanity rates from Study 2 Facebook participants with state-level integrity scores from the State Integrity Investigation 2012, which was based on interviews with state officials, researchers, journalists, and executives. The most important comment to be made about this third study is that the results do not pertain to individual-level integrity. That is, it is perfectly possible that aggregate state-level relations are the very opposite of individual-level relations because different processes can play a role at the state and individual levels. Therefore, the results of Feldman et al.’s Study 3 do not bear on the relation between profanity use and trait honesty.

In this comment, we do not discuss Studies 2 and 3 of Feldman et al. any further, because neither of those studies examined individual differences in profanity use in relation to construct valid indicators of trait honesty. We focus instead on Study 1, because in that study, individual differences in profanity use were examined in relation to a variable that was interpreted as a measure of trait dishonesty. The problem, as we explain below, is that the latter variable is in fact associated with somewhat higher, rather than lower, levels of honesty.

We noted above that, according to the scoring procedure of Impression Management Scales (Paulhus, 2002) such as the Lie Scale (Eysenck, Eysenck, & Barrett, 1985),³ people who indicate that they are moral and well-behaved are considered to be *less* honest. However, recent evidence has indicated that such an interpretation of Impression Management Scales is

fundamentally flawed. That is, instead of being indicative of a trait-like tendency to lie,⁴ high scores on Impression Management Scales, at least in low-stakes settings, are in fact associated *positively* with trait honesty. The evidence for this “corrected” interpretation of Impression Management Scales is based on three lines of empirical evidence: (1) the positive self-other agreement relations on Impression Management Scales, (2) the positive relation of Impression Management Scales with both self-report and other report measures of the personality trait honesty-humility, and (3) the negative relation of Impression Management Scales with objective behavioral indicators of dishonesty. We briefly discuss each line of evidence below.

First, if Impression Management (or Lie) Scales actually did measure lying on items such as “Do you always practice what you preach?,” the correlation between self-ratings and ratings obtained from knowledgeable others would have to be negative. That is, if a “liar” were more likely to (falsely) indicate that she or he does practice what she or he preaches, somebody who knows this person well should be more likely to indicate that she or he does *not* practice what she or he preaches, ultimately resulting in a negative correlation between self- and other-responses. Instead, research so far has found the opposite results. Consider the Balanced Inventory of Desirable Responding (BIDR) Impression Management Scale (Paulhus, 2002), which is strongly correlated (e.g., $r = .61$; Davies, French, & Keogh, 1998) with, and similar in content to, the Lie Scale used in Feldman et al.’s (2017) Study 1. Studies of the BIDR have shown that self-ratings and ratings by knowledgeable others are in fact positively—instead of negatively—correlated. For example, Konstabel, Aavik, and Allik (2006) reported self-other correlations of .40 in a low-stakes condition and .24 in a high-stakes (job applicant) condition, and De Vries, Zettler, and Hilbig (2014) reported a correlation of .45 in a low-stakes condition. Therefore, high scores on Impression Management (or Lie) Scales tend to indicate higher rather than lower levels of trait honesty, especially in low-stakes conditions such as in Study 1 of Feldman et al. (2017).

Second, Impression Management Scales, including the Lie Scale used by Feldman et al. (2017), have been found to be positively associated with trait honesty. De Vries et al. (2014) obtained self-reports on the HEXACO Personality Inventory–Revised (HEXACO-PI-R; e.g., Lee & Ashton, 2004) and the BIDR from 1,106 persons and obtained for each of those persons an independent other report from a close acquaintance (see De Vries et al., 2014, for more details on the procedure and sample characteristics). Their results showed that the BIDR Impression Management Scale was correlated positively with HEXACO honesty-humility, within self-reports ($r = .56$), within other reports ($r = .62$) and—crucially—*between* self-report and other report ($r = .32$ for self-report honesty-humility with other report BIDR and $r = .32$ for other report honesty-humility with self-report BIDR).⁵ Similarly, using the same Lie Scale (Eysenck et al., 1985) used in Study 1 of Feldman et al. (2017), Dunlop, Morrison, Koenig, and Silcox (2012) found a positive relation between (self-

report) scores on the Lie Scale and both self-report ($r = .33$) and other report ($r = .19$) honesty-humility. These results suggest that people who score high on Impression Management or Lie Scales are, according to close acquaintances, actually more likely to be honest than dishonest.

