Academic Dishonesty in Indonesian College Students: an Investigation from a Moral Psychology Perspective



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Abstract

The present study aimed to investigate academic dishonesty among college students in Indonesia, as well as exploring various aspects of morality (i.e., moral integrity, moral disengagement, and moral foundations) that may affect academic dishonesty. This study drew upon data obtained from an online survey of 574 students from diploma, undergraduate, and postgraduate levels of study in Indonesia (Male = 175, Female = 399). The data revealed a high prevalence of academic dishonesty in Indonesian college students and indicated that the level of academic dishonesty is affected by gender, college origin, and study level. Regressions confirmed that higher academic dishonesty is associated with lower moral integrity and higher level of moral disengagement, as expected, but not with moral foundations. We also present detailed examinations on the three forms of academic dishonesty (i.e., cheating, unauthorized collaboration, and plagiarism) and discuss the theoretical and practical implications of these findings.

Keywords Academic dishonesty \cdot Moral integrity \cdot Moral disengagement \cdot Moral foundations \cdot Indonesia

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Introduction

Academic dishonesty is an existing global problem in education. Research conducted in the US between 2002 and 2015 by McCabe and the International Center for Academic Integrity on 71,300 undergraduate students revealed that 39% of students admitted to cheating on exams; 62% admitted to cheating in report writing; and 68% admitted to doing both. McCabe also surveyed 17,000 Master's students and found that 17% of them admitted cheating on exams; 40% admitted cheating in report writing; and 43% admitted to cheating in both exams and report writing (International Center for Academic Integrity 2015).

In Indonesia, although official data on academic dishonesty has not been documented and large-scale research has not been conducted, facts from the field show that academic dishonesty occurs at various levels of education. At higher education levels, academic dishonesty is even found in the admission process; for example in brokering or soliciting assistance on admission exams (Linggasari 2015). The incidence of dishonest acts recorded during SBMPTN (the admission examination for Indonesia's state universities) in 2016 increased by about 4% over that of 2015 (Fauzan 2016).

Plagiarism is the most common form of academic dishonesty in which college students engage. In Indonesia, the most extreme cases of plagiarism are likely the selling of theses. In 2006, a TV program called Liputan6 revealed an undercover operation of theses manuscript trading in *Pasar Beringharjo*, a traditional book market in Yogyakarta (Liputan6 2006). The sellers use the market to provide a selection of final manuscripts from different education levels and various majors valued from IDR 60,000 (approximately USD 5) to IDR 500,000 (approximately USD 40). Students from Yogyakarta and other cities come to the market to purchase relevant papers; then copy them in part or in whole and claim them as their own work. Some sellers even offer "consultation services" on writing theses, which in fact means that the sellers write the final assignments themselves and sell them to students for around IDR 3.5 to 6 million (approximately USD 300–550). According to our observations, this kind of undercover practice still exists.

These flourishing cases of academic dishonesty around the world are of serious concern to academia. Academic environments should be where moral and ethical values are instilled; yet dishonesty seems to have a place to grow. Research has shown that academic dishonesty is a predictor of tolerance for other moral transgressions (Jensen et al. 2002) and therefore should be a serious concern for every country in the world. This research aims to provide more systematic data about academic dishonesty in Indonesian university students and to identify its determinants in order to comprehend the factors that may predict students' tendency to act dishonestly in academic environments. Behavioral misconduct in academic settings is often attributed to morality problems; yet very few empirical studies linking this type of conduct to specific morality variables exist. Therefore, this study examined several moral determinants of academic dishonesty, including moral integrity, moral disengagement, and moral foundations, from a moral psychology perspective. Furthermore, we also examined demographic characteristics that influence the tendency to engage in dishonest academic acts.

Literature Review

Academic Dishonesty Educational institutions define academic dishonesty in a variety of ways; usually, these definitions are written in the student handbook. The definition of

academic dishonesty usually includes acts of cheating in the form of giving or receiving unauthorized assistance, or receiving credit for unoriginal work, as well as claiming other people's academic work as one's own, such as cheating on exams, copying other people's work, or plagiarizing (Jensen et al. 2002; Maramark and Maline 1993). Colnerud and Rosander (2009) stated that based on the degree of awareness and intention during the act, academic dishonesty can be categorized as one of three types: conscious deception, self-deception, and ignorant deception. Conscious deception describes intentional dishonesty, such as when a student gives the impression that he has completed a task that is actually not his own work. It is self-deception when a student believes he has produced a work when in fact that work was created by others. Ignorant deception describes when a student neglects or disobeys agreed-upon rules and terms in academic writing.

McCabe and Trevino (1993) identified 12 forms of academic dishonesty students practice. These include secretly looking at notes during tests, copying classmates' answers during tests, using unacceptable methods to discover what will be on the exam beforehand, helping classmates cheat during tests, finding other ways to cheat during tests, copying material and acknowledging it as a result of their own work, falsifying references, submitting works that are not their own, receiving unacceptable assistance for individual assignments, working together with classmates on tasks that are supposed to be done individually, and copying sentences from published sources without giving credit to the author.

The Swedish higher education system (Colnerud and Rosander 2009) grouped the various forms of academic dishonesty into three categories of academic dishonesty: cheating, unauthorized collaboration, and plagiarism and fabrication. Cheating describes when someone looks at notes or other materials when it is not allowed. Unauthorized collaboration describes collaborating with other students when it is not acceptable, such as working together to complete individual tasks outside the classroom. Examples of plagiarism and fabrication include copying some or all of texts written by others without acknowledging the source, and falsifying data or information.

Extensive research has been conducted to study the factors that might predict academic dishonesty. Among diverse predictors that have been widely studied globally, Donse and van de Groep (2013) suggested that there are at least three important factors in determining academic dishonesty: demographic variables, contextual influences, and individual characteristics. Individual characteristics such as low self-control and high tolerance of violation have been found to contribute to academic dishonesty (Jensen et al. 2002). As an individual characteristic, morality is closely related to academic dishonesty. Blasi (1980) and Lapsley and Narvaez (2004) stated that academic dishonesty indicates a problem in an individual's moral functioning. Nevertheless, the number of empirical studies examining the links between academic dishonesty and moral variables are still very limited.

