# The Dishonesty Dance: How the Feeling of Injustice Makes You Want to Behave Dishonestly (But Maybe Your Inner Saint Can Stop You?)

Francesca May

S4739051

Department of Psychology, University of Groningen

PSB3E-BT15: Bachelor Thesis

Group number: 44

Supervisor: Ben Gützkow

Second Evaluator: Charlie Walker Clarke

In collaboration with: Isabel Bünger, Rebekka Damm, Isabelle de Groote, and Leopold von

Ludwig

June 21, 2024

#### **Abstract**

All dishonesty is not evaluated equally, especially when in possession of justification for it. Indeed, research suggests a feeling of injustice is commonly used to rationalise cheating, seen as a way to restore a sense of justice. The current study investigated whether perceived injustice due to misfortune leads to self-serving dishonesty where there are no consequences for others. Further, the strength of an honest self-concept was introduced as a previously unmeasured interaction effect, with the hypothesis that a stronger desire to see oneself as honest would attenuate the impact of injustice on dishonesty. An experiment was conducted online with a sample of first-year psychology students, where a between-measures design (*n* = 52) was utilised to manipulate the feeling of injustice. Our findings did not indicate an induced feeling of injustice increased dishonest behaviour, nor was there an impact of a strong honest self-concept mitigating this effect. We urge future research to replicate our methodology with a larger sample, as the current results are inconclusive given the small sample size.

*Keywords:* perceived injustice, perceived unfairness, dishonesty, dishonest behaviour, self-serving dishonesty, theory of self-concept maintenance, moral default

# The Dishonesty Dance: How the Feeling of Injustice Makes You Want to Behave Dishonestly (But Maybe Your Inner Saint Can Stop You?)

Any behaviour deliberately lacking in integrity is defined as dishonest behaviour. Such behaviour is common, and it tends to be perceived negatively. However, all dishonest behaviours fall along a continuum of how negatively judged they are (Talwar, 2011; Tyler et al., 2006). Employees steal from their workplace (Greenberg, 1990; Mazar & Ariely, 2006), university students copy others' work (Baran & Jonason, 2020), and people borrow things without asking (Mazar et al., 2008). Despite their differences in severity, dishonest actions often stem from a desire to restore a feeling of injustice (Kaliuzhna, 2020; Li et al., 2022; Shalvi et al., 2012). For example, employees might steal when they feel they are underpaid, ostensibly to recuperate their perceived losses. Students may need to work substantial hours to finance their studies and feel justified in getting an unjust advantage elsewhere to stay on track. Someone who feels they have been subject to unfair treatment by their sibling may steal a property of that sibling as a way of 'getting back'. Dishonest behaviours are thus not always equal in the eyes of the perpetrator. In fact, humans have an inherent need for justice (Taylor, 2003), demonstrated by how sensitive we are to fairness, even from a young age (Decety & Yoder, 2015). Equity theory (Adams, 1963) further supports this, positing that individuals compare inputs and outputs to a referent other, and perceived inequity motivates restoration through adjustments in these inputs or outputs. This essentially means that an unmet need for justice creates a reaction, with dishonesty being a tempting response. The resulting consequences of such behaviour can be multifaceted and far-reaching, impacting both oneself and others. This can manifest in for example decreased work contribution (Adams, 1963) and a feeling of dissonance when choosing to cheat, due to the desire to uphold a positive self-image (Mazar et al., 2008; Shalvi et al., 2012;). A feeling of unfairness can thus make anyone cheat. Therefore, this research aims to explore this complex

relationship, helping us understand how feelings of injustice can influence even the most ethical of individuals to act dishonestly.

As demonstrated by the examples above, some may restore a sense of equilibrium by acting dishonestly, and this appears to happen cross-culturally (Greenberg 1990; Houser et al., 2012; Li et al., 2022). Due to the perceived disrespect or lack of reciprocity unjust treatment may indicate (Zitek et al., 2010), emotional responses to injustice, such as anger, disappointment, or a desire to retaliate are common (Leib et al., 2019). Consequently, individuals may be more likely to justify subsequent dishonest actions without feeling that they are transgressing (Shalvi et al., 2012). The dynamic can arguably create a vicious cycle, where unjust treatment leads to dishonest behaviour, in turn potentially making others feel unfairly treated, and so on. Moreover, the feeling of injustice appears to also be motivated by misfortune (Gaucher et al., 2009). This is supported by the fact that the experience of undeserved treatment tends to result in negative emotions (Feather & McKee, 2009), and that people appear to be more dishonest when unfortunate (Mourminoux, 2023). Therefore, it seems our heightened sensitivity to injustice creates a vulnerability to acting dishonestly, regardless of its cause.

While honesty is highly valued in many societies (Le et al., 2022), reasons beyond injustice explain the occurrence of dishonesty. Since people can justify almost anything to themselves through motivated, directional reasoning (Kunda, 1990), one of the first theories to explain why we do so with dishonesty was expected utility theory (Becker, 1968). Utilising cost-benefit analysis, it suggests people will always choose the option with the highest potential reward, even if it involves dishonesty. Moreover, self-interest also appears to be a strong motivator for cheating (Shalvi et al., 2012; Zhang et al., 2024), especially 'when no one is watching' (Denisova-Schmidt et al., 2022). In fact, anonymity can further amplify the tendency to see dishonest acts as acceptable (Mazar et al., 2008), but again only to an extent

to which you can convincingly justify them (Shalvi et al., 2015). Yet, from a cost-benefit perspective, the chances of being caught are substantially decreased in anonymous situations, leading to a higher observed incidence of cheating (Denisova-Schmidt et al., 2022). Additionally, one could posit that in victimless situations, a person may feel that they have nothing to lose by being dishonest. Therefore, in the context of cost-benefit analysis and from a self-serving bias perspective, the questions is why would you *not* act dishonestly, especially when you feel you have been unfairly treated?