Third, scores on Impression Management Scales have been found to be negatively correlated with scores on objective behavioral indicators of dishonesty—indicators that are also negatively correlated with self-reports of honesty-humility. Zettler, Hilbig, Moshagen, and De Vries (2015) found that people who had higher scores on the BIDR Impression Management Scale (which, again, correlates strongly positively with the Lie Scale used in Feldman et al.’s Study 1) were *less*—rather than *more*—likely to cheat in a laboratory task (described later in this report) as compared with those scoring lower on the Impression Management Scale. This result is thus another indication that high scores on Impression Management or Lie Scales are associated with honesty instead of dishonesty (see Cunningham, Wong, & Barbee, 1994, for a similar finding and also see Uziel, 2010, for a related criticism on Impression Management Scales based on an extensive review of the empirical and experimental literature).⁶

In contrast to the conclusion drawn by Feldman et al. (2017) that “profanity [is] associated with *less* lying and deception at the individual level” (p. 1), there is empirical evidence to suggest that individual differences in profanity use are associated with *more* lying and cheating, or to frame it differently, that people higher in honesty are less likely to swear. This evidence comes from two above-mentioned studies that investigated the relation between BIDR impression management and both personality (De Vries et al., 2014) and a behavioral measure of cheating (Zettler et al., 2015), respectively (data of the analyses reported below are available through the Open Science Framework; see De Vries et al., 2017). The BIDR Impression Management Scale contains a (reversed) profanity item which reads “I never swear.” In the De Vries et al. (2014) study, respondents filled out the BIDR at Time 1 and the HEXACO-PI-R, which contains a 32-item honesty-humility scale ($\alpha = .90$), at Time 2 (a week later). Around the same time, close acquaintances of the target individuals filled out the other report version of the HEXACO-PI-R ($\alpha = .91$ for other report honesty-humility) and—during the same session—the other report version of the BIDR, which contains the item “she or he never swears.” First of all, self-other correlations of the profanity item showed high levels of self-other agreement ($r = .49$). Second, self-reports of honesty-humility correlated positively ($r = .23$) with the item “I never swear”; likewise, other reports of honesty-humility correlated positively ($r = .28$) with the item “she or he never swears.”⁷ Most notably, self-report honesty-humility correlated .24 with other report “she or he never swears” and other report honesty-humility correlated .16 with self-report “I never swear” (all $ps < .01$). Thus, in stark contrast to the conclusion of Feldman et al. (2017), higher honesty-humility was associated with (slightly) lower use of profanity. Note that because profanity use was assessed with only one profanity item, the findings may be an

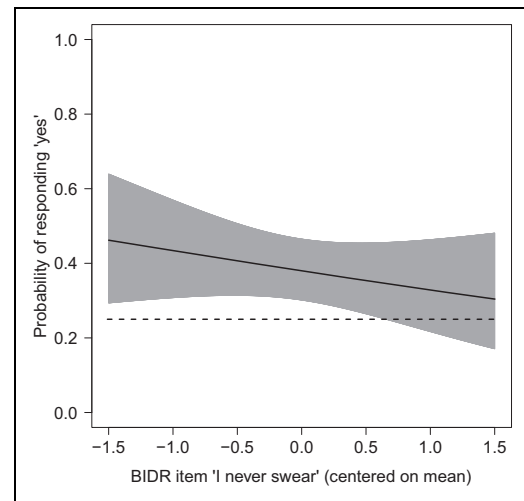


Figure 1. Predicted probability of responding “yes” (coded 1, “no” coded 0) and thus claiming to have obtained exactly two successes in exactly two coin tosses from a logistic regression on the Balanced Inventory of Desirable Responding item “I never swear.” The confidence band represents the 95% confidence interval of the prediction. The dashed line depicts the probability of “yes” responses to be expected under complete honesty (25%).

underestimation of the true honesty/profanity relation, which thus seems to be negative rather than positive.

Similarly, we reanalyzed the data ($N = 139$) from Zettler et al.’s (2015) study which included self-reports on the BIDR—and thus, once more, on the item “I never swear”—and an objective behavioral cheating task, variants of which have been used almost universally in behavioral ethics research (Moshagen & Hilbig, 2017). Specifically, participants tossed a coin twice in private. If they answered “yes” to the question whether they had obtained exactly two successes, they received an additional 5€, otherwise nothing (for details, see original study). Thus, participants could lie to increase their gains without any risk of getting caught. However, the extent of cheating can easily be estimated on the aggregate since the probability of “yes” responses under complete honesty is conclusively known (for two successes in two tosses, it is 25%). Figure 1 depicts the relation between participants’ responses on the BIDR item “I never swear” and the probability of “yes” responses. As can be seen, individuals who agreed to the statement “I never swear” responded “yes” in the cheating task with approximately the probability that would be expected under complete honesty. Those who tended to disagree with the statement, by contrast, were more likely to respond “yes” than can be expected by chance and thus were more likely to have cheated. The simple bivariate correlation between scores on “I never swear” and participants’ responses in the cheating task ($1 = \text{yes}$, $0 = \text{no}$) was $r = -.09$ and thus negative rather than positive. Correspondingly, a Bayesian Analyses using JASP (Love et al., 2015) revealed a Bayes Factor of $BF_{01} = 17.7$ which constitutes strong evidence against the hypothesis (by Feldman et al., 2017) that profanity is positively associated with honesty. Note that due to using only a single item and

