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Cultural and psychological variables predicting academic dishonesty: a cross-sectional study in nine countries

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ABSTRACT

Academic dishonesty has serious consequences for human lives, social values, and economy. The main aim of the study was to explore a model of relations between personal and cultural variables and academic dishonesty. The participants in the study were $N = 2{,}586$ individuals from nine countries (Pakistan, Israel, Italy, India, the USA, Peru, Romania, Ghana, and Poland). The authors administered the Academic Dishonesty Scale to measure academic dishonesty, the Kessler Psychological Distress Scale to measure distress, the Almost Perfect Scale – Revised to measure perfectionism, the Brief Self-Control Scale to measure self-control, and the Singelis Scale to measure independent self-construal. The results showed that the theoretical model was well fitted to the dataset in six countries: Pakistan, the United States, Romania, Ghana, Israel, and Poland. However, it was not well fitted in Italy, India, and Peru. Our results also showed that perfectionism significantly predicted academic dishonesty, but not in all countries. Self-control significantly predicted cheating, falsification, and plagiarism in the USA. Moreover, we found that distress was related to cheating o0nly in Ghana. Finally, independent self-construal predicted academic dishonesty. Our findings provide a cross-cultural contribution to the debate on academic dishonesty by highlighting its significant predictors and may inform interventions aimed at eliminating it. Our results can be used in preventing and curbing academic dishonesty. Knowledge on cross-cultural differences can be useful in international education for example, as an indicator accepting or relaxing attitude toward academic dishonesty in students from different countries.

KEYWORDS

Academic dishonesty; distress; perfectionism; self-control; independent self-construal

INTRODUCTION

Academic dishonesty seems to be a serious problem that can have consequences in different aspects of life. Some results indicate a relationship between academic cheating and cheating at work among employed students (Nonis & Swift, 2001). Although this phenomenon is observed across cultures (Hendy et al., 2021), it may be judged differently depending on the country. The results indicate differences between attitudes toward and tolerance of academic dishonesty (Yukhymenko-Lescroart, 2014). On the one hand, academic dishonesty is culturally dependent, but on the other hand it is a universal phenomenon of misconduct during education; this is because people from different cultures differ in the level of ethical sensitivity (Peled et al., 2019). Identifying the personal and

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cultural determinants of academic dishonesty is crucial for understanding and preventing it. In our research we explored the relations between personal and cultural variables and academic dishonesty.

Academic dishonesty is a serious problem affecting educational institutions and as such it needs attention (Anderman et al., 2007). The main reason why students engage in academic dishonesty is the pressure to get good grades, even without understanding the contents taught (Stanculescu, 2013). Cheating is one of the main factors that lead to faulty assessment, which means it distorts the evaluation of students' knowledge, skills, and competencies. It compromises the effectiveness and fairness of the education system, making it difficult for universities and colleges to achieve their educational goals and undermining teachers' efforts to identify and address any shortcomings in students' knowledge (Jurdi et al., 2011). The dominant approach in definitions of academic dishonesty is to view it as a type of intentional behavior violating honor and the ethical codes of universities, societies, and individual students (Kura et al., 2018). Academic behavior inconsistent with the stated assessment requirements and institutional policy is called academic dishonesty. Students behave in such a way as to obtain undue benefits in connection with their assessment (Saana et al., 2016). The term is also defined as the use of unauthorized or unacceptable means in any academic work (Stanculescu, 2013). In our article, academic dishonesty will be understood as behavior aimed at acquiring, receiving, or transmitting information from others using prohibited materials or information during the preparation of works and as bypassing the accepted evaluation process using traditional or technological methods. Academic dishonesty can take many forms. Researchers distinguish its categories such as: cheating (the use of unauthorized notes or study aids during an examination), plagiarism (the use of other people's work as one's own without acknowledging their contribution), deception (providing false information to the instructor), fabrication (falsifying information or data, unauthorized access, misuse of availability of computer system or alteration of computerized records), and sabotage (preventing others from completing their course work) (Ballantine et al., 2014; Williams & Williams, 2012). The most common forms of academic dishonesty in research are plagiarism, falsification, and cheating (e.g., Błachnio, 2019; Kura et al., 2018; Marsden et al., 2005).

In the extant literature there are many articles that discuss the predictors and effects of academic dishonesty. Psychological (e.g., self-esteem; Błachnio & Weremko, 2012, self-control; Bolin, 2004), and social factors (e.g., social comparison; Anderman et al., 2007) are considered, among others; they are mostly explored separately. There are also many different ways of understanding academic dishonesty because of its different forms. It may take the form of cheating, plagiarism, deception, and so forth. Some researchers also distinguish its inadvertent form in some cases, especially when students lack adequate academic writing and literacy skills (MacLennan, 2018). If prevention is to be effective, it is necessary to identify the factors that are responsible for the mechanism of academic dishonesty to the greatest degree. Also, some researchers indicate the cultural aspects of cheating (Desalegn & Berhan, 2014). The main aim of the present study was to explore the model of relations between personal and cultural variables and academic dishonesty. In our study, we investigated self-control, perfectionism, distress, and self-construal as possible correlates of academic dishonesty. This was related to the general theory of crime, where deviant behaviors are explained by a low level of self-control (Gottfredson & Hirschi, 1990). The importance of education and the social environment for developing an appropriate level of self-control is shown, among other things, by the acceptance of social norms (such as the principle that criminal acts should be avoided) and the recognition of the moral validity of the law. People high in self-control can more easily resist impulses to commit crimes. According to Gottfredson and Hirschi (1990), a violation of the law can only occur if, in addition to the propensity to commit a crime, there are also favorable conditions for the individual to do so. In the case of academic dishonesty, this could mean, for example, the consent of teachers, a low level of control during exams, or access to new technologies (Bazoukis & Dimoliatis, 2011; Newton, 2018; Saana et al., 2016).

Cultural aspect of academic dishonesty

The predictors of cheating vary across societies and cultural backgrounds (Desalegn & Berhan, 2014). In research, students reported that the two major issues that induced them to be dishonest were the

pursuit of good academic grades and the pressure not to disappoint the family (Abdulghani et al., 2018; Saana et al., 2016). These findings suggest that external influences from significant others (family members and guardians) might motivate students to engage in unethical behaviors as a means to achieve good academic records. Therefore, the understanding of academic dishonesty may differ from one culture to another (Saana et al., 2016). It is possible that the students (Saana et al., 2016) were accustomed to group-oriented cultural practices where seeing friends' work with permission was acceptable. In group-oriented societies, helping weaker students, even with individual assignments, is an acceptable act (Abdulghani et al., 2018; Liu, 2005; Saana et al., 2016). This attitude is promoted by the conviction that such actions taken do little harm ("it's not cheating") and are widespread in the academic community ("everyone does it"; Johnson, 2013). In countries with a more individualistic culture, academic dishonesty is more strongly stigmatized (Chudzicka-Czupała et al., 2016; Liu, 2005).

As can be seen in the literature, the self-construal theory (Singelis, 1994) has been successfully used to explain differences in studies on morality (Cohen, 2015), justice and ethics (Fortin et al., 2016), and values (Suizzo, 2007); therefore, we decided to use it to explain academic cheating. The self-construal theory distinguishes between *independent self-construal*, with emphasis on being separate from others and on the wish to discover one's unique characteristics in the social group, and *interdependent self-construal*, with emphasis on interrelatedness and contact with others and on perceiving oneself as inseparable from others (Singelis, 1994). Fernández et al. (2005) suggest that even in individualistic cultures it is possible to find a person with a collectivist group-oriented interdependence or a relationship-oriented interdependence aimed at helping the rest of the group in the broadest sense of the term. Hence, we therefore hypothesized the following:

H1. Independent self-construal is related to academic dishonesty.

Self-control is ability to subdue one's impulses, emotions, thoughts, and behaviors in order to achieve longer-term goals. Rather than immediately responding to every impulse or temptations as it arises, people with high self-control can plan, evaluate alternative actions, and ideally avoid doing things with negative consequences (Diamond, 2013). Numerous studies have shown that self-control has statistically significant associations with criminal and deviant acts (e.g., Diamond, 2013; Hofmann & Dillen, 2012; Muraven et al., 2006; Williams & Williams, 2012). One of them are various manifestations of fraud, including academic dishonesty (Alleyne & Phillips, 2011; Chudzicka-Czupała et al., 2016; Kura et al., 2018). Self-control is not only a factor explaining academic dishonesty (Błachnio, 2019) but also a factor predicting its occurrence in the future (Williams & Williams, 2012). Based on the general theory of crime mentioned in the previous paragraph (Gottfredson & Hirschi, 1990), and based on previous studies on deviant act and honesty (e.g., Alleyne & Phillips, 2011; Błachnio, 2019; Chudzicka-Czupała et al., 2016; Muraven et al., 2006), we hypothesized the following:

H2. Self-control is related to academic dishonesty.

Perfectionism has a strong influence on a person's mental health and functioning, and is therefore considered as an important factor in psychological studies. Because it has many aspects, such as self-oriented perfectionism, other-oriented perfectionism, and socially prescribed perfectionism (Hewitt & Flett, 1991), concerns over mistakes, personal standards, parental expectations, and parental criticism, or doubts about actions and organization (Frost et al., 1990), there are different definitions reflecting the complexity of this phenomenon. Based on previous terminology, Slaney et al. (2001) proposed their own measure of perfectionism, assessing two dimensions reflecting positive/adaptive aspects of perfectionism (High Standards and Order subscales) and a third dimension corresponding to its negative/maladaptive aspects (Discrepancy). The first dimension refers to a person's striving to meet high personal standards. The second one concerns the need to be organized. Finally, the Discrepancy dimension is the perceived difference between one's personal standards and behaviors (Rice et al., 2014). Empirical evidence suggests a possible link between perfectionism and cheating (Krone et al.,

2012) and between perfectionism and plagiarism (Siaputra, 2013). Krone et al. (2012) found that people lower in self-oriented perfectionism reported that they cheated during their academic activities and that there was a positive correlation between socially prescribed perfectionism and the frequency of dishonest attendance reporting. What is interesting, the researchers found no significant correlation between overall academic cheating and perfectionism. The lack of such correlation might indicate the lack of relations between these two variables, or it might stem from the method used to measure perfectionism. There are also studies that show the lack of any correlation between perfectionism and cheating (Nathanson et al., 2005). On the other hand, in his study on the predictors of plagiarism, Siaputra (2013) found a negative correlation between perfectionism and plagiarism (measured by two different scales). However, the correlation depended on the subjects' type of perfectionism. The effect was observed for the group of adaptive perfectionists, but not for maladaptive perfectionists and non-perfectionists (Khani et al., 2013). More importantly, the relationship was significant only for one type of measurement, concerning academic cheating in general rather than pure plagiarism. This issue requires further exploration. Analyzing the cited examples of research, we concluded that the link between perfectionism and academic dishonesty was still far from clear (Bong et al., 2014; Krone et al., 2012; Nathamson et al., 2006). There are some arguments suggesting that people who strive for the perfect results of their actions may consider cheating as a way of achieving them. On the other hand, if perfectionism is understood as a self-oriented phenomenon, then this relationship has the opposite direction (Krone et al., 2012). We therefore put forward the following hypothesis:

H3. Perfectionism is related to academic dishonesty.

There have been few studies on the relations between distress and cheating. Moral distress is defined as "the state experienced when moral choices and actions are thwarted by constraints" (Austin et al., 2005, p. 197). In his definition, Hardingham (2004) highlights the inner feeling of inconsistency between beliefs and actions. Epstein and Delgado (2010, p. 1) underline "the feeling of being powerless to take the right action even if one knows the norm and knows what would be the right behavior". Reviewing research on moral distress in the academia context Ganske (2010) underscores its possible physical and psychological symptoms. She mentions reactions such as mental pain, sleeplessness, and guilt. Variables correlated with moral distress include ethical climate at work (the more positive the climate, the lower the intensity and frequency of distress; Pauly et al., 2009). Dyrbye et al. (2005) show that one of the sources of distress in medical students can be physicians (their supervisors) behaving in unethical way. Research also indicates that stress is one of motivators that influence cheating behaviors among pharmacy students (Ip et al., 2016). Vehviläinen et al. (2018) explored the relation between plagiarism and distress in teachers who observed such behaviors among their students. The teachers described their feeling as disappointment or as being hurt and angry. Sometimes when they did not detect plagiarism early enough or had not explained the phenomenon to students before they also felt guilty, and when they had worked on an academic task together with students, they sometimes experienced shame and disappointment or anger because they felt deceived. No matter what type of emotions it induces, the authors underline that plagiarism is one of the challenges in teachers' work and may be a source of distress because of the ethical responsibility it involves.

A very important study that may explain the correlation between academic dishonesty and distress was conducted by Mulder and Aquino (2013). These authors considered the important role of moral identity and distress experienced after dishonest deeds. If moral identity was important for people, they engaged in actions that could help them compensate for their previous dishonest behaviors and thereby reduce distress. By contrast, subjects who had low moral identity felt no distress and tended to continue behaving in the same way as before (thus following a consistent pattern). The effect was clearer in the third study (there were some inconsistencies in the outcomes between the first two studies). In their discussion following all three studies, the authors note that the context may also be an important factor in the consistency of outcomes, but this issue still needs to be explored Ganske (2010) stresses the need to explore moral distress

phenomena in the academic environment because of the scarcity of research in this field. She also calls for promoting a more ethical climate (especially by teaching about ethics) to lessen the probability of dishonest behavior of nursing students and to lessen their distress level. Ganske (2010) shows that cheating and students' other dishonest behaviors may increase the level of distress also in nurse educators. Rather few researches have reported relations between distress and cheating. However, some of them found that this variable could be important in explaining academic dishonesty (Ip et al., 2016). We decided to formulate the following hypothesis:

H4. Academic dishonesty is related to distress. We also predicted that perfectionism would be related to distress.

University students striving for the highest grades experience psychological distress (Stallman, 2010). In a study by Sheppard and Hicks (2017), perfectionism was significantly correlated with psychological distress in students. Excessive striving for perfection achieved even through academic dishonesty may therefore co-occur with psychological distress.

