

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16

The Dark Triad of personality and unethical behavior at different times of day

Karolin Roeser<sup>a</sup>, Victoria E. McGregor<sup>a</sup>, Sophia Stegmaier<sup>a</sup>, Johanna Mathew<sup>a</sup>, Andrea  
Kübler<sup>a</sup>, & Adrian Meule<sup>b,\*</sup>

<sup>a</sup> Institute of Psychology, University of Würzburg, Marcusstr. 9-11, D-97070 Würzburg,  
Germany

<sup>b</sup> Department of Psychology, University of Salzburg, Hellbrunner Str. 34, A-5020 Salzburg,  
Austria

\*Corresponding author

Phone +43 662 8044 5106

Fax +43 662 8044 5126

Email [adrian.meule@sbg.ac.at](mailto:adrian.meule@sbg.ac.at)

## DARK TRIAD & UNETHICAL BEHAVIOR

### Highlights

- We assessed the Dark Triad and unethical behavior at different times of day
- In contrast to previous studies, time of day did not influence unethical behavior
- Machiavellianism and psychopathy were differentially related to unethical behavior

1 Abstract

2 The Dark Triad of personality – narcissism, Machiavellianism, and psychopathy – is  
3 characterized by callous manipulation and social exploitation. Thus, dark personalities should  
4 be more prone to unethical behavior. Unethical behavior has been shown to vary during the  
5 course of the day with individuals displaying lower morality in the evening (Morning  
6 Morality Effect, MME). Hence, the present study investigated the association between the  
7 Dark Triad and unethical behavior as a function of time of day in an experimental design.  
8 Participants ( $N = 195$ ) completed the study either in the morning or in the evening. In one  
9 task, participants had the choice to cheat on a fictitious partner for monetary benefit at the  
10 partner's expense. In a second task, they had the opportunity to lie about their performance  
11 for personal gain. Machiavellianism scores positively predicted unethical behavior in the first  
12 task. In the second task, psychopathy scores positively predicted lying. Neither could the  
13 MME be replicated, nor did time of day moderate the influence of the Dark Triad on unethical  
14 behavior. Thus, the present study indicates that the dark traits are differentially related to  
15 aspects of unethical behavior, such that Machiavellians display a preference for complex  
16 deception, while psychopaths engage in impulsive cheating.

17

18 Keywords

19 Dark triad; narcissism; psychopathy; Machiavellianism; morality, Morning Morality Effect

20

21

22

## Introduction

1  
2       The Dark Triad of personality (Paulhus & Williams, 2002) comprises three socially  
3 aversive and malevolent personality traits, namely narcissism, Machiavellianism, and  
4 psychopathy. Narcissism is characterized by grandiosity, entitlement, dominance, and  
5 superiority (Raskin & Hall, 1979), Machiavellianism can be described as a manipulative  
6 personality (Paulhus & Williams, 2002), and individuals with psychopathic traits have high  
7 sensation seeking and impulsivity along with callous affect and low empathy (Hare, 1985).  
8 Although offensive, the Dark Triad traits do not represent pathological concepts per se.  
9 Instead, individuals with Dark personalities may very well be within the normal range of  
10 functioning (Furnham, Richards, & Paulhus, 2013).

11       The three traits have distinct theoretical origins. Narcissism and psychopathy were  
12 originally proposed to represent mental disorders, which found their way into mainstream  
13 personality research by the development of the Narcissistic Personality Inventory (NPI,  
14 Raskin & Hall, 1979) and the Self-Report Psychopathy (SRP) scale (Hare, 1985),  
15 respectively. The concept of Machiavellianism has a philosophical background as it is named  
16 for Niccolo Machiavelli, a politician and philosopher in the Florentine Republic around 1500.  
17 Machiavellianism emerged as a personality trait through the work of Christie and Geis (1970),  
18 who delineated the Mach-IV as a measure of Machiavellianism. Despite their different  
19 etiology, these personalities share common features, for example disagreeableness (Paulhus &  
20 Williams, 2002), manipulation and callousness (Jones & Figueredo, 2013), and social  
21 exploitation (Jonason, Li, & Teicher, 2010). However, they are not equivalent, but rather  
22 “overlapping but distinct constructs” (Paulhus & Williams, 2002, p. 556).