Academic Dishonesty and Integrity The term *integrity* (also referred as *moral integrity* in this text) generally refers to someone's commitment to holding moral principles (Schlenker 2008). Individuals are said to have integrity when they keep promises, behave according to moral principles, show behaviors that conform to the community's expectations of their roles, and show loyalty to their commitments (Musschenga 2001). Integrity represents an individual's moral dimension and is important because it indicates the extent to which a person can be trusted.

There are three aspects of moral integrity: commitment to the held principles, persistence in maintaining commitment despite temptation or difficulty, and unwillingness to rationalize the

violation of principles (M. L. Miller and Schlenker 2011; Schlenker 2008; Schlenker et al. 2008). Regarding commitment to held principles, it is suggested that people with high integrity consider their principles as part of their self-concept and behave according to the principles. Regarding persistence in maintaining commitment, a person with principles firmly keeps the commitment despite facing various temptations or having to sacrifice a lot to do so. With regard to the unwillingness to rationalize violation, a person with moral integrity does not justify any violations of his or her principles or beliefs. In short, integrity implies honesty, trust, loyalty in following the rules, good manners, and unwillingness to violate principles even in the face of external pressure or temptation. People with high integrity are committed to their moral principles because they believe these principles are important components of their identity, which serves as a guide to their behavior; people with low integrity do not use moral components to guide their actions (Schlenker 2008).

Not many studies have been conducted to examine the relationship between integrity and academic dishonesty; in addition, the results were also mixed. Wowra (2007) found that participants with firm integrity-related principles had a lower tendency to conduct academic dishonesty. Another study that investigated academic cheating as a form of college students' counterproductive behavior found moderate to strong correlations between integrity and self-reported cheating behavior (Lucas and Friedrich 2005). Martin, Rao, & Sloan (2009), however, reported that those who scored higher on integrity were surprisingly more likely to get involved in plagiarizing.

Although reports regarding the relationship between academic dishonesty and integrity are limited and inconsistent, studies in the area of personality have documented strong and consistent relationships between integrity and conscientiousness personality traits (Sackett and Wanek 1996) that prevent someone from participating in counterproductive behaviors (e.g., academic cheating as suggested in Lucas and Friedrich 2005). Thus, it is reasonable to expect that understanding moral integrity will be useful in understanding students' academic dishonesty behaviors.

Academic Dishonesty and Moral Disengagement The perspective from social cognitive theory (Bandura 1986) explains that humans use self-regulation to control their behavior and thoughts, and they use self-control to choose how they act based on internal moral standards. Internal controls only work effectively when enabled. People decide to engage in unethical behavior when their self-regulation process, and moral regulation in particular, is inactive. This inactivity of moral self-regulation is called moral disengagement. Moral disengagement is the key to the inactivity process of self-regulation; that is, when an individual is morally disengaged, he has no sense of guilt when his behavior violates internal moral standards (Bandura 1986). Previous research showed that moral disengagement is also associated with a number of negative behaviors such as antisocial behavior (e.g., Risser and Eckert 2016; Stanger et al. 2013), unethical behavior (e.g., Clemente et al. 2019; Detert et al. 2008), bullying (e.g., Obermann 2013; Pornari and Wood 2010), and criminal behavior (e.g., Cardwell et al. 2015).

According to Bandura (1999), moral disengagement occurs through eight interrelated cognitive mechanisms that cause a person to avoid moral standards and behave immorally. These interrelated mechanisms include moral justification, euphemistic labeling, advantageous comparisons, displacement of responsibilities, diffusion of responsibilities, distorting the consequences, attribution of blame, and dehumanizing.

<u>Moral justification</u> is the moral disengagement mechanism in which individuals conduct an immoral behavior with seemingly acceptable reasons to justify their conduct. Thus, the

individuals do not feel guilty about their actions. An example of this mechanism is a thief justifying stealing to support his family.

Euphemistic labeling is when someone uses more subtle language to create the impression that a negative behavior is acceptable. An example is someone who takes someone else's belongings without permission without feeling guilty because he is "just borrowing, not stealing."

<u>Advantageous comparison</u> is when an individual compares his own moral violation with another's more serious violation, leading to the idea that the individual's behavior is not wrong because it is a lesser violation. For example, "insulting someone is nothing when compared to hitting them."

Displacement of responsibility describes transferring the responsibility for their own misdeed to a party with higher authority. For example, a child who hit his friend after being provoked by an older friend does not feel guilty because he believes that he was only following orders from his senior.

<u>Diffusion of responsibility</u> is a mechanism in which an individual feels that his mistake is not only his own fault, but also the fault of others. For example, in a brawl, people will attack each other with less hesitation because if something goes wrong, it is blamed on the group, so the individual feels less responsible.

<u>Distorting the consequences</u> is to minimize the meaning of their wrongdoing as if it were not a mistake to act that way. For example, a treasurer uses an organization's money for his own advantage, but he believes that this is acceptable because he only takes a small portion of the organization's great amount of money.

<u>Attribution of blame</u> is when someone commits a moral violation but blames others to attempt to avoid the consequences. For example, a student who gets caught cheating blames the classmate who helped him cheat.

<u>Dehumanization</u> is when someone looks at the people who are the object of violation as inanimate objects or animals with no feelings and expectations, allowing the offender to not feel guilty. For instance, a student bullies a student with special needs because of their perception that this student looks or seems less human.

The contribution of moral disengagement in explaining academic dishonesty is presented in previous studies. Farnese, Tramontano, Fida, and Paciello (2011) and Risser and Eckert (2016) found that moral disengagement predicted cheating behavior among college students. Other findings suggested that perpetrators of academic dishonesty were more likely to be morally disengaged from their transgressions by rationalizing their actions as commonplace and justifiable (Martin et al. 2009; McCabe et al. 2001). An Indonesian study also confirmed moral disengagement as a strong predictor of academic dishonesty (Firdaus and Solicha 2018).