The present study

The main aim of the study was to explore the model of relations between personal and cultural variables and academic dishonesty. We understand academic dishonesty in terms of three dimensions: plagiarism, falsification, and cheating (Marsden et al., 2005). All the relationships presented above are combined into one hypothetical model (Figure 1). We assumed that self-control and perfectionism would contribute to academic dishonesty. Academic dishonesty is also related to distress. The model was tested in nine countries (Figure 1): Pakistan, Israel, Italy, India, the USA, Peru, Romania, Ghana,

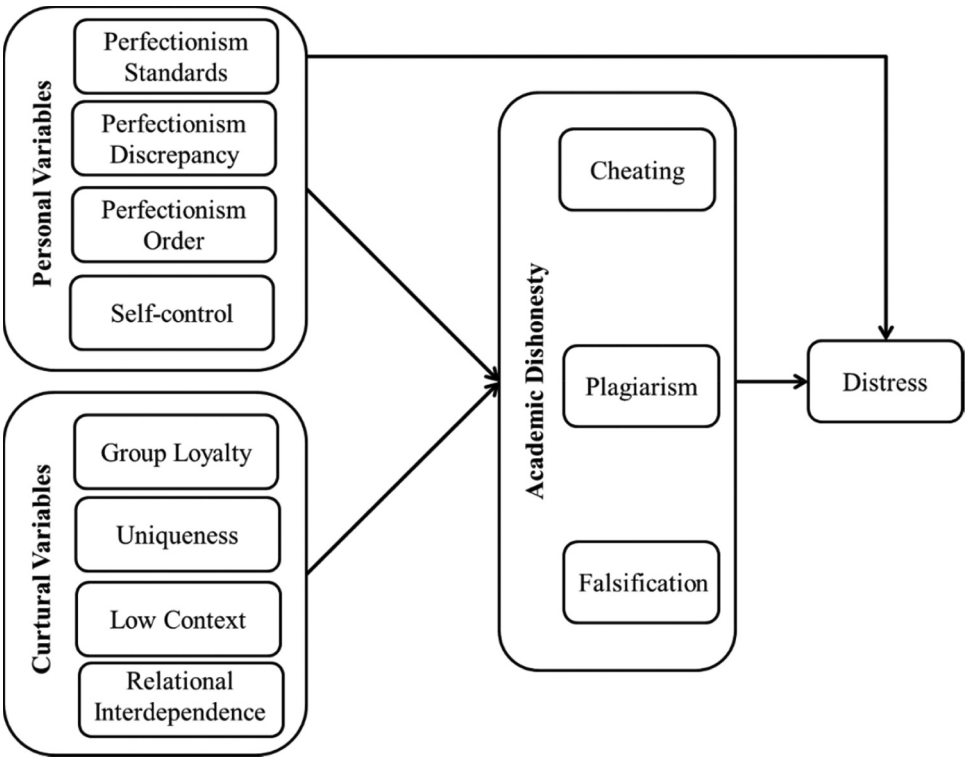

Figure 1. Theoretical model of relations between the variables.

and Poland. They are located on five continents (Asia, Africa, North and South America, and Europe), which means this is one of few studies on academic dishonesty with participants from almost every continent and from different cultural backgrounds. The additional criterion for the selection of these countries was unusual too. We selected them also because they differ on the Freedom from Corruption Index (Heritage Foundation, 2019), which reflects the level of corruption and is based on data from international sources. The higher the index value (from 0 to 100), the lower the level of corruption. The countries included in the study have the following index values: Pakistan 31, Peru 32, Ghana 36, Romania 40, Italy 44, India 48, Poland 50, Israel 68, the United States 77. The selected countries differ also on the individualism-collectivism dimension: Pakistan 14, Israel 54, Italy 76, India 48, the USA 91, Peru 16, Romania 30, Ghana 15, and Poland 60 (Hofstede et al., 2005).

METHOD

Participants

The sample consisted of N = 2,891 participants from eight countries; 218 participants were excluded from further analyses due to incomplete data. The final number of participants was 2673: Pakistan (N = 296, 78% female), Israel (N = 359, 71% female), Italy (N = 275; 61.5% female), India (N = 300, 71% female), the United States (N = 258, 54% female), Peru (N = 329, 77% female), Romania (N = 299, 84% female), Ghana (N = 240, 48% female), Italy (N = 275; 61,5% female) and Poland (N = 317, 63% female). Their mean age was M = 23.60 (SD = 8.23). A description of the participants from each country is shown in Table 1.

Measures

To test the hypotheses, we used the following methods: the Academic Dishonesty Scale, the Psychological Distress Scale, the Almost Perfect Scale – Revised, the Brief Self-Control Scale, and the Singelis Scale. The reliability of each scale for each country is shown in Appendix A. We also asked the participants to provide information about their gender and age.

Academic dishonesty

The Academic Dishonesty Scale (Marsden et al., 2005) was used to measure students' academic dishonesty. It consists of 19 items, measuring three dimensions: cheating (e.g., "cheated on a test or exam in any other way"), plagiarism (e.g., "taken a few sentences or a paragraph of material from academic sources on the world wide web"), and falsification (e.g., "falsified attendance records (eg. marked tutorial attendance book for a week you were in fact absent"). The items are rated on a 5-point scale, ranging from 1 = *never* to 5 = *many*.

Psychological Distress. Students' psychological distress was measured with the Kessler 6 Psychological Distress Scale (K6; Kessler et al., 2005). It is a measure of psychological distress and outcomes following treatment for common mental health disorders. It consists of six items (e.g., "Did you feel tired out for no good reason?") about depressive and anxiety symptoms that the respondent has experienced in the most recent four-week period. The K6 is scored on a 5-point Likert scale ranging from 1 = *none of the time* to 5 = *all of the time*. The self-report style of the questions assists in the identification of current mental health problems and in deciding whether there is a need for treatment.

Perfectionism. Both adaptive and maladaptive perfectionism were measured with the Almost Perfect Scale – Revised (APS-R; Slaney et al., 2006). It consists of 23 items making up three subscales: High Standards (e.g., "I have high expectations for myself"), Order (e.g., "I like to always be organized and disciplined"), and Discrepancy (e.g., "I hardly ever feel that what I've done is good enough").

Table 1. Description of participants from each country.

		Countries																	
		Pakistan		Israel		Indie		USA		Peru		Romania		Ghana		Poland		Italy	
Variables	Category	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Material status																			
	single	262	88.52	95	26.46	272	90.67	142	55.04	320	97.26	117	39.13	164	70.69	175	55.21	119	43.43
	in a relationship	23	7.77	202	56.27	0	0	92	35.66	0	0	151	50.50	47	20.26	118	37.22	149	54.38
	married	8	2.70	41	11.42	28	9.33	24	9.30	9	2.74	27	9.03	21	9.05	22	6.94	6	2.19
	in separation/divorced	3	1.01	19	5.29	0	0	0	0	0	0	4	1.34	0	0	2	0.63	0	0
	widow	0	0	2	0.56	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Social status																			
	student	283	95.61	40	11.87	300	100.00	102	39.53	266	80.85	221	73.91	197	86.40	213	67.62	249	90.55
	employed	1	0.34	225	66.77	0	0	0	0	0	0	0	0	5	2.19	9	2.86	1	0.36
	student and employed	10	3.38	72	21.36	0	0	156	60.47	63	19.15	78	26.09	25	10.96	93	29.52	21	7.64
	pensioner	2	0.68	0	0	0	0	0	0	0	0	0	0	1	0.44	0	0	4	1.45
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Age		20.46	1.71	38.88	12.32	20.14	2.74	19.42	1.08	20.40	2.65	23.03	6.09	23.36	4.15	22.68	4.59	21.24	2.76

for Ghana, there was a eight missing data in material status and twelve missing data in social status; for Italy, there was a one missing data in material status; for Israel, there was a twenty two missing data in social status; for Poland, there was two missing data in social status.

Self-Control. The Brief Self-Control Scale (BSCS; Tangney et al., 2004) was used to measure dispositional self-control. In this 13-item questionnaire respondents are asked to rate on a 5-point scale – from 1 = *not at all through* to 5 = *very much* – how accurately items *(e.g., "I am good at resisting temptation") describe them.*

The Singelis Scale – more precisely, the 13-item short version of Singelis's (1994) scale– was used to measure independent vs. interdependent self-construal (Fernández et al., 2005). An example item is: *"I act the same way no matter who I am with"*. The scale has four factors: group loyalty, uniqueness, low context, and relational interdependence. The items are rated on a 4-point Likert scale from 1 = *totally disagree* to 4 = *totally agree*.

Procedure

All collaborators received a booklet of methods, containing their English versions. If local language versions of particular measures were unavailable, the researchers translated these measures into the local language using the back-translation procedure. Detailed instructions regarding the procedure were sent to all investigators.

Institutional approval was obtained from the participating universities in each of the nine countries. In each selected university, a focal person coordinated the data collection process. Students were approached on their university campuses and those who agreed to participate signed an informed consent form. The questionnaire was self-administered and collected from the participants on the same day. All participants received no monetary reward for the study. They were informed about the general purpose of the study and assured that their participation was anonymous. The study was conducted in compliance with the Declaration of Helsinki.

Data analysis

We used the Statistical Package for the Social Sciences (SPSS, version 24) with AMOS 22 software to analyze the data. Descriptive statistics were used to describe the scores on the variables for each country. We performed a one-way ANOVA and post hoc Tamhane's T2 test (Tamhane, 1979) to determine the differences between countries. The effect size was calculated using parietal eta square. To determine the relationships between variables for the whole sample, we applied Pearson's *r* correlation coefficient.

In the next step, we set out to verify the fit of the theoretical model in each country. We tested the theoretical model of relations between self-control, perfectionism, cultural variables, academic dishonesty, and distress (see Figure 1) using path analysis. The model included three dimensions of perfectionism and academic dishonesty. The path model was examined using the asymptotically distribution-free method. The following statistics were applied as measures of model fit: χ^2, χ^2/df, RMSEA, SRMR, GFI, CFI, TLI, and NFI (Byrne, 2010; Kline, 2011). Statistically non-significant ($p > .05$) chi-square values indicate that the proposed model fits the dataset well. The value of χ^2/df ratio lower than 2 indicates a good fit to the dataset. Also, RMSEA lower than .06 and SRMR lower than .08 indicate a good fit of the model. Values of GFI, CFI, TLI, and NFI higher than .95 support the conclusion that a model is fitted to the dataset (Byrne, 2010; Hu & Bentler, 1999; Kline, 2011). The bootstrapping method (5000 samples) with the bias-corrected percentile method was used to estimate standardized regression weights, correlations, *R*-squared values, and indirect effects with 95% confidence intervals (CIs). The model also included covariance between personal variables and cultural variables and covariance between the three dimensions of academic dishonesty. However, for the sake of clarity, they are not presented in Table 4; their values can be found in Appendix D.

RESULTS

Descriptive statistics

The descriptive statistics (means and standard deviations of scores on the analyzed variables for each country) are presented in Table 1. We performed one-way ANOVA and post hoc Tamhane's T2 test (Tamhane, 1979) to determine the differences between countries. The results of one-way ANOVA with the country as an independent variable revealed statistically significant differences in all variables (see Table 2). Additionally, the 95% confidence intervals for means and effect size particular variables in each country was calculated (see Appendix B). Tucker's (1951) phi indicated a good cross-cultural equivalence of the analyzed variables (Lorenzo-Seva & Berge, 2006), but the results of the Israeli sample showed lower congruence (see Appendix C). Therefore, the results from this country should be treated with caution, particularly when compared with the results from other countries. For greater clarity, post hoc test results and Tucker's phi test results for each variable are presented in Appendix C.

Table 2

The Pearson correlation coefficient for the whole sample (N = 2673) showed that academic dishonesty: cheating correlated positively with distress, perfectionism: standards, perfectionism: discrepancy, perfectionism: order, and uniqueness, and negatively with self-control. Distress, perfectionism: discrepancy, and group loyalty were positively correlated with academic dishonesty: falsification. Additionally, this type of academic dishonesty showed a negative relationship to self-control and relational interdependence. As regards academic dishonesty: plagiarism, it correlated positively with distress, perfectionism: standards, perfectionism: discrepancy, perfectionism: order, and group loyalty, and negatively with self-control, low context, and relational interdependence. Detailed results are presented in Table 3.

Table 3

Path analysis for countries

Our findings showed that the theoretical, path model was well fitted for six countries: Pakistan, the United States, Romania, Ghana, Israel, and Poland. However, it was not fitted for Italy, India, and Peru (see Table 4). Additionally, given that Tucker's phi results of the Israeli sample showed lower congruence (see Appendix C), the results for this country should be treated with great caution even though the model was fitted to the data there (see Tables 4 and 5). Considering the mismatch of the theoretical model for Italy, India, and Peru, in order to ensure the clarity of the analyses, we re-analyzed the path models for these countries and included them in Appendix E. Additionally, figures showing the results for Pakistan, the United States, Romania, Ghana, Israel, and Poland are presented in Appendix F.

Table 4

For Pakistan, our study showed that perfectionism: discrepancy was a predictor of academic dishonesty: plagiarism (β = 0.13, p = .042, 95% CI [0.01, 0.27]), and distress (β = 0.26, p = .001, 95% CI [0.13, 0.37]). Perfectionism: order was negatively related to academic dishonesty: falsification (β = −0.19, p = .009, 95% CI [−0.32, −0.05]). Also, relational interdependence was negatively related to academic dishonesty: plagiarism (β = −0.16, p = .031, 95% CI [−0.31, −0.01]) and dishonesty: cheating (β = −0.13, p = .040, 95% CI [−0.28, −0.01]). Additionally, there was a negative relationship between self-control and distress (β = −0.20, p = .002, 95% CI [−0.31, −0.08]).

For the United States, perfectionism: discrepancy was a predictor of academic dishonesty: cheating (β = 0.20, p = .021, 95% CI [0.04, 0.33]), academic dishonesty: plagiarism (β = 0.23, p = .004, 95% CI [0.8, 0.37]), academic dishonesty: falsification (β = 0.20, p = .020, 95% CI [0.04, 0.32]), and distress (β = 0.34, p = .001, 95% CI [0.18, 0.46]). Additionally, perfectionism: standards (β = −0.15, p = .023, 95% CI [−0.28, −0.02]) and self-control (β = −0.24, p < .001, 95% CI [−0.37, −0.14]) were predictors of distress. Self-control (β = −0.24, p = .001, 95% CI [−0.38, −0.11]), group loyalty (β = 0.20, p = .001, 95% CI [0.08, 0.32]), uniqueness (β = 0.14, p = .018, 95% CI [0.03, 0.27]), and relational interdependence

Table 2. Means and standard deviations particular variables in each country.