# Self-Serving Bias and the Theory of Self-Concept Maintenance

Experiencing a sense of injustice is not the same as acting on it. Certainly, recent research discovered people may not always seek the maximum dishonest gain (Capraro & Rand, 2018; Gerlach et al., 2019) and despite an award becoming available, they are unlikely to lie even when the required lie is only small (Shalvi et al., 2010). Moreover, despite people engaging in dishonest behaviour that negatively impacts others (Gino & Ayal, 2012), severe costs to others appear to keep people from acting dishonestly (Murphy et al., 2020) and individuals do not engage in dishonesty lightly even in victimless scenarios (Houser et al., 2012, Shalvi et al., 2010).

What appears to deter dishonesty are internal motivations such as avoiding guilt and upholding morals (Murphy et al., 2020). The reasoning behind such motivations is explained by the theory of self-concept maintenance (Mazar et al., 2008). In this framework, humans have a desire to view themselves positively, which includes being an honest person. Dishonest behaviour, however, clashes with this positive self-view, creating a feeling of dissonance (Festinger, 1957). To reduce this dissonance and to maintain an honest self-concept, people either (1) avoid engaging in dishonest behaviour or (2) justify why this specific dishonest behaviour does not make them a bad person. In the latter case, individuals *categorise* their dishonest actions as less dishonest based on the *malleability* 

(reinterpretability) of the act and their personal *limit*, the point at which the act becomes too dishonest (Mazar et al., 2008). This aligns with the fact that people are more likely to be dishonest when they have a way of justifying their actions (Shalvi et al, 2010). To reduce dissonance, the choice to act dishonestly arguably depends on the strength of their self-concept as a fundamentally honest person.

Previous studies have established how dishonest behaviour is influenced by self-concept maintenance (Shalvi et al., 2010, 2012, 2015) and how it is driven by perceived injustice (Li et al., 2022; Zhang et al., 2024). However, to our knowledge, no previous study has examined how these factors interact. Building on prior research, we would expect that individuals with a strong honest self-concept have a high threshold for engaging in dishonest behaviour (Speer et al., 2020) even when they feel unjustly treated. In contrast, those with a weaker honest self-concept may be more susceptible to restoring feelings of justice through dishonest actions.

#### **The Present Research**

Feeling unjustly treated should make it more likely for people to self-servingly tell themselves that it is acceptable to be dishonest. Studies have investigated the effect of random allocation on participant's likelihood to engage in dishonest behaviour, even when it does not directly impact others (Gill et al., 2013; John et al., 2014) and how misfortune impacts dishonesty (Mourminoux, 2023). Therefore, considering an anonymous situation with arguably no cost to oneself nor to others, we build on previous research by examining how perceived injustice due to misfortune influences dishonest behaviour. We hypothesise that:

Hypothesis 1: Individuals who perceive injustice are more likely to engage in dishonest behaviour in pursuit of a reward in a victimless situation, compared to those who do not perceive such injustice.

To the authors' knowledge, no study other than Houser et al., (2012) has specifically combined the elements of misfortune and a subsequent feeling of injustice, and how this leads to victimless dishonest behaviour. However, the authors focused solely on the immediate effect. Understanding dishonesty in such situations might be more nuanced. Research presented above suggests a strong honest self-concept could mitigate the effect of perceived injustice on dishonest behaviour. Mazar et al., (2008) demonstrated reduced dishonesty when the participants were reminded of their own moral standards, creating a tighter range for acceptable dishonest behaviours. In this study, we use a similar reminder with our participants in order to measure the strength of their honest-self concepts. Despite this, we argue that the malleability and limit of the opportunity for dishonesty easily allows for categorising the dishonest act as less dishonest. Thus, a higher likelihood of dishonesty should occur regardless of participants' awareness of their own moral standards, especially when the participants feel unjustly treated. Therefore, we extend previous research by measuring how the desire to maintain an honest self-concept interacts with the main effect of perceived injustice and dishonesty. We hypothesise that:

Hypothesis 2: The effect in H1 is moderated by the strength of a person's honest self-concept. Specifically, a strong honest-self-concept attenuates the effect of perceived injustice on dishonest behaviour.

#### Methods

## **Participants**

Between 6<sup>th</sup> May 2024 and 17<sup>th</sup> May 2024, a total of 52 first-year B.Sc. Psychology students completed our study through the University of Groningen's online participants' pool SONA by means of self-selection. Of the participants, 39 identified as female, 10 identified as male, and 3 as non-binary or other. The questionnaire and experiment was completed in English.

#### Procedure

The current study employed a between-subjects experimental design. *Experimental Condition* served as the independent variable, representing the two study conditions (an 'easy' task condition; n = 26 vs. a 'hard' task condition; n = 26), and *Reported Difficulties* functioned as the main dependent measure. We received ethics approval from the Faculty of Behavioural and Social Sciences (BSS) ethics committee at the University of Groningen.

