Effect of Personality Traits on Cheating Behavior in College Students With Moral Identity as a Moderator

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ABSTRACT
Cheating occurs in all arenas of human behavior, and it manifests as academic cheating in college students. Academic cheating can include cheating on exams, plagiarism, and falsifying data in scientific studies. Cheating during college years can also involve improper behavior in university organizations and such traits as chronic absenteeism. The habits of cheating that occur during the college years can become established and be seen throughout a person’s life in areas such as the workplace or in personal relationships. An individual’s personality traits can influence the likelihood of cheating. However, as humans mature, they also develop a moral identity that can moderate the effects of personality traits. Our study was conducted to find the effects of personality traits on cheating behavior among college students and to see if moral identity acts as a moderator. Participants were 196 college students from the University of Indonesia. This study used the Mini-IPIP to measure personality traits, the Moral Identity Questionnaire (MIQ) to measure moral identity, and the Matrix Task to measure cheating behavior. The results showed that there was a positive relationship between conscientiousness and cheating behavior (r = 0.124; p < 0.05), and moral identity significantly moderated this relationship.

Keywords: Personality traits, five-factor model, cheating behavior, moral identity, college student.

1. INTRODUCTION
Humans cheat in many areas of their lives, including at school, in the workplace, on the playing field, during elections, and in their personal lives (Green, 2003). There have been suspicions of “fixed scores” in Indonesian soccer matches. There were rumors that committee members from the Football Association of Indonesia (commonly called the PSSI) offered substantial sums to assure a victory for the PSS Sleman football club in a league match (Utama, 2018). Dishonesty was suspected in the 2019 Indonesian presidential elections, although it was not confirmed if there had been structured cheating or just human error (detikNews, 2019). Chronic absenteeism can also be a form of cheating, and the government in Jakarta has noted a substantial number of absences among its civil service employees (Yuliani, 2016).

In academics, cheating is especially common among college students (Halim, 2018), especially through their practice of
plagiarism (Oke, 2013). A student at the Faculty of Economics and Business at the University of Indonesia (FEB UI) was expelled after he was caught cheating on an exam (Kumparan, 2017). Cheating is defined by Shu, Gino, and Bazerman (2011) as conduct in which an individual tries to gain an advantage by violating standard rules of behavior. Academic cheating occurs when a student carries out intentional acts that violate an institution’s established rules. These forms of deceit can include cheating during tests, copying another student’s work, or falsifying data in scientific or other studies (Cizek, 1999).

Students at the University of Indonesia are asked to uphold nine values, and one of them is honesty (the University of Indonesia Trustee Regulation Number 004/Regulation/MWA-UI, 2015) automatically this dropped the integrity of the UI campus as one of the five best world ranking campuses based on 2019 Higher Time Education (in Putsanra, 2019).

College students have a variety of roles, beyond academics, including their roles in organizations and families. Students can have positions of responsibility within organizations (Cahyorinartri, 2018). Family responsibilities can include marriages, which can occur while students are at university (Anisaningtyas & Astuti, 2019). Cheating at a school or college can also take place outside of the classroom and includes a range of activities that do not necessarily involve academics (Hidayati, 2017).

In one case, students falsified signatures, made fake stamps, and created fake notes after an event Hidayati (2017). A case of cheating within an organizational context was discussed by Adhitama (2017) in his blog. He described “Gudang Uang” as one form of cheating in which the mode of making PDH (daily official clothing) in college students to make a profit by changing false information in the administration of payment. This is usually done by the part of the organization that is in the division that provides PDH itself (Adhitama, 2017). College students can take part in a less significant, but still important, form of cheating, which is chronic absenteeism. Halim (2018) states that college students who are chronically absent are preparing themselves for negative impacts in the future, especially in their work lives.

College students are in the developmental stage of late adolescence/early adulthood. This is stage five, Identity vs. Role Confusion, in Erik Erikson’s eight stages of psychosocial development (1959, in Miller, 2011). College students at this stage of early adulthood are beginning to shape their identity based on their life experiences and are developing the crucial personality traits of maturity and moral reasoning (Roberts, Walton, & Viechtbauer, 2006; Kohlberg in Papalia & Fieldman, 2012).

Moral reasoning is based on an understanding of individual rights and the application of justice (Papalia & Fieldman, 2012), and the development of moral reasoning is part of the development of moral identity in college students. Lawson (in Amriel, 2008) assumes that college students who commit acts of cheating and academic deception will later behave in the same way in the workplace. This is what college students consider as a sample in this study is the role of college students
who will later plunge into the world of work and society.