	Countries																				
	Pakistan		Israel		Indie		USA		Peru		Romania		Ghana		Poland		Italy				
Variables	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	F	p	η_p^2
Self -control	40.19	5.37	40.43	5.29	39.06	5.22	40.40	9.13	40.72	8.88	43.33	9.24	45.22	7.67	38.83	8.03	38.51	5.53	24.19	0.001	0.07
Distress	15.41	4.68	10.51	2.87	16.36	4.25	15.72	7.11	15.16	4.15	14.72	4.64	13.15	4.00	15.06	4.71	14.42	4.05	48.70	0.001	0.13
Academic Dishonesty – Cheating	15.65	5.21	11.80	4.82	15.43	5.90	17.22	9.75	16.64	5.36	18.01	4.62	15.45	5.35	18.03	6.23	12.75	5.10	43.11	0.001	0.11
Academic Dishonesty – Plagiarism	15.97	5.73	12.97	4.56	15.12	5.60	17.45	9.66	13.46	4.65	16.27	4.83	14.48	4.56	13.30	5.31	11.70	3.58	31.42	0.001	0.09
Academic Dishonesty – Falsification	4.95	2.48	4.33	1.82	4.94	2.38	6.47	3.86	3.73	1.52	4.11	1.65	3.72	1.41	4.94	2.15	3.86	1.32	44.91	0.001	0.12
Almost Perfect – Standards	37.69	6.20	17.99	5.79	36.69	7.02	37.29	6.67	35.61	5.20	36.18	5.49	42.18	5.12	35.91	6.48	33.72	6.66	404.60	0.001	0.55
Almost Perfect – Discrepancy	58.74	11.04	53.58	14.54	55.79	12.60	56.14	15.98	48.03	13.53	48.28	13.94	58.23	15.51	49.35	14.75	49.77	12.33	28.15	0.001	0.08
Almost Perfect – Order	22.06	3.73	9.81	4.64	20.83	4.32	21.08	4.57	20.04	4.51	20.42	3.72	22.66	3.72	20.87	4.50	19.84	4.95	267.90	0.001	0.45
Group Loyalty	15.40	2.45	12.88	2.62	14.87	2.64	14.52	3.06	12.24	3.21	12.06	3.11	14.31	3.49	12.71	2.73	13.23	2.79	52.83	0.001	0.14
Uniqueness	9.41	1.66	8.25	1.77	9.41	1.64	8.93	1.74	10.21	1.78	9.19	1.72	9.70	1.82	9.35	1.78	9.48	2.36	28.95	0.001	0.08
Low Context	8.96	1.55	8.21	1.71	8.92	1.62	9.13	1.80	9.46	2.11	8.99	1.95	9.42	2.18	8.74	1.84	8.98	2.10	12.65	0.001	0.04
Relational Interdependence	6.67	1.02	6.95	1.02	6.27	1.22	6.47	1.09	7.19	1.18	6.94	0.97	7.32	1.06	6.66	1.18	5.91	1.69	40.89	0.001	0.11

Table 3. Means, standard deviations, and correlations between variables for all participants (N = 2673).

	Descriptive statistics		r Pearson correlation coefficient										
Variables	M	SD	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
[1] Self -control	40.65	7.56											
[2] Distress	14.44	4.95	−0.30***										
[3] Academic Dishonesty – Cheating	15.94	6.32	−0.19***	0.32***									
[4] Academic Dishonesty – Plagiarism	14.76	5.92	−0.15***	0.30***	0.65***								
[5] Academic Dishonesty – Falsification	4.62	2.38	−0.21***	0.29***	0.57***	0.66***							
[6] Almost Perfect – Standards	34.31	9.30	0.11***	0.23***	0.15***	0.07**	0.01						
[7] Almost Perfect – Discrepancy	53.25	14.57	−0.17***	0.31***	0.04*	0.13***	0.12***	0.28***					
[8] Almost Perfect – Order	19.39	5.90	0.16***	0.17***	0.13***	0.05*	−0.01	0.73***	0.12***				
[9] Group Loyalty	13.55	3.15	−0.12***	0.13***	0.03	0.10***	0.11***	0.17***	0.29***	0.14***			
[10] Uniqueness	9.29	1.83	−0.03	0.01	0.06**	−0.01	−0.02	0.24***	−0.03	0.27***	0.05*		
[11] Low Context	8.95	1.89	0.11***	0.03	0.02	−0.04*	−0.04	0.22***	0.03	0.21***	0.11***	0.36***	
[12] Relational Interdependence	6.81	1.14	0.06**	−0.11***	−0.02	−0.07***	−0.11***	0.13***	0.05*	0.10***	0.19***	0.16***	0.12***

*** $p < .001$; ** $p < .01$; * $p < .05$.

Table 4. Model fit for individual countries.

	Measures of model fit								
Variables	χ^2	p	χ^2/df	RMSEA	SRMR	GFI	CFI	TLI	NFI
Pakistan	0.69	0.954	0.17	0.001	0.007	0.999	1.000	1.181	0.998
Israel	3.19	0.527	0.80	0.001	0.010	0.998	1.000	1.041	0.992
Indie	12.83	0.012	3.21	0.086	0.028	0.994	0.975	0.589	0.970
USA	5.03	0.285	1.26	0.032	0.034	0.998	0.999	0.983	0.995
Peru	11.59	0.021	2.90	0.076	0.019	0.993	0.982	0.705	0.976
Romania	5.76	0.218	1.44	0.038	0.015	0.997	0.996	0.928	0.988
Ghana	2.20	0.698	0.55	0.001	0.013	0.999	1.000	1.097	0.994
Poland	2.11	0.715	0.53	0.001	0.011	0.999	1.000	1.063	0.996
Italy	14.59	0.006	3.65	0.098	0.036	0.995	0.990	0.835	0.987

(β = −0.34, p = .001, 95% CI [−0.46, −0.22]) were related to academic dishonesty: cheating. Also, self-control (β = −0.25, p < .001, 95% CI [−0.37, −0.13]), relational interdependence (β = −0.35, p = .001, 95% CI [−0.47, −0.23]), uniqueness (β = 0.14, p = .016, 95% CI [0.03, 0.26]), and group loyalty (β = 0.21, p = .001, 95% CI [0.09, 0.34]) were predictors of academic dishonesty: falsification. There were also significant paths between self-control (β = −0.22, p = .001, 95% CI [−0.34, −0.09]), relational interdependence (β = −0.35, p = .001, 95% CI [−0.48, −0.21]), group loyalty (β = 0.20, p = .003, 95% CI [0.07, 0.33]), and academic dishonesty: plagiarism. Additionally, there was a positive relationship between academic dishonesty: plagiarism and distress (β = 0.28, p = .037, 95% CI [0.01, 0.58]).

For Romania, our findings showed that perfectionism: discrepancy was a predictor of a distress (β = 0.54, p = .001, 95% CI [0.40, 0.65]). Moreover, uniqueness was positively related to academic dishonesty: cheating (β = 0.16, p = .023, 95% CI [0.02, 0.29]). Uniqueness was also a predictor of academic dishonesty: falsification (β = 0.20, p = .003, 95% CI [0.08, 0.31]). There were also significant paths between uniqueness (β = 0.14, p = .043, 95% CI [0.01, 0.27]), low context (β = −0.20, p = .004, 95% CI [−0.32, −0.07]), and academic dishonesty: plagiarism. There was a negative relationship between self-control and academic dishonesty such as cheating (β = −0.28, p < .001, 95% CI [−0.41, −0.15]), falsification (β = −0.24, p = .001, 95% CI [−0.36, −0.10]) and plagiarism (β = −0.18, p = .018, 95% CI [−0.32, −0.03]). Additionally, self-control was related to distress (β = −0.14, p = .021, 95% CI [−0.26, −0.02]).

For Ghana, academic dishonesty: cheating (β = 0.24, p = .001, 95% CI [0.10, 0.36]) and perfectionism: discrepancy (β = 0.31, p < .001, 95% CI [0.19, 0.42]) were positively related to distress. Additionally, self-control was a predictor of academic dishonesty: cheating (β = −0.22, p = .003, 95% CI [−0.35, −0.08]). For Poland, our results showed only that perfectionism: discrepancy was positively related to distress (β = 0.44, p = .001, 95% CI [0.31, 0.56]).

Table 5

Differences between countries

In the next step, to examine the potential differences in regression weights between countries, we performed multiple-group path analysis with pairwise parameter comparisons between them. In this analysis, we used data from five countries (Pakistan, the United States, Romania, Ghana, and Poland) for which the path model was well fitted to the data, excluding Israel. Israel was excluded due to the low congruence of the variables measured (see Appendix C). Multiple-group model was well fitted to the data: $\chi 2(df = 20) = 15.80$, p = .729; $\chi 2/df = 0.79$; RMSEA = .001, SRMR = .0071, GFI = .998, CFI = 1.000, TLI = 1.028, NFI = .994. The critical ratios for differences between regression weights between the analyzed countries, including Bonferroni's adjustment for multiple comparisons (Armstrong, 2014), with a z score ≥ 2.807 for two sided testing were considered to be significantly different (Byrne, 2010; Kline, 2011).

The pairwise parameter comparisons showed differences in regression weights between Poland (z = −2.880) and the United States in the case of the relationship between perfectionism: discrepancy

Table 5. Standardized regression weights with 95% confidence intervals for country with well fitted path models.

	Countries					
Pathways	Pakistan	Israel	USA	Romania	Ghana	Poland
P-S → Cheating	−0.13 [−0.32 0.04]	−0.07 [−0.19 0.05]	−0.03 [−0.18 0.12]	−0.03 [−0.16 0.10]	−0.04 [−0.20 0.12]	0.01 [−0.17 0.15]
P-S → Plagiarism	−0.04 [−0.19 0.10]	0.02 [−0.11 0.16]	−0.03 [−0.19 0.12]	−0.02 [−0.16 0.12]	−0.11 [−0.33 0.09]	−0.11 [−0.27 0.03]
P-S → Falsification	−0.02 [−0.16 0.12]	−0.11 [−0.25 0.04]	0.01 [−0.16 0.16]	0.02 [−0.11 0.16]	0.06 [−0.09 0.20]	0.04 [−0.12 0.18]
P-D → Cheating	0.09 [−0.05 0.23]	−0.05 [−0.18 0.09]	0.20* [0.04 0.33]	0.13 [−0.02 0.29]	0.08 [−0.06 0.21]	−0.08 [−0.24 0.08]
P-D → Plagiarism	0.13* [0.01 0.27]	−0.10 [−0.22 0.01]	0.23** [0.08 0.37]	0.15 [−0.01 0.31]	0.06 [−0.08 0.21]	0.11 [−0.05 0.25]
P-D → Falsification	0.13 [−0.01 0.26]	−0.16** [−0.28 − 0.04]	0.20* [0.04 0.32]	0.08 [−0.06 0.23]	0.02 [−0.11 0.14]	0.01 [−0.15 0.15]
Self-control → Cheating	−0.06 [−0.17 0.05]	−0.26*** [−0.37 − 0.13]	−0.24** [−0.38 − 0.11]	−0.28*** [−0.41 − 0.15]	−0.22** [−0.35 − 0.08]	−0.12 [−0.24 − 0.01]
Self-control → Falsification	−0.02 [−0.14 0.09]	−0.13* [−0.26 − 0.01]	−0.25*** [−0.37 − 0.13]	−0.24** [−0.36 − 0.10]	−0.15 [−0.29 0.02]	−0.11 [−0.24 0.01]
Self-control → Plagiarism	0.03 [−0.09 0.14]	−0.28*** [−0.39 − 0.16]	−0.22** [−0.34 − 0.09]	−0.18* [−0.32 − 0.03]	−0.11 [−0.25 0.02]	0.01 [−0.11 0.14]
Group Loyalty → Cheating	−0.07 [−0.21 0.07]	0.03 [−0.10 0.15]	0.20** [0.08 0.32]	−0.11 [−0.26 0.04]	−0.04 [−0.18 0.09]	0.05 [−0.09 0.17]
RI → Cheating	−0.13* [−0.28 − 0.01]	−0.02 [−0.13 0.09]	−0.34** [−0.46 − 0.22]	0.01 [−0.14 0.16]	0.05 [−0.08 0.17]	−0.04 [−0.16 0.10]
Uniqueness → Cheating	0.11 [−0.02 0.26]	0.03 [−0.08 0.15]	0.14* [0.03 0.27]	0.16* [0.02 0.29]	−0.14 [−0.31 0.01]	0.07 [−0.06 0.20]
Low Context → Cheating	−0.02 [−0.18 0.13]	−0.06 [−0.18 0.05]	0.05 [−0.07 0.18]	−0.04 [−0.15 0.07]	0.06 [−0.08 0.20]	−0.03 [−0.15 0.09]
Group Loyalty → Plagiarism	−0.05 [−0.19 0.09]	0.07 [−0.06 0.19]	0.20** [0.07 0.33]	−0.07 [−0.20 0.07]	−0.06 [−0.19 0.09]	0.13 [−0.01 0.26]
RI → Plagiarism	−0.16* [−0.31 − 0.01]	−0.12 [−0.25 0.01]	−0.35** [−0.48 − 0.21]	0.06 [−0.06 0.17]	0.04 [−0.09 0.18]	−0.12 [−0.26 0.02]
Uniqueness → Plagiarism	−0.03 [−0.17 0.11]	0.06 [−0.06 0.17]	0.12 [−0.01 0.25]	0.14* [0.01 0.27]	−0.05 [−0.22 0.11]	0.03 [−0.10 0.16]
Low Context → Plagiarism	0.06 [−0.06 0.20]	−0.10 [−0.21 0.01]	0.03 [−0.10 0.15]	−0.20** [−0.32 − 0.07]	0.04 [−0.13 0.20]	−0.03 [−0.15 0.09]
Low Context → Falsification	0.05 [−0.08 0.18]	−0.03 [−0.14 0.08]	0.04 [−0.08 0.16]	−0.07 [−0.21 0.06]	−0.11 [−0.23 0.03]	0.07 [−0.04 0.18]
Uniqueness → Falsification	−0.09 [−0.24 0.06]	0.10 [−0.03 0.22]	0.14* [0.03 0.26]	0.20** [0.08 0.31]	−0.02 [−0.16 0.10]	−0.02 [−0.14 0.10]
RI → Falsification	−0.07 [−0.21 0.08]	0.04 [−0.09 0.15]	−0.35** [−0.47 − 0.23]	0.04 [−0.09 0.16]	0.07 [−0.02 0.16]	−0.11 [−0.25 0.03]
Group Loyalty → Falsification	−0.07 [−0.19 0.06]	0.03 [−0.12 0.17]	0.21** [0.09 0.34]	−0.02 [−0.18 0.15]	0.07 [−0.07 0.20]	0.04 [−0.09 0.17]
P-O → Cheating	−0.07 [−0.21 0.08]	0.09 [−0.03 0.20]	0.10 [−0.03 0.22]	0.01 [−0.12 0.13]	−0.04 [−0.19 0.11]	0.04 [−0.09 0.18]
P-O → Plagiarism	−0.08 [−0.22 0.06]	0.08 [−0.02 0.19]	0.11 [−0.02 0.22]	0.03 [−0.09 0.16]	0.03 [−0.13 0.17]	−0.02 [−0.15 0.10]
P-O → Falsification	−0.19** [−0.32 − 0.05]	0.19** [0.07 0.29]	0.06 [−0.09 0.19]	−0.08 [−0.20 0.03]	−0.06 [−0.19 0.05]	−0.07 [−0.21 0.06]
Cheating → Distress	0.13 [−0.02 0.28]	−0.11 [−0.22 0.01]	0.03 [−0.26 0.29]	−0.01 [−0.12 0.10]	0.24** [0.10 0.36]	−0.04 [−0.19 0.11]
Plagiarism → Distress	0.12 [−0.04 0.28]	0.01 [−0.10 0.13]	0.28* [0.01 0.58]	0.10 [−0.01 0.20]	0.04 [−0.09 0.18]	0.03 [−0.17 0.23]
Falsification → Distress	−0.06 [−0.23 0.11]	0.15** [0.04 0.25]	0.16 [−0.15 0.42]	−0.03 [−0.13 0.08]	−0.04 [−0.20 0.11]	0.06 [−0.10 0.21]
P-S → Distress	−0.10 [−0.24 0.04]	0.10 [−0.01 0.22]	−0.15* [−0.28 − 0.02]	−0.04 [−0.17 0.07]	−0.05 [−0.21 0.11]	−0.01 [−0.15 0.16]
P-D → Distress	0.26** [0.13 0.37]	−0.37** [−0.48 − 0.26]	0.34** [0.18 0.46]	0.54** [0.40 0.65]	0.31*** [0.19 0.42]	0.44** [0.31 0.56]
Self-control → Distress	−0.20** [−0.31 − 0.08]	−0.29*** [−0.41 − 0.18]	−0.24*** [−0.37 − 0.14]	−0.14* [−0.26 − 0.02]	−0.09 [−0.22 0.05]	−0.12 [−0.24 0.03]
P-O → Distress	−0.07 [−0.22 0.06]	−0.09 [−0.19 0.02]	−0.01 [−0.12 0.07]	0.01 [−0.09 0.12]	−0.11 [−0.26 0.03]	−0.03 [−0.18 0.09]