Academic Dishonesty and Moral Foundation Haidt, Graham, and Joseph (2009) define moral foundation as a psychological system that enables an individual to comprehend behavior as right, wrong, praiseworthy, or disgraceful. This system works at the cognitive level; therefore, it is influenced by the individual's culture and environment. They postulate that there are five dimensions of moral foundation: Care/Harm, Fairness/Cheating, Loyalty/Be-trayal, Authority/Subversion, and Sanctity/Degradation (Graham et al. 2013; Haidt 2012; Haidt et al. 2009).

<u>Care/harm</u> is the moral foundation related to caring for others. This is the most basic moral foundation; it is rooted in mammals' instinct to protect their offspring. Correct or right

behaviors based on this moral foundation are showing affection, compassion, and care for others; whereas incorrect or wrong behaviors are those that may inflict harm.

<u>Fairness/cheating</u> is the moral foundation of the idea of fairness. Correct behaviors under this foundation are those that demonstrate fairness and equality. Wrong behaviors are unjust and unfair.

Loyalty/betrayal is the moral foundation related to individuals' obligations as group members. According to this foundation, correct behaviors show loyalty to the group, while wrong behaviors indicate betrayal.

<u>Authority/subversion</u> is the moral foundation of the social order and the obligations associated with hierarchical relationships. Correct behaviors under this foundation are behaviors that show conformity, respect, and obedience to authority or respected figures. Wrong behaviors include those that show disrespect to authority figures.

<u>Sanctity/degradation</u> is a moral foundation in relation to negative physical and spiritual influences. Correct behaviors according to this foundation are behaviors that show purity and cleanliness. Wrong behaviors are those that are considered dirty and immoral.

Moral foundation theory is a fairly new theory in the area of moral psychology. With its multidimensional perspective, this theory is expected to be useful in understanding moral behaviors. To date, however, not many studies have applied this theory to certain behaviors, including academic dishonesty. Our research revealed a few clues on this topic: one study found that the reason plagiarism is considered morally wrong is because it is unfair to the originator of the work (R. Barrett and Cox 2005); "being unfair" is a clue for the foundation of fairness/cheating. Another study conducted in Malaysia suggested that religious faith has an important role in predicting academic dishonesty (Ismail 2013); religious reasons are similar to the sanctity/degradation foundation. The present research is the first to examine moral foundations as antecedents of academic dishonesty. Moreover, this study is also the first to apply this theory in Indonesia. For this reason, we present our results and discussions regarding moral foundations in thorough detail.

Demographic Characteristics and Academic Dishonesty Previous studies in this area provide some clues that demographic variables are linked to academic dishonesty. The first variable is gender, where the majority of the findings show that academic dishonesty is more prevalent in male students (Kuntz and Butler 2014; Marsden et al. 2005; McCabe and Trevino 1997; Nazir et al. 2011; Risser and Eckert 2016). According to Ward and Beck (1990), sex-role socialization experiences might be the most important factor explaining this gender effect on academic dishonesty. Women are more socialized to rules than men, so it is reasonable to conclude that women judge academic dishonesty as more intolerable than men. However, other findings show that women are more prone to conducting dishonest academic behavior than men (Martin et al. 2009). Another finding suggests a weak link between gender and academic dishonesty (Haines et al. 1986; Jordan 2001). In Indonesia, no studies (e.g., Febriyanti 2009; Firdaus and Solicha 2018; Syahrina and Ester 2017; Winardi et al. 2017) have explored the gender effect on academic dishonesty.

There have also been discussions about how cultural differences could affect the prevalence of academic dishonesty. Cordeiro (1995) proposes that dishonest behaviors might be more prevalent in certain cultures, and that this could simply be due to the different beliefs held by those cultures (e.g., certain behavior is considered dishonest and thus unacceptable in one culture but not in another). On the other hand, Miller et al. (2015) argue that the cultural effect on academic dishonesty might be more due to variations in social structure across cultures.

ubiquitous in areas with resource limitations.

From their study in 4538 schools within 35 nations, academic dishonesty was found to be significantly influenced by resource limitations and economic conditions. That is, schools with more resource shortages that are located in more economically-disadvantaged areas face higher levels of cheating. In support of this notion, Carnero et al. (2017) later confirmed that in the context of higher education in developing countries, issues of academic dishonesty were more

This finding might be relevant to the conditions in Indonesia, where economic inequality still exists among the provinces and islands. This is also due to an economic development process that is still too centered in Java Island (Indonesia Investments 2016). The result is that Java Island has become relatively more superior in many aspects, including education, where the distribution of good educational institutions and facilities is mainly centered in Java. As various surveys show, 14 out of 15 top junior high schools* (Harususilo 2019), 13 out of 15 top senior high schools (Novaya 2016), and 18 out of the top 22 universities in Indonesia (QS World University Rankings 2019) are located in Java Island. Respectively, 33.33%, 13.33%, and 13.63% of these junior high schools, senior high schools, and universities are located in Yogyakarta Province, which is famous for its vibrant educational culture and known as the City of Education. It would be beneficial to investigate whether academic dishonesty is also influenced by this background.

The Present Research

The goal of this research is twofold. First, we want to investigate the level of academic dishonesty in Indonesian college students by examining demographic variations (i.e., gender, study level, college origin, and years of study). We also want to examine the contribution of moral antecedents (i.e., moral integrity, moral disengagement, and moral foundations) to academic dishonesty. Detailed examination of the contributions of moral antecedents on each of the academic dishonesty variables (i.e., cheating, unauthorized collaboration, and plagiarism) will be conducted to enrich the discussion. Related to this first goal, we present two hypotheses:

Hypothesis 1: Variation in the level of academic dishonesty and its three distinct forms exists based on two demographic characteristics: gender and college origin. Male students and students from outside of Java are expected to participate in a higher level of dishonest behaviors. Additionally, we would like to explore whether variations exist based on study levels (diploma, undergraduate, postgraduate) and study years (prior to final years, currently in final years, exceeding normal years); however, we did not set a hypothesis for these last two analyses.

Hypothesis 2: Academic dishonesty is predicted by moral integrity, moral disengagement, and the moral foundations of fairness/cheating and sanctity/degradation. Moral integrity has a negative influence; moral disengagement has a positive influence, and foundations of fairness/cheating and sanctity/degradation have negative influences on academic dishonesty levels.