Different factors can influence cheating, including age, sex, commitment to discipline, other personality traits (McCabe & Trevino, 1997; Aslam & Nazir, 2011; Masood & Mazahir, 2015), group influence (Gino et al. 2009), and the type of award that could be obtained through dishonesty (Mazar, Amir & Ariely, 2008). In this study, we will focus on personality traits as one of the factors that can influence the likelihood of cheating.

Personality is the organization of a person’s psychological system that determines a unique model of adaptation to their environment (Allport, 1973, in Hjeller & Zienger, 1981). Personality traits are aspects of individual behavior that are consistent as the individual makes an effort to adapt to the environment (Hjeller & Ziengler, 1981). Different personality traits also influence attitudes toward cheating in college students: some increase and some decrease the likelihood of cheating (Amveilaputri, 2016).

Costa and McCrae (in Feist, Feist, & Roberts, 2013) introduce five personality traits: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. The domination of any one of these five traits can influence the likelihood of cheating in college students. De Bruin and Rudnick (2006) state that the traits of conscientiousness and neuroticism will make an individual less prone to cheating. Someone who is conscientious would want to achieve their goals without any appearance of cheating. A person who exhibits neuroticism is overly concerned about the opinions of others and would be too worried that any cheating would be found out.

The traits of extraversion and agreeableness, on the other hand, are more likely to lead to cheating (Stănescu & Iorga, 2013). Extraversion is associated with cheating behavior because people who are extraverted tend to seek the approval of others in various ways, one of them by cheating college students. Someone who is agreeable wants to build good relationships with others, which triggers their involvement in helping others to cheat. People with the trait of openness are less likely to practice academic cheating (De Bruin & Rudnick, 2006; Aslam & Nazir, 2011). Someone with a high level of openness tends to have a strong cognitive ability and would usually be well prepared for any academic experience.

A student’s moral identity influences the likelihood of cheating. Moral identity is defined as an individual’s self-perception related to having moral traits or being a moral human being (Aquino & Reed, 2002). Someone is considered to have morals when they strive for values such as goodness and do not participate in immoral behavior, such as criminal acts (Aquino & Reed, 2002; Hardy, 2006). Cheryan and Bodenhausen (2000) showed that moral identity could be associated with an individual’s beliefs, attitudes, and behavior.

In college students, moral identity can be demonstrated by the existence of academic integrity, which means promoting the qualities of honesty, trustworthiness, equality/fairness, appreciation, responsibility, and courage (Firmantyo & Alsa, 2016).
students, these qualities are exhibited when an individual is honest during exams, doesn’t abuse leadership responsibilities in an organization, and treats colleagues in a group equally. UI students are encouraged to have a high moral identity through adhering to the rules established by the University of Indonesia Trustee Regulation Number 004 / Regulation / MWA-UI / 2015 on the Bylaws of the Universitas Indonesia, which promote the values of honesty, fairness, trustworthiness, dignity, and respect.

In a study conducted by Wowra (2007), moral identity was found to have a positive correlation to academic integrity. Someone who claims to uphold the ideals inherent in a moral identity feels a high level of personal responsibility not to be academically dishonest. In research by Nauli (2016), it was seen that the presence of a moral identity and moral values would discourage a student from academic cheating. This is because people who internalize moral values as part of their identity will avoid actions that conflict with these values.

Our study was undertaken to explore the relationship between cheating by college students, personality traits, and moral identity. We did not find any prior research that studied this combination of values. Different personality traits correlate to the likelihood of cheating behavior in college students, and we studied whether moral identity can act as a moderator that has the potential to strengthen or weaken the relationship between personality traits and cheating. This study was conducted on UI students because they are expected to follow the rules established by UI’s Board of Trustees and not cheat. Previous studies have focused on non-academic cheating, and this research will expand the exploration to include academic and non-academic cheating in college students.

2. METHODS

This research was conducted as a quantitative, correlational, cross-sectional, and non-experimental study that looked at college students and examined the influence of personality traits on cheating with the role of moral identity as a moderator.

2.1. Participants

We studied 196 subjects, a number that met the minimum number of 194 participants based on the results of the calculation of G Power 3.1.9.4. This number was obtained by calculating the power analysis in the z test with logistic regression statistical tests; p < 0.05 was statistically significant. The participants were UI students in an undergraduate or vocational program and were in the age range of 18 to 25 years old. Participants were recruited by describing the research study online in group chats using Line and WhatsApp as well as through social media outlets such as Facebook, Instagram, and Twitter. A non-probability sampling technique was used that facilitated the process of data collection by an accidental sampling method.