P-S: Perfectionism – Standards; *P*-D: Perfectionism – Discrepancy; *P*-O: Perfectionism – Order; RI: Relational Interdependence.
*** $p < .001$; ** $p < .01$; * $p < .05$.

and academic dishonesty: cheating. The standardized regression weight was significant for the United States (β = 0.20, p = .018, 95% CI [0.04, 0.33]) whereas this path was insignificant for Poland (β = −0.08, p = .316, 95% CI [−0.24, 0.08]).

In the case of the relationship between group loyalty and academic dishonesty: cheating, we found significant differences between Pakistan (z = 3.380), Romania (z = −3.782), Ghana (z = −3.404), and the United States. The path was significant for the United States (β = 0.20, p = .003, 95% CI [0.08, 0.32]) but not significant for Pakistan (β = −0.07, p = .366, 95% CI [−0.21, 0.07]), Romania (β = −0.11, p = .143, 95% CI [−0.26, 0.04]), and Ghana (β = −0.04, p = .558, 95% CI [−0.18, 0.09]). Additionally, there were differences in regression weights between Pakistan (z = −3.862), Romania (z = 4.871), Ghana (z = 5.496), Poland (z = 4.691), and the United States in the case of the relationship between relational interdependence and academic dishonesty: cheating. The path was significant for the United States (β = −0.34, p = .001, 95% CI [−0.46, −0.22]) but not significant for Romania (β = 0.01, p = .880, 95% CI [−0.14, 0.16]), Ghana (β = 0.05, p = .446, 95% CI [−0.08, 0.17]), and Poland (β = −0.04, p = .578, 95% CI [−0.16, 0.10]). Additionally, this standardized regression weight was higher for the United States than Pakistan (β = −0.13, p = .040, 95% CI [−0.28, −0.01]). In the case of the relationship between uniqueness and academic dishonesty: cheating, we also found significant differences between the United States (z = −3.058), Romania (z = −3.010), and Ghana. The standardized regression weight was statistical significant for the United States (β = 0.14, p = .023, 95% CI [0.02, 0.26]) and Romania (β = −0.160, p = .024, 95% CI [0.02, 0.29]) whereas this path was insignificant for Ghana (β = −0.41, p = .067, 95% CI [−0.31, 0.01]).

The pairwise parameter comparisons also showed differences in regression weights between Pakistan (z = 3.058), Ghana (z = −3.369), Romania (z = −3.398), and the United States in the case of the relationship between group loyalty and academic dishonesty: plagiarism. The path was significant for the United States (β = 0.20, p = .007, 95% CI [0.07, 0.33]) but not significant for Pakistan (β = −0.05, p = .476, 95% CI [−0.19, 0.09]), Romania (β = −0.07, p = .306, 95% CI [−0.20, 0.07]), and Ghana (β = −0.06, p = .385, 95% CI [−0.19, 0.09]). In the case of the relationship between relational interdependence and academic dishonesty: plagiarism, we found significant differences between Romania (z = 5.140), Ghana (z = 5.068), Poland (z = 3.895), Pakistan (z = −3.086) and the United States. The standardized regression weight was significant for the United States (β = −0.35, p = .001, 95% CI [−0.47, −0.21]) but not significant for Romania (β = 0.06, p = .347, 95% CI [−0.06, 0.17]), Ghana (β = 0.04, p = .544, 95% CI [−0.09, 0.18]), and Poland (β = −0.12, p = .091, 95% CI [−0.26, 0.02]). Additionally, this standardized regression weight was higher for the United States than Pakistan (β = −0.16, p = .038, 95% CI [−0.31, −0.01]).

Additionally, there were also differences in regression weights between Pakistan (z = −4.179), Ghana (z = 6.317), Romania (z = 5.720), Poland (z = 4.501), and the United States in the case of the relationship between relational interdependence and academic dishonesty: falsification. The path was only significant for the United States (β = −0.35, p = .001, 95% CI [−0.47, −0.23]) but not significant for Pakistan (β = −0.07, p = .289, 95% CI [−0.21, 0.08]), Romania (β = 0.04, p = .508, 95% CI [−0.09, 0.16]), Ghana (β = 0.07, p = .136, 95% CI [−0.02, 0.16]), and Poland (β = −0.11, p = .125, 95% CI [−0.25, 0.03]). In the case of the relationship group loyalty and academic dishonesty: falsification, we found significant differences between Pakistan (z = 3.561), Romania (z = −3.288), Ghana (z = −3.206), and the United States. The standardized regression weight was significant for the United States (β = 0.21, p = .002, 95% CI [0.09, 0.34]) but not significant for Romania (β = −0.02, p = .839, 95% CI [−0.18, 0.15]), Ghana (β = 0.07, p = .344, 95% CI [−0.07, 0.21]), and Pakistan (β = −0.07, p = .332, 95% CI [−0.19, 0.06]). The pairwise parameter comparisons also showed differences in regression weights between Pakistan (z = −3.019), Poland (z = 3.097) and the United States in the case of the relationship between self-control and academic dishonesty: plagiarism. This path was statistical significant for the United States (β = −0.22, p = .001, 95% CI [−0.34, −0.09]), whereas this path was statistical insignificant for Pakistan (β = 0.03, p = .644, 95% CI [−0.09, 0.14]) and Poland (β = 0.01, p = .806, 95% CI [−0.11, 0.14]).

Relationship between academic dishonesty and distress

There were differences in regression weights between Ghana and Poland in the case of academic dishonesty: cheating and distress ($z = -2.911$). The path was significant for Ghana ($\beta = 0.24$, $p = .001$, 95% CI [0.09, 0.36]) but not significant for Poland ($\beta = -0.04$, $p = .576$, 95% CI [−0.18, 0.11]). In the case of the relationship between perfectionism: discrepancy and distress, significant differences were also found between Romania ($z = -4.439$) and Ghana. The standardized regression weight was higher for Romania ($\beta = 0.54$, $p = .001$, 95% CI [0.40, 0.65]) than for Ghana ($\beta = 0.31$, $p < .001$, 95% CI [0.19, 0.42]). Detailed results are presented in Table 6.

DISCUSSION

The main aim of the study was to explore the model of relations between personal and cultural variables and academic dishonesty. We hypothesized that perfectionism, self-control, distress, and independent self-construal were likely to influence academic dishonesty among students. The assumed model was tested in countries selected in such a way as to represent diverse geographical locations and attitudes toward corruption. In our study we investigated cultural and psychological variables predicting academic dishonesty measured on three dimensions: plagiarism, falsification, and cheating (Marsden et al., 2005). Perfectionism was also measured on three dimensions: standards, order, and discrepancy (Slaney et al., 2006), while self-construal was divided into four factors: group loyalty, uniqueness, low context, and relational interdependence (Fernández et al., 2005). We found that whether and how academic cheating was predicted by other variables depended on the country. People are probably dishonest in learning situations for different reasons. We found that the understanding of academic dishonesty differed across cultures. Previous cross-cultural studies also indicated that people from various cultures differed in attitudes toward academic dishonesty (Rawwas et al., 2004; Saana et al., 2016; Yukhymenko-Lescroart, 2014).

Our findings showed that the theoretical model was well fitted for six countries: Pakistan, the United States, Romania, Ghana, Israel, and Poland. However, it was not well fitted for Italy, India, and Peru. Additionally, given that Tucker's phi values for the Israeli sample showed lower congruence, the results of the model for this country should be treated with caution even though it was fitted to the data. Additionally, to examine the potential differences in regression weights between countries, we performed multiple-group analysis with pairwise parameter comparisons between them. In this analysis, we used data from five countries (Pakistan, the United States, Romania, Ghana, and Poland) for which the theoretical model was well fitted to the data. Israel was excluded due to the low congruence of the variables.

We assumed that perfectionism would predict academic dishonesty **(H1)**, but our results indicate that this hypothesis was not fully confirmed. Perfectionism predicted academic dishonesty, but not in all countries. It is worth noting that culture has an impact on perfectionism psychological variables because in some culture perfectionism is understood as a risk factor for emotional distress and in other cultures it is regarded as a normative variable (DiBartolo & Rendón, 2012; Yoon & Lau, 2008). In our study, perfectionism: discrepancy was a predictor of academic dishonesty: falsification in the USA. It was a predictor of cheating in the USA, Ghana. It is noteworthy that there was no significant relationship between perfectionism and any academic dishonesty dimension in Poland. The importance of perfectionism has been particularly pronounced in the USA, a country categorized as individualistic. An independent culture places a strong emphasis on individuals and their achievements (Singelis, 1994), and therefore the pursuit of academic success may take place even at the expense of academic honesty. On the other hand, we also found associations between academic dishonesty and the dimensions of perfectionism in some countries identified as representing interdependent cultures (e.g., Pakistan or Ghana). These are also poorer countries, where academic success is more important for improving the standards of living (Jurdi et al., 2011; Saana et al., 2016). Our results indicate

Table 6. Z – score for pairwise regression weights comparisons between Pakistan, United States, Romania, Ghana and Poland.

	z – score for pairwise comparisons									
Pathways	Pakistan USA	Pakistan Romania	Pakistan Ghana	Pakistan Poland	USA Romania	USA Ghana	USA Poland	Romania Ghana	Romania Poland	Ghana Poland
P-S → Cheating	0,534	0,931	0,684	1,027	0,146	0,038	0,318	−0,129	0,253	0,332
P-S → Plagiarism	−0,106	0,193	−0,509	−0,583	0,254	−0,316	−0,326	−0,687	−0,815	0,038
P-S → Falsification	0,156	0,429	0,695	0,512	0,139	0,323	0,224	0,317	0,144	−0,127
P-D → Cheating	1,503	0,044	−0,376	−1,622	−1,538	−1,969	−2,880*	−0,464	−1,775	−1,498
P-D → Plagiarism	1,336	−0,352	−1,316	−0,743	−1,742	−2,676	−2,106	−1,061	−0,429	0,605
P-D → Falsification	0,840	−1,194	−1,773	−1,562	−2,089	−2,679	−2,400	−0,674	−0,543	−0,026
Self-control → Cheating	−2,380	−1,384	−1,438	−0,553	1,573	1,287	2,003	−0,254	0,808	0,928
Self-control → Falsification	−2,669	−1,160	−0,656	−0,719	2,243	2,680	2,476	0,767	0,555	−0,131
Self-control → Plagiarism	−3,019*	−1,830	−1,448	−0,378	1,841	2,144	3,097*	0,463	1,831	1,343
Cheating → Distress	−0,860	−1,537	0,767	−1,791	−0,255	1,488	−0,449	2,623	−0,284	−2,911*
Plagiarism → Distress	0,905	−0,101	−0,785	−0,655	−1,036	−1,525	−1,348	−0,780	−0,624	−0,035
Falsification → Distress	1,412	0,205	−0,039	1,123	−1,297	−1,306	−0,524	−0,210	0,974	0,995
P-S → Distress	−1,065	0,585	0,489	0,994	1,609	1,458	1,937	−0,049	0,451	0,464
P-D → Distress	1,014	2,036	−1,095	0,894	0,900	−2,298	−0,257	−3,849*	−1,340	2,503
Self-control → Distress	−0,316	1,738	2,081	1,627	2,418	2,764	2,211	0,578	0,017	−0,493
Group Loyalty → Cheating	3,380*	−0,108	0,443	1,316	−3,782*	−3,404*	−2,286	0,657	1,601	1,087
RI → Cheating	−3,862*	1,472	2,122	1,073	4,871*	5,496*	4,691*	0,467	−0,482	−1,042
Uniqueness → Cheating	1,160	0,251	−2,551	−0,313	−1,037	−3,058*	−1,379	−3,010*	−0,585	2,192
Low Context → Cheating	0,910	−0,100	0,718	−0,080	−1,137	−0,443	−1,036	1,165	0,010	−0,922
Group Loyalty → Plagiarism	3,058*	0,076	0,255	1,859	−3,398*	−3,369*	−1,678	0,231	2,197	2,137
RI → Plagiarism	−3,086*	2,291	2,160	0,673	5,140*	5,068*	3,895*	−0,225	−1,979	−1,820
Uniqueness → Plagiarism	1,843	1,679	−0,087	0,661	−0,729	−1,966	−1,451	−1,894	−1,126	0,801
Low Context → Plagiarism	−0,181	−2,563	−0,567	−1,105	−1,722	−0,231	−0,635	2,457	1,804	−0,657
Low Context → Falsification	0,061	−1,158	−1,274	0,074	−1,015	−1,092	−0,010	−0,089	1,780	2,082
Uniqueness → Falsification	2,758	2,746	1,061	0,907	−0,936	−2,442	−2,322	−2,733	−2,295	−0,075
RI → Falsification	−4,179*	1,167	1,464	−0,152	5,720*	6,317*	4,501*	0,215	−1,636	−2,191
Group Loyalty → Falsification	3,561*	0,772	1,389	1,251	−3,288*	−3,206*	−2,705	0,657	0,605	0,124
P-O → Cheating	1,923	0,743	0,276	1,155	−1,445	−1,625	−0,948	−0,404	0,528	0,829
P-O → Plagiarism	2,190	1,284	1,154	0,796	−1,239	−1,262	−1,778	−0,084	−0,641	−0,512
P-O → Falsification	2,537	1,750	2,093	1,730	−1,484	−1,302	−1,367	0,402	0,097	−0,253
P-O → Distress	0,730	0,958	−0,293	0,485	0,226	−1,101	−0,303	−1,366	−0,557	0,853