Additionally, the present research goal is to explore the contribution of moral foundations on academic dishonesty. Although only two foundations (fairness/justice and sanctity/degradation) were expected to predict academic dishonesty, we examine all five moral foundations together to obtain more comprehensive information on the interrelationships between these foundations and academic dishonesty. Furthermore, considering that the moral foundation theory has not been studied in Indonesia while it has received much attention worldwide, we would also like to test its applicability in Indonesia.

Method

Participants

A total of 574 college students participated in this study. They were recruited through announcements posted using social media (Facebook, WhatsApp, and Instagram). We also used snowball sampling by asking participants to pass the recruitment information on to other students within their networks. The participants were male (N = 175; 30.49%) and female (N = 399, 69.51%); they lived either in Yogyakarta Province (N = 286; 49.83%), Java other than Yogyakarta (N = 223; 38.85%), or outside of Java (N = 65; 11.32%); they were enrolled as students at either diploma (N = 53; 9.23%), undergraduate (N = 449; 78.22%), or postgraduate level (N = 72; 12.55%); and they were in either the normal years (N = 275; 47.91%), final year (N = 205; 35.71%), or already passing the final year of their study period (N = 94; 16.38%). Please see Table 2 for detailed information. All participants were included in a draw to receive phone credits in return for their participation.

Measurements

Four self-reporting questionnaires were used in this study: Academic Dishonesty Scale, Integrity Scale, Moral Disengagement Scale, and Moral Foundation Questionnaire (MFQ). All questionnaires were presented in Indonesian (Bahasa Indonesia). Preliminary analysis was conducted using confirmatory factor analysis (CFA) to assess whether the items on each questionnaire were loaded properly and represent the construct of the variable. We used .30 cut-off points to determine whether an item was worthy and should be included in data analyses. Factor loadings of the items within each variable are presented in Table 1.

Academic Dishonesty Scale This scale was constructed based on the academic dishonesty measurement developed by McCabe and Trevino (1993) and Stone et al. (2010). It contains 14 items which represent three forms of academic dishonesty: cheating, unauthorized collaboration, and plagiarism (see Appendix Table 4). Participants were asked to respond to statements such as: "During my time in college, I helped others to cheat on tests" using a scale ranging from 0 (never) to 4 (very often). All items showed good factor loadings and therefore were included for hypotheses testing. The scale showed high internal consistency ($\alpha = 0.87$), and each of its subscales showed high to moderate Cronbach's alpha coefficient of 0.84 (cheating), 0.72 (unauthorized collaboration), and 0.67 (plagiarism).

Moral Integrity Scale The moral integrity scale was adapted from Schlenker et al. (2008); it originally had 15 items but was shortened to 10 items after CFA was conducted. Items on this scale measure the extent to which individuals are willing to uphold basic principles/values and commit to not compromising their principles despite temptation. Items such as *"No matter how much money is earned, life will not be satisfactory without responsibility and good*

Items	MI	MD	Moral Foundations					Academic Dishonesty			
			C/H	F/C	L/B	A/S	S/D	CE	UC	PL	
1	0.44	0.62	0.39	0.43	0.21	0.49	0.61	0.67	0.74	0.44	
2	0.51	0.45	0.27	0.65	0.72	0.39	0.52	0.72	0.61	0.69	
3	0.58	0.53	0.65	0.72	0.71	0.66	0.46	0.81	0.54	0.44	
4	-0.33	0.52	0.10	0.17	0.02	0.11	0.10	0.79	0.37	0.79	
5	0.66	0.42	0.12	0.19	0.03	0.12	0.10	0.65	0.68		
6	0.52	0.41	0.08		0.06	0.09	0.18				
7	0.73	0.71									
8	0.51	0.66									
9	-0.22	0.62									
10	0.49	0.53									
11	0.37	0.54									
12	-0.21	0.63									
13	0.21	0.52									
14	0.64	0.35									
15	0.23	0.26									
16		0.66									
17		0.61									
18		0.53									
19		0.54									
20		0.40									
21		0.53									

Note. MI: Moral Integrity, MD: Moral Disengagement, C/H: Care/Harm, F/C: Fairness/Cheating, L/B: Loyalty/ Betrayal, A/S: Authority/Subversion, S/D: Sanctity/Degradation, CE: Cheating, UC: Unauthorized Collaboration, PL: Plagiarism. Factor loadings of .30 and above are highlighted.

character" were rated on 5-point scale ranging from 1(strongly disagree) to 5 (strongly agree). Cronbach's alpha coefficient of .80 was obtained from the reliability test for this scale.

Moral Disengagement Scale The moral disengagement scale is a modification of the Mechanism of Moral Disengagement Scale (Bandura 2002) and Moral Disengagement about Cheating Scale (Shu et al. 2011). It originally had 21 items, but one item was eliminated after CFA. It measures the tendency to engage in eight mechanisms of moral disengagement (i.e., moral justification, euphemistic labeling, advantageous comparison, displacement of responsibility, diffusion of responsibilities, distorting the consequences, attribution of blame, and dehumanizing). Items such as *"Fraud is a permissible behavior because it does not hurt anyone"* and *"It does not matter taking a few ideas from others without permission"* were rated on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). This scale reported a high internal consistency with Cronbach's alpha of 0.89.

Moral Foundations Questionnaire Moral foundations were assessed using the Indonesian translation of the MFQ, which was taken from the official Moral Foundation Theory website (https://moralfoundations.org/questionnaires). It was originally developed by Graham et al. (2011) and was translated into Indonesian by Martoyo (2010). It measures the extent to which the five moral foundations are important for participants to determine whether something is good or bad, or right or wrong. The original questionnaire includes two parts, but this study only used the first part. This part asked participants "*When you decide whether something is*

right or wrong, to what extent are these considerations relevant to you?" Some items were then provided, such as "*whether or not someone suffered emotionally*." Participants responded to these items using a scale ranging from 1 (totally irrelevant to me) to 6 (very relevant to me). Unfortunately, CFA resulted in very low factor loadings for many items on this scale: four items of care/harm, two items of fairness/cheating, four items of loyalty/betrayal, three items of authority/subversion, and three items of sanctity/degradation had to be eliminated from the questionnaire. The remaining items formed five subscales with moderate to low internal consistency; i.e., Cronbach's alpha of 0.44 (care/harm), 0.62 (fairness/cheating), 0.68 (loyalty/betrayal), 0.51 (authority/subversion), and 0.49 (sanctity/degradation) (See Table 2). Despite its low alphas, we decided to keep this scale for analysis because our purpose was to test its applicability in Indonesia.