The study made use of deception at multiple points throughout. To obfuscate its true nature, the study was conducted in two parts. In the first part, participants were asked to fill out a questionnaire that included all moderating measures. The questionnaire was introduced as a questionnaire about attitudes towards moral judgment to be used in another project.

The second part featured the experimental manipulation and dependent variable. Multiple steps were taken to induce a feeling of injustice. The purpose of the study was framed as assessing mechanisms of reading comprehension in two different conditions. Participants were told they would randomly be allocated to either the 'easy' task condition or the 'hard' task condition. Furthermore, the participants were falsely informed that the 'easy' task would require half as much time as the 'hard' task. In reality, all participants were given the same task (see Appendix A for survey instructions). This was to first read a text and to then perform a cognitive and a reading comprehension task. They were presented with a visual overview of the fictitious conditions, which depicted a short text for the 'easy' condition, and a long text for the 'hard' condition. The text itself was an excerpt of a cognitive neuroscience article (Westö et al., 2016), which included many technical terms that are likely to be unfamiliar to first-year students.

Participants were instructed that they would have to answer questions about the text.

All were informed that correct answers could be rewarded with bonus SONA credits.

Participants in the 'easy' condition were told that they would need to provide correct answers

on a majority of questions to receive the bonus, whereas participants in the 'hard' condition were told that they would need to answer all questions correctly (see Appendix B for manipulation texts). In reality, one of the questions was impossible to answer based on the text. This guaranteed that all participants in the hard condition would experience failure. The above steps were taken to induce a perception of injustice in the participants. Namely, those allocated to the 'hard' condition would have to do substantially more work to than their 'easy' counterparts to be eligible for the bonus.

At the end of the study, participants were asked to indicate whether they had any issues with reading comprehension or other problems that could have hindered their performance, which is the dependent variable of this study. Namely, this acted as the opportunity for dishonesty: participants received bonus SONA credits it they indicated at least one difficulty, regardless of correctly answered questions. A reminder was present that participants could not be identified by the researchers.

#### Measures

This study was part of a larger survey, therefore only measures employed in the current investigation will be described.

# Reported Difficulties

To capture dishonest behaviour, participants were provided with the opportunity to be dishonest by indicating that they had difficulties performing the reading task. They were presented with six statements on reading and/or concentration difficulties that could have affected their performance. Participants indicated agreement with a statement by a box tick. This was introduced as a way to account for legitimate reasons why someone would be disadvantaged in this study. If an induced perception of injustice indeed leads to more dishonest behaviour, more participants would indicate having difficulties in the 'hard' condition than in the 'easy' condition – to still be eligible for the bonus SONA credits.

Examples of box items included 'It is hard for me to pay attention for longer periods of time' or 'something distracted me during the study' (see Appendix C for full list of box items).

# Strength of an Honest Self-Concept

Assessment of the strength of a person's honest self-concept was done using a subset of items from Black and Reynolds' (2016) Moral Identity Questionnaire (MIQ), divided into the Moral Integrity subscale (MIQ-MI) and the Moral Self subscale (MIQ-MS). Items were picked based on perceived relevance for the study. The MIQ-MI included items such as 'it is more important that people think you are honest than being honest' and 'lying and cheating are just things you have to do in this world'. The MIQ-MS included items such as 'one of the most important things in life is to do what you know is right' and 'I want other people to know they can rely on me' (see Appendix D for full list of items). Cronbach's alpha was 0.89 for the MIQ-MI and 0.90 for the MIQ-MS. Answers were rated on a 6-point Likert scale (1 = strongly disagree, 6 = strongly agree), with a lower score indicating a stronger concern for being honest.

#### Results

Logistic regression analysis was conducted using JASP (version 0.18.3.0) to test the effect of perceived injustice on Reported Difficulties. A moderating effect of the strength of a person's honest self-concept, measured with the Moral Identity Questionnaire (MIQ), (consisting of the subscale MIQ-MI and subscale MIQ-MS) was further conducted to test its effect on the likelihood to be dishonest in face of perceived injustice (see Table 1 for descriptive statistics).

The dependent variable, Reported Difficulties, was categorical in nature, with participants ticking box items of Reported Difficulties. Up to six boxes could be ticked, but for the sake of this analysis, dummy-coding was used to reflect the difference between any boxes ticked or none (1 = yes, 0 = no). Observations were coded as dishonest behaviour if

participants picked any box item. The independent variable, Experimental Condition, was coded as either a 'hard' task condition or an 'easy' task condition. As a first indication, more participants in the 'hard' condition (expected to induce a stronger feeling of perceived injustice) ticked at least one box (M = 0.77, SD = 0.43) than in the 'easy' condition (M = 0.65, SD = 0.48) (see Table 2 for descriptive statistics and Figure 1 for plot).

Pearson's correlation coefficients indicated a non-significant negative association between MIQ and perceived injustice (r = -0.04, p = 0.80) and a non-significant negative correlation between Reported Difficulties and MIQ (r = -0.06, p = 0.70) (see Table 3 for correlations). The Chi-square test of independence was performed to examine the model fit and significance of the relationship between Reported Difficulties and perceived injustice. We measured a non-significant association between these variables ( $\chi 2$  (1) = 0.84, p = 0.36), indicating the model provides no evidence for increased dishonest behaviour in the 'hard' task condition due to perceived injustice.