2.2. Instruments

2.2.1. Mini International Personality Item Pool (Mini-IPIP)

The Mini-IPIP was used to measure personality trait variables. This 20-item scale was created by Donnellan et al. (2006) based on the 50-item IPIP-FFM

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developed by Goldberg (1999). The Mini-IPIP asks four questions for each of the five traits of extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. The Mini-IPIP scale was translated into Indonesian by Karina (in Avmeilputri, 2016). A Likert scale was used with response choices of 1 (very inappropriate) to 6 being (very appropriate). The reliability of the Mini-IPIP was tested by conducting trials on 62 respondents. The reliability test results showed the Cronbach alpha coefficients of 0.736 for extraversion; 0.430 for agreeableness; 0.545 for conscientiousness; 0.600 for neuroticism; and 0.643 for openness to experience. The total scores for each trait on the Mini-IPIP add up to 4–24, with some items having a reversed score.

2.2.2. Moral Identity Questionnaire (MIQ)

The MIQ was used to measure moral identity. It was developed by Black and Reynolds (2016) and translated by Nauli (2016) into Indonesian. The 20 questions include eight items looking at the moral self and 12 items that describe moral integrity. This measuring instrument is unidimensional, and the calculations of the two are combined. The reliability test results of this measuring instrument showed a Cronbach’s alpha coefficient of 0.876. There were 19 items in the final questionnaire; one of the 20 items were removed because it was statistically problematic.

A Likert scale was again used with scores from 1 (strongly disagree) to 6 (strongly agree.) Items that measure integrity were subjected to a reverse score system. The final total scores ranged from 19–114, with higher scores indicating a higher level of individual moral identity (Black and Reynolds, 2016).

2.2.3. The Number Matrix Task

The cheating variable was measured using the number matrix task (Gino, Ayal, & Ariely, 2009). The test had two sheets: the first sheet contained 20 matrices, each with groups of three-digit numbers, and the second sheet acted as a reporting instrument. For a correctly completed test, students were told they would be awarded a substantial sum of money that would be enough to encourage cheating.

Participants were given five minutes to find and circle the two numbers in each set of matrices that added to 10. After the matrix work was completed, participants were asked to tear the worksheet from the reporting sheet and throw the worksheet in the trashcan. On the reporting sheet, participants were asked to fill in the number of correctly completed matrices, but they believed evidence of the testing process had been discarded. After the participants finished working on the number matrix task, the researcher paired the discarded worksheet and the second recording sheet, and any discrepancies could be identified as incidents of cheating.

2.3. Procedures

We examined the variables that are components of a moral identity: personality traits, moral disengagement, parental attachment, and religiosity. The researcher correlated personality traits and cheating behavior with the role of moral identity as a moderator.

Participants were asked to come to a predetermined research session at the
Student Center of the Faculty of Psychology, University of Indonesia, from April 29 until May 3, 2019. The individuals were given a brief explanation about the research project, and willing participants were asked for informed consent. The study took place over two sessions. In the first session, participants worked on the matrix for five minutes, counted the number of questions that were answered, and then threw the worksheet into the trashcan. Then, participants were asked to fill out the reporting sheet and place it under their respective desks.

In the second session, participants were given 30 minutes to complete a self-reporting inventory and a questionnaire of demographic data. After the participants completed the questionnaire, they were debriefed about the study and given rewards in accordance with the number of matrix questions they had correctly answered.

3. RESULTS

Pearson correlation analysis results showed there was only one personality trait associated with cheating: conscientiousness ($r = -0.126$, $p < 0.05$). The results of the other personality traits did not correlate significantly with cheating: extraversion ($r = -0.106$, $p > 0.05$), agreeableness ($r = -0.052$, $p > 0.05$), neuroticism ($r = -0.03$, $p > 0.05$), and openness to experience ($r = -0.0552$, $p > 0.05$).

The correlation results also showed that the traits of extraversion ($r = 0.199$, $p < 0.01$), agreeableness ($r = 0.144$, $p < 0.05$), and conscientiousness ($r = 0.174$, $p = 0.007$) were significantly related to moral identity. However, the traits of neuroticism ($r = 0.016$, $p = 0.41$) and openness to experience ($r = 0.050$, $p = 0.244$) were not significantly related to moral identity. In addition, the analysis showed that there was no significant relationship between cheating and moral identity, $r = -0.077$, $p = 0.142$ (Table I).

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Regression analysis did not need to be carried out if the research variables tested in the correlation analysis did not show a relationship, but we still did a regression test on the five personality traits to further answer the research problem and determine the interaction between the variables of cheating, moral identity, and personality traits.