23       Since the original publication of the concept in 2002, the Dark Triad has gained much  
24 scientific attention. Among various outcome measures, for example workplace behavior  
25 (O'Boyle, Forsyth, Banks, & McDaniel, 2012) or mating strategies (Jonason, Li, Webster, &  
26 Schmitt, 2009), unethical behavior has been related to the dark traits: Psychopathy and

1 Machiavellianism predicted exam copying and plagiarism, respectively (Nathanson, Paulhus,  
2 & Williams, 2006; Williams, Nathanson, & Paulhus, 2010). Baughman and colleagues (2014)  
3 found that the Dark Triad, especially Machiavellianism and psychopathy, were associated  
4 with lying in an academic context, but also with dishonesty toward mates. Jonason and  
5 colleagues (2014) reported that dark personalities make use of various inter- and intrasexual  
6 deception tactics, suggesting that the Dark Triad traits reflect cheating strategies.

7 Kouchaki and Smith (2014) investigated cheating as a form of unethical behavior, but  
8 from a very different perspective: In four independent experiments, it was demonstrated that  
9 participants engaged in more unethical behavior in the afternoon compared to the morning  
10 hours. To explain this so-called Morning Morality Effect (MME), the authors referred to the  
11 strength model of self-regulation. According to this model, the capacity to exert self-control  
12 relies on a limited resource that depletes when demanded (Baumeister, Bratslavsky, Muraven,  
13 & Tice, 1998; Muraven & Baumeister, 2000). Self-control comprises the ability to resist  
14 temptations and the willpower to act according to moral standards. Indeed, it has been shown  
15 that the depletion of self-regulatory resources negatively affects ethical behavior (Gino,  
16 Schweitzer, Mead, & Ariely, 2011; Mead, Baumeister, Gino, Schweitzer, & Ariely, 2009).  
17 Given that many situations in daily life require self-control (Hofmann, Baumeister, Forster, &  
18 Vohs, 2012), self-control resources might diminish gradually throughout the day, resulting in  
19 a greater likelihood of self-regulatory failures, including lying or cheating, in the afternoon or  
20 evening as compared to the morning hours. In one of their experiments, Kouchaki and Smith  
21 (2014) found that lower moral awareness in the afternoon mediated the effect of time of day  
22 on cheating. Moreover, they report that moral disengagement moderated the MME such that  
23 the MME was especially evident in those with a low propensity to morally disengage.

24 As previous studies have demonstrated an influence of the Dark Triad and time of day  
25 on unethical behavior, the present study aimed at bringing these aspects together. Participants  
26 completed the study either in the morning or in the evening, which included a measure of

1 Dark Triad personality traits and two tasks, in which they could cheat or lie. In contrast to  
2 previous studies, we decided to operationalize cheating and lying experimentally instead of  
3 using self-report questionnaires. It was expected that (1) individuals would be more likely to  
4 cheat or lie in the evening than in the morning, thus replicating the MME, and that (2) higher  
5 scores on Dark Triad personality traits would be associated with a higher likelihood of  
6 cheating or lying. In the original study by Kouchaki and Smith (2014), individual differences  
7 (moral disengagement) moderated the MME. As the Dark Triad should comprise a tendency  
8 to morally disengage, we also explored possible interactive effects between time of day and  
9 scores on Dark Triad personality traits. Specifically, we examined the possibility that  
10 unethical behavior in the evening would be particularly observed in individuals scoring high  
11 on Dark Triad traits or vice versa.

## 12 Methods

### 13 *Participants*

14 Data were collected via an online survey tool (<https://www.soscisurvey.de/>). The link  
15 to the study was distributed via social networks, local online platforms and student mailing  
16 lists. As an incentive, participants who completed the study had the chance to win one out of  
17 ten online shopping vouchers. A total of  $N = 243$  participants started the survey, but data from  
18  $n = 48$  participants were excluded from analyses because they did not complete the entire  
19 study. The final sample comprised  $n = 195$  participants (70.8% female,  $n = 138$ ). Mean age  
20 was  $M = 25.73$  years ( $SD = 6.96$ ) and mean sleep duration during the past night was  $M = 7.26$   
21 hours ( $SD = 1.43$ ).

### 22 *Measures*

23 *Short Dark Triad (SD3)*. The SD3 (Jones & Paulhus, 2014) assesses the Dark Triad  
24 personality traits with 27 items (nine items per subscale). Items are scored on a five-point  
25 scale ranging from *strongly disagree* to *strongly agree*. The psychopathy subscale includes  
26 items related to impulsivity, callous manipulation and antisocial behavior. The

1 Machiavellianism subscale includes items related to cynicism and manipulation tactics. The  
2 narcissism subscales includes items related to selfishness and a sense of grandiosity. Internal  
3 consistencies were  $\alpha = .76$  (Machiavellianism),  $\alpha = .68$  (narcissism), and  $\alpha = .69$   
4 (psychopathy) in the current study and, thus, comparable to those reported in the validation  
5 studies (Jones & Paulhus, 2014).

