



Close replication of Paul, Lee, and Ashton (2022): Who tells prosocial lies?

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ABSTRACT

Within the present research, we conducted a close replication of Paul et al. (2022), who reported the HEXACO Honesty-Humility trait to be positively correlated with prosocial lies by applying a procedure in which participants should rate a poorly written essay. Consistent with the original study, participants ($N = 324$) higher in Honesty-Humility and Agreeableness showed more prosocial lying. Because the associations disappeared within a shared regression model, we assume the correlation between Honesty-Humility and prosocial lies to be weaker than postulated within the original study and to be at least as equivalently strong as the association between Agreeableness and prosocial lies. The validity and generalizability of the findings and the limitations of the original and the replication study are discussed.

1. Introduction

Recently, an emerging body of research has reliably shown that the Honesty-Humility trait, which emanated from the cross-culturally replicated set of six factors labeled the HEXACO model of personality (for a review, see Ashton & Lee, 2007), is a key predictor of dishonest behavior. Honesty-Humility is defined as “the tendency to be fair and genuine in dealing with others, in the sense of cooperating with others even when one might exploit them without suffering retaliation” (Ashton & Lee, 2007, p. 156).

Numerous studies that applied different cheating paradigms to measure deceptive behavior supported the hypothesis that Honesty-Humility is a key predictor for actual dishonesty (e.g., Hilbig & Zettler, 2015; Kleinlogel et al., 2018; Müller & Moshagen, 2019; Pfattheicher et al., 2018; Reinhardt and Reinhard, 2023; Thielmann et al., 2016), with no other personality factors such as the Dark Triad traits (Pfattheicher et al., 2018), the Big Five traits (Heck et al., 2018), the remaining HEXACO traits (Thielmann et al., 2016), or Honesty-Propriety (Reinhardt & Reinhard, 2023; Thielmann et al., 2016) to have any incremental value on the explained variance of deceptive behavior that goes beyond the Honesty-Humility trait. All these studies reliably revealed that people higher (lower) in Honesty-Humility show decreased (increased) deceptive behavior.

However, some researchers noted that an underlying prosocial/altruistic motivation of lying may weaken this general negative correlation or even turn it into a positive (e.g., Thielmann et al., 2023),

because the theoretical conceptualization of the Honesty-Humility factor suggests individuals with higher scores to be both, honest and altruistic (Ashton & Lee, 2007). Hence, individuals with higher Honesty-Humility scores are assumed to face a significant inner conflict when honesty and acting in a prosocial/altruistic manner are at odds (e.g., Thielmann et al., 2023). Also Flesson (2020) questioned whether truthfulness alone constitutes the core of the Honesty-Humility factor, suggesting that the term honesty encompasses not only truthfulness but also fairness, with the latter potentially achieved through prosocial/altruistic lying.

In support of this, Ścigala et al. (2020) found that people higher in Honesty-Humility (the top 10 %) lied more often for the advantage of another unknown player, probably to appear more trustworthy. Contrary to this line of argumentation, the results of Thielmann et al. (2023) revealed no support that an altruistic motivation of lying leads people higher in Honesty-Humility to show increased deception. In their Experiment 2, they applied a coin-toss task but manipulated the target of the payoff by neediness. Regardless of who the money was intended for (for oneself, for an anonymous player, or a needy other player described with a below-average household income), participants higher in Honesty-Humility behaved more honestly.

To further investigate the link between Honesty-Humility and prosocial/altruistic lying, Paul et al. (2022) adopted an experimental procedure of Lupoli et al. (2017), in which participants were asked to evaluate a poorly written essay; first with the knowledge that the feedback will not be forwarded and the second time with the knowledge