#### **Logistic Regression Analysis**

We conducted a logistic regression analysis to test our two hypotheses. Reported Difficulties was entered as the dependent variable, Experimental Condition as the independent variable, and the centered moderator, MIQ (consisting of MIQ-MI and MIQ-MS), as a covariate to test the interaction effect (see Table 4 for coefficients table). First, we tested the main effect of perceived injustice on Reported Difficulties (H1). A non-significant positive trend was found of the difference in Reported Difficulties between the two conditions of perceived injustice (OR = 1.75, W = 0.79, p = 0.38). Therefore, our results indicate that despite a nominally higher rate of Reported Difficulties in the 'hard' condition, this difference is non-significant. No evidence of dishonest behaviour in the 'hard' task condition was thus observed, rejecting hypothesis 1.

Second, we tested the interaction effect of the strength of a person's honest self-concept using the MIQ on Reported Difficulties (H2). Participants were divided into two groups based on their MIQ score. A median split was used, creating a low-scoring group (scores below 3.5) and a high-scoring group (scores at or above 3.5). Despite a visual trend suggesting a potential interaction (see Figure 2 for association plot), we measured a non-significant effect for this relationship as well (OR = 1.94, W = 0.32, p = 0.58). This means the strength of a person's honest self-concept did not moderate the effect of perceived injustice on dishonest behaviour. Therefore, hypothesis 2 was also rejected.

#### **Discussion**

Previous research suggests that dishonest behaviour is fuelled by feelings of injustice (Houser et al., 2012; Li et al., 2022), by providing individuals with justification for their actions (Shalvi et al., 2012). On the basis of this, we conducted an experiment where participants were randomly allocated to either an 'easy' task condition or a 'hard' task condition, with the latter designed to induce a feeling of injustice. We hypothesized that a feeling of perceived injustice in participants would impact their propensity for dishonesty. Specifically, we predicted individuals who felt unfairly treated would be more prone to dishonesty, especially when the opportunity offered a reward without causing harm to others. However, research on susceptibility for dishonest behaviour suggests that the choice for acting dishonestly is carefully weighed against the need to update one's self-concept. This is summarised in the theory of self-concept maintenance, stating people have an innate desire to see themselves as honest (Mazar et al., 2008). Therefore, we hypothesised that a strong desire to maintain an honest self-concept would counteract feelings of injustice and prevent the triggering of dishonest behaviour.

The results did not support our hypotheses. Counter to H1, inducing a feeling of unjust treatment did not increase the likelihood of acting dishonestly. Regarding H2, there

was no support for the strength of a person's honest self-concept impacting on the relationship between perceived injustice and dishonest behaviour. Thus, we found no evidence that a strong honest self-concept affects the likelihood of dishonest action even when there is a feeling of unjust treatment. Though the sample size was restricted, it is worth noting, however, that a positive trend, albeit non-significant, was detected in our results for H1. In other words, slightly more participants were inferred as being dishonest in the 'hard' task condition, where we would expect a stronger feeling of injustice occurred, than in the 'easy' task condition. Therefore, the data point in the direction we hypothesised. Moreover, a visual trend for a potential interaction was detected for H2, suggesting a strong honest self-concept might weaken the relationship between perceived injustice and dishonesty.

Nevertheless, our non-significant results for both hypotheses prevent us from making far-reaching conclusions.

# **Implications**

Despite the small sample size, some implications can be discussed. Our findings for our first hypothesis are not in line with previous studies reporting that feelings of injustice promote dishonesty (Houser et al., 2012; Leib et al., 2019; Li et al., 2022), as does unfortunate treatment (Mourminoux, 2023). Additionally, as a result of a cost-benefit analysis, dishonesty has been found to be more likely in situations where there is a low chance of being caught (Gino et al., 2009), such as in anonymous situations (Mazar et al., 2008). However, newer research challenges these findings, and might partly explain the results of the current study. That is, people do not always lie for personal gain, even when anonymity is assured (Shalvi et al., 2015), and especially when there is no justification for lying (Shalvi et al., 2012). Nevertheless, perceived injustice could be used as a justification for lying (Greenberg, 1990; Houser et al., 2012), and therefore it is surprising that this was not the case in our study. Thus, despite conflicting findings on the occurrence of dishonesty,

existing research on the relationship between injustice and dishonesty contradicts what we discovered. Arguably, however, with higher statistical power, we may have detected a significant difference between the two task conditions, since the direction of the relationship was in line with our hypothesis.

While no one, to our knowledge, has tested the moderating effect of a person's honest self-concept on the relation between perceived injustice and dishonesty, prior research has suggested that a person's honest self-concept does have an impact on whether a person chooses to act dishonestly. Specifically, people differ in their moral default, where individuals with a stronger sense of seeing themselves as honest engage in more internal thinking when faced with an opportunity to be dishonest (Abe, 2020; Speer et al., 2020). In contrast, cheaters have been found to be more sensitive to the lure of rewards in such situations (Speer et al., 2020). A possible link between dishonesty and attitude has also been suggested. Halevy et al., (2013) reported that those who deceive more often may have a less negative attitude towards dishonesty. In the authors' view, this suggests that a desire to maintain an honest selfconcept may not impact frequent liars as much as non-frequent liars. Presumably, an honest self-concept is thus weaker in frequent liars. Therefore, it is possible that frequent liars have a lowered need to maintain an honest self-concept, making them more susceptible to dishonesty when feeling unjustly treated. In light of this research, there appears to be several individual factors that influence the strength of a person's honest self-concept. How this fits into the relationship of injustice and dishonesty, however, requires further investigation.