P-S: Perfectionism – Standards; *P*-D: Perfectionism – Discrepancy; *P*-O: Perfectionism – Order; RI: Relational Interdependence.
* −2.807 > z-score > 2.807.

that people who do not feel that what they have done is good enough are more often involved in cheating, plagiarism, and falsification. In other words, if people do not believe that they can do tasks well they more often engage in dishonest behaviors for better performance. This is in line with results indicating that the feeling of mastery is negatively associated with academic cheating (David, 2015). Research on the relationship between academic dishonesty and self-esteem revealed that low self-esteem was negatively related to cheating (Aronson & Mettee, 1968; Błachnio & Weremko, 2012; David, 2015).

We hypothesized that self-control would predict academic dishonesty (H2). Self-control was a predictor of cheating, falsification, and plagiarism in the USA and a predictor of all dimensions of academic dishonesty in Romania as well as a predictor of cheating in Ghana. In the American and Romanian context, low self-control was associated with a high level of all academic dishonesty dimensions. This is consistent with the general crime theory (Gottfredson & Hirschi, 1990), in which wrongful behavior is explained by low self-control. It should be noted that there was no difference between the analyzed countries in the direction of the relationship between self-control and academic dishonesty. It is interesting, however, that this relationship was significant only in the USA. In their analyses, Haslam et al. (2019) noticed differences between more affluent countries (identified with Western culture, more individualistic) and poorer ones (representing the South and the East, more collectivistic) in the level of self-control. In the countries of the former group, a high level of self-control actually protects people against unacceptable behavior, while low self-control explains breaking the rules. In more collectivistic countries, where high self-control is commonly expected, this variable does not clearly explain socially unacceptable behavior. Probably, in different countries people are dishonest for different reasons (e.g., Romania and Ghana). Perhaps explanations should be sought in attitudes toward academic dishonesty and its acceptance in different countries. There are research results that show differences in level of academic dishonesty acceptance, for instance, between the USA and China (Rawwas et al., 2004).

We hypothesized that distress would be related to academic dishonesty (**H3**), but this hypothesis was not fully confirmed. We found that distress was related to cheating only in Ghana, where a higher level of academic dishonesty: cheating was associated with a higher level of distress. However, there was no difference between the countries in the strength of this relationship, except between Ghana and Poland. In this case, the path was significant for Ghana but not significant for Poland. According to Mulder and Aquino (2013), distress can occur in response to dishonest deeds only in people for whom moral identity is important and who recognize their behavior as immoral. If someone does not recognize their behavior as wrong, they will not feel distress in its context. Perhaps for the participants in the study academic cheating was not a behavior perceived as morally wrong enough to cause distress.

We hypothesized that independent self-construal would predict academic dishonesty (**H4**). This hypothesis was confirmed only partially. We found that low context was a predictor of academic dishonesty: plagiarism only in Romania, where a high level of plagiarism was associated with a low level of low context. Group loyalty was related to cheating, falsification, and plagiarism in the USA. In this regard, higher group loyalty was associated with higher academic dishonesty: cheating, falsification, and plagiarism. Additionally, uniqueness was positively related to cheating in Romania and the USA whereas, uniqueness was negatively related to cheating in Ghana. In the case of this relationship there was a difference between Romania, the USA, and Ghana. This may confirm the differences between these countries in the relationship between uniqueness and academic dishonesty: cheating. Moreover, our results showed a positive relation between uniqueness and academic dishonesty: plagiarism in Romania. Additionally, there was a positive relation between uniqueness and academic dishonesty: falsification in the USA and Romania. Our findings also showed that relational interdependence was related to academic dishonesty: cheating in the USA and to academic dishonesty: plagiarism in the USA and Pakistan. Individuals from the USA showed a stronger relationship between these variables than individuals from other countries. Additionally, there was a negative relationship between academic dishonesty: falsification and relational interdependence in the USA.

Also in this case, individuals from the USA showed a stronger relationship between these variables than individuals from other country.

Limitation and future studies

Our results have revealed many interesting relationships, but the research is not free from limitations. First of all, it was a correlational study, which means it is only possible on its basis to speak about relationships but not about causal links. Experimental studies are recommended in the future. Although many studies on academic dishonesty are questionnaire-based, it is recommended that such studies should be carried out as experimental. Another possible limitation of our study is the number of countries, limited to only nine. Further research should be conducted in a broader array of countries. In the present study we used the method that identified only three types of academic dishonesty, and in future studies the meaning of this phenomenon should be extended to include other types as well. What is more, countries should be more carefully selected, for instance, according cultural factors, economic indexes, or corruption level. Deeper knowledge on the cultural factors significant for academic dishonesty will help better understand this phenomenon and identify new directions to pursue in order to explain it. It should also be noted that we used convenience sampling and that the sample was skewed, with women accounting for the majority of the participants. The generalizability of the results is therefore limited and conclusions should be drawn with caution.

Conclusion

In our study we explored a model of relation between personal and cultural variables and academic dishonesty. We checked whether perfectionism, self-control, distress, and independent self-construal could be related to academic dishonesty among students. Our model was tested in nine countries. Despite its limitations, the study yielded highly salient findings. We established that our theoretical model was well fitted to the data set for six countries: Pakistan, the United States, Romania, Ghana, Israel, and Poland, but it was not fitted for Italy, India, and Peru. Our results also showed that perfectionism significantly predicted academic dishonesty but not in all countries. Self-control was a significant predictor of cheating, falsification, and plagiarism in the USA. We found that distress was related to cheating only in Ghana. Moreover, independent self-construal predicted academic dishonesty.

Our results can be used in preventing and curbing academic dishonesty. The knowledge on cross-cultural differences can be useful in international education, for example. as an indicator accepting or relaxing attitude toward academic dishonesty in students from different countries.

Academic dishonesty has serious consequences for human lives, social values, and economy, because it leads to various kinds of work being done by untrained people lacking the knowledge and skills that their education completion documents certify (Desalegn & Berhan, 2014; Johnson, 2013). Attitudes to academic cheating are an indicator of future attitudes to unethical business practices (Ballantine et al., 2014). Cheaters in school will be more likely than others to continue engaging in counterproductive behavior as employees in an organization (Spector et al., 2010) and may even engage in deviant behaviors (Nonis & Swift, 2001). Our findings provide useful information concerning the scientific discourse on academic dishonesty from a cross-cultural perspective by highlighting the significant predictors to inform interventions. Further research is needed to provide a better understanding of the academic dishonesty phenomenon and to prevent is more effectively.

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Appendix A

Table 1. Cronbach's alphas for the variables in each countries.

Variables	Pakistan	Israel	Indie	USA	Peru	Romania	Ghana	Poland	Italy
Self -control	0.34	0.52	0.30	0.84	0.76	0.84	0.64	0.76	0.38
Distress	0.76	0.78	0.68	0.94	0.76	0.83	0.76	0.83	0.77
Academic Dishonesty – Cheating	0.71	0.83	0.83	0.97	0.84	0.76	0.77	0.83	0.82
Academic Dishonesty – Plagiarism	0.75	0.76	0.77	0.96	0.82	0.76	0.70	0.84	0.74
Academic Dishonesty – Falsification	0.72	0.44	0.69	0.92	0.72	0.55	0.50	0.64	0.40
Almost Perfect – Standards	0.72	0.86	0.78	0.89	0.73	0.75	0.75	0.81	0.68
Almost Perfect – Discrepancy	0.81	0.94	0.85	0.96	0.92	0.88	0.90	0.93	0.85
Almost Perfect – Order	0.52	0.86	0.56	0.87	0.82	0.56	0.38	0.78	0.81
Group Loyalty	0.65	0.68	0.63	0.79	0.57	0.74	0.63	0.51	0.45
Uniqueness	0.58	0.49	0.35	0.51	0.44	0.49	0.34	0.49	0.46
Low Context	0.29	0.46	0.38	0.55	0.43	0.50	0.44	0.40	0.43
Relational Interdependence	0.34	0.39	0.39	0.45	0.58	0.23	0.36	0.49	0.59

Appendix B

Table 1. The 95% confidence intervals for means and effect size particular variables in each country.

	Countries																			
	Pakistan		Israel		Indie		USA		Peru		Romania		Ghana		Poland		Italy		η_p^2	
Variables	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper
Self -control	39.60	40.83	39.91	40.97	38.45	39.63	39.26	41.57	39.76	41.66	42.24	44.46	44.22	46.14	37.98	39.72	37.87	39.13	0.05	0.08
Distress	14.88	15.95	10.21	10.80	15.87	16.84	14.85	16.59	14.71	15.61	14.19	15.25	12.65	13.66	14.54	15.58	13.94	14.90	0.10	0.15
Academic Dishonesty – Cheating	15.05	16.24	11.30	12.30	14.76	16.10	16.03	18.42	16.05	17.22	17.48	18.53	14.77	16.13	17.35	18.72	12.14	13.36	0.09	0.013
Academic Dishonesty – Plagiarism	15.31	16.63	12.49	13.44	14.48	15.76	16.26	18.63	12.96	13.97	15.72	16.82	13.90	15.06	12.71	13.89	11.28	12.13	0.06	0.10
Academic Dishonesty – Falsification	4.67	5.24	4.14	4.52	4.67	5.21	5.99	6.94	3.56	3.89	3.92	4.29	3.54	3.90	4.71	5.18	3.70	4.01	0.09	0.14
Almost Perfect – Standards	36.98	38.40	17.39	18.60	35.90	37.49	36.47	38.11	35.04	36.17	35.55	36.80	41.53	42.83	35.19	36.62	32.93	34.51	0.52	0.59
Almost Perfect – Discrepancy	57.47	60.00	52.07	55.09	54.36	57.22	54.18	58.10	46.57	49.50	46.69	49.87	56.26	60.21	47.72	50.98	48.30	51.23	0.06	0.10
Almost Perfect – Order	21.63	22.48	9.33	10.29	20.34	21.32	20.52	21.64	19.55	20.53	19.99	20.84	22.19	23.13	20.37	21.37	19.26	20.43	0.42	0.47
Group Loyalty	15.12	15.68	12.61	13.15	14.57	15.17	14.14	14.89	11.89	12.59	11.71	12.41	13.86	14.75	12.41	13.01	12.90	13.56	0.11	0.16
Uniqueness	9.22	9.60	8.06	8.43	9.22	9.60	8.72	9.14	10.01	10.40	8.99	9.38	9.46	9.93	9.16	9.55	9.20	9.76	0.06	0.10
Low Context	8.78	9.14	8.04	8.39	8.73	9.10	8.91	9.35	9.23	9.69	8.77	9.22	9.14	9.70	8.53	8.94	8.73	9.23	0.02	0.05
Relational Interdependence	6.55	6.79	6.84	7.05	6.13	6.41	6.34	6.61	7.06	7.31	6.83	7.05	7.18	7.45	6.53	6.79	5.71	6.11	0.09	0.13

Appendix C

Table 1. Tucker's Phi coefficients of Brief Self Control Scale factor structure similarity in each country, and country difference testing of test score in studied countries.

	Descriptive statistics		Tucker's phi	Post hoc Tamhane's T2 test (p <)							
Country	M	SD		Pakistan	Israel	Indie	USA	Peru	Romania	Ghana	Poland
Pakistan	40.19	5.37	0.956								
Israel	40.43	5.29	0.880	1.000							
Indie	39.06	5.22	0.867	0.280	0.030						
USA	40.4	9.13	0.990	1.000	1.000	0.752					
Peru	40.72	8.88	0.981	1.000	1.000	0.131	1.000				
Romania	43.33	9.24	0.940	0.001	0.001	0.001	0.007	0.012			
Ghana	45.22	7.67	0.906	0.000	0.001	0.001	0.001	0.001	0.297		
Poland	38.83	8.03	0.914	0.382	0.090	1.000	0.683	0.152	0.001	0.001	
Italy	38.51	5.53	0.768	0.009	0.001	1.000	0.149	0.007	0.000	0.001	1.000

Table 2. Tucker's Phi coefficients of Kessler Scale factor structure similarity in each country, and country difference testing of test score in studied countries.

	Descriptive statistics		Tucker's phi	Post hoc Tamhane's T2 test (p <)							
Country	M	SD		Pakistan	Israel	Indie	USA	Peru	Romania	Ghana	Poland
Pakistan	15.41	4.68	0.978								
Israel	10.51	2.87	0.587	0.001							
Indie	16.36	4.25	0.913	0.248	0.001						
USA	15.72	7.11	0.982	1.000	0.001	0.999					
Peru	15.16	4.15	0.980	1.000	0.001	0.011	1.000				
Romania	14.72	4.64	0.997	0.870	0.001	0.001	0.787	0.999			
Ghana	13.15	4.00	0.939	0.001	0.001	0.001	0.001	0.001	0.001		
Poland	15.06	4.71	0.989	1.000	0.001	0.010	0.998	1.000	1.000	0.001	

Table 3. Tucker's Phi coefficients of Academic Dishonesty – Cheating scale factor structure similarity in each country, and country difference testing of test score in studied countries.