6 *Global Vigor and Affect (GVA)*. The GVA instrument (Monk, 1989) was used to  
7 control for participants' current vigor and affective state. It consists of eight items asking for  
8 current alertness, sadness, tension, effort, happiness, weariness, calmness, and sleepiness.  
9 Participants respond on a visual analog scale anchored *very little* (0) and *very much* (100).  
10 Global vigor is calculated with the formula [(alert) + 300 - (sleepy) - (effort) - (weary)] / 4  
11 and global affect with the formula [(happy) + (calm) + 200 - (sad) - (tense)] / 4. Each formula  
12 yields a value between 0 and 100 with higher values indicating higher vigor and more positive  
13 affect, respectively.

14 *Message-Task*. To operationalize unethical behavior we used a decision-making task  
15 (Gneezy, 2005), in which participants had the opportunity to lie in order to allegedly raise the  
16 amount of the voucher (see below). The task was slightly changed as compared to the task  
17 used by Kouchaki and Smith (2014): The payment options mentioned in our task were higher  
18 and had greater differences than those used by Kouchaki and Smith (2014) to increase the  
19 probability of cheating. Participants were told that a second player would be involved. This  
20 second player was fictitious, which the participants did not know. Participants were given two  
21 payment options. The first option was for the benefit of the second player, the second option  
22 was in favor of the participant: "Option 1: You will receive 5.00€, whereas Player 2 will  
23 receive 15.00€." and "Option 2: You will receive 7.00€, whereas Player 2 will receive 5.00€."  
24 Participants were told that the actual payment would depend on Player 2's choice. To inform  
25 Player 2 about the payment options, participants had to choose between two messages, which  
26 allegedly would be sent to fictitious Player 2. The first message was veracious, the second

1 message variation was a lie: “Message A: Option 1 can bring you more money than Option  
2 2.” versus “Message B: Option 2 will bring you more money than Option 1.” Deciding to lie  
3 was therefore clearly linked to a financial incentive in this task. In the current study, 22.1% ( $n$   
4 = 43) participants chose the dishonest message option.

5 *Matrix-Task.* As a second task to operationalize unethical behavior, we used a visual  
6 search task as used by Mazar and colleagues (2008) and Kouchaki and Smith (2014). In this  
7 task, participants were able to increase their profit level by making false statements about  
8 their performance. Participants were presented a total of 20 matrices. Each matrix contained  
9 three rows and four columns consisting of a total of 12-digit numbers with one or two  
10 decimals (Figure 1) and was presented for 15 seconds. During these 15 seconds, participants  
11 had to find two numbers which summed up to 10. Of the 20 presented matrices, 13 were  
12 solvable. Each presentation was followed by a page, on which the participant had to indicate  
13 whether he or she had found the two numbers or not. Indicating that the matrix was solved  
14 resulted in a profit increase of 2.50€. Choosing the option "Not found" did not yield any profit  
15 increase. It was not expected to name or remember the two numbers after the 15 seconds,  
16 therefore the result was not checked, which enabled participants to cheat. The order of the  
17 matrices was programmed in a way that the first seven matrices were solvable. Afterwards, a  
18 randomly determined sequence of the remaining 13 matrices followed, which was identical  
19 for all subjects. This visual search task does not require mathematical skills or above-average  
20 intelligence (Mazar, et al., 2008). The mean number of lies in the current study was  $M = 1.15$   
21 ( $SD = 1.71$ , Range 0-7).

22 <Insert Figure 1 here>

### 23 *Procedure*

24 Data were collected between 7-10 a.m. and 4-7 p.m. without randomized assignment,  
25 that is, participants could choose freely if they participated in the morning or in the evening.  
26 As a cover story, participants were told that the study investigated cognitive abilities at

1 different times of day. They were also informed about the opportunity to win one out of ten  
2 online shopping vouchers and that the vouchers' value could be increased during the tasks.  
3 After providing the sociodemographic information, participants completed the GVA, the  
4 Matrix-, and the Message-Task. The SD3 was presented at the end of the survey. Finally,  
5 participants were debriefed. They were informed about the fictitiousness of the partner in the  
6 Message-Task and that the vouchers had fixed values of 57€ each.