## Strengths, Limitations, and Future Directions

Despite the results being non-significant, the strengths of our study are worth mentioning, as they could be included in future research to maximise success. First, the study had high ecological validity, meaning it took place in a realistic scenario, embedded in a context the participants were required to be in (the SONA research programme). Second, our

manipulation was a real scenario. This contributed to high experimental realism of our study, as it is likely that we induced a real psychological state of perceived injustice in participants. However, because the feeling of injustice is subjective (Houser et al., 2012), future research could measure participants' perceptions of the feeling, albeit at the expense of potentially impacting participants' degree of dishonesty. Third, our dependent variable was actual behaviour observed during the study, rather than self-reported predictions about future behaviour. Thus, we measured objective data in a realistic situation, meaning the data had high accuracy and good ecological validity. Lastly, participants took part in the study to collect SONA credits, a valued resource for the population in question. This created a genuine reason to act dishonestly in pursuit of bonus SONA credits in the moment.

The main limitation of the study was the small sample size, resulting in overall low power, and thus a smaller likelihood of accurately detecting the true difference in the effects of low and high perceived injustice. Future research is thus needed where a significantly larger number of participants are recruited, preferably using simple random sampling to avoid bias. The external validity of the study was further compromised due to the sample only consisting of first-year students at the University of Groningen. Moreover, despite the seemingly limitless nature of SONA credits, in theory there could be a scenario where dishonest behaviour by one participant restricts their availability for others. Thus, we cannot say with certainty whether our findings would apply to other populations as well as to other contexts, especially where the reward for dishonesty is finite. Therefore, it could be of interest for future research to expand the current approach, for example, looking at cultural differences in relation to injustice. Previous research has hinted at differences in cultural norms that impact the perceived injustice people experience in the same situation (Adams, 1963), and this could carry over to cultural differences in the kinds of situations where dishonest behaviour occurs. Further, it could also be considered whether these cultural

differences impact sensitivity to cheating for a reward, and how a person's honest selfconcept moderates this impact.

Moreover, demand characteristics may have impacted the results of our study. Specifically, being asked questions related to injustice prior to being introduced to the experimental manipulation impacted on how some of the participants interpreted the study, with one participant explicitly stating it prevented them from cheating. This relates to the conclusion of Mazar et al., (2008), that by drawing attention to the moral standards of the participants before the opportunity of being dishonest presents itself, it can decrease the likelihood to act dishonestly. Priming of moral standards and its impact on dishonesty is strongly supported by research (Rosenbaum et al., 2014). Thus, it could be of interest for future research to counterbalance the order of presentation, with half of the participants being given the questionnaire on a separate day after the experiment. This would allow one to investigate the priming effect of the questionnaire, to see whether attention to one's own moral standards influence participants' behaviour in the experiment. Further, it could be of interest to investigate if a more powerful feeling of injustice can outweigh the influence of attention to one's moral standards, as our study might not have induced a strong enough sense of unfairness to generate this effect. Lastly, dishonesty was inferred in our study rather than directly measured. To be eligible for the reward of bonus SONA credits, participants could indicate whether they had experienced any difficulties with the task in the experiment. We assumed that if feelings of injustice truly increase dishonesty, participants in the 'hard' task condition would report difficulties more often than participants in the 'easy task condition. Despite previous research having used direct observation to detect cheating with the help of cameras (Ong et al., 2023), this could influence demand characteristics and cause participants to change their behaviour. Therefore, we urge future researchers to measure dishonesty more reliably, using a methodology similar to ours, by for example pre-screening participants true

characteristics and behaviour relevant to the presented difficulties long before they take part in the actual study, to account for carryover effects.

In light of these considerations, we believe this research area holds significant value and potential for future discoveries. Previous research has demonstrated individuals choose honesty even in entirely victimless situations. Moreover, even when something could be gained by being dishonest, individuals cheat but not to the full extent (Shalvi et al., 2010). In our study, we made it as easy as possible to be dishonest. We required no proof from participants on the validity of their reported difficulties with the task and the answers of the participants were kept anonymous. Furthermore, we used bonus SONA credits as the reward for being dishonest, a valuable resource for first-year psychology students seeking to fulfil course requirements, but whose value cannot be directly compared to for example real money. Additionally, inducing a feeling of injustice should have made the choice to cheat even more desirable (Houser et al., 2012). Yet, we found no significant effects in relation to our hypotheses. While our limited sample size may have contributed to this outcome, these findings highlight the complexity of factors influencing honesty. Thus, it is of interest to delve deeper into the psychological mechanisms that promote honesty even when external pressures encourage dishonesty.