	Descriptive statistics		Tucker's	Post hoc Tamhane's T2 test (p <)							
Country	M	SD	phi	Pakistan	Israel	Indie	USA	Peru	Romania	Ghana	Poland
Pakistan	15.65	5.21	0.995								
Israel	11.80	4.82	0.757	0.001							
Indie	15.43	5.90	0.994	1.000	0.001						
USA	17.22	9.75	0.989	0.439	0.001	0.255					
Peru	16.64	5.36	0.992	0.426	0.001	0.199	1.000				
Romania	18.01	4.62	0.901	0.001	0.001	0.001	1.000	0.017			
Ghana	15.45	5.35	0.990	1.000	0.001	1.000	0.280	0.237	0.001		
Poland	18.03	6.23	0.950	0.001	0.001	0.001	1.000	0.064	1.000	0.001	
Italy	12.75	5.10	0.865	0.000	0.481	0.001	0.001	0.001	0.001	01000	0.001

Table 4. Tucker's Phi coefficients of Academic Dishonesty – Plagiarism scale factor structure similarity in each country, and country difference testing of test score in studied countries.

	Descriptive statistics		Tucker's	Post hoc Tamhane's T2 test (p <)							
Country	M	SD	phi	Pakistan	Israel	Indie	USA	Peru	Romania	Ghana	Poland
Pakistan	15.97	5.73	0.974								
Israel	12.97	4.56	0.913	0.001							
Indie	15.12	5.60	0.991	0.860	0.001						
USA	17.45	9.66	0.953	0.602	0.001	0.020					
Peru	13.46	4.65	0.955	0.001	0.922	0.002	0.001				
Romania	16.27	4.83	0.967	1.000	0.001	0.184	0.895	0.001			
Ghana	14.48	4.56	0.983	0.024	0.002	0.987	0.001	0.234	0.001		
Poland	13.30	5.31	0.964	0.001	1.000	0.001	0.001	1.000	0.001	0.133	
Italy	11.70	3.58	0.677	0.001	0.004	0.001	0,000	0.001	0.001	0.001	0.001

Table 5. Tucker's Phi coefficients of Academic Dishonesty – Falsification scale factor structure similarity in each country, and country difference testing of test score in studied countries.

	Descriptive statistics		Tucker's phi	Post hoc Tamhane's T2 test (p <)							
Country	M	SD		Pakistan	Israel	Indie	USA	Peru	Romania	Ghana	Poland
Pakistan	4.95	2.48	0.988								
Israel	4.33	1.82	0.957	0.010							
Indie	4.94	2.38	0.987	1.000	0.008						
USA	6.47	3.86	0.895	0.001	0.001	0.001					
Peru	3.73	1.52	0.872	0.001	0.001	0.001	0.001				
Romania	4.11	1.65	0.947	0.001	0.951	0.001	0.001	0.075			
Ghana	3.72	1.41	0.824	0.001	0.001	0.001	0.001	1.000	0.094		
Poland	4.94	2.15	0.989	1.000	0.002	1.000	0.001	0.001	0.001	0.001	
Italy	3.86	1.32	0.772	0.001	0.006	0.001	0.001	1.000	0.812	1.000	0.001

Table 6. Tucker's Phi coefficients of Almost Perfect – Standards Scale factor structure similarity in each country, and country difference testing of test score in studied countries.

	Descriptive statistics		Tucker's	Post hoc Tamhane's T2 test (p <)							
Country	M	SD	phi	Pakistan	Israel	Indie	USA	Peru	Romania	Ghana	Poland
Pakistan	37.69	6.20	0.884								
Israel	17.99	5.79	0.306	0.001							
Indie	36.69	7.02	0.948	0.856	0.001						
USA	37.29	6.67	0.916	1.000	0.001	1.000					
Peru	35.61	5.20	0.913	0.001	0.001	0.564	0.025				
Romania	36.18	5.49	0.838	0.047	0.001	1.000	0.616	0.997			
Ghana	42.18	5.12	0.532	0.001	0.001	0.001	0.001	0.001	0.001		
Poland	35.91	6.48	0.935	0.015	0.001	0.989	0.298	1.000	1.000	0.0001	
Italy	33.72	6.66	0.962	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.002

Table 7. Tucker's Phi coefficients of Almost Perfect – Discrepancy Scale factor structure similarity in each country, and country difference testing of test score in studied countries.

	Descriptive statistics		Tucker's	Post hoc Tamhane's T2 test (p <)							
Country	M	SD	phi	Pakistan	Israel	Indie	USA	Peru	Romania	Ghana	Poland
Pakistan	58.74	11.04	0.894								
Israel	53.58	14.54	0.964	0.001							
Indie	55.79	12.60	0.980	0.067	0.654						
USA	56.14	15.98	0.986	0.561	0.697	1.000					
Peru	48.03	13.53	0.920	0.001	0.001	0.001	0.001				
Romania	48.28	13.94	0.899	0.001	0.001	0.001	0.001	1.000			
Ghana	58.23	15.51	0.963	1.000	0.007	0.753	0.985	0.001	0.001		
Poland	49.35	14.75	0.954	0.001	0.005	0.001	0.001	1.000	1.000	0.001	
Italy	49.77	12.33	0.980	0.001	0.014	0.001	0.001	0.978	0.999	0.001	1.000

Table 8. Tucker's Phi coefficients of Almost Perfect – Order Scale factor structure similarity in each country, and country difference testing of test score in studied countries.

	Descriptive statistics		Tucker's	Post hoc Tamhane's T2 test (p <)							
Country	M	SD	phi	Pakistan	Israel	Indie	USA	Peru	Romania	Ghana	Poland
Pakistan	22.06	3.73	0.791								
Israel	9.81	4.64	0.437	0.001							
Indie	20.83	4.32	0.938	0.006	0.001						
USA	21.08	4.57	0.939	0.163	0.001	1.000					
Peru	20.04	4.51	0.992	0.001	0.001	0.519	0.163				
Romania	20.42	3.72	0.924	0.001	0.001	0.999	0.847	1.000			
Ghana	22.66	3.72	0.687	0.832	0.001	0.001	0.001	0.001	0.001		
Poland	20.87	4.50	0.954	0.011	0.001	1.000	1.000	0.430	0.995	0.001	
Italy	19.84	4.95	0.992	0.001	0.001	0.342	0.099	1.000	0.990	0.001	0.276

Table 9. Tucker's Phi coefficients of Singelis Scale – Group Loyalty factor structure similarity in each country, and country difference testing of test score in studied countries.

	Descriptive statistics		Tucker's phi	Post hoc Tamhane's T2 test (p <)							
Country	M	SD		Pakistan	Israel	Indie	USA	Peru	Romania	Ghana	Poland
Pakistan	15.40	2.45	0.780								
Israel	12.88	2.62	0.963	0.001							
Indie	14.87	2.64	0.884	0.277	0.001						
USA	14.52	3.06	0.942	0.007	0.001	0.990					
Peru	12.24	3.21	0.902	0.001	0.114	0.001	0.001				
Romania	12.06	3.11	0.902	0.001	0.009	0.001	0.001	1.000			
Ghana	14.31	3.49	0.972	0.001	0.001	0.675	1.000	0.001	0.001		
Poland	12.71	2.73	0.937	0.001	1.000	0.001	0.001	0.716	0.154	0.001	

Table 10. Tucker's Phi coefficients of Singelis Scale – Uniqueness factor structure similarity in each country, and country difference testing of test score in studied countries.

	Descriptive statistics		Tucker's	Post hoc Tamhane's T2 test (p <)							
Country	M	SD	phi	Pakistan	Israel	Indie	USA	Peru	Romania	Ghana	Poland
Pakistan	9.41	1.66	0.998								
Israel	8.25	1.77	0.865	0.001							
Indie	9.41	1.64	0.992	1.000	0.001						
USA	8.93	1.74	0.978	0.026	0.001	0.025					
Peru	10.21	1.78	0.893	0.001	0.001	0.001	0.001				
Romania	9.19	1.72	0.998	0.955	0.001	0.955	0.905	0.001			
Ghana	9.70	1.82	0.949	0.837	0.001	0.816	0.001	0.025	0.028		
Poland	9.35	1.78	0.999	1.000	0.001	1.000	0.113	0.001	1.000	0.534	
Italy	9.48	2.36	0.989	1.000	0.001	1.000	0.081	0.001	0.973	1.000	1.000

Table 11. Tucker's Phi coefficients of Singelis Scale – Low Context factor structure similarity in each country, and country difference testing of test score in studied countries.

	Descriptive statistics		Tucker's phi	Post hoc Tamhane's T2 test (p <)							
Country	M	SD		Pakistan	Israel	Indie	USA	Peru	Romania	Ghana	Poland
Pakistan	8.96	1.55	0.999								
Israel	8.21	1.71	0.914	0.001							
Indie	8.92	1.62	0.986	1.000	0.001						
USA	9.13	1.80	0.993	1.000	0.001	0.989					
Peru	9.46	2.11	0.964	0.020	0.001	0.008	0.688				
Romania	8.99	1.95	0.997	1.000	0.001	1.000	1.000	0.111			
Ghana	9.42	2.18	0.976	0.157	0.001	0.082	0.955	1.000	0.405		
Poland	8.74	1.84	0.983	0.951	0.005	0.998	0.250	0.001	0.933	0.003	

Table 12. Tucker's Phi coefficients of Singelis Scale – Relational Interdependence factor structure similarity in each country, and country difference testing of test score in studied countries.

	Descriptive statistics		Tucker's phi	Post hoc Tamhane's T2 test (p <)							
Country	M	SD		Pakistan	Israel	Indie	USA	Peru	Romania	Ghana	Poland
Pakistan	6.67	1.02	0.991								
Israel	6.95	1.02	0.991	0.016							
Indie	6.27	1.22	0.915	0.001	0.001						
USA	6.47	1.09	0.955	0.577	0.001	0.642					
Peru	7.19	1.18	0.951	0.001	0.131	0.001	0.001				
Romania	6.94	0.97	0.988	0.023	1.000	0.001	0.001	0.130			
Ghana	7.32	1.06	0.894	0.001	0.001	0.001	0.001	0.994	0.001		
Poland	6.66	1.18	0.991	1.000	0.025	0.001	0.732	0.001	0.035	0.001	
Italy	5.91	1.69	0.902	0.001	0.001	0.139	0.001	0.001	0.001	0.001	0.001

Appendix D

Table 1. Correlation between personal and cultural variables. and between three dimension of academic dishonesty (Pakistan).

			95% confidence interval		
Variable 1	Variable 2	r	lower	upper	P
Perfectionism - Standards	Perfectionism - Discrepancy	0.53	0.44	0.62	0.001
Perfectionism - Standards	Self-control	0.12	0.00	0.24	0.045
Perfectionism - Standards	Group Loyalty	0.26	0.12	0.38	0.001
Perfectionism - Standards	Relational Interdependence	0.34	0.22	0.44	0.001
Perfectionism - Standards	Uniqueness	0.19	0.07	0.31	0.002
Perfectionism - Standards	Low Context	0.15	0.01	0.28	0.036
Perfectionism - Discrepancy	Self-control	0.00	-0.13	0.13	0.978
Perfectionism - Discrepancy	Group Loyalty	0.21	0.08	0.33	0.002
Perfectionism - Discrepancy	Relational Interdependence	0.17	0.04	0.28	0.008
Perfectionism - Discrepancy	Uniqueness	0.11	-0.01	0.22	0.073
Perfectionism - Discrepancy	Low Context	0.12	0.00	0.23	0.050
Self-control	Group Loyalty	-0.07	-0.18	0.05	0.241
Self-control	Relational Interdependence	-0.05	-0.16	0.07	0.405
Self-control	Uniqueness	-0.03	-0.15	0.09	0.591
Self-control	Low Context	-0.01	-0.13	0.10	0.793
Group Loyalty	Relational Interdependence	0.53	0.42	0.61	0.001
Group Loyalty	Uniqueness	0.29	0.17	0.40	0.001
Group Loyalty	Low Context	0.28	0.15	0.40	0.001
Relational Interdependence	Uniqueness	0.16	0.03	0.28	0.019
Relational Interdependence	Low Context	0.20	0.07	0.32	0.004
Uniqueness	Low Context	0.48	0.37	0.58	0.001
Low Context	Perfectionism - Order	0.12	-0.01	0.25	0.059
Uniqueness	Perfectionism - Order	0.09	-0.03	0.22	0.147
Relational Interdependence	Perfectionism - Order	0.24	0.12	0.34	0.001
Group Loyalty	Perfectionism - Order	0.24	0.12	0.35	0.001
Self-control	Perfectionism - Order	0.13	0.01	0.26	0.041
Perfectionism - Discrepancy	Perfectionism - Order	0.43	0.33	0.52	0.001
Perfectionism - Standards	Perfectionism - Order	0.51	0.37	0.62	0.001
Cheating	Plagiarism	0.61	0.53	0.68	0.001
Plagiarism	Falsification	0.63	0.53	0.71	0.001
Cheating	Falsification	0.52	0.41	0.61	0.001

Table 2. Correlation between personal and cultural variables. and between three dimension of academic dishonesty (Isreal).