### 7 *Data analyses*

8 Differences in age, sleep duration, GVA scores, and sex distribution between  
9 individuals who participated in the morning or in the evening were tested with independent *t*-  
10 tests and  $\chi^2$ -test, respectively. Differences in SD3 scores between men and women were  
11 compared with independent *t*-tests. Associations between SD3 scores and continuous study  
12 variables were examined with Pearson correlation coefficients.

13 Logistic regression analyses were used to examine predictors of choice in the  
14 Message-Task (message A [honest] coded 0 and message B [dishonest] coded 1). Three  
15 models were run for each SD3 subscale separately with time of day, SD3 subscale and the  
16 interaction term time of day  $\times$  SD3 subscale as predictor variables. In step 2, variables that  
17 were associated with SD3 scores (sex and GVA scores, see below) were entered as covariates.

18 Linear regression analyses were used to examine predictors of the number of lies in  
19 the Matrix-Task. Three models were run for each SD3 subscale separately with time of day,  
20 SD3 subscale and the interaction term time of day  $\times$  SD3 subscale as predictor variables. In  
21 step 2, variables that were associated with SD3 scores (sex and GVA scores, see below) were  
22 entered as covariates. All regression analyses were conducted using PROCESS for SPSS  
23 (Hayes, 2013). Continuous predictor variables were mean-centered before calculating the  
24 product terms. For all statistical tests, exact *p*-values are reported, except when  $p < .001$ . *P*-  
25 values of  $\geq 0.05$  are denoted as *ns*.

### 1 *Participant characteristics*

2           One-hundred eleven individuals participated in the morning and 84 individuals  
 3 participated in the evening. Groups did not differ in age, sleep duration, global vigor, global  
 4 affect (all  $ts < 1.78$ , *ns*) or sex distribution ( $\chi^2_{(1)} = 1.20$ , *ns*). Men scored higher than women  
 5 on all three subscales of the SD3 (Machiavellianism:  $M_{\text{men}} = 3.10$ ,  $SD = 0.67$  vs.  $M_{\text{women}} =$   
 6  $2.69$ ,  $SD = 0.52$ ; psychopathy:  $M_{\text{men}} = 2.31$ ,  $SD = 0.55$  vs.  $M_{\text{women}} = 1.78$ ,  $SD = 0.49$ ;  
 7 narcissism:  $M_{\text{men}} = 2.92$ ,  $SD = 0.55$  vs.  $M_{\text{women}} = 2.69$ ,  $SD = 0.55$ ; all  $ts > 2.65$ ,  $p < .01$ ).  
 8 Global affect was negatively correlated with scores on the Machiavellianism ( $r = -.17$ ,  $p =$   
 9  $.02$ ) and psychopathy subscale ( $r = -.24$ ,  $p = .001$ ). Scores on the Machiavellianism subscale  
 10 were positively correlated with scores on the psychopathy ( $r = .49$ ,  $p < .001$ ) and narcissism  
 11 subscale ( $r = .26$ ,  $p < .001$ ). Scores on the psychopathy subscale were positively correlated  
 12 with scores on the narcissism subscale ( $r = .31$ ,  $p < .001$ ).

### 13 *Message-Task*

14           Machiavellianism scores predicted message choice such that higher scores were  
 15 associated with a higher likelihood of selecting the dishonest message (Table 1). This effect  
 16 was not moderated by time of day. Including potential covariates revealed that global vigor  
 17 also predicted message choice such that a higher current vigor was associated with a lower  
 18 likelihood of selecting the dishonest message (Table 1). This, however, did not influence the  
 19 association between Machiavellianism and message choice. None of the other variables  
 20 significantly predicted message choice.

### 21 *Matrix-Task*

22           Psychopathy scores predicted the number of lies such that higher scores were  
 23 associated with a higher number of lies (Table 2). This effect was not moderated by time of  
 24 day. Including potential covariates did not influence the association between psychopathy and  
 25 number of lies and none of the other variables significantly predicted number of lies.

### 26 Discussion

1           The present study aimed at investigating if people are more likely to cheat or lie in the  
2 evening, if personality features, namely the Dark Triad of personality, are associated with  
3 these behaviors and if time of day and personality are interactively associated with these  
4 outcomes. Our first hypothesis referred to replicating the MME (Kouchaki & Smith, 2014).  
5 However, time of day did not affect cheating or lying in our study, that is, the MME could not  
6 be replicated. A possible reason might be that our study did not include a randomized  
7 assignment. Instead, participants chose their preferred time of participation. This might have  
8 resulted in a self-selection bias such that the depletion of the self-regulatory resource might  
9 have been less pronounced in people who decided to participate in the evening. Therefore, the  
10 MME may have not emerged, because the self-regulatory resource in individuals participating  
11 in the evening was not sufficiently depleted. However, in the original publication by  
12 Kouchaki and Smith (2014), the MME occurred no matter whether participants self-selected  
13 their preferred time of participation or were randomly assigned into the morning or afternoon  
14 session. Global vigor also did not differ between the morning and the evening groups and  
15 predicted honesty in the Message-Task in the current study.