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that the essay writer will see their feedback. They then subtracted the first rating from the second and defined that positive values indicate the extent of prosocial lies. They argued that when the second rating is more positive than the first, this likely indicates the participant's motivation to avoid hurting the essay writer's feelings, even if this involves lying. Further, they asked participants to provide qualitative feedback, which was rated by two independent coders concerning feedback kindness and feedback truthfulness. They also investigated the association between the HEXACO Agreeableness trait, defined as "the tendency to be forgiving and tolerant of others, in the sense of cooperating with others even when one might be suffering exploitation by them" (Ashton & Lee, 2007, p. 156), with prosocial lies. They first hypothesized that people higher in Honesty-Humility should show increased prosocial lying, because people with higher values are not necessarily only characterized by an unconditional unwillingness to lie, rather than by their motivation to avoid hurting other people. Thus, when they can be protective towards others due to lying, they may decide themselves for the prosocial lying behavior rather than for being honest. They further hypothesized that people higher in Agreeableness should also show increased prosocial lying behavior because people with higher scores are not critical of other's shortcomings, which could prevent them from voicing harsh criticism. In line with their hypotheses, Paul et al. (2022) found weak positive correlations between prosocial lies with Honesty-Humility and Agreeableness.

Because ensuring that research findings can be reproduced is an important aspect of cumulative science (Brandt et al., 2014; Maxwell et al., 2015), we aim to conduct a close replication of the study of Paul et al. (2022). This should help to investigate the robustness of the positive correlations between prosocial lies with Honesty-Humility and Agreeableness and should help to assess the average effect size of this effect more concretely. We evaluate the replication as a success if the effects found in our replication study are in the same direction as in the original study of Paul et al. (2022) and by applying the standard $p < 0.05$ criteria (e.g., Brandt et al., 2014). The replication and therefore more detailed investigation of the present research question leads to a stronger integration of the social context and therefore of the social psychological perspective into the literature on Honesty-Humility and deception, which has been criticized by Hilbig and Zettler (2015) about past research in this field. There is also added value for the discipline of personality psychology, as it leads to a better understanding of the broad Honesty-Humility construct (e.g., Flesson, 2020; Thielmann et al., 2023).

In our replication study, we focus on the postulated main findings of Paul et al. (2022) who reported that Honesty-Humility is (a) positively correlated with prosocial lying, (b) positively correlated with feedback kindness, and (c) negatively correlated with feedback truthfulness. We also aim to replicate the findings that Agreeableness is (d) positively correlated with prosocial lying, (e) positively correlated with feedback kindness, and (f) negatively correlated with feedback truthfulness.

2. Method

Before data collection, the study was preregistered at the Open Science Framework (https://osf.io/c9yvn?mode=&revisionId=&view_only) by applying the replication recipe of Brandt et al. (2014), which outlines standard criteria for convincing close replication attempts. Particularly, within the replication recipe, differences between the original and the replication are elaborated. In the present case, we contacted Kibeom Lee who provided us with all materials that were not publicly available before the data collection started. The only difference is that the original study recruited a Canadian student sample (thus, the original study was conducted in English), while our replication study recruited a German convenient sample (thus, the replication study was conducted in German). Further, we only measured Honesty-Humility and Agreeableness rather than measuring all HEXACO factors as in the original study. This decision was made because the hypotheses

specifically addressed Honesty-Humility and Agreeableness. Additionally, it reduced the preparation time required for our study. Since participation in our study was uncompensated, we deemed minimizing the preparation time necessary.

The OSF further entails data, syntax, and supplemental material (https://osf.io/j7a85/?view_only). For the study, relevant ethical guidelines were followed.

2.1. Participants

We conducted an a priori power analysis, thereby we orientated ourselves at the found effect size of $r = 0.14$ the original study reported for the correlation between Honesty-Humility and prosocial lies (Paul et al., 2022). With an assumed power of 80 % and setting Type I error rate at $p = 0.05$, the power analysis for correlation (one-tailed) revealed a sample size of $N = 311$. Data was collected between December 2022 and January 2023 via Surveycircle, which is an online platform with a nonmonetary function that recruits participants to take part in research projects. Finally, we collected a total of $N = 324$ participants.¹

Of those, 68.8 % self-identified as women, 30.9 % as men, and 0.3 % as non-binary. The mean age was 33.44 years ($SD = 12.71$), ranging from 18 to 82 years. With 38.6 %, most participants reported being students, followed by 37.3 % employed, 9.0 % self-employed and 15.1 % reported another occupational status.