			95% confidence interval		
Variable 1	Variable 2	r	lower	upper	P
Perfectionism - Standards	Perfectionism - Discrepancy	0.36	0.26	0.45	0.001
Perfectionism - Standards	Self-control	-0.08	-0.21	0.05	0.200
Perfectionism - Standards	Group Loyalty	0.06	-0.07	0.21	0.309
Perfectionism - Standards	Relational Interdependence	0.00	-0.13	0.15	0.853
Perfectionism - Standards	Uniqueness	-0.12	-0.24	0.02	0.090
Perfectionism - Standards	Low Context	-0.13	-0.23	0.00	0.063
Perfectionism - Discrepancy	Self-control	0.25	0.08	0.39	0.005
Perfectionism - Discrepancy	Group Loyalty	-0.04	-0.16	0.09	0.580
Perfectionism - Discrepancy	Relational Interdependence	0.25	0.13	0.39	0.001
Perfectionism - Discrepancy	Uniqueness	0.02	-0.10	0.14	0.684
Perfectionism - Discrepancy	Low Context	0.11	-0.01	0.23	0.074
Self-control	Group Loyalty	-0.27	-0.40	-0.14	0.001
Self-control	Relational Interdependence	-0.09	-0.26	0.08	0.299
Self-control	Uniqueness	-0.20	-0.32	-0.07	0.004
Self-control	Low Context	-0.04	-0.19	0.10	0.536
Group Loyalty	Relational Interdependence	0.44	0.34	0.53	0.001
Group Loyalty	Uniqueness	-0.10	-0.23	0.03	0.153
Group Loyalty	Low Context	0.08	-0.05	0.21	0.216
Relational Interdependence	Uniqueness	0.08	-0.05	0.23	0.217
Relational Interdependence	Low Context	0.19	0.07	0.32	0.003
Uniqueness	Low Context	0.41	0.31	0.50	0.001
Low Context	Perfectionism - Order	-0.08	-0.19	0.03	0.167
Uniqueness	Perfectionism - Order	0.04	-0.08	0.16	0.527
Relational Interdependence	Perfectionism - Order	-0.09	-0.21	0.04	0.186
Group Loyalty	Perfectionism - Order	0.01	-0.13	0.15	0.900
Self-control	Perfectionism - Order	-0.26	-0.35	-0.16	0.001
Perfectionism - Discrepancy	Perfectionism - Order	0.06	-0.04	0.17	0.232
Perfectionism - Standards	Perfectionism - Order	0.37	0.26	0.49	0.001
Cheating	Plagiarism	0.45	0.34	0.55	0.001
Plagiarism	Falsification	0.36	0.25	0.47	0.001
Cheating	Falsification	0.38	0.24	0.53	0.001

Table 3. Correlation between personal and cultural variables. and between three dimension of academic dishonesty (USA).

			95% confidence interval		
Variable 1	Variable 2	r	lower	upper	P
Perfectionism - Standards	Perfectionism - Discrepancy	0.48	0.37	0.57	0.001
Perfectionism - Standards	Self-control	-0.02	-0.17	0.12	0.786
Perfectionism - Standards	Group Loyalty	0.31	0.17	0.47	0.001
Perfectionism - Standards	Relational Interdependence	0.34	0.18	0.50	0.001
Perfectionism - Standards	Uniqueness	0.38	0.22	0.53	0.001
Perfectionism - Standards	Low Context	0.36	0.22	0.52	0.001
Perfectionism - Discrepancy	Self-Control	-0.55	-0.65	-0.44	0.001
Perfectionism - Discrepancy	Group Loyalty	0.48	0.36	0.60	0.001
Perfectionism - Discrepancy	Relational Interdependence	0.08	-0.06	0.24	0.235
Perfectionism - Discrepancy	Uniqueness	0.14	-0.01	0.29	0.071
Perfectionism - Discrepancy	Low Context	0.19	0.04	0.33	0.009
Self-control	Group Loyalty	-0.25	-0.39	-0.07	0.009
Self-control	Relational Interdependence	0.08	-0.05	0.23	0.211
Self-control	Uniqueness	0.05	-0.07	0.20	0.344
Self-control	Low Context	0.15	0.02	0.30	0.026
Group Loyalty	Relational Interdependence	0.41	0.28	0.54	0.001
Group Loyalty	Uniqueness	0.22	0.08	0.37	0.003
Group Loyalty	Low Context	0.32	0.17	0.46	0.001
Relational Interdependence	Uniqueness	0.21	0.04	0.38	0.014
Relational Interdependence	Low Context	0.22	0.06	0.39	0.007
Uniqueness	Low Context	0.41	0.27	0.54	0.001
Low Context	Perfectionism - Order	0.49	0.37	0.63	0.001
Uniqueness	Perfectionism - Order	0.37	0.23	0.52	0.001
Relational Interdependence	Perfectionism - Order	0.28	0.11	0.44	0.002
Group Loyalty	Perfectionism - Order	0.25	0.11	0.43	0.001
Self-control	Perfectionism - Order	0.16	0.02	0.28	0.029
Perfectionism - Discrepancy	Perfectionism - Order	0.17	0.03	0.31	0.017
Perfectionism - Standards	Perfectionism - Order	0.49	0.34	0.62	0.001
Cheating	Plagiarism	0.90	0.87	0.94	0.001
Plagiarism	Falsification	0.91	0.88	0.94	0.001
Cheating	Falsification	0.90	0.87	0.92	0.001

Table 4. Correlation between personal and cultural variables. and between three dimension of academic dishonesty (Romania).

			95% confidence interval		
Variable 1	Variable 2	r	lower	upper	P
Perfectionism - Standards	Perfectionism - Discrepancy	0.36	0.23	0.47	0.001
Perfectionism - Standards	Self-control	0.10	-0.04	0.23	0.144
Perfectionism - Standards	Group Loyalty	0.05	-0.09	0.17	0.495
Perfectionism - Standards	Relational Interdependence	0.12	0.01	0.23	0.031
Perfectionism - Standards	Uniqueness	0.15	0.03	0.26	0.018
Perfectionism - Standards	Low Context	0.06	-0.06	0.17	0.357
Perfectionism - Discrepancy	Self-control	-0.42	-0.51	-0.32	0.001
Perfectionism - Discrepancy	Group Loyalty	0.34	0.20	0.45	0.001
Perfectionism - Discrepancy	Relational Interdependence	-0.04	-0.16	0.07	0.480
Perfectionism - Discrepancy	Uniqueness	-0.29	-0.39	-0.18	0.001
Perfectionism - Discrepancy	Low Context	-0.12	-0.23	-0.01	0.034
Self-control	Group Loyalty	-0.21	-0.32	-0.09	0.001
Self-control	Relational Interdependence	0.10	-0.03	0.23	0.120
Self-control	Uniqueness	0.13	0.00	0.25	0.049
Self-control	Low Context	0.23	0.12	0.35	0.001
Group Loyalty	Relational Interdependence	0.33	0.21	0.43	0.001
Group Loyalty	Uniqueness	-0.17	-0.29	-0.05	0.006
Group Loyalty	Low Context	-0.18	-0.30	-0.07	0.002
Relational Interdependence	Uniqueness	0.15	0.02	0.27	0.020
Relational Interdependence	Low Context	0.08	-0.03	0.20	0.153
Uniqueness	Low Context	0.26	0.13	0.37	0.001
Low Context	Perfectionism - Order	0.13	0.01	0.24	0.029
Uniqueness	Perfectionism - Order	0.12	0.00	0.23	0.062
Relational Interdependence	Perfectionism - Order	0.18	0.04	0.32	0.010
Group Loyalty	Perfectionism - Order	0.07	-0.07	0.20	0.321
Self-control	Perfectionism - Order	0.36	0.25	0.46	0.001
Perfectionism - Discrepancy	Perfectionism - Order	-0.05	-0.18	0.09	0.505
Perfectionism - Standards	Perfectionism - Order	0.19	0.08	0.30	0.003
Cheating	Plagiarism	0.30	0.19	0.40	0.001
Plagiarism	Falsification	0.34	0.21	0.45	0.001
Cheating	Falsification	0.28	0.15	0.40	0.001

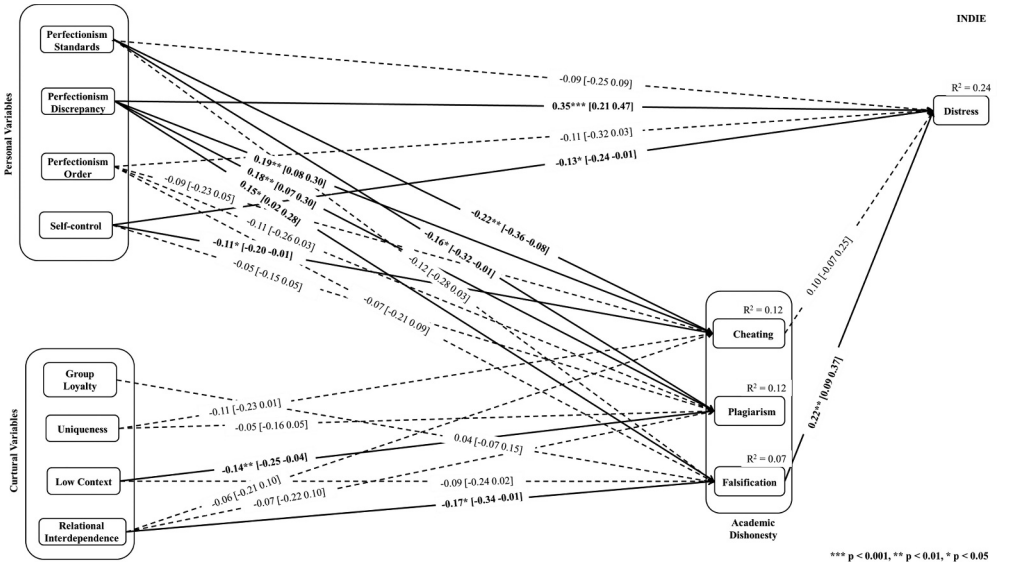
Table 5. Correlation between personal and cultural variables. and between three dimension of academic dishonesty (Ghana).

			95% confidence interval		
Variable 1	Variable 2	r	lower	upper	P
Perfectionism - Standards	Perfectionism - Discrepancy	0.35	0.25	0.45	0.001
Perfectionism - Standards	Self-control	0.19	0.07	0.30	0.002
Perfectionism - Standards	Group Loyalty	0.09	-0.03	0.20	0.163
Perfectionism - Standards	Relational Interdependence	0.17	0.04	0.33	0.007
Perfectionism - Standards	Uniqueness	0.32	0.18	0.43	0.001
Perfectionism - Standards	Low Context	0.25	0.14	0.36	0.001
Perfectionism - Discrepancy	Self-control	-0.19	-0.31	-0.06	0.005
Perfectionism - Discrepancy	Group Loyalty	0.12	-0.02	0.25	0.098
Perfectionism - Discrepancy	Relational Interdependence	0.02	-0.10	0.15	0.735
Perfectionism - Discrepancy	Uniqueness	0.22	0.10	0.34	0.001
Perfectionism - Discrepancy	Low Context	0.13	0.01	0.26	0.036
Self-control	Group Loyalty	-0.02	-0.14	0.10	0.707
Self-control	Relational Interdependence	0.13	0.03	0.24	0.014
Self-control	Uniqueness	0.11	-0.02	0.21	0.082
Self-control	Low Context	0.11	-0.02	0.23	0.096
Group Loyalty	Relational Interdependence	0.18	0.06	0.30	0.004
Group Loyalty	Uniqueness	0.14	0.00	0.29	0.051
Group Loyalty	Low Context	0.18	0.04	0.31	0.013
Relational Interdependence	Uniqueness	0.18	0.04	0.33	0.014
Relational Interdependence	Low Context	0.13	-0.01	0.26	0.067
Uniqueness	Low Context	0.37	0.23	0.48	0.001
Low Context	Perfectionism - Order	0.17	0.05	0.30	0.005
Uniqueness	Perfectionism - Order	0.20	0.07	0.32	0.001
Relational Interdependence	Perfectionism - Order	0.18	0.04	0.31	0.013
Group Loyalty	Perfectionism - Order	0.03	-0.11	0.16	0.693
Self-control	Perfectionism - Order	0.16	0.03	0.29	0.017
Perfectionism - Discrepancy	Perfectionism - Order	0.20	0.08	0.32	0.001
Perfectionism - Standards	Perfectionism - Order	0.54	0.43	0.64	0.001
Cheating	Plagiarism	0.46	0.32	0.58	0.001
Plagiarism	Falsification	0.34	0.19	0.47	0.001
Cheating	Falsification	0.43	0.27	0.57	0.001

Table 6. Correlation between personal and cultural variables. and between three dimension of academic dishonesty (Poland).

			95% confidence interval		
Variable 1	Variable 2	r	lower	upper	P
Perfectionism - Standards	Perfectionism - Discrepancy	0.56	0.48	0.63	0.001
Perfectionism - Standards	Self-control	0.12	0.01	0.24	0.038
Perfectionism - Standards	Group Loyalty	0.16	0.06	0.26	0.002
Perfectionism - Standards	Relational Interdependence	0.24	0.09	0.40	0.004
Perfectionism - Standards	Uniqueness	0.15	0.03	0.28	0.019
Perfectionism - Standards	Low Context	0.13	0.00	0.25	0.049
Perfectionism - Discrepancy	Self-control	-0.19	-0.30	-0.07	0.002
Perfectionism - Discrepancy	Group Loyalty	0.24	0.11	0.35	0.001
Perfectionism - Discrepancy	Relational Interdependence	0.02	-0.11	0.14	0.825
Perfectionism - Discrepancy	Uniqueness	-0.14	-0.25	-0.03	0.016
Perfectionism - Discrepancy	Low Context	-0.01	-0.12	0.10	0.858
Self-control	Group Loyalty	-0.06	-0.17	0.07	0.415
Self-control	Relational Interdependence	0.10	-0.02	0.22	0.114
Self-control	Uniqueness	0.04	-0.09	0.16	0.548
Self-control	Low Context	0.03	-0.09	0.16	0.608
Group Loyalty	Relational Interdependence	0.22	0.11	0.32	0.001
Group Loyalty	Uniqueness	0.03	-0.08	0.15	0.575
Group Loyalty	Low Context	0.08	-0.04	0.21	0.183
Relational Interdependence	Uniqueness	0.26	0.13	0.39	0.001
Relational Interdependence	Low Context	0.12	0.00	0.25	0.057
Uniqueness	Low Context	0.41	0.30	0.50	0.001
Low Context	Perfectionism - Order	0.16	0.03	0.27	0.017
Uniqueness	Perfectionism - Order	0.23	0.11	0.34	0.001
Relational Interdependence	Perfectionism - Order	0.24	0.09	0.38	0.005
Group Loyalty	Perfectionism - Order	0.01	-0.10	0.13	0.820
Self-control	Perfectionism - Order	0.36	0.24	0.45	0.001
Perfectionism - Discrepancy	Perfectionism - Order	0.10	-0.02	0.22	0.107
Perfectionism - Standards	Perfectionism - Order	0.49	0.38	0.60	0.001
Cheating	Plagiarism	0.65	0.58	0.72	0.001
Plagiarism	Falsification	0.63	0.52	0.73	0.001
Cheating	Falsification	0.52	0.41	0.61	0.001