#### **Conclusion**

Taken together, despite trends that supported both hypotheses, our results did not find statistically significant support for an induced feeling of perceived injustice leading to an increase in dishonest behaviour, contradicting previous research. Further, we found no support for a strong honest self-concept preventing dishonesty when feeling unjustly treated. Therefore, it remains unclear what role a person's desire to maintain an honest self-concept plays. Our main limitation was a small sample size, unrepresentative of a larger population. Consequently, we urge the need for future replications with larger samples. The strengths of

the study - including high ecological validity, a realistic scenario manipulation, and an objective measure of dishonesty - provide a valuable foundation for future research into how perceived injustice influences dishonesty.

#### References

- Abe, N. (2020). Overriding a moral default for honesty or dishonesty. *Proceedings of the National Academy of Sciences of the United States of America*, 117(36), 21844–21846. https://doi.org/10.1073/pnas.2014489117
- Adams, J. S. (1963). Towards an understanding of inequity. *The Journal of Abnormal and Social Psychology*, 67(5), 422–436. https://doi.org/10.1037/h0040968
- Baran, L., & Jonason, P. K. (2020). Academic dishonesty among university students: The roles of the psychopathy, motivation, and self-efficacy. *PLOS ONE*, *15*(8), e0238141. https://doi.org/10.1371/journal.pone.0238141
- Becker, G. S. (1968). Crime and Punishment: an economic approach. *Journal of Political Economy*, 76(2), 169–217. https://doi.org/10.1086/259394
- Black, J. E., & Reynolds, W. M. (2016). Development, reliability, and validity of the Moral Identity Questionnaire. *Personality and Individual Differences*, 97, 120–129. https://doi.org/10.1016/j.paid.2016.03.041
- Capraro, V., & Rand, D. G. (2018). Do the Right Thing: Experimental evidence that preferences for moral behavior, rather than equity or efficiency per se, drive human prosociality. *Judgment and Decision Making*, *13*(1), 99–111. https://doi.org/10.1017/s1930297500008858
- Decety, J., & Yoder, K. J. (2015). Empathy and motivation for justice: Cognitive empathy and concern, but not emotional empathy, predict sensitivity to injustice for others.

  \*Social Neuroscience\*, 11(1), 1–14. https://doi.org/10.1080/17470919.2015.1029593
- Denisova-Schmidt, E., Huber, M., & Prytula, Y. (2022). Perceived anonymity and cheating in an online experiment. *Eastern European Economics*, 60(6), 540–558. https://doi.org/10.1080/00128775.2022.2114913

- Feather, N. T., & McKee, I. (2009). Differentiating emotions in relation to deserved or undeserved outcomes: A retrospective study of real-life events. *Cognition & Emotion*, 23(5), 955–977. https://doi.org/10.1080/02699930802243378
- Festinger, L. (1957). A theory of cognitive dissonance. In *Stanford University Press eBooks*. https://doi.org/10.1515/9781503620766
- Gaucher, D., Hafer, C. L., Kay, A. C., & Davidenko, N. (2009). Compensatory rationalizations and the resolution of everyday undeserved outcomes. *Personality and Social Psychology Bulletin*, *36*(1), 109–118. https://doi.org/10.1177/0146167209351701
- Gerlach, P., Teodorescu, K., & Hertwig, R. (2019). The Truth About Lies: A meta-analysis on dishonest behavior. *Psychological Bulletin*, *145*(1), 1–44. https://doi.org/10.1037/bul0000174
- Gill, D., Prowse, V. L., & Vlassopoulos, M. (2013). Cheating in the workplace: An experimental study of the impact of bonuses and productivity. *Journal of Economic Behavior and Organization*, 96, 120–134. https://doi.org/10.1016/j.jebo.2013.09.011
- Gino, F., & Ayal, S. (2012). Honest rationales for dishonest behavior. In *American*Psychological Association eBooks (pp. 149–166). https://doi.org/10.1037/13091-008
- Gino, F., Ayal, S., & Ariely, D. (2009). Contagion and differentiation in unethical behavior.

  \*Psychological Science\*, 20(3), 393–398. https://doi.org/10.1111/j.1467-9280.2009.02306.x
- Greenberg, J. (1990). Employee theft as a reaction to underpayment inequity: The hidden cost of pay cuts. *Journal of Applied Psychology*, 75(5), 561–568. https://doi.org/10.1037/0021-9010.75.5.561

- Halevy, R., Shalvi, S., & Verschuere, B. (2013). Being Honest about Dishonesty: Correlating Self-Reports and Actual lying. *Human Communication Research*, 40(1), 54–72. https://doi.org/10.1111/hcre.12019
- Houser, D., Vetter, S., & Winter, J. (2012). Fairness and cheating. *European Economic Review*, 56(8), 1645–1655. https://doi.org/10.1016/j.euroecorev.2012.08.001
- John, L. K., Loewenstein, G., & Rick, S. (2014). Cheating more for less: Upward social comparisons motivate the poorly compensated to cheat. *Organizational Behavior and Human Decision Processes*, 123(2), 101–109.
  https://doi.org/10.1016/j.obhdp.2013.08.002
- Kaliuzhna, M. (2020b). Symmetries and asymmetries in the belief in a just world. *Personality* and *Individual Differences*, *161*, 109940. https://doi.org/10.1016/j.paid.2020.109940
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, *108*(3), 480–498. https://doi.org/10.1037/0033-2909.108.3.480
- Le, B. M., Chopik, W. J., Shimshock, C. J., & Chee, P. X. (2022). When the truth helps and when it hurts: How honesty shapes well-being. *Current Opinion in Psychology*, 46, 101397. https://doi.org/10.1016/j.copsyc.2022.101397
- Leib, M., Moran, S., & Shalvi, S. (2019). Dishonest helping and harming after (un)fair treatment. *Judgment and Decision Making*, *14*(4), 423–439. https://doi.org/10.1017/s1930297500006112
- Li, D., Turel, O., Zhang, S., & He, Q. (2022). Self-Serving dishonesty partially substitutes fairness in motivating cooperation when people are treated fairly. *International Journal of Environmental Research and Public Health*, 19(10), 6326. https://doi.org/10.3390/ijerph19106326