16           Previous studies have shown that motivation and success importance can compensate  
17 for self-control resource depletion (Muraven & Slessareva, 2003; Stewart, Wright, Hui, &  
18 Simmons, 2009). Given that the current sample was recruited from the investigators' social  
19 environment, their motivation and effort might have been stronger than in participants in the  
20 original study. Further, our sample – specifically in the Matrix task – was extremely honest  
21 and thus, we had little variance in these data. However, Kouchaki and Smith (2014)  
22 demonstrated the MME in both undergraduate students and U.S. adults. Although the MME  
23 has been replicated by Koukachi and Smith themselves, future replication studies by other  
24 research teams are necessary to determine if the MME may only occur in certain samples  
25 (e.g., may dependent on culture) or under specific circumstances.

1           Our second hypothesis was that Dark Triad traits would be associated with higher a  
2 likelihood of unethical behavior. In contrast to previous studies, we did not rely on self-  
3 reports or fictitious scenarios, but operationalized cheating and lying situations. Although it  
4 has been shown that Dark personalities report using various tactics of social influence  
5 (Jonason & Webster, 2012), we found that Machiavellianism and psychopathy were  
6 differentially related to cheating and lying in our two tasks. The Message-Task included a  
7 fictitious partner and a sophisticated cover story, requiring a high amount of cognitive effort.  
8 In this task, Machiavellianism positively predicted cheating. The Matrix-Task, in contrast,  
9 animated participants to lie via a quick and simple click, which was related to higher scores  
10 on psychopathy. Indeed, it has been shown that psychopathy is closely related to  
11 dysfunctional impulsivity stemming from poor self-regulation (Jones & Paulhus, 2011). In a  
12 study by Baughman and colleagues (2014), who investigated self-reported lying frequency, all  
13 three Dark Triad traits were associated with lying. However, this association was entirely  
14 attributable to psychopathy and Machiavellianism. Consistent with our findings, Baughman  
15 and colleagues (2014) report that Machiavellianism was related to planning and constructing  
16 original and detailed deception.

17           In line with previous findings, narcissism did not predict unethical behavior in the  
18 current study. A possible explanation might be that narcissism is the “brightest”, that is, the  
19 least malicious, among the Dark Triad traits (Rauthmann & Kolar, 2012, 2013). Moreover,  
20 Jonason and Tost (2010) found low self-control in psychopaths and to some extent in  
21 Machiavellians, but not in narcissists. Taken together, these results suggest that among the  
22 Dark personalities, narcissists might be least susceptible to moral disengagement.

23           Our third hypothesis was that time of day and Dark Triad personality may be  
24 interactively related to unethical behavior. For example, Gunia and colleagues (2014) argue  
25 that unethical behavior cannot simply be explained by individual characteristics or a given  
26 situation. Instead, the interplay between personal and situational features (Person × Situation

1 fit) may determine whether people behave unethically or not. However, this idea was not  
2 supported in the current study. Thus, results suggest that the unethical behavior displayed by  
3 individuals scoring high on Machiavellianism and psychopathy appear to be unaffected by  
4 momentary circumstances such as time of day.

5         While the procedure used in the current study may have high ecological validity,  
6 future studies are needed on the MME or daytime-dependent behaviors of Dark personalities  
7 using randomized assignment to experimental conditions. Another limitation may be that  
8 potential confounding variables like motivation or cognitive abilities were not assessed, which  
9 may relate to personality styles or may change throughout the day. However, we did control  
10 for current vigor and affect, which did not influence our findings. This is consistent with the  
11 results of Kouchaki and Smith (2014), who excluded changes in affective states as an  
12 alternative explanation for the MME. Finally, the current sample consisted predominantly of  
13 highly academically educated female university students. Thus, our sample may have had  
14 high self-regulatory skills not affected by time of day. Although sex was unrelated to task  
15 performance, it would be desirable to investigate more heterogeneous samples (regarding age,  
16 education, etc.) in future studies.