2.2. Measures and procedure

In this online study, participants first read the informed consent (with which they had to agree to continue the study preparation) and then answered demographic questions. We then asked the relevant items of the HEXACO-PI-R (100-Version; Ashton & Lee, 2009) to measure Honesty-Humility and Agreeableness. Participants responded to these items on a five-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). All 16 items measuring Honesty-Humility ($\alpha = 0.80$) and all 16 items measuring Agreeableness ($\alpha = 0.77$) were averaged to create single variables for each trait.

They were presented with the instruction of the following task, in which participants were informed that they would receive a short essay from a prior study, wherein the essay writer advocated for acceptance into graduate school. Without their knowledge, the essay was deliberately poorly written (see Section 3 in the supplemental material). After reading it was said that participants should give quantitative feedback on the essay which is only seen by the researchers, and which is not forwarded to the essay writer himself (i.e., the quantitative pre-rating). For this quantitative pre-rating, participants should rate the essay on the five dimensions (a) focus, (b) logic, (c) organization, (d) support, and (d) mechanics ($\alpha = 0.81$) on a five-point scale ranging from 1 (*worst*) to 5 (*best*). To trigger participants' compassion, they then received a brief vignette ostensibly authored by the essay writer, detailing the sudden death of a cousin (see also Lupoli et al., 2017). In the following, participants were immediately presented with the same poorly written essay as before and were asked to again give their quantitative feedback on the same five dimensions ($\alpha = 0.87$) as before (i.e., the quantitative post-rating). Importantly, this time, participants were informed that their quantitative post-rating will be directed to the essay writer to improve his writing skills. Additionally, they were asked to provide qualitative feedback by freely writing a text that should help the essay writer improve his writing skills. At the end, all participants were fully debriefed, and we thanked them for their participation in the study.

¹ Within the original study, which was not based upon an a priori power analysis, data of $N = 231$ participants was collected. Conducting a post hoc power analysis for correlation (one-tailed), setting Type I error rate at $p = 0.05$, with an effect of $r = 0.14$ and $N = 231$ revealed 69.1% power for the original study.

2.3. Outcome variables

In line with the original study, to calculate the variable based on the *quantitative feedback*, we first averaged all five dimensions (i.e., focus, logic, organization, support, and mechanics) of the quantitative pre-ratings per participant into one variable. Then, we averaged all five dimensions of the quantitative post-ratings per participant into a second variable. Per participant, the mean value of the quantitative pre-rating was subtracted from the mean value of the quantitative post-rating. As the authors of the original study did, we defined prosocial lies as any increase in the quantitative post-rating. Hence, positive values of the newly created variable indicate the extent of prosocial lies.

Participant's written texts of the *qualitative feedback* were coded by two independent raters; these were two student assistants who worked for the department and were blind to the hypotheses. They were only informed that participants in our study evaluated an essay, which we presented to the coders afterward. The coders were then given a list of the participants' written texts and instructed to rate these texts in terms of kindness and truthfulness on a five-point scale ranging from 1 (*the least*) to 5 (*the most*). According to the same understanding of Paul et al. (2022), the two coders were instructed that kindness is defined "as any attempts to soften or negate negative feedback" (p. 104232), and truthfulness is defined "as any attempts to tell the honest truth about the quality of the essay" (p. 104232). Because the interrater reliabilities were good for the kindness ratings of both coders ($r = 0.69$) and the truthfulness ratings of both coders ($r = 0.64$), and following the same procedure as applied by Paul et al. (2022), the two kindness ratings per participant were averaged into one kindness variable, and the two truthfulness ratings per participant were averaged into one truthfulness variable. In the supplemental material, we present some examples of participants' written texts and their corresponding ratings (see Section 1).²

3. Results

Table 1 shows means, standard deviations, and intercorrelations among the study variables Honesty-Humility, Agreeableness, prosocial lies, kindness and truthfulness.