- Mažar, N., Amir, O., & Ariely, D. (2008). The Dishonesty of Honest People: A Theory of Self-Concept Maintenance. *Journal of Marketing Research*, 45(6), 633–644. https://doi.org/10.1509/jmkr.45.6.633
- Mažar, N., & Ariely, D. (2006). Dishonesty in everyday life and its policy implications.

  \*Journal of Public Policy & Marketing, 25(1), 117–126.

  https://doi.org/10.1509/jppm.25.1.117
- Mouminoux, C. (2023). Can misfortune lead to dishonesty? *Rationality and Society*, *35*(3), 293–310. https://doi.org/10.1177/10434631231167738
- Murphy, P. R., Wynes, M. J., Hahn, T., & Devine, P. G. (2020). Why are people honest? Internal and external motivations to report honestly. *Contemporary Accounting Research*, *37*(2), 945–981. https://doi.org/10.1111/1911-3846.12543
- Ong, S. Z., Connie, T., & Goh, M. K. O. (2023). Cheating detection for online examination using clustering based approach. *JOIV: International Journal on Informatics*Visualization, 7(3–2), 2075–2085. https://doi.org/10.30630/joiv.7.3-2.2327
- Rosenbaum, S. M., Billinger, S., & Stieglitz, N. (2014). Let's be honest: A review of experimental evidence of honesty and truth-telling. *Journal of Economic Psychology*, 45, 181–196. https://doi.org/10.1016/j.joep.2014.10.002
- Shalvi, S., Eldar, O., & Bereby-Meyer, Y. (2012). Honesty requires time (and lack of justifications). *Psychological Science*, 23(10), 1264–1270. https://doi.org/10.1177/0956797612443835
- Shalvi, S., Gino, F., Barkan, R., & Ayal, S. (2015). Self-Serving justifications. *Current Directions in Psychological Science*, 24(2), 125–130. https://doi.org/10.1177/0963721414553264

- Shalvi, S., Handgraaf, M. J. J., & De Dreu, C. K. W. (2010). Ethical Manoeuvring: Why people avoid both major and minor lies. *British Journal of Management*, 22(s1). https://doi.org/10.1111/j.1467-8551.2010.00709.x
- Speer, S. P. H., Smidts, A., & Boksem, M. a. S. (2020). Cognitive control increases honesty in cheaters but cheating in those who are honest. *Proceedings of the National Academy of Sciences of the United States of America*, 117(32), 19080–19091. https://doi.org/10.1073/pnas.2003480117
- Talwar, V. (2011). Dishonesty. In *Springer eBooks* (pp. 512–514). https://doi.org/10.1007/978-0-387-79061-9\_868
- Taylor, A. J. W. (2003). Justice as a basic human need. *New Ideas in Psychology*, 21(3), 209–219. https://doi.org/10.1016/j.newideapsych.2003.09.004
- Tyler, J., Feldman, R. S., & Reichert, A. S. (2006). The price of deceptive behavior: Disliking and lying to people who lie to us. *Journal of Experimental Social Psychology*, 42(1), 69–77. https://doi.org/10.1016/j.jesp.2005.02.003
- Westö, J., May, P. J. C., & Tiitinen, H. (2016). Memory stacking in hierarchical networks.

  \*Neural Computation\*, 28(2), 327–353. https://doi.org/10.1162/neco\_a\_00803
- Zhang, C., Yin, M., & Wu, J. (2024). The Effect of experiences of fairness on honest behaviour: A behavioural and neural study. *Front. Behav. Neurosci.*, 17: 1279176. https://doi.org/10.3389/fnbeh.2023.1279176
- Zitek, E. M., Jordan, A., Monin, B., & Leach, F. R. (2010). Victim entitlement to behave selfishly. *Journal of Personality and Social Psychology*, 98(2), 245–255. https://doi.org/10.1037/a0017168

**Table 1**Descriptive Statistics of All Variables

	Reported Difficulties	Experimental Condition	Moderator_MIQ
Valid	52	52	52
Missing	0	0	0
Mean	0.712	0.500	3.589
Std. Deviation	0.457	0.505	0.572
Minimum	0.000	0.000	1.714
Maximum	1.000	1.000	5.286

 Table 2

 Descriptive Statistics Displaying Difference Between Experimental Conditions on the DV

	Reported Difficulties		
	EASY	HARD	
Valid	26	26	
Missing	0	0	
Mean	0.654	0.769	
Std. Deviation	0.485	0.430	
Minimum	0.000	0.000	
Maximum	1.000	1.000	