17         According to the present study, unethical behavior can be considered a function of  
18 personality, namely Machiavellianism and psychopathy, and, to some extent, a matter of  
19 reduced mental vigor. We conclude that the Dark Triad traits are differentially related to  
20 aspects of unethical behavior, such that Machiavellians display a preference for complex  
21 deception, while psychopaths engage in impulsive cheating. This adds to a better  
22 understanding of how dark personalities interact with their social environment.

23

## References

- 1
- 2 Baughman, H. M., Jonason, P. K., Lyons, M., & Vernon, P. A. (2014). Liar liar pants on fire:  
3 Cheater strategies linked to the Dark Triad. *Personality and Individual Differences, 71*, 35-38.
- 4 Baumeister, R. F., Bratslavsky, E., Muraven, M., & Tice, D. M. (1998). Ego depletion: Is the  
5 active self a limited resource? *Journal of Personality and Social Psychology, 74*, 1252-1265.
- 6 Christie, R., & Geis, F. L. (1970). *Studies on Machiavellism*. New York: Academic Press.
- 7 Furnham, A., Richards, S. C., & Paulhus, D. L. (2013). The Dark Triad of personality: A 10  
8 year review. *Social and Personality Psychology Compass, 7*, 199-216.
- 9 Gino, F., Schweitzer, M. E., Mead, N. L., & Ariely, D. (2011). Unable to resist temptation:  
10 How self-control depletion promotes unethical behavior. *Organizational Behavior and*  
11 *Human Decision Processes, 115*, 191-203.
- 12 Gneezy, U. (2005). Deception: The role of consequences. *American Economic Review, 95*,  
13 384-394.
- 14 Gunia, B. C., Barnes, C. M., & Sah, S. (2014). The morality of larks and owls: Unethical  
15 behavior depends on chronotype as well as time of day. *Psychological Science, 25*, 2272-  
16 2274.
- 17 Hare, R. D. (1985). Comparison of procedures for the assessment of psychopathy. *J Consult*  
18 *Clin Psychol, 53*, 7-16.
- 19 Hayes, A. F. (2013). *Introduction to Mediation, Moderation, and Conditional Process*  
20 *Analysis*. New York: The Guilford Press.

- 1 Hofmann, W., Baumeister, R. F., Forster, G., & Vohs, K. D. (2012). Everyday temptations:  
2 An experience sampling study of desire, conflict, and self-control. *Journal of Personality and*  
3 *Social Psychology, 102*, 1318-1335.
- 4 Jonason, P. K., Li, N. P., & Teicher, E. A. (2010). Who is James Bond?: The Dark Triad as an  
5 agentic social style. *Individual Differences Research, 8*, 111-120.
- 6 Jonason, P. K., Li, N. P., Webster, G. D., & Schmitt, D. P. (2009). The Dark Triad:  
7 Facilitating a short-term mating strategy in men. *European Journal of Personality, 23*, 5-18.
- 8 Jonason, P. K., Lyons, M., Baughman, H. M., & Vernon, P. A. (2014). What a tangled web  
9 we weave: The Dark Triad traits and deception. *Personality and Individual Differences, 70*,  
10 117-119.
- 11 Jonason, P. K., & Tost, J. (2010). I just cannot control myself: The Dark Triad and self-  
12 control. *Personality and Individual Differences, 49*, 611-615.
- 13 Jonason, P. K., & Webster, G. D. (2012). A protean approach to social influence: Dark Triad  
14 personalities and social influence tactics. *Personality and Individual Differences, 52*, 521-526.
- 15 Jones, D. N., & Figueredo, A. J. (2013). The Core of Darkness: Uncovering the Heart of the  
16 Dark Triad. *European Journal of Personality, 27*, 521-531.
- 17 Jones, D. N., & Paulhus, D. L. (2011). The role of impulsivity in the Dark Triad of  
18 personality. *Personality and Individual Differences, 51*, 679-682.
- 19 Jones, D. N., & Paulhus, D. L. (2014). Introducing the Short Dark Triad (SD3): A brief  
20 measure of dark personality traits. *Assessment, 21*, 28-41.
- 21 Kouchaki, M., & Smith, I. H. (2014). The Morning Morality Effect: The influence of time of  
22 day on unethical behavior. *Psychological Science, 25*, 95-102.