**Table 2. Regression Analysis**

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<td>Constanta</td>
<td>20.201</td>
<td>9.587</td>
<td>2.107</td>
<td>0.035</td>
<td>1.4098</td>
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<tr>
<td>(X) Conscientiosness traits</td>
<td>-1.2237</td>
<td>0.604</td>
<td>-2.024</td>
<td>0.042</td>
<td>-2.408</td>
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<tr>
<td>(M) Moral Identity</td>
<td>-0.2656</td>
<td>0.107</td>
<td>-2.477</td>
<td>0.013</td>
<td>-0.475</td>
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<tr>
<td>XM (Interaction XM)</td>
<td>0.0147</td>
<td>0.006</td>
<td>2.226</td>
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The regression analysis results showed that the interaction between moral identity and the personality trait of conscientiousness correlated to cheating, B = 0.0147, P = 0.026, CI = –0.001; 0.027. It can be concluded that moral identity can significantly weaken the influence of the trait of conscientiousness on cheating. Alternative hypothesis 8a is accepted.

### 4. DISCUSSION

Our research only succeeded in proving one of the 10 hypotheses, the alternative hypothesis (Ha8): moral identity is significantly proven to influence the relationship between the trait of conscientiousness and cheating. The presence of a moral identity lessens the likelihood of cheating. There is an assumption that there would be a negative or incompatible relationship between conscientiousness and cheating. The existence of a moral identity with a high trait of conscientiousness moderates a person and makes the possibility of cheating less likely.

Based on the data generated, the results of the correlation and regression analysis produced different results. The researchers suspect that the calculations performed (regression and correlation) affect the relationship between these variables (Hadi, 2004). According to regression analysis, our hypothesis is proven because
conscientiousness has a significant negative relationship to cheating, and moral identity weakens the likelihood of cheating. This hypothesis correlates with the understanding that moral identity is one mechanism of self-regulation that encourages moral behavior (Blasi, 1984). In college students, a higher score on the trait of conscientiousness lessens the likelihood of cheating; the role of a moral identity will further moderate the likelihood of cheating. The other hypotheses were not successfully proven, which could be due to a number of variables outside our control: the influence of hypocrisy, the self-determination theory, the rewards, and the research procedures.

Based on the average moral identity score, the results indicate that the moral identity of the UI students is quite high; however, 23 participants cheated. This is not in line with the findings of Aquino and Reed (2002), who found that someone with a high moral identity also acts morally and would not cheat.

We believe that hypocrisy was present as a variable in the study. Hypocrisy is defined by Valdesolo and DeSteno (2007) as a discrepancy between the moral beliefs that an individual professes to hold and the performance of immoral behavior that is in direct contradiction. It also means to judge oneself by different moral standards than other people. Therefore, moral hypocrisy is thought to be a variable that is apparent when college students identify themselves as having a high moral identity but engage in behavior such as cheating. Cheating occurring in 23 participants is felt to be quite small to help represent the relationship between variables in this study.

The self-determination theory can also help explain the incidents of cheating in our study. Self-determination theory states that motivations can have sources from the external self and the internal self (Ryan & Deci, 2000). External motivations can be an invitation or a responsibility. Internal motivations can include a person’s interests and moral beliefs. As the study was being conducted, the researcher was at the location to guide the proceedings. The researcher may have been seen as an evaluator and may have brought external pressure on the participants. The existence of an evaluator encourages participants to behave in accordance with the prevailing norms where it can reduce the appearance of cheating.

The substantial size of the research reward might have had an effect that encouraged cheating. Hilbig and Thielmann (2017) state that large rewards give rise to great temptations for individuals to cheat. The amount of reward that is given from each matrix is not felt to attract the attention of participants to bring about cheating. So that the alleged results that are less representative can emerge. The method of giving rewards could be adjusted to see whether or not college students cheat.

In the implementation procedure, the researcher realized that there were some limitations, namely the period in which the test was conducted and the attendance of the participants. The study period occurred both before and during the month of Ramadan. During Ramadan, people focus on strong moral qualities and try to behave morally (Hendarmawan, 2017). Cheating is an immoral act and would be less likely to occur during Ramadan than before Ramadan.
5. CONCLUSION

The conclusion will focus on two results. First, of the five personality traits tested, only conscientiousness was found to have a direct correlation to the incidents of cheating in college students. However, the direction of this study is not in line with the assumptions formed by the researcher in his hypothesis written in the alternative hypothesis (Ha3), where "the trait of conscientiousness significantly negatively affects college student cheating." So, based on the results obtained, the alternative hypothesis (Ha3) is still rejected even though the results are significant.

Second, moral identity is proven to significantly moderate the influence of trait of conscientiousness on the incidence of cheating in college students. This is the hypothesis formed in the alternative hypothesis (Ha8), which states that “moral identity significantly reinforces the influence of trait conscientiousness on cheating in college students” is successfully accepted where moral identity, in this case, weakens the effect of trait conscientiousness on cheating on students.

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