Appendix E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Perfectionism Order
Self-control
Curtural Variables
Group Loyalty
Uniqueness
Low Context
Relational Interdependence
Distress
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Cheating
R² = 0.12
Plagiarism
R² = 0.12
Falsification
R² = 0.07
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-0.13* [-0.24 -0.01]
0.19** [0.08 0.30]
0.18** [0.07 0.30]
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-0.16* [-0.32 -0.01]
-0.12 [-0.28 0.03]
-0.07 [-0.21 0.09]
0.10 [-0.07 0.25]
0.22** [0.09 0.37]
-0.11 [-0.23 0.01]
-0.05 [-0.16 0.05]
-0.14** [-0.25 -0.04]
-0.06 [-0.21 0.10]
0.04 [-0.07 0.15]
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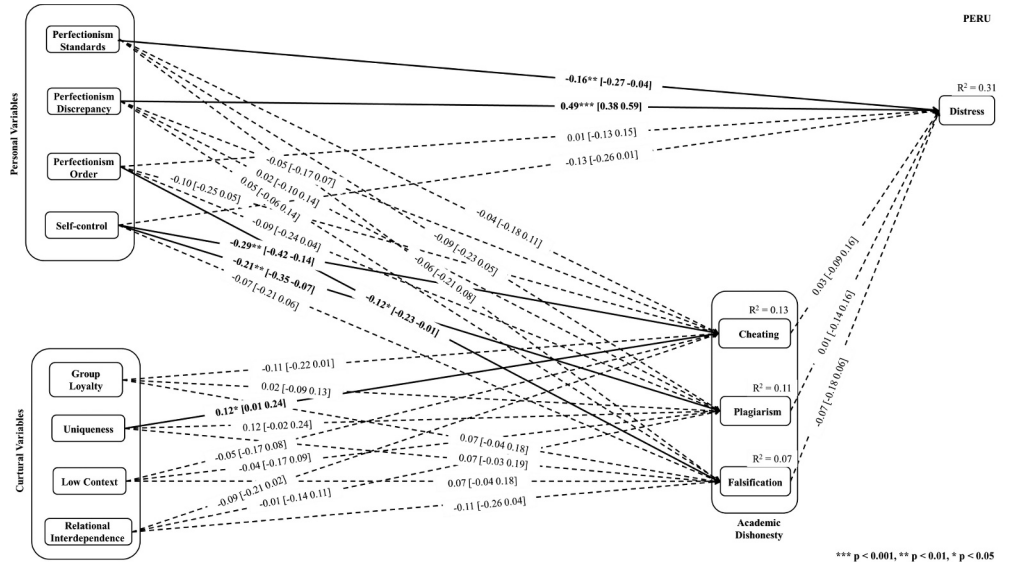
*** p < 0.001, ** p < 0.01, * p < 0.05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Perfectionism Order
Self-control
Curtural Variables
Group Loyalty
Uniqueness
Low Context
Relational Interdependence
Distress
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Cheating
R² = 0.13
Plagiarism
R² = 0.11
Falsification
R² = 0.07
Academic Dishonesty
-0.16** [-0.27 -0.04]
0.49*** [0.38 0.59]
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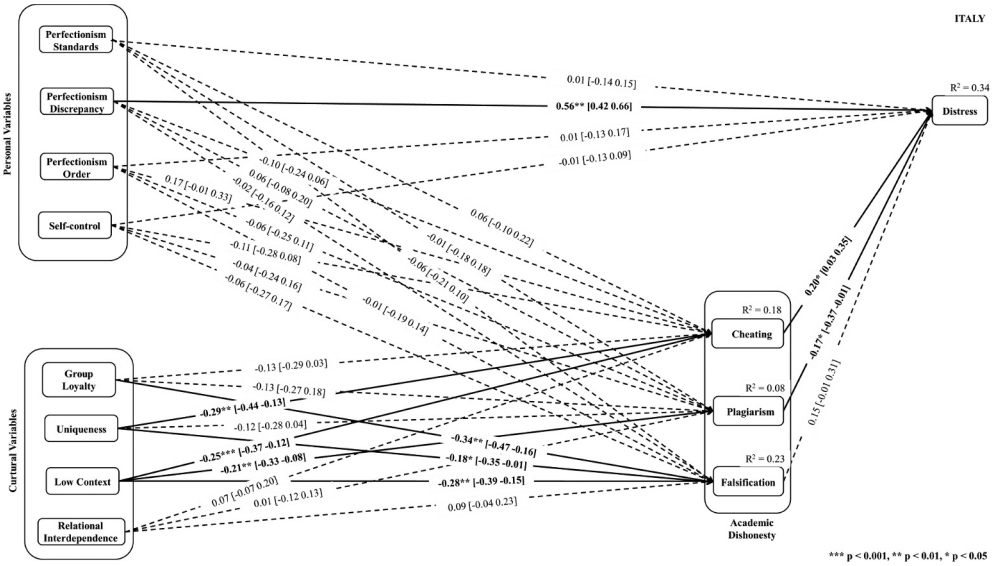
*** p < 0.001, ** p < 0.01, * p < 0.05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Perfectionism Discrepancy
Perfectionism Order
Self-control
Curtural Variables
Group Loyalty
Uniqueness
Low Context
Relational Interdependence
Distress
R² = 0.34
Cheating
R² = 0.18
Plagiarism
R² = 0.08
Falsification
R² = 0.23
Academic Dishonesty
0.01 [-0.14 0.15]
0.56** [0.42 0.66]
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0.01 [-0.12 0.13]
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-0.18* [-0.35 -0.01]
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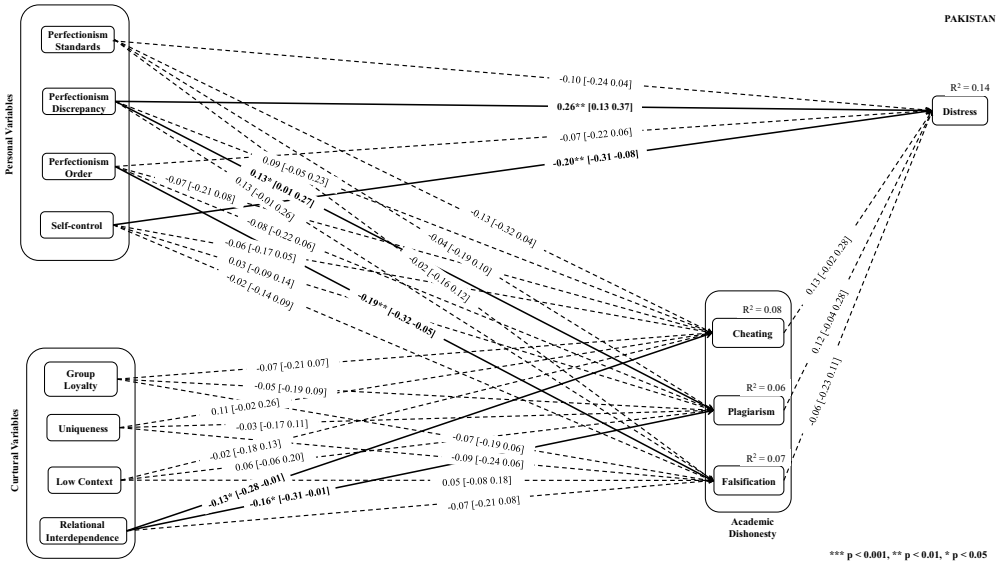
0.09 [-0.04 0.23]
*** p < 0.001, ** p < 0.01, * p < 0.05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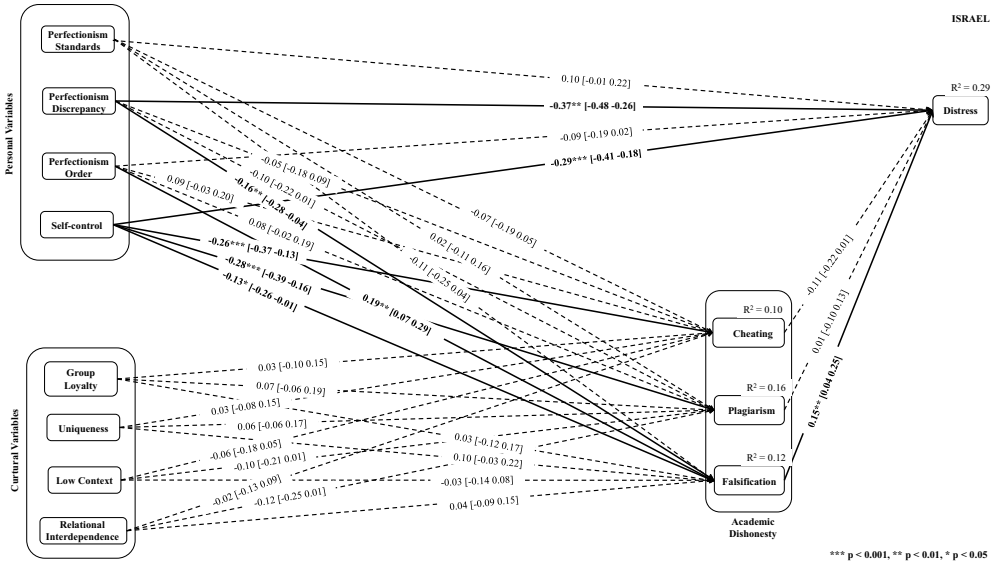
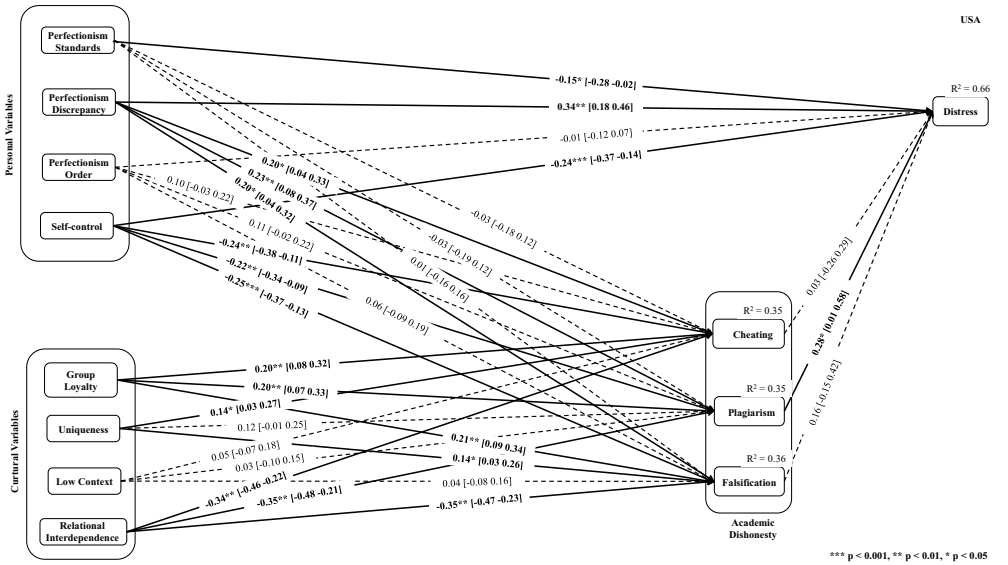
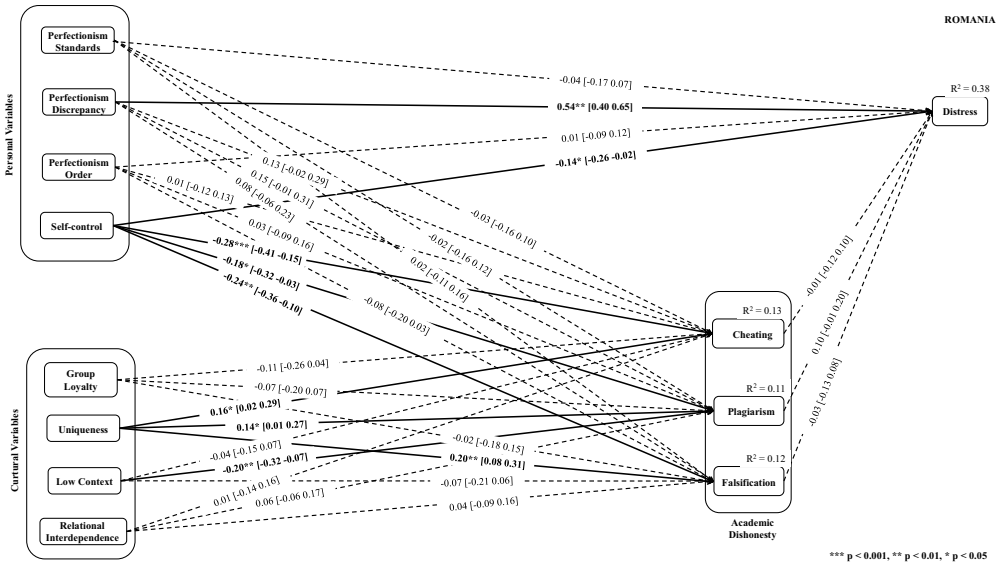
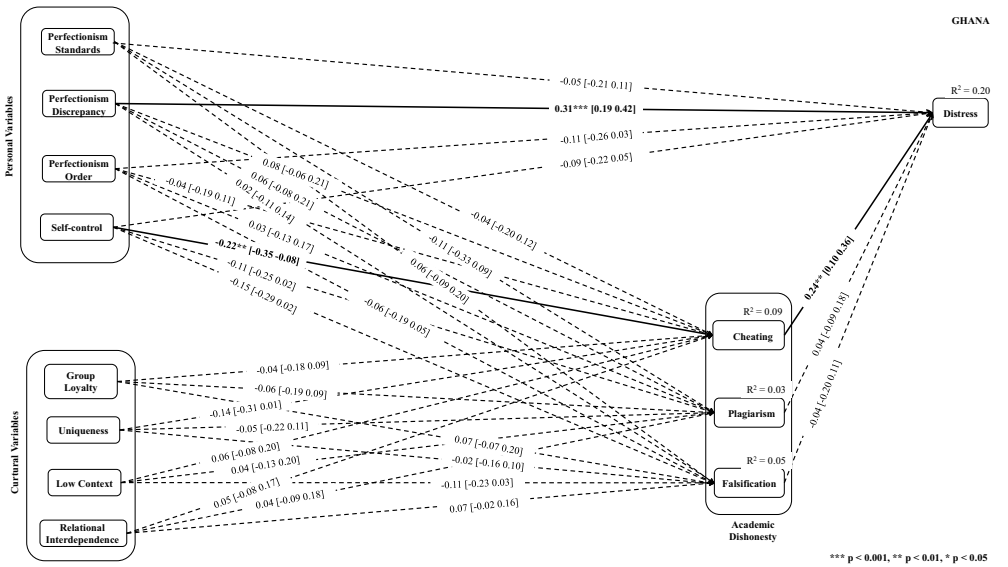