As hypothesized, (a) Honesty-Humility correlated significantly and positively with prosocial lies ($r = 0.14$, $p = 0.013$, 95 % CI = [0.03; 0.24]). Contrary to the predictions, there was neither (b) a significant positive correlation between Honesty-Humility with kindness ($r = 0.11$, $p = 0.205$, 95 % CI = [-0.06; 0.27]), nor (c) a significant negative correlation between Honesty-Humility with truthfulness ($r = 0.03$, $p = 0.708$, 95 % CI = [-0.13; 0.20]).

In line with the hypothesis, (d) Agreeableness correlated significantly and positively with prosocial lies ($r = 0.13$, $p = 0.021$, 95 % CI = [0.02; 0.23]). Differently than predicted, there was neither (e) a significant positive correlation between Agreeableness and kindness ($r = 0.11$, $p = 0.191$, 95 % CI = [-0.06; 0.27]), nor (f) a significant negative correlation between Agreeableness and truthfulness ($r = -0.05$, $p = 0.570$, 95 % CI = [-0.21; 0.12]) (see Table 1).

We then conducted three linear regression analyses with Honesty-Humility and Agreeableness as predictors for prosocial lies, kindness, and truthfulness as dependent variables (see Table 2).

As shown in Table 2, when included in one shared regression model, neither Honesty-Humility nor Agreeableness proved to be a significant predictor for prosocial lies (all $ps > 0.058$). Regarding kindness and

² To successfully complete the study, participants had to answer all items to measure their Honesty-Humility and Agreeableness scores and they had to complete the first and the second quantitative feedback, resulting in $N = 324$ participants. However, they could complete the study without giving qualitative feedback. Because of these missing data, the following analyses involving the variables kindness and truthfulness are based on $n = 142$ participants.

truthfulness as dependent variables, Agreeableness and Honesty-Humility showed also no significant predictive value in a shared regression model (all $ps > 0.303$).

The supplemental material entails a non-preregistered moderation analysis, testing for a potential interaction between feedback kindness and Honesty-Humility on feedback truthfulness (see Section 2). However, the results of the moderation analysis should be interpreted with caution, because testing for interactions requires higher sample sizes (Blake & Gangestad, 2020).

4. Discussion

In the present research, we aimed to replicate the findings of Paul et al. (2022), who, as a main result of their study, found that the Honesty-Humility trait from the HEXACO model of personality is positively correlated with prosocial lies and feedback kindness, even though the effect sizes must be rated as small. Further, they stated that the HEXACO Agreeableness factor is also positively correlated with prosocial lying and feedback kindness, and negatively correlated with feedback truthfulness.

Partially, the results of our correlation analysis can be considered a successful replication: (a) Honesty-Humility correlated significantly and positively with prosocial lies ($r = 0.14$; original study: $r = 0.14$), and (d) Agreeableness also correlated significantly and positively with prosocial lies ($r = 0.13$; original study: $r = 0.16$). Regarding further predictions about the Honesty-Humility trait, unlike in the original study, we did not find (b) a significant positive correlation between Honesty-Humility and feedback kindness ($r = 0.11$, n. s.; original study: $r = 0.21$), nor (c) a significant negative correlation between Honesty-Humility and feedback truthfulness ($r = 0.03$, n. s.; original study: $r = -0.05$). For the Agreeableness trait, and also unlike in the original study, we were not able to replicate (e) a positive correlation between Agreeableness and feedback kindness ($r = 0.11$, n. s.; original study: $r = 0.18$), nor (f) a negative correlation between Agreeableness and feedback truthfulness ($r = -0.05$, n. s.; original study: $r = -0.19$).