- 1 Mazar, N., Amir, O., & Ariely, D. (2008). The dishonesty of honest people: A theory of self-  
2 concept maintenance. *Journal of Marketing Research*, 45, 633-644.
- 3 Mead, N. L., Baumeister, R. F., Gino, F., Schweitzer, M. E., & Ariely, D. (2009). Too tired to  
4 tell the truth: Self-control resource depletion and dishonesty. *Journal of Experimental Social*  
5 *Psychology*, 45, 594-597.
- 6 Monk, T. H. (1989). A visual analog scale technique to measure global vigor and affect.  
7 *Psychiatry Research*, 27, 89-99.
- 8 Muraven, M., & Baumeister, R. F. (2000). Self-regulation and depletion of limited resources:  
9 Does self-control resemble a muscle? *Psychological Bulletin*, 126, 247-259.
- 10 Muraven, M., & Slessareva, E. (2003). Mechanisms of self-control failure: Motivation and  
11 limited resources. *Personality and Social Psychology Bulletin*, 29, 894-906.
- 12 Nathanson, C., Paulhus, D. L., & Williams, K. M. (2006). Predictors of a behavioral measure  
13 of scholastic cheating: Personality and competence but not demographics. *Contemporary*  
14 *Educational Psychology*, 31, 97-122.
- 15 O'Boyle, E. H., Forsyth, D. R., Banks, G. C., & McDaniel, M. A. (2012). A meta-analysis of  
16 the Dark Triad and work behavior: A social exchange perspective. *J Appl Psychol*, 97, 557-  
17 579.
- 18 Paulhus, D. L., & Williams, K. M. (2002). The Dark Triad of personality: Narcissism,  
19 Machiavellianism, and psychopathy. *Journal of Research in Personality*, 36, 556-563.
- 20 Raskin, R. N., & Hall, C. S. (1979). A narcissistic personality inventory. *Psychological*  
21 *Peports*, 45, 590.

1 Rauthmann, J. F., & Kolar, G. P. (2012). How "dark" are the Dark Triad traits? Examining the  
2 perceived darkness of narcissism, Machiavellianism, and psychopathy. *Personality and*  
3 *Individual Differences, 53*, 884-889.

4 Rauthmann, J. F., & Kolar, G. P. (2013). Positioning the Dark Triad in the interpersonal  
5 circumplex: The friendly-dominant narcissist, hostile-submissive Machiavellian, and hostile-  
6 dominant psychopath? *Personality and Individual Differences, 54*, 622-627.

7 Stewart, C. C., Wright, R. A., Hui, S. K. A., & Simmons, A. (2009). Outcome expectancy as a  
8 moderator of mental fatigue influence on cardiovascular response. *Psychophysiology, 46*,  
9 1141-1149.

10 Williams, K. M., Nathanson, C., & Paulhus, D. L. (2010). Identifying and profiling scholastic  
11 cheaters: Their personality, cognitive ability, and motivation. *Journal of Experimental*  
12 *Psychology-Applied, 16*, 293-307.

13

Table 1

Results of logistic regression analyses predicting message choice in the Message-Task

<i>N</i> = 195	Step 1				Step 2			
	<i>B</i>	<i>SE</i>	<i>p</i>	95% CI	<i>B</i>	<i>SE</i>	<i>p</i>	95% CI
<i>Machiavellianism</i>								
Time of day	0.23	0.36	<i>ns</i>	-0.47, 0.94	0.13	0.39	<i>ns</i>	-0.63, 0.88
<b>Machiavellianism</b>	<b>0.68</b>	<b>0.30</b>	<b>.02</b>	<b>0.09, 1.28</b>	<b>0.98</b>	<b>0.36</b>	<b>.01</b>	<b>0.27, 1.70</b>
Time of day ×	-0.06	0.60	<i>ns</i>	-1.24, 1.12	0.01	0.65	<i>ns</i>	-1.27, 1.29
<i>Machiavellianism</i>								
Sex	-	-	-	-	-0.55	0.45	<i>ns</i>	-1.43, 0.34
Global affect	-	-	-	-	-0.01	0.01	<i>ns</i>	-0.03, 0.02
<b>Global vigor</b>	-	-	-	-	<b>-0.02</b>	<b>0.01</b>	<b>.02</b>	<b>-0.04, -0.00</b>
<i>Psychopathy</i>								
Time of day	0.16	0.35	<i>ns</i>	-0.53, 0.85	0.06	0.37	<i>ns</i>	-0.67, 0.78
Psychopathy	0.10	0.31	<i>ns</i>	-0.51, 0.72	0.00	0.37	<i>ns</i>	-0.73, 0.74
Time of day × psychopathy	0.48	0.62	<i>ns</i>	-0.73, 1.69	0.54	0.64	<i>ns</i>	-0.72, 1.79
Sex	-	-	-	-	-0.12	0.45	<i>ns</i>	-1.00, 0.77
Global affect	-	-	-	-	-0.01	0.01	<i>ns</i>	-0.03, 0.01
<b>Global vigor</b>	-	-	-	-	<b>-0.02</b>	<b>0.01</b>	<b>.04</b>	<b>-0.04, -0.00</b>
<i>Narcissism</i>								
Time of day	0.23	0.35	<i>ns</i>	-0.46, 0.92	0.15	0.37	<i>ns</i>	-0.59, 0.88
Narcissism	0.40	0.31	<i>ns</i>	-0.22, 1.02	0.52	0.34	<i>ns</i>	-0.14, 1.18
Time of day × narcissism	0.20	0.64	<i>ns</i>	-1.06, 1.45	0.12	0.66	<i>ns</i>	-1.18, 1.42
Sex	-	-	-	-	-0.23	0.41	<i>ns</i>	-1.04, 0.58
Global affect	-	-	-	-	-0.01	0.01	<i>ns</i>	-0.03, 0.01
<b>Global vigor</b>	-	-	-	-	<b>-0.02</b>	<b>0.01</b>	<b>.04</b>	<b>-0.04, -0.00</b>

