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Honest People Tend to Use Less—Not More—Profanity: Comment on Feldman et al.’s (2017) Study 1

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Abstract
This article shows that the conclusion of Feldman et al.’s (2017) Study 1 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’ Face-
book 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, Penneba-
er, 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 partici-
pants who used more profanity tended to use more \( r = .20 \) of
the words in the categories found by Newman et al. to distin-
guish deliberate false from true statements. The critical prob-
lem 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 individ-
ual difference measure of honesty (Feldman, Chao, Farh, &
Bardi, 2015), there is no construct validity evidence to support
such a use of this index. 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 rela-
tions 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 Field-
man et al. any further, because neither of those studies exam-
ined 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), 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, high scores on Impression Manage-
mant Scales, at least in low-stakes settings, are in fact associ-
ated 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 evi-
dence 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 nega-
tive. 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, ulti-
mate result being 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 knowledgable
others are in fact positively—instead of negatively—cor-
related. 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 Man-
agement (or Lie) Scales tend to indicate higher rather than
lower levels of trait honesty, especially in low-stakes condi-
tions 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 (x = .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 (x = .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.” 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 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 €, 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 = yes, 0 = 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 BF01 = 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

![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%).]
5. Supplementary analyses showed that all self-reported honesty—then scientists and the public will continue to be mis-
inform ed about the relations between actual honesty and 
important real-world variables, such as the use of profanity.

Declaration of Conflicting Interests
The author(s) declared the following potential conflicts of interest with respect to the research, authorship, and/or publication of this article: Reinout E. de Vries, Kibeom Lee, and Michael C. Ashton have received royalties for the nonacademic use of the HEXACO-PI-R.

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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 (Me hl & 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 follow-
ing, 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 dichoto-
mous scoring procedure. However, the dichotomous scoring pro-
dure 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 $m_o = 3.31$ ($SD_o = 1.97$), and slightly right skewed (i.e., $a_3$; respectively, $a_{3−} = 1.10$ and $a_{3−} = 0.55$). 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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