For further testing the hypotheses and in line with the original study, we conducted three linear regression analyses with prosocial lies, feedback kindness, and feedback truthfulness as dependent variables. We simultaneously inserted Honesty-Humility and Agreeableness as predictors in shared regression models, which allows for the control of shared variance. Our results of the shared regression models revealed that under joint control, neither Honesty-Humility nor Agreeableness showed a significant predictive value on prosocial lies, feedback kindness, and feedback truthfulness. In the original study, the authors report a significant beta coefficient ($\beta = 0.16$) for Agreeableness, but a non-significant beta coefficient for Honesty-Humility ($\beta = 0.07$) when analyzing prosocial lies as the dependent variable. The same held true for feedback kindness (Agreeableness: $\beta = -0.21$; Honesty-Humility: $\beta = 0.01$) and feedback truthfulness (Agreeableness: $\beta = 0.15$; Honesty-Humility: $\beta = 0.13$) as dependent variables.

Summarized, when controlling for the shared variance between Honesty-Humility and Agreeableness, the association to prosocial lies becomes weaker. This can be well explained because both traits have one thing in common by definition: people with higher scores have a higher degree of cooperativeness and refrain from exploiting others even if they could without having the fear of retaliation (Ashton & Lee, 2009). This commonality is also evident in the medium-sized intercorrelation between both traits. Therefore, under joint control, the regression analyses are probably underpowered, not only in the original study but also in our replication study.

Through the insights of our replication study, we therefore recommend interpreting the results of the original study of Paul et al. (2022) more cautiously. The effect of Honesty-Humility on prosocial lies appears to be even smaller, especially when controlling for other relevant constructs such as the HEXACO Agreeableness trait. We would also like to emphasize that the original paper in particular emphasizes the role of

Table 1
Means, standard deviations, and correlations among the study variables.

Variable	M	SD	(1)	(2)	(3)	(4)	(5)
(1) Honesty-Humility	3.66	0.55					
(2) Agreeableness	3.03	0.48	0.30***				
			[0.20; 0.40]				
(3) Prosocial lies ^a	0.16	0.50	0.14*	0.13*			
			[0.03; 0.24]	[0.02; 0.23]			
(4) Kindness	3.14	0.96	0.11	0.11	0.18*		
			[-0.06; 0.27]	[-0.06; 0.27]	[0.01; 0.33]		
(5) Truthfulness	3.89	0.83	0.03	-0.05	-0.33***	0.15	
			[-0.13; 0.20]	[-0.21; 0.12]	[-0.47; -0.18]	[-0.01; 0.31]	

Notes. N = 324, but for analyses involving the variables kindness and truthfulness n = 142.
^a As described in the method section, subtracting the mean value of the quantitative pre-rating (M = 2.51, SD = 0.73) from the mean value of the post-rating (M = 2.67, SD = 0.81) resulted in the prosocial lies variable.
 *p < 0.05. **p < 0.01. ***p < 0.001.

Table 2
Regression Coefficients on Prosocial Lies, Kindness, and Truthfulness.

DV	Predictor	B	SE B	95 % CI LL	UL	β	R
Prosocial lies (N = 324)	Honesty	0.10	0.05	-0.003	0.20	0.11	0.17
	Agree	0.10	0.06	-0.02	0.22	0.10	
Kindness (n = 142)	Honesty	0.14	0.15	-0.14	0.43	0.09	0.14
	Agree	0.17	0.16	-0.15	0.48	0.09	
Truthfulness (n = 142)	Honesty	0.07	0.13	-0.18	0.31	0.05	0.07
	Agree	-0.09	0.14	-0.37	0.18	-0.06	

Notes. DV = dependent variable, Honesty = Honesty-Humility, Agree = Agreeableness, SE=standard error; 95 % CI = confidence interval for B; LL = lower limit; UL = upper limit;
 *p < 0.05. **p < 0.01. ***p < 0.001.

Honesty-Humility in predicting prosocial lying behavior, whereas we interpret the data in such a way that it is rather the commonality of Honesty-Humility and Agreeableness.

4.1. Limitations

Specifically, regarding our replication study, it must be criticized that we only have data from n = 142 participants for their qualitative feedback (from which the variables kindness and truthfulness result), so it is unclear whether the non-significant results concerning these variables are due to low power or the actual non-existence of these effects.