*Notes.* Significant predictors are printed in boldface.

1 Table 2

2 Results of linear regression analyses predicting the number of lies in the Matrix-Task

<i>N</i> = 195	Step 1				Step 2			
	<i>B</i>	<i>SE</i>	<i>p</i>	95% CI	<i>B</i>	<i>SE</i>	<i>p</i>	95% CI
<i>Machiavellianism</i>								
Time of day	-0.07	0.25	<i>ns</i>	-0.56, 0.42	-0.11	0.26	<i>ns</i>	-0.62, 0.40
Machiavellianism	0.16	0.21	<i>ns</i>	-0.25, 0.57	0.10	0.23	<i>ns</i>	-0.35, 0.56
Time of day ×	0.11	0.42	<i>ns</i>	-0.71, 0.93	0.06	0.43	<i>ns</i>	-0.78, 0.90
<i>Machiavellianism</i>								
Sex	-	-	-	-	0.49	0.29	<i>ns</i>	-0.09, 1.07
Global affect	-	-	-	-	0.01	0.01	<i>ns</i>	-0.01, 0.03
Global vigor	-	-	-	-	-0.00	0.01	<i>ns</i>	-0.02, 0.01
<i>Psychopathy</i>								
Time of day	-0.11	0.25	<i>ns</i>	-0.59, 0.38	-0.12	0.25	<i>ns</i>	-0.62, 0.38
<b>Psychopathy</b>	<b>0.51</b>	<b>0.22</b>	<b>.02</b>	<b>0.07, 0.94</b>	<b>0.55</b>	<b>0.25</b>	<b>.03</b>	<b>0.05, 1.05</b>
Time of day × psychopathy	0.17	0.44	<i>ns</i>	-0.69, 1.03	0.10	0.44	<i>ns</i>	-0.77, 0.97
Sex	-	-	-	-	0.24	0.30	<i>ns</i>	-0.36, 0.84
Global affect	-	-	-	-	0.01	0.01	<i>ns</i>	-0.00, 0.03
Global vigor	-	-	-	-	-0.00	0.01	<i>ns</i>	-0.02, 0.01
<i>Narcissism</i>								
Time of day	-0.08	0.25	<i>ns</i>	-0.58, 0.41	-0.15	0.26	<i>ns</i>	-0.67, 0.36
Narcissism	0.06	0.22	<i>ns</i>	-0.38, 0.50	-0.09	0.23	<i>ns</i>	-0.55, 0.36
Time of day × narcissism	-0.52	0.46	<i>ns</i>	-1.42, 0.39	-0.62	0.46	<i>ns</i>	-1.54, 0.29
Sex	-	-	-	-	0.55	0.28	<i>ns</i>	-0.01, 1.10
Global affect	-	-	-	-	0.01	0.01	<i>ns</i>	-0.01, 0.03
Global vigor	-	-	-	-	-0.00	0.01	<i>ns</i>	-0.02, 0.01

3 *Notes.* Significant predictors are printed in boldface.

4

1 Figure caption

2 Figure 1. Example of a matrix used in the Matrix-Task to operationalize unethical behavior.

7.87	3.62	9.41
5.72	7.4	5.84
2.49	9.59	6.62
4.16	5.61	0.49

Acknowledgments

AM is supported by a grant of the European Research Council (ERC-StG-2014 639445

NewEat).