because data from cheating paradigms inherently include noise (some honest individuals also respond “yes”), the small effect size we report here is very likely to be a substantial underestimation of the true effect (Moshagen & Hilbig, 2017).

In summary, the above findings strongly suggest that the conclusions of Feldman et al. (2017) are incorrect. Lie Scales are correlated positively rather than negatively with trait honesty and the relation between profanity use and trait honesty is likely to be negative. Once again, we call for a moratorium on the use of lie, impression management, and/or social desirability scales in low-stakes conditions as measures of dissimulation, deception, dishonesty, or faking (see De Vries et al., 2014; Zettler et al., 2015). Those who have collected data with Impression Management Scales are best advised to treat them as somewhat valid indicators of a tendency to be virtuous, at least when the scales are administered in anonymous, low-stakes conditions. If Lie and Impression Management Scales continue to be used as indicators of dishonesty—despite the evidence that they are actually somewhat predictive of higher honesty—then scientists and the public will continue to be misinformed about the relations between actual honesty and important real-world variables, such as the use of profanity.

Declaration of Conflicting Interests

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Notes

1. However, this relation was close to zero if negative emotion words not related to anxiety were included.
2. Feldman, Chao, Farh, and Bardi (2015) reported absolute correlations of .10 or weaker between this index and measures of four broad values constructs.
3. Several other scales have been designed as validity scales to detect deliberate distortion on questionnaires, such as the Minnesota Multiphasic Personality Inventory (MMPI) Lie Scale (Meehl & Hathaway, 1946) and the other-deception questionnaire (Sackeim & Gur, 1979). Such scales have been found to load on one factor, called impression management by Paulhus (1984). In the following, we will refer to impression management to describe this factor.
4. Note that Feldman et al. considered dishonesty as a trait (i.e., “a generalized personal inclination to obscure the truth in natural, everyday life situations,” p. 4) that is captured by “a widely used lie scale” (p. 6), which “is one of the most common measures for assessing *individual differences in lying* [italics added] for socially desirable responding” (p. 7).
5. Supplementary analyses showed that all self-reported honesty-humility facets were significantly (at $p < .001$) and positively related to impression management. Latent variables defined by self- and other reports on impression management and by self- and

other reports on honesty-humility were very strongly correlated ($r = .73$, see Figure 1 of De Vries et al., 2014). Impression management—honesty-humility domain scale correlations were only slightly (i.e., between .03 and .06) weaker when using a dichotomous scoring procedure. However, the dichotomous scoring procedure of the BIDR has been criticized for its attenuation of reliability and (convergent) correlation estimates (Stöber, Dette, & Musch, 2002).

6. Note that similar objective indicators of cheating have been found to be negatively correlated with HEXACO honesty-humility (Hilbig, Moshagen, & Zettler, 2015; Hilbig & Zettler, 2015; Thielmann, Hilbig, Zettler, & Moshagen, in press), the latter which has also been found to be positively correlated with objective indicators of cooperation and prosociality (Hilbig, Glöckner, & Zettler, 2014; Hilbig et al., 2015).
7. On a 1- to 7-point (*strongly disagree—strongly agree*) scale, the proportions (%) of self-report and other report responses to the “never swear” item were, respectively, 36.6, 24.1, 16.4, 5.4, 5.4, 6.7, and 5.3 (self-report) and 21.2, 21.6, 19.2, 10.8, 6.4, 10.9, and 9.8 (other report). The mean self-report and other report responses were lower than the midpoint, that is, respectively, $m_s = 2.60$ ($SD_s = 1.81$) and $m_p = 3.31$ ($SD_p = 1.97$), and slightly right skewed (i.e., a_3 ; respectively, $a_3 - s = 1.10$ and $a_3 - p = 0.55$). The distribution of responses suggests that many participants (in both self- and other reports) considered the spirit or gist of the item (i.e., do I swear relatively rarely or frequently?) rather than its exact wording (i.e., have I ever sworn or not?).

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