Furthermore, different researchers criticize the use of difference scores as unreliable (e.g., Cronbach & Furby, 1970). As Gollwitzer et al. (2014) noted, this criticism only held true if the two measures of which the difference score is calculated have the same standard deviation and if the measure’s reliability does not change over time. As reported within the notes of Table 1, the standard deviations from the quantitative ratings increase from the pre-rating to the post-rating, implying interindividual differences in how much individual participants improved their quantitative ratings, which positively influences the reliability of the difference scores (for more details, see Gollwitzer et al., 2014). Thus, the use of difference scores measuring prosocial lies can be considered as reliable from a methodological perspective; however, we offer critique aimed more at a theoretical level.

Hereby, we want to point out that we are critical of defining the measured deceptive behavior as prosocial lying behavior. The authors of the original study argue that the improvement of the second quantitative feedback was possibly to avoid hurting the essay writer’s feelings. However, if looking at the mean values of the first and second feedback of our replication study (which were not reported in the original study), it appeared that both mean values are around the midpoint of the scale. Even if the second feedback was better, it may still be in an area with the potential to hurt the (fictional) essay writer. In principle, terms for

different lying motives are not used uniformly throughout the deception literature. To describe a specific lying behavior as prosocial, however, at least the criterion that another person benefits from the lie should be fulfilled. In the present case, however, we question this and consider the designation of the measurement as prosocial lies to be inappropriate. Additionally, it is not clear whether the participants perceived the change in their second feedback as active deceptive behavior at all or whether they perceived it as a kind of politeness.

Regarding the generalizability of the results of both the original study and our replication study, it should be critically noted that more women than men were assessed. Further, both samples can be designated as WEIRD, meaning that participants are drawn from populations that are white, educated, industrialized, rich, and democratic. Hence, the transferability of the present findings to more diverse populations is still in question.

5. Conclusion

Even though we successfully replicated the positive correlations between prosocial lies with Honesty-Humility and Agreeableness, we interpret the results somewhat differently and more cautiously than the authors of the original study. When controlling for other relevant constructs such as the HEXACO Agreeableness trait, the association between Honesty-Humility and prosocial lies appears to be (a) smaller than postulated in the original study and (b) at least as equivalently strong as the correlation between Agreeableness and prosocial lies, consequently not supporting the outstanding role of Honesty-Humility in predicting prosocial lies as postulated by Paul et al. (2022).

Author contribution

The study programming and data collection was performed by L. Hoppe and M. Mikesch. N. Reinhardt has analyzed the data and drafted the manuscript. M.-A. Reinhard provided critical comments in several revision loops. All authors approved the final version of the manuscript

for submission.

CRedit authorship contribution statement

Nina Reinhardt: Writing – review & editing, Writing – original draft, Supervision, Methodology, Formal analysis, Conceptualization. **Magdalena Mikesch:** Software, Data curation, Conceptualization. **Lennart Hoppe:** Software, Data curation, Conceptualization. **Marc-André Reinhard:** Writing – review & editing, Supervision.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

I have shared the link to data, syntax and materials in the method section.