Demographic Questionnaire Participants' demographic information was obtained using a self-reporting assessment on gender, study level, college origin, and study year. For gender, males were coded 1 and females were coded 2. For study level, diplomas were coded 1, undergraduates were coded 2, and postgraduates were coded 3. For college origin, Yogyakarta was coded 1, Java (other than Yogyakarta) was coded 2, and outside Java was coded 3. For study year, prior final year was coded 1, currently in final year was coded 2, and exceeding final year was coded 3.

Results

Prevalence of Academic Dishonesty

Almost all participants (98.78%) admitted that they performed some acts of dishonest behavior during their college year(s). Among this proportion, the majority reported that they performed the acts *occasionally*. If we look more closely into each form of academic dishonesty, the proportions of students who admitted conducting dishonest acts were as follows: (i) 95.30% for unauthorized collaboration, with the most dominant answer (modus) being *occasionally*; (ii) 87.98% for plagiarism, with the modus being *occasionally*; and (iii) 75.09% for cheating, with the most reported answer being *occasionally*. We compared the mean scores of these three forms of academic dishonesty using a one-way repeated measure ANOVA with Greenhouse-Geisser correction and found that the prevalence of each type of dishonest behavior was significantly different (F = 149.91, p < .001); Bonferroni's post hoc analysis showed that unauthorized collaboration was the type of academic dishonesty most likely to be performed by college students (M = 2.12, SD = 0.71), followed by plagiarism (M = 1.86, SD = 0.66; $\Delta M = -0.21$, p < .001) and cheating (M = 1.65, SD = 0.68; $\Delta M = -0.48$, p < 0.001). Figure 1 displays the mean scores comparison.

Comparisons of Academic Dishonesty across Demographic Characteristics (Hypothesis 1)

Table 2 summarizes means and standard deviations of academic dishonesty as well as comparisons across demographic characteristics (gender, college origin, study level, study year). As seen in Table 2, academic dishonesty (total) differed across gender, college origin,

			,))	•							
		Academ	Academic Dishonesty	sty	Cheating	ρņ		Unautho	Unauthorized collaboration	ration	Plagiarism	sm	
	Ν	М	SD	F	М	SD	F	М	SD	F	М	SD	F
Gender													
Male	175	2.04	0.66	21.77^{***}	1.80	0.80	12.77^{***}	2.31	0.81	17.80^{***}	2.02	0.69	14.65^{***}
Female	399	1.80	0.51		1.58	0.61		2.04	0.64		1.80	0.64	
College origin													
Yogyakarta	286	1.76	0.50	17.11^{***}	1.51	0.58	14.49^{***}	2.04	0.66	7.70^{**}	1.74	0.59	15.86^{***}
Other-Java	223	1.93	0.61		1.74	0.75		2.15	0.74		1.90	0.67	
Outside Java	65	2.19	0.62		1.91	0.72		2.41	0.72		2.23	0.77	
Study level													
Diploma	53	2.02	0.64	4.46^{*}	1.82	0.76	3.54^{*}	2.21	0.67	.50	2.02	0.74	11.22^{***}
Undergraduate	449	1.89	0.57		1.65	0.68		2.12	0.70		1.90	0.66	
Postgraduate	72	1.72	0.51		1.50	0.59		2.09	0.77		1.53	0.46	
Study year													
Normal year	275	1.84	0.54	2.20	1.59	0.64	3.35^{*}	2.04	0.68	3.72^{*}	1.89	0.67	0.91
Final year	205	1.89	0.56		1.66	0.66		2.18	0.70		1.81	0.64	
After final year	94	1.98	0.68		1.80	0.81		2.24	0.78		1.88	0.67	
**** $p < 0.001$, ** $p < 0.01$, ** $p < 0.01$, * $p < 0.05$	< 0.01, * <i>p</i>	< 0.05											

Table 2 Comparisons of Academic Dishonesty across Gender, College Origin, Study Level, and Study Year

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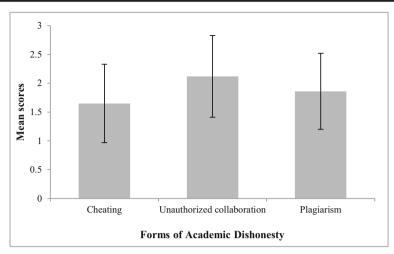


Fig. 1 Mean score comparison between cheating, unauthorized collaboration, and plagiarism. Note. Error bars represent standard deviations

and study level, but did not differ across study year. By gender, academic dishonesty was higher in males (F = 21.77, p < 0.001; M = 2.04, SD = 0.66). Based on college origin, academic dishonesty was highest in students from outside of Java (F = 17.11, p < 0.001; M = 2.19, SD = 0.62). Based on level of study, academic dishonesty was highest in diploma students (F = 4.46, p < 0.05; M = 2.02, SD = 0.64).

More specifically, cheating differed across all demographic characteristics with males (F = 12.77, p < 0.001; M = 1.80, SD = 0.80), students from outside Java (F = 14.49, p < 0.001; M = 1.91, SD = 0.72), diploma students (F = 3.54, p < 0.05; M = 1.82, SD = 0.76), and students exceeding final year (F = 3.35, p < 0.05; M = 1.80, SD = 0.81) reporting higher scores. For unauthorized collaboration, no difference was found across study level but differences were found across gender, college origin, and study year. As usual, scores were higher in males (F = 17.80, p < 0.001; M = 2.31, SD = 0.81), students from outside Java (F = 7.70, p < 0.01; M = 2.41, SD = 0.72), and students exceeding final year (F = 3.72, p < 0.05; M = 2.24, SD = 0.78). Lastly, plagiarism did not differ across study year, but it did differ across gender, study level, and college origin. Again, males (F = 14.65, p < 0.001; M = 2.02, SD = 0.69), students from outside Java (F = 15.86, p < 0.001; M = 2.23, SD = 0.77), and diploma students (F = 11.22, p < .001; M = 2.02, SD = 0.74) reported higher scores.

Predicting Academic Dishonesty from the Moral Determinants (Hypothesis 2)

Multiple linear regressions were performed to examine whether academic dishonesty can be predicted from moral integrity, moral disengagement, and the hypothesized moral foundations of fairness/cheating and sanctity/degradation. Please note that all five moral foundations were included in the model. This procedure was then repeated for each dimension of academic dishonesty (cheating, unauthorized collaboration, and plagiarism). The results are explained below.

Predicting academic dishonesty in general When moral integrity, moral disengagement, and five moral foundations were entered into the model, they collectively explained a

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significant 21.4% of the total variance of academic dishonesty ($R^2 = 0.214$, F(7,566) = 22.06, p < 0.001) (Table 3). Moral disengagement, moral integrity, and the moral foundation of authority/subversion were found to be significant predictors of academic dishonesty, with moral disengagement showing the strongest regression coefficient ($\beta = 0.39$, t = 9.80, p < 0.001). Neither fairness/cheating nor sanctity/degradation showed significant contribution; instead, authority/subversion did. All coefficients fell in the expected directions; less moral integrity and more moral disengagement were associated with higher levels of academic dishonesty.

Predicting Cheating To predict cheating behavior, three moral variables were entered into the model and together they explained 18.6% of the variability of cheating ($R^2 = 0.186$, F(7,566) = 18.47, p < 0.001). Moral disengagement, moral integrity, and the moral foundations of fairness/cheating, and authority/subversion were performed as the significant predictors of cheating, with moral disengagement consistently showing the strongest regression coefficient ($\beta = 0.34$, t = 8.54, p < 0.001). Again, the contribution of sanctity/degradation was not significant in predicting cheating. All coefficients of the significant predictors were in the expected direction; less moral integrity, less fairness/cheating, more authority/subversion, and more moral disengagement were all related to higher levels of cheating.

Predicting Unauthorized Collaboration When the moral variables were entered into the model, they explained 15.7% of the total variance of unauthorized collaboration ($R^2 = 0.157$, F(7,566) = 15.07, p < 0.001). Moral disengagement and moral integrity significantly predicted unauthorized collaboration, with moral disengagement as the strongest predictor ($\beta = 0.34$, t = 8.17, p < 0.001). Both moral foundations of fairness/cheating and sanctity/degradation failed to present significant contribution. All coefficients of the significant predictors fell in the hypothesized direction; less moral integrity and more moral disengagement were associated with higher levels of unauthorized collaboration.

Predicting Plagiarism When entered into the model, the three moral variables collectively explained 10.9% of the total variance ($R^2 = 0.109$, F(7,566) = 9.94, p < 0.001). Moral disengagement and moral integrity were found to be significant predictors of

	Academic Dishonesty	7	Cheating	g	Unauthorized Collaboration		Plagiarism	
	$R^2 = .214^{**}$	**	$R^2 = .18$	6***	$R^2 = .157^*$	*	$R^2 = .10$	9***
	β	r	β	r	β	r	β	R
Moral Integrity	-0.15***	26***	16***	-0.25***	-0.13**	-0.23***	-0.10^{*}	-0.17***
Moral Disengagement	0.39***	0.43***	0.34***	0.39***	0.34***	0.37***	0.28***	0.31***
Moral Foundation								
Care/harm	0.03	-0.01	0.04	-0.02	0.06	0.02	-0.04	-0.03
Fairness/cheating	-0.10	-0.04	-0.15^{*}	07^{*}	04	-0.01	-0.05	-0.04
Loyalty/betrayal	-0.06	0.00	-0.05	-0.00	-0.06	0.01	-0.03	0.00
Authority/subversion	0.11*	0.03	0.13*	0.03	0.08	0.02	0.06	0.02
Sanctity/degradation	0.01	-0.03	0.01	04	-0.02	-0.04	0.06	-0.00

Table 3 Multiple regression analysis results on academic dishonesty and its subscales (N = 574)

p < .05, p < .01, p < .001

Note. All regression models are good fit for the data (p < .001)

plagiarism, with the contribution of moral disengagement being the strongest ($\beta = 0.28$, t = 6.75, p < 0.001). As usual, neither fairness/cheating nor sanctity/degradation performed as significant predictors of plagiarism. All coefficients of the predictors were in the hypothesized direction; less moral integrity and more moral disengagement were related with higher levels of plagiarism.

Discussions

Everyone would agree that honesty is a very important value in the academic world. Therefore, it is important to understand the processes involved in academic dishonesty. This study offers some insights on academic dishonesty in Indonesian college students, including statistics and its antecedents.

Figures of Academic Dishonesty in Indonesia

First of all, we found an astonishing proportion of participants (98.78%) who admitted that they had performed some act of academic dishonesty during their college study year(s). While this figure is worrisome, it did not actually differ very much from other studies' findings. As stated previously, the International Center for Academic Integrity (2015) reported that 68% of US students admitted to cheating and to copying reports. In Asia, Lim and See (2001) even reported that 100% of 518 Singaporean students who participated in their study admitted committing dishonest acts at least once during their college years.

We tried to understand why academic dishonesty is so common in the Indonesian context. The first reason might be the lack of socializations. Martin, Rao, & Sloan (2009) argue that students sometimes participate in academic misconduct because they actually do not understand that what they are doing is wrong or unacceptable. We observed that Indonesian academic institutions in general have not done much to socialize honor codes related to academic dishonesty. Rather, honor codes in Indonesian academic institutions emphasize more general behaviors such as how to behave and dress properly in academic contexts. Academic honor codes ideally include ethical rules regarding student conduct, such as to how to behave honorably in the academic community. Academic honor codes have been found effective in inhibiting academic dishonesty because they remove the obscurity from the definitions of academic dishonesty (Cole and Conklin 1996) and clarify the institution's academic expectations (McCabe and Trevino 1993). A number of previous studies have confirmed that the implementation of an honor code in universities could significantly suppress the prevalence of academic dishonesty in college students (Kisamore et al. 2007; McCabe and Trevino 1993; McCabe et al. 1999, 2002).