Table 3

# Pearson's Correlations

Variable		Experimental Condition	Reported Difficulties	
Moderator_MIQ	Pearson's r	-0.036	-0.055	
	p-value	0.798	0.699	

 Table 4

 Coefficients Table for Main Effect and Interaction Effect

				Wald Test
	Estimata	Standard	Odds	Wald
	Estimate	Error	Ratio	df p Statistic
(Intercept)	0.655	0.418	1.926 1.56	7 2.457 1 0.117
Moderator_MIQ_centered	-0.424	0.694	0.655 -0.6	0.373 1 0.541
Experimental Condition (1)	0.557	0.628	1.746 0.88	7 0.787 1 0.375
Moderator_MIQ_centered *	0.664	1.183	1.943 0.56	1 0.315 1 0.575
Experimental Condition (1)	0.001	1.105	1.713 0.30	0.515 1 0.575

Note. Experimental Condition level '1' coded as 'hard' condition.

**Figure 1**Conditional Estimates Plot Displaying Difference Between Conditions on the DV

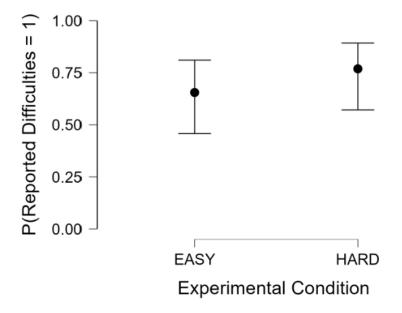
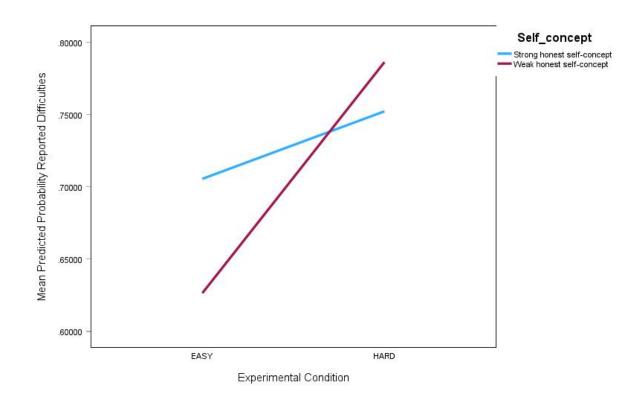


Figure 2

Association Plot Displaying Relationship Between Experimental Condition and Reported

Difficulties on Different Levels of MIQ



## Appendix A

# **Survey Instructions for All Participants**

"On the next screen, you will be randomly assigned to one of two conditions. This can be the easy reading comprehension condition or the hard reading comprehension condition. The goal is the same in both conditions. Please make sure to carefully read the text. Based on our initial testing, the easy reading comprehension task should take about half as long as the hard reading comprehension task. Please try to give it your best effort. This will really help us increase our understanding of the link between cognitive styles and reading comprehension.

The difference between the conditions may seem unfair, but we cannot really study this in another way. Regardless of condition, you can earn a bonus amount of SONA credits if you answer all questions correctly! Eligible participants will be contacted after participation. Your cooperation is greatly appreciated!"



Easy Hard

## Appendix B

## **Manipulation Texts**

#### 'Hard' Task Condition

"You have been assigned to the <u>hard reading comprehension</u> condition. On the following screen you will see a long text on a scientific subject. Please read the text carefully – you will be asked a few questions about its content afterwards. **If you answer <u>all questions</u> correctly, you will receive a bonus amount of SONA credits after the study concludes.** You cannot go back to read the text again. So make sure you advance only when you are ready!

# 'Easy' Task Condition

"You have been assigned to the <u>easy reading comprehension</u> condition. On the following screen you will see a text on a scientific subject. Please read the text carefully – you will be asked a few questions about its content afterwards. If you answer <u>more than half</u> of the questions correctly, you will receive a bonus amount of SONA credits after the study concludes. You cannot go back to read the text again. So make sure you advance only when you are ready!

# Appendix C

# **Reported Difficulties – Box Items**

- 1) I am a slow reader
- 2) It is hard for me to pay attention for longer periods of time
- 3) I have a form of ADHD/ADD
- 4) I am dyslexic
- 5) Something important distracted me during the study
- 6) There is something that affected my performance, but I do not want to say what it is

# Appendix D

# Measures - Moral Identity Questionnaire (MIQ) Items

# Moral Integrity Subscale (MIQ-MI)

- 1) It is ok to do something you know is wrong if the rewards for doing it are great
- 2) If no one is watching or will know it does not matter if I do the right thing
- 3) It is more important that people think you are honest than being honest
- 4) If no one could find out, it is okay to steal a small amount of money or other things that no one will miss
- 5) There is no point in going out of my way to do something good if no one is around to appreciate it
- 6) Lying and cheating are just things you have to do in this world
- 7) Doing things that some people might view as not honest does not bother me
- 8) If people treat me badly, I will treat them in the same manner

# Moral Self Subscale (MIQ-MS)

- 1) Not hurting other people is one of the rules I live by
- 2) It is important for me to treat other people fairly
- 3) I want other people to know they can rely on me
- 4) I always act in ways that do the most good and least harm to other people
- 5) If doing something will hurt another person, I try to avoid it even if no one would know
- 6) One of the most important things in life is to do what you know is right