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### How Does Ethics Institutionalization Reduce Academic Cheating?

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## **How does ethics institutionalization reduce academic cheating?**

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## **How does ethics institutionalization reduce academic cheating?**

### Abstract

Extant research on academic cheating primarily focuses on the impact of honor codes on academic cheating. However, the influence of ethics institutionalization is curiously missing in past research. The authors developed and validated a structural equations model in the R programming language to examine the impact of formal (explicit) and informal (implicit) ways of institutionalizing ethics on reducing students' academic cheating. They found a significant mediating effect of implicit ethics institutionalization on the relationship between explicit ethics institutionalization and academic cheating among business students. Therefore, academic administrators are encouraged to place significant emphasis on implicit forms of ethics institutionalization to curb academic cheating among students.

Keywords: Academic cheating; ethics; explicit ethics institutionalization; implicit ethics institutionalization

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Research studies have documented that academic dishonesty manifests as student cheating increasingly damages an academic institution's prestige (Bing et al., 2012). In response, behavioral ethics scholars have been searching for ethical mechanisms to curb academic cheating. Particularly McCabe and Trevino (1993) and McCabe and Pavela (2000) find empirical support for the hypothesis that a culture of academic honesty and the existence of honor codes not only reduce the impact of cheating, but also increase academic integrity among students. In other words, an institution's ethical climate that supports ethical norms can assist students in reducing emotional and cognitive discrepancies between the urge to engage in academic cheating and to report the unethical incident.

A survey study by Rezaee, Elmore, and Szendi (2001) of 1,000 financial administrators of colleges and universities, members of the National Association of College and University Business Officers, provides evidence that codes of conduct support ethical behavior in higher education institutions, and fortify administrative as well as legal controls designed to prevent wrongdoing. Additionally, studies by Lai, Kwan, Kadir, Abdullah, and Yap (2009); Nguyen, Basuray, Smith, Kopka, and McCulloh (2008); Simha, Armstrong, and Albert (2012), and Smyth, Davis, and Kroncke (2009), further establish that students' exposure to ethics training programs, institutional leaders (e.g., academic administrators), and in-class learning experiences reduce students' propensity to cheat, while increasing their awareness of ethical issues and ethical judgment perceptions. DeAngelis (2014) also supports that the presence of ethics codes and adherence to fiduciary codes of professional responsibilities influences the deans' ethical perceptions and behaviors toward academic honesty.

However, the extant literature on academic cheating has yet to examine mechanisms through which implicit perceptions of honor codes and institutional leadership (as a form of implicitly institutionalizing ethics) contributes to reducing academic cheating. Building on Singhapakdi and Vitell's (2007) work, we propose that implicit ethics institutionalization is driven by explicit ethics institutionalization. Further, we propose that business students' perceptions of explicit forms of ethics

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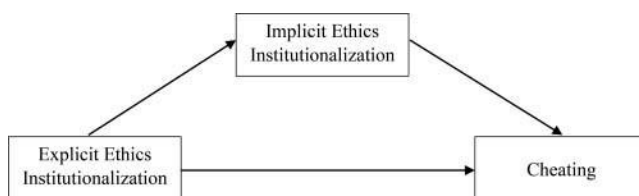
and the internalization of implicit forms of ethics strengthens their propensity to refrain from academic cheating.

The purpose of this article is to examine empirically the impact of formal (explicit) and informal (implicit) ways of institutionalizing ethics on reducing students' academic cheating. First, we define concepts of explicit and implicit institutionalization of ethics. Second, we develop formal hypotheses related to the impact of explicit and implicit ethics institutionalization on academic cheating (see Figure 1). Third, we present empirical tests of our proposed hypotheses. Last, we outline findings, limitations, and future research avenues.