References

- Ashton, M. C., & Lee, K. (2007). Empirical, theoretical, and practical advantages of the HEXACO model of personality. *Personality and Social Psychology Review*, 11(2), 150–166. <https://doi.org/10.1177/1088868306294907>
- Ashton, M. C., & Lee, K. (2009). The HEXACO–60: A short measure of the major dimensions of personality. *Journal of Personality Assessment*, 91(4), 340–345. <https://doi.org/10.1080/00223890902935878>
- Blake, K. R., & Gangestad, S. (2020). On attenuated interactions, measurement error, and statistical power: Guidelines for social and personality psychologists. *Personality & Social Psychology Bulletin*, 46(12), 1702–1711. <https://doi.org/10.1177/0146167220913363>
- Brandt, M. L., Ijzerman, H., Dijksterhuis, A., Farach, F. J., Geller, J., Giner-Sorolla, R., Grange, J. A., Perugini, M., Spies, J. R., & van't Veer, A. (2014). The replication recipe: What makes for convincing replication? *Journal of Experimental Social Psychology*, 50, 217–224. <https://doi.org/10.1016/j.jesp.2013.10.005>
- Cronbach, L. J., & Furby, L. (1970). How we should measure “change”: Or should we? *Psychological Bulletin*, 74, 68–80.
- Fleeson, W. (2020). Live simply so that others may simply live: Trying to get clarity on the meaning of honesty/humility. *European Journal of Personality*, 34(4), 524–526.
- Gollwitzer, M., Christ, O., & Lemmer, G. (2014). Individual differences make a difference: On the use and the psychometric properties of difference scores in social psychology. *European Journal of Social Psychology*, 44, 673–682. <https://doi.org/10.1002/ejsp.2042>
- Heck, D. W., Thielmann, I., Moshagen, M., & Hilbig, B. E. (2018). Who lies? A large-scale reanalysis linking basic personality traits to unethical decision making. *Judgement and Decision Making*, 13(4), 356–371. <https://doi.org/10.1017/S1930297500009232>
- Hilbig, B. E., & Zettler, I. (2015). When the cat's away, some mice will play: A basic trait account of dishonesty behavior. *Journal of Research in Personality*, 57(1), 72–88. <https://doi.org/10.1016/j.jrp.2015.04.003>
- Kleinogel, E. P., Dietz, J., & Antonakis, J. (2018). Lucky, competent, or a just a cheat? Interactive effects of Honesty-Humility and moral cues on cheating behavior. *Personality and Social Psychology Bulletin*, 44(2), 158–172. <https://doi.org/10.1177/0146167217733071>
- Lupoli, M. J., Jampol, L., & Oveis, C. (2017). Lying because we care: Compassion increases prosocial lying. *Journal of Experimental Psychology*, 146, 1026–1104. <https://doi.org/10.1037/xge0000315>
- Maxwell, S. E., Lau, M. Y., & Howard, G. S. (2015). Is psychology suffering from a replication crisis? What does “failure to replicate” really mean? *The American Psychologist*, 70(6), 487–498. <https://doi.org/10.1037/a0039400>
- Müller, S., & Moshagen, M. (2019). True virtue, self-presentation, or both? A behavioral test of impression management and overclaiming. *Psychological Assessment*, 31(2), 181–191. <https://doi.org/10.1037/pas0000657>
- Paul, A. A., Lee, K., & Ashton, M. C. (2022). Who tells prosocial lies? A HEXACO model investigation. *Journal of Research in Personality*, 98, Article 104232. <https://doi.org/10.1016/j.jrp.2022.104232>
- Pfattheicher, S., Schindler, S., & Nockur, L. (2018). On the impact of Honesty-humility and a cue of being watched on cheating. *Journal of Economic Psychology*, 71, 159–174. <https://doi.org/10.1016/j.joep.2018.06.00>
- Reinhardt, N., & Reinhard, M.-A. (2023). Honesty–humility negatively correlates with dishonesty in romantic relationships. *Journal of Personality and Social Psychology*. Advanced online publication. DOI: 10.1037/pspp0000456.
- Ścigala, K. A., Schild, C., & Zettler, I. (2020). Dishonesty as a signal of trustworthiness: Honesty-Humility and trustworthy dishonesty. *Royal Society Open Science*, 7(10), Article 200685. <https://doi.org/10.1098/rsos.200685>
- Thielmann, I., Hilbig, B. E., Klein, S. A., Seidl, A., & Heck, D. W. (2023). Cheating to benefit others? On the relation between Honesty-Humility and prosocial lies. *Journal of Personality*. <https://doi.org/10.1111/jopy.12835>
- Thielmann, I., Hilbig, B. E., Zettler, I., & Moshagen, M. (2016). On measuring the sixth basic personality dimension: A comparison between HEXACO Honesty-Humility and Big Six Honesty-Propriety. *Assessment*, 24(8), 1024–1103. <https://doi.org/10.1177/1073191116638411>