Among the three forms of academic dishonesty, students participated in unauthorized collaboration most frequently. This might be related to Indonesian collectivist culture. In collectivistic cultures, people tend to comply more with social norms (Bierbrauer et al. 1994), to be helpful to in-group members but competitive with out-groups (Smith and Bond 1993), and to see themselves as interdependent within their in-groups (Triandis 2001). It is

very likely that an act of unauthorized collaboration is not perceived as an unethical conduct; rather, it may be seen as a usual cooperation or collaboration between friends or even as fulfilling social obligations. People of collectivistic cultures also tend to show high conformity (D. W. Barrett et al. 2004; Bond and Smith 1996). The fact that 95.30% students reported unauthorized collaboration also tells us that if a student decides not to engage in collaboration, she would likely become a minority, and in collectivistic cultures, being different is less desired. This may also be a clue for why previous studies found that Asian ethnicities tend to perform more academic cheating than other ethnicities. For example, a study in New Zealand reported that Asian college students showed a significantly greater proportion of involvement in plagiarizing assignments than their counterparts from other cultural groups (Robinson and Kuin 1999). Williams and Williams (2012) also reported that the prevalence of academic dishonesty in students of Asian ethnicity was the highest among Europeans, Maori, and Pacific Islanders.

In our examination of the levels of academic dishonesty based on demographic variations, we found that, as expected, male students showed more tendencies toward academic dishonesty than their female counterparts; this comparison applied to all three subscales (cheating, unauthorized collaboration, and plagiarism). This finding validates Ward and Beck's (1990) argument that due to the differences in sex-role socialization experiences, males are more inclined to disobey rules than females.

Also as expected, college students from outside Java performed academic dishonesty more than their counterparts who studied at Yogyakarta and in other parts of Java; this confirmed our expectation. Academic institutions located outside of Java are generally less established than those in Java Island; they have more limited resources and might not be able to give full attention to issues of academic behavioral conduct. Therefore, honor codes may be even less socialized in these institutions. Please note, however, that the percentage of respondents from outside Java was only 11.32%, thus this particular result need to be interpreted with cautions.

Furthermore, we found that students at the diploma level performed higher levels of academic dishonesty than undergraduate and postgraduate students, except on the unauthorized collaboration subscale. This might indicate that honor codes are less socialized at diploma levels.

In general, no difference was found in the level of dishonesty based on college years. However, students who exceeded their final year of study reported more frequent cheating and unauthorized collaboration that took place during their college years. This finding is not aligned with previous findings that senior students tend to be more ethical (Coombe and Newman 1997) and more committed to academic demands (Diekhoff et al. 1996) than their younger counterparts. We suspect that this relates to at least two reasons: first, students who did not graduate in time may have faced more pressure during their college years, so they may have conducted academic dishonesty more frequently. Second, they might have been students with fewer academic commitments, thus being more prone to conducting dishonesty.

Predicting Academic Dishonesty from its Moral Determinants

Our model contributes 21.4% in predicting academic dishonesty in Indonesian college students. As expected, we found that moral integrity weakens academic dishonesty,

while moral disengagement strengthens it. However, the moral foundations of fairness/ cheating and sanctity/degradation did not predict academic dishonesty as expected. Instead, the moral foundation of authority/subversion showed a significant contribution in the model, but the beta was very small. The five moral foundations in fact showed insignificant correlations with most of the academic dishonesty measures; this may be due to their very low internal consistencies which in turn do not allow much of significant associations with other variables.

Theoretically, people with high integrity will refrain from acts of academic dishonesty, even if they have to sacrifice their academic achievement. As suggested by Dunn (2009), someone with moral integrity would describe themselves as loyal to his moral commitments and therefore would not violate their principles, no matter what the temptation. For this person, maintaining principles is more important than getting an easy result while sacrificing their belief in moral principles (Schlenker 2008). In academic matters, a student's core morality will prohibit him from engaging in or committing any form of dishonesty (Wowra 2007). On the other hand, people with low integrity are more flexible around holding on to moral principles; therefore, they could easily rationalize their own wrong behavior (Schlenker 2008). Moral disengagement, on the other hand, reinforces people to behave unethically without any negative self-perception, both during and after the immoral action (Hymel et al. 2010). As confirmed by a number of previous studies, moral disengagement is strongly associated with many kinds of negative behaviors, one of which is academic dishonesty (Farnese et al. 2011; Firdaus and Solicha 2018; Risser and Eckert 2016). This is due to the cognitive mechanisms of moral disengagement that allow people to rationalize any misconduct as justifiable (Bandura 1999).

Our findings suggest that the contribution of integrity toward academic dishonesty $(\beta = -0.15)$ is statistically weaker than that of moral disengagement $(\beta = 0.39)$. This could be explained based on the nature of these two variables. Integrity describes more of a person's character in general, while moral disengagement describes more of a behavior. Moral disengagement may indeed be a more direct predictor of dishonest behavior. Some previous studies have shown empirical evidence linking moral disengagement with some aspects of dishonesty. Natalia et al. (2015) found that academic dishonesty like plagiarism was positively associated with moral disengagement. Farnese et al.'s (2011) study also found that moral disengagement affects a person's decision-making process more directly than integrity does; the next studies are suggested in order to test this assumption.

Our hypothesized significant contributions of fairness/cheating and sanctity/ degradation to academic dishonesty were not confirmed. The two foundations did not even show a significant bivariate relationship with academic dishonesty. Results related to the foundation of fairness/cheating were contrary to the research findings in western cultures, where Chudzicka-Czupała (2014) found that a student's level of awareness of justice decreases the possibility that he will commit fraud or plagiarism. Also, Moss et al. (2018) found that individuals who uphold justice tend to avoid plagiarism because it is considered unfair. On the other hand, our findings related to the foundation of sanctity/degradation may be aligned with the findings from Yu et al. (2017), where religion did not contribute to students' decisions to commit academic fraud. Further discussion on the MFQ is provided below.

From separate regression analyses on the three distinct forms of academic dishonesty, we found that cheating, unauthorized collaboration, and plagiarism were all consistently predicted by moral integrity and moral disengagement. In addition, we found that the fairness/cheating foundation is a unique contributor as a predictor of cheating. We argued that the negative causal relationship between a high foundation of fairness/cheating and low cheating behavior might be present due to the shared principles between the two variables. Basically, cheating behavior represents a form of violation of the justice principles, which also underlies the foundation of fairness/ cheating (Haidt et al. 2009).

All in all, we can conclude that our model could significantly explain academic dishonesty, both in general and in its three distinct forms. We compared our R^2 coefficients to the R^2 coefficients obtained by previous studies that also examined the possible determinants of academic dishonesty and found that our result is quite similar. The studies examined these determinants: individual and situational factors ($R^2 = 17\%$, Kisamore et al. 2007), individual and contextual factors ($R^2 = 26.2\%$, Eriksson and McGee 2015), personality factors ($R^2 = 11\%$, Martin et al. 2009), attitudinal factors ($R^2 = 30\%$, Bolin 2004), and motivational and knowledge of institutional policy factors ($R^2 = 18.3\%$, Jordan 2001). Our model includes personality factors related to moral values, and in fact it contributed more than some of the aforementioned studies. It would be potentially useful to explore individuals' characteristics more to better explain unethical behaviors.

Applying Moral Foundation Theory in the Indonesian Context

As stated before, an additional goal of this research is to explore the applicability of moral foundation theory (MFT) (Haidt 2012) in Indonesia. MFT is a relatively new approach to moral psychology. With its relativistic view of morality, we expect that this theory may be useful in explaining behaviors, including those related to morals and ethics, across cultures. However, the application of this theory is by far still limited to areas such as ideological and political behaviors (e.g., Franks and Scherr 2015; Milesi 2016; Nilsson and Erlandsson 2015; Rempala et al. 2016; Silver and Silver 2017), environmental behaviors (e.g., Dawson and Tyson 2012; Kidwell et al. 2013; Vainio and Mäkiniemi 2016; Wolsko et al. 2016), and personality (e.g., Crone and Laham 2015; Day et al. 2014; Van Berkel et al. 2015). The theory of morality has rarely been applied to understanding moral or ethical behaviors.

It is unfortunate, however, that this research revealed poor psychometric properties for the MFQ, which has actually been quite widely used over the past decade. Our CFA showed that the scale has poor factor structures: only 33% were items of care/harm; 60% were items of fairness/cheating; 33% were items of loyalty/betrayal; 50% were items of authority/ subversion; and 50% were items of sanctity/degradation that showed acceptable psychometric properties. Each subscale within the questionnaire only showed low to moderate internal reliabilities.

We suspect that this poor psychometric property was primarily related to language. According to our judgment, the language used in the MFQ is not quite transferrable to the Indonesian language; the sentences are hard to understand from an Indonesian point of view. From our literature review, however, we found that this issue was also present in previous studies using the MFQ across cultures. For instance, Davis et al. (2016) found that the MFQ factor structure for Americans of color was not equal to that of white Americans. Iurino and Saucier (2018) administered the MFQ in 27 countries and found that the factor structure of the questionnaire varied cross-culturally. This may indicate that when applied in cultures other than America, the MFQ does not represent the construct equivalent to that in America. We are therefore not ready to draw a conclusion on the applicability of the MFT in Indonesia; at this point, we can only suggest that the MFQ needs to be revised in order to make it more applicable across a larger variety of languages and cultures.

Conclusions and Future Directions

This study found that the prevalence of academic dishonesty in Indonesian college students was quite high with almost all students admitting that they had engaged in dishonest behaviors occasionally during their past study years. Higher levels of academic dishonesty were observed in male students, students at the diploma level, and students from colleges outside Java. Unauthorized collaboration was the most common form of dishonesty found among the students.

Less integrity and higher moral disengagement predict academic dishonesty as expected; while the moral foundations of fairness/cheating and sanctity/degradation did not show meaningful contributions. The contribution of moral disengagement was much larger than that of integrity. This pattern of prediction was repeated for cheating, unauthorized collaboration, and plagiarism, except that the foundation of fairness/ cheating significantly predicted cheating. The overall model predicted 21% of variance for academic dishonesty.

The variable that represents the most fundamental character of a person; that is, integrity, turned out to show a very small contribution. On the other hand, moral disengagement showed greater contribution. This may imply that the tendency to commit academic dishonesty is more influenced by situational factors that result in moral disengagement, and not by more fundamental factors like certain personality characteristics. Further study is needed on moral disengagement mechanisms as they relate to the process of academic dishonesty.

It is important to pinpoint the limitations of this study. First, the convenience sample recruited from social media may not be representative of the Indonesian college student population. Our sample was dominated by students from Java Island; only around 11% came from outside Java and they certainly are not representative of the 29 Indonesian provinces outside of Java where colleges and universities exist. Further research should be conducted on more representative sample. The second limitation is the low internal consistencies of the MFQ, which suggest that our results regarding the moral foundations should be interpreted carefully. This particular limitation then suggests that the MFQ needs to be revised for application in Indonesia.

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Appendix 1

Aspect	Item
Cheating	1. Use dishonest methods to learn what is on the exam before the exam.
	2. Copying friends' answers during a test.
	3. Cheating on the test in any way.
	Looking at the text books or notes during a test without the permission of the teacher/supervisor.
	5. Using tools that are not allowed to complete the task.
Unauthorized	1. Helping others to cheat on tests.
Collaboration	2. Working together on a task that should be an individual task.
	3. Receive help on individual assignments without the permission of the teacher.
	4. Not contributing to group assignments where my name is written as a member.
	5. Allow friends to copy my answers during tests.
Plagiarism	1. Copying the material and acknowledge it as a result of my own work.
-	Copying multiple sentences from published sources without giving credit to the author.
	3. Collecting the work done by others.
	4. Doing partial or total plagiarism using internet.

 Table 4
 Items of Academic Dishonesty Scale

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