## Hypotheses development

### *Relationship between ethics institutionalization and academic cheating*

Ethics institutionalization, or the degree to which an organization explicitly and implicitly incorporates ethics



**Figure 1.** Conceptual model.

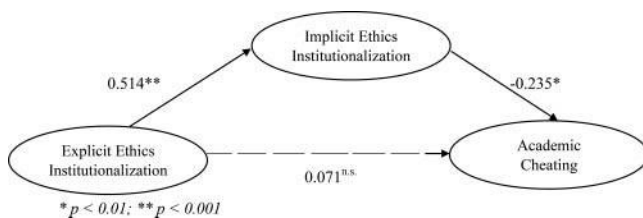
into its decision-making process, is operationalized along two dimensions: implicit (i.e., IEI) and explicit (i.e., EEI) ethics institutionalization (Vitell et al., 2015; Vitell & Hunt, 2015). Explicit ethics institutionalization in academic institutions include honors code, ethics training, and value statements provided to organizational members in an attempt to minimize members' engagement in and justification of unethical behaviors. Thus, university administrators and educators provide students with explicit means to guide and shape their understanding and appreciation of ethical norms.

In contrast, implicit ethics institutionalization refers to enacting and maintaining the organization's ethical climate and framing the perceptions of organizational leadership (Singhapakdi & Vitell, 2007)

by influencing members' behaviors via enhanced routine practices or episodic informal interactions (Vitell & Singhapakdi, 2008). Thus, "ethical behavior is implied, or not directly expressed, and is understood to be crucial" (Singhapakdi & Vitell, 2007, p. 284). Here, the presence of ethical institutional leaders (e.g., academic administrators), role models, and influential peer groups serve as significant mechanisms of institutionalizing ethics implicitly (Jose & Thibodeaux, 1999).

In a multistudy, Singhapakdi and Vitell (2007) established a positive relationship between implicit and explicit ethics institutionalization. This finding has been supported in several subsequent studies (e.g., Arnold, Martin, Jinks, & Bigby, 2007; Vitell, Singhapakdi, & Nishihara, 2015). Therefore, we predict that explicit institutionalization of ethical training programs, honor codes, and academic ethics policies would influence students' propensity to internalize explicit academic ethical beliefs and values, as well as codes of ethics:

*Hypothesis 1 (H1):* Explicit institutionalization of ethics will have a positive effect on implicit institutionalization of ethics in the academic setting.



**Figure 2.** Estimates of model test.

### ***Relationship between implicit ethics institutionalization and academic cheating***

Academic cheating is common among students, particularly in academic institutions with no honor codes (McCabe & Trevino, 1993, 1997). Green (2004) defined cheating as a rule-breaking behavior associated with the intention of gaining an unfair advantage over a party or parties with whom the cheater has a norm governed relationship. Similarly, Hosny and Fatima (2014) interpreted cheating as a purposeful rule breaking to achieve better academic results.



These definitions indicate that students' perceptions play important roles when students face ethical dilemma about cheating, particularly when peer pressures heighten the urge to cheat (Foster, Thomas, Novicevic, & Garner, 2013). Thus, we hypothesize that when university administrators enact an ethical climate by institutionalizing ethics implicitly, they strengthen students' moral perception about negative appropriateness of cheating. Hence we propose the following hypothesis:

*H2: Implicit ethics institutionalization will negatively affect academic cheating.*

***Implicit ethics institutionalization's mediating relationship between explicit ethics institutionalization and academic cheating***

University instructors advise students on the importance of adhering to institutionalized academic ethical norms and moral values as a way to refrain from unethical practices, such as academic cheating. In an attempt to live up to these ethical standards, business students may experience a conflict between an envisaged action and prior intuitions, which heightens not only cognitive dissonance and guilt, but also an urge to resolve these cognitive discrepancies and feelings of denial by rationalizing the preferred ethical behavior (Hindriks, 2015). Such rationalizations are grounded in the interaction between their cognition (reasoning) and affect (emotion) and serve as a mechanism to alter students' preconceived beliefs about academic cheating (Bandura, 1999; Monin, Pizarro, & Beer, 2007). For instance, a student might rationalize between encouraging his friend and class mate to cheat so his friend can pass the class, graduate, and get a lucrative job, and reporting his friend's cheating act to the instructor. These ongoing emotional and psychological rationalizations foster feelings of discomfort or cognitive dissonance, which they try to overcome. As a result, students explore ways to minimize their cognitive discrepancy, such as between their values to "assist" a friend succeed through cheating, and adherence to ethical standards of either refraining from or reporting cheating behaviors (Hindriks, 2015).

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The theory of cognitive dissonance posits that students typically face pressure to choose between conflicting beliefs (personal ideals), values (societal perfection), or ideas (e.g., from peers) when making moral or ethical decisions. Therefore, students search for outlets to escape from stressful situations to avoid cognitive dissonance (Festinger, 1957; Hindriks, 2015). Consequently, we hypothesized that business students' inclination toward academic cheating and cognitive dissonance is reduced not only when university administrators create and communicate ethical standards, but also when there is a sense of shared ethical beliefs and acceptance of responsibility among students. The institutionalized sense of responsibility might be due to the formation of new consonant beliefs (e.g., misperceiving old unethical values on cheating), reduction in the number of dissonant beliefs (e.g., misinterpreting previously held unethical beliefs), or an increase in the importance of consonant beliefs (e.g., rejecting information received in class) (Hindriks, 2015). By implicitly internalizing established moral academic codes through training programs, students' academic handbook, and realistic course warnings (Arnold et al., 2007; Bing et al., 2012; McCabe & Trevino, 1993, 1997), students can further minimize emotional and cognitive discomforts created by conflicting ideas and the impulse to cheat. Hence, we formulate the following hypothesis:

*H3: Implicit ethics institutionalization will mediate the relationship between the explicit institutionalization of ethics and academic cheating.*

## **Method**

### ***Survey design and participants***

Participants consist of undergraduate students of a southeastern university in the United States. In line with common research approaches, confidentiality and anonymity was ensured. As an incentive to participate in the survey, students were offered 2% increase on their final grade. In spring 2015, a survey link was emailed to 300 business administration students over 18 years old to complete the survey in Qualtrics, an online survey software. The initial sample was 170 (56.47% women), for a 56.67% response rate. As sample size fell below the suggested size of 200 (MacCullum, Widaman,

Zhang, & Hong, 1999), we collected additional data during spring 2016. Of 108 contacted students, 90 participants completed the survey (i.e., an 83.33% response rate). After eliminating three incomplete responses, the overall sample consisted of 257 respondents with 30% female students and an average age of 21 years old.

Students predominantly identify as Caucasians (97.76%), followed by African Americans (2.24%). In terms of academic level, students are primarily sophomores (39.69%) or juniors (31.52%), closely followed by seniors (25.29%). Due to time lag between data collection 1 (n = 170) and 2 (n = 87), the entire data set was assessed for nonresponse bias “by comparing early and late respondent on main variables” (Lee, Grace, Sirgy, Singhapakdi, & Lucianetti, 2015, p. 8). Mean scores of all three main constructs assessed for significant differences (Armstrong & Overton, 1977) showed no differences.

## **Measures**

See Table 1 for all survey instruments and respective scale items used in this study.

### ***Institutionalization of ethics***

Singhapakdi and Vitell’s (2007) 16-item ethics institutionalization scale is used. The initial scale consists of a 7-item IEI dimension ( $\alpha = .839$ ) and a 9-item EEI dimension ( $\alpha = .824$ ).

### ***Academic cheating***

Detert, Trevino, and Sweitzer’s (2008) 13-item cheatlie-steal scale represents academic cheating. Respondents were asked to rate how frequently they observed other students engaging in unethical decision behaviors. Exploratory factor analysis (EFA) with maximum likelihood estimation (MacCallum et al., 1999) identified five items ( $\alpha = .912$ ) used in this study.

## **Control variables**

Theoretical and anecdotal evidence suggests that men and women behave differently in unethical situations (Persons, 2009) and across different academic levels (e.g., junior, sophomore, levels; Bing et al., 2012; Novicevic, Buckley, Harvey, & Fung, 2008). Thus, we controlled for gender and academic level by creating categorical variables.

## **Results**

### ***Measurement model***

The measurement model is assessed by conducting a confirmatory factor analysis (CFA) in R statistical software (R Core Team, 2015). CFA results for the three-factor model (i.e., EEI, IEI, and academic cheating) indicate acceptable fit,  $\chi^2(111, N = 257) = 165.5$ , comparative fit index (CFI) = 0.968, root mean square error of approximation (RMSEA) = .046. Results show composite reliabilities above .80 (EEI = .84; IEI = .83; academic cheating = .92) and significant factor loading above 0.70 (Fornell & Larcker, 1981). Also, we compared the average variance extracted to the squared correlation (Rauschnabel, Krey, Babin, & Ivens, 2016). The average variance explained values (Table 1), which exceed the squared correlations (i.e., .22, .00, and .03, respectively) provide support for convergent and discriminant validity. Ping (2009), however, argued that average variance explained values between .4 and .5 indicate acceptable fit levels.

Table 1. EFA and CFA reliability and validity assessment of measures.

Variables	EFA			CFA			
	Factor loading <sup>a</sup>	Eigen values	Variance explained (%)	$\alpha$	Factor loading	AVE	CR
Explicit institutionalization of ethics		1.341	8.939	0.824		0.555	0.829
1. My university does not conduct audits of honor code on a regular basis. (R) <sup>b</sup>	—						
2. My university evaluates the ethics training effectiveness on a regular basis. (R) <sup>b</sup>	—						
3. My university does not have a top-level person(s) responsible for ethics compliance programs. (R) <sup>b</sup>	0.563				0.585		
4. My instructor is not involved in ethical training programs. (R)	0.563				0.636		
5. My university does not have training programs that effectively communicates ethical standards and policies. (R)	0.890				0.889		
6. My university does not have an ethics committee or team that deals with ethical issues that occur in a course. (R)	0.781				0.828		
7. In order to prevent misconduct, my university provides training programs to create an effective ethical climate. <sup>b</sup>	—						
Implicit institutionalization of ethics		3.299	21.992	0.839		0.467	0.839
1. My instructor has established a legacy of integrity for the course.	0.707				0.731		
2. My instructor believes that ethical behavior, not just legal compliance, is paramount to the success of my university.	0.720				0.735		
3. In this course there is a sense of responsibility among class mates to maintain our ethical reputation.	0.644				0.700		
4. My instructor and students in this course accept responsibility for unethical and improper decision making on the part of everyone involved.	0.52				0.562		
5. There is open communication between students in this course when discussing ethical conflicts and dilemmas. <sup>b</sup>	—						
6. Some students in my course are tolerated to perform certain questionable actions because they are successful	—						

achievers contributing to other organizational objectives of the university. (R) <sup>b</sup>						
7. In this course, there are no rewards for good ethical decisions. (R) <sup>b</sup>	—					
8. There is a shared value system and an understanding of what constitutes appropriate behavior in this course.	0.672				0.727	
9. The instructor believes that our university should help to improve the quality of life and the general welfare of society.	0.653				0.626	
Academic cheating		3.937	26.247	0.912		0.694 0.918
1. Copying from another student on a test.	0.843				0.886	
2. Collaborating or receiving substantial help on an assignment when the instructor asked for individual work.	0.709				0.769	
3. Helping someone else to cheat on a test.	0.879				0.905	
4. Copying material and turning it in as your own work.	0.833				0.864	
5. Asking another student who has previously taken a quiz or exam for the questions or the answers prior to taking the test.	0.691				0.727	
Total variance explained (%)			57.158			

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Note. Exploratory factor analysis (EFA): Kaiser-Meyer-Olkin (KMO)<sup>2</sup> = 0.853, Bartlett's test of sphericity,  $\chi^2$  (105) = 1806.180,  $p < .001$ . Confirmatory factor analysis (CFA):  $\chi^2$  (111) D 165.489,  $p < .001$ ; comparative fit index = 0.968, Tucker-Lewis index = 0.961, Akaike information criterion = 10679.414; root mean square error of approximation = 0.046, SRMR = 0.050. R = item reverse coded. <sup>a</sup> Standardized factor loading. <sup>b</sup> Items deleted during EFA procedure.

## Common method variance test

Fuller, Simmering, Atinc, and Babin (2016) provide a recent review of various methods used to detect common method variance (CMV) in business research. Two of the most commonly applied CMV techniques include Harman's single-factor test (Harman, 1976) and the marker variable technique (Lindell & Whitney, 2001). A third approach is the CFA technique (Brown, 2006). Harman's single-factor technique requires all items to load on a single factor when running an EFA. CMV is said to be

**Table 2.** SPSS (2015, ver. 23) descriptive statistics and zero-order correlation among constructs.

Variables	<i>M</i>	<i>SD</i>	1	2	3	4
1. Ethics <sub>EX</sub>	5.08	1.16	1			
2. Ethics <sub>IM</sub>	4.89	0.95	0.471**	1		
3. Cheating	1.92	0.93	-0.067	-0.186**	1	
4. Gender	0.48	0.50	0.119	0.014	-0.014	1

Ethics<sub>EX</sub> = explicit ethics institutionalization; Ethics<sub>IM</sub> = implicit ethics institutionalization; Cheating = academic cheating; gender: 0 = female, 1 = male. \*\* p < .01.

present when the percentage variance extracted of the single factor exceeds 50% (Podsakoff, MacKenzie, & Podsakoff, 2012). Harman's single-factor results indicate the single factor explains 24.57% of total variance. Thus, CMV does not appear to be an issue in this study. Due to the common criticism that the single factor diagnostic technique actually does nothing to statistically control for (or partial out) method effects (Podsakoff et al., 2012), the CFA technique for assessing CMV is also conducted. CFA results indicating acceptable fit,  $\chi^2$  (111, N = 257) = 165.6, CFI = .990; RMSEA = .035, highlight no significant issue with CMV.

## Hypothesis testing and structural model

We then tested the hypothesized relationship using structural equation modeling in the R programming language (R Development Core Team, Vienna, Austria). Structural equation model (SEM) results for model 1 (i.e., without control variables) show acceptable fit,  $\chi^2$  (87, N

= 257) = 147.7, CFI = .965, RMSEA = .055. SEM results (see Table 3) for model 2 (i.e., including covariates) indicate acceptable model fit,  $\chi^2$  (111, N = 257) = 165.5, CFI = 0.968, RMSEA = 0.046.

Table 2 summarizes descriptive and correlation statistics associated with the model's constructs. Correlation estimates ( $\beta = .471$ ,  $p < .01$ ) of the positive relationship between IEI and EEI are consistent with prior theoretical findings (e.g., Lee et al., 2015). Thus, H1 is supported. H2 predicts that IEI has a negative effect on academic cheating. The standardized structural path estimates in Table 3 reflect a significant negative relationship between implicit institutionalization of ethics and academic cheating ( $\beta = -.186$ ,  $p < .01$ ). These findings support H2.

**Table 3.** Standardized structural path estimates.

	Estimate	SE	z	95% CI (bootstrap)	$P(> z )$	Std. all
Direct effects						
Ethics <sub>IM</sub> → cheating	-0.235	0.087	-2.585	[-0.394, -0.054]	0.010	-0.235**
Ethics <sub>EX</sub> → cheating	0.071	0.095	0.801	[-0.110, 0.262]	0.423	0.071
Ethics <sub>EX</sub> → Ethics <sub>IM</sub>	0.514	0.101	5.707	[0.379, 0.775]	0.001	0.514***
Indirect effect						
exethics → imethics → implicit	-0.121	0.054	-2.398	[-0.235, -0.024]	-0.017	-0.121*

Ethics<sub>EX</sub> = explicit ethics institutionalization; Ethics<sub>IM</sub> = implicit ethics institutionalization; Cheating = academic cheating.  
 \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

### ***Testing mediation effect***

The mediating effect of IEI on the relationship between EEI and academic cheating was analyzed using the traditional parametric bootstrap confidence interval method. Bootstrapping is a resampling method creating random samples repeatedly drawn from random samples (Efron, 1979) and is applied in this study due to its computational transparency (Kirby & Gerlanc, 2013). Previous study by Singhapakdi and Vitell (2007) illustrates that EEI positively affects trust and organizational commitment through the mediating role of IEI. Our study shows that IEI significantly mediates the



relationship between EEI and students' academic behavior. Precisely, our results (Table 3) show that IEI fully mediates the relationship between EEI and academic cheating ( $\beta = -.121, p < .05, CFI = .965, RMSEA = .055$ ). The indirect relationship remains significant after controlling for students' gender and academic classification/level ( $\beta = -.121, p < .05, CFI = .969, RMSEA = .046$ ). Consequently, the study's findings support *H3*.

### ***Partial correlation test***

A partial correlation test (Table 4) was used to determine the relationship between EEI, IEI, and academic cheating while controlling for gender and student classification (Lund & Lund, 2016). A moderate, negative partial correlation is evident between IEI ( $5.065 \pm 1.167$ ) and academic cheating ( $1.921 \pm .932$ ; while controlling for participant's gender [ $.480 \pm .501$ ] and academic classification [ $3.806 \pm 0.883$ ]). The relationship is statistically significant,  $r(252) = -.184, df = 248, p = .001$ . We also find a statistically significant,  $r(249) = .410, df = 250,$

**Table 4.** Partial correlation results.

Control variables	Description	1	2	3	4	5
None <sup>a</sup>	1. Ethics <sub>EX</sub>	1				
	2. Ethics <sub>IM</sub>	.410***	1			
	3. Cheating	-.069	-.184**	1		
	4. Gender	.119*	.022	-.014	1	
	5. Ac. Class	.116*	.098	.006	.032	1
Gender and academic classification	1. Ethics <sub>EX</sub>	1				
	2. Ethics <sub>IM</sub>	.404***	1			
	3. Cheating	-.069	-.185**	1		

Note. Ethics<sub>EX</sub> = explicit ethics institutionalization; Ethics<sub>IM</sub> = implicit ethics institutionalization; Cheating = academic cheating; Ac. Class = academic classification.

<sup>a</sup>Cells contain zero-order (Pearson) correlations. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$

$p = .001$ , negative partial correlation between EEI ( $5.076 \pm 1.167$ ) and IEI ( $5.065 \pm 1.007$ ), controlling for gender ( $.480 \pm .501$ ) and academic classification ( $3.806 \pm 0.883$ ). However, the zero-order correlation shows a statistically significant and moderate, negative correlation between IEI and academic cheating,  $r(250) = -.184, df = 250, p < .001$ . These results indicate that academic classification and gender have very little influence on the relationship between IEI and academic cheating.

In summary, findings support that both gender and academic classification influence the relationship between implicit and explicit institutionalization of ethics, whereas only gender influences the relationship between explicit ethics institutionalization and academic cheating.

## **Discussion and conclusion**

The main empirical contribution of our study is that IEI affects academic cheating among business students. In addition, as the first empirical study to extend the ethics institutionalization constructs into the field of education, we find that a university's code of ethics and training programs (i.e., the explicit institutionalization of ethics) impact students' academic cheating behavior by motivating their internalization of and adherence to ethical guidelines.

Our findings indicate that the mere legalistic adherence to academic honor codes and academic integrity policies do not reduce unethical behavior (i.e., academic cheating). Rather, honor codes and ethics training programs reduce academic cheating not only by students being aware of them, but also by internalizing those honor codes and organization-based ethical values and beliefs. Such successful internalization of academic integrity policies is strengthened through the endorsements by instructors, academic administrators, and faculty governance groups who students admire as arbiters of academic standards (Simha et al., 2012).

One limitation of the study is its cross-sectional design. Research shows cross-sectional data are susceptible to CMV. However, by the authors applying Harman's single-factor test and the CFA variance technique, they identified CMV as not a significant threat to this study. A second limitation is that we measured business students' intentions toward academic cheating rather than actual students' cheating behaviors. By examining students' actual behavior in situations that offer an opportunity for observing cheating or dishonest behavior, such as within game theoretic experimental studies, future researchers can provide more accurate results to support our present findings. Alternatively, researchers can compare students' and newly hired employees' cheating behavior to determine if academic cheating

intentions translate into the work environment. In addition, future researchers should use a longitudinal approach to assess causal relationship between the two dimensions of ethics institutionalization (i.e., implicit and explicit) and academic cheating.

In conclusion, this current study identifies a significant mediating effect of IEI on the relationship between EEI and academic cheating among business students. This finding accentuates the importance of implementing implicit forms of ethics institutionalization and encouraging students to consciously internalize and practice learned ethical norms against academic cheating. (Jose & Thibodeaux, 1999). Therefore, academic administrators are encouraged to place significant emphasis on implicit forms of ethics institutionalization as a way to curb academic cheating among students and minimize students' emotional and cognitive discrepancy about academic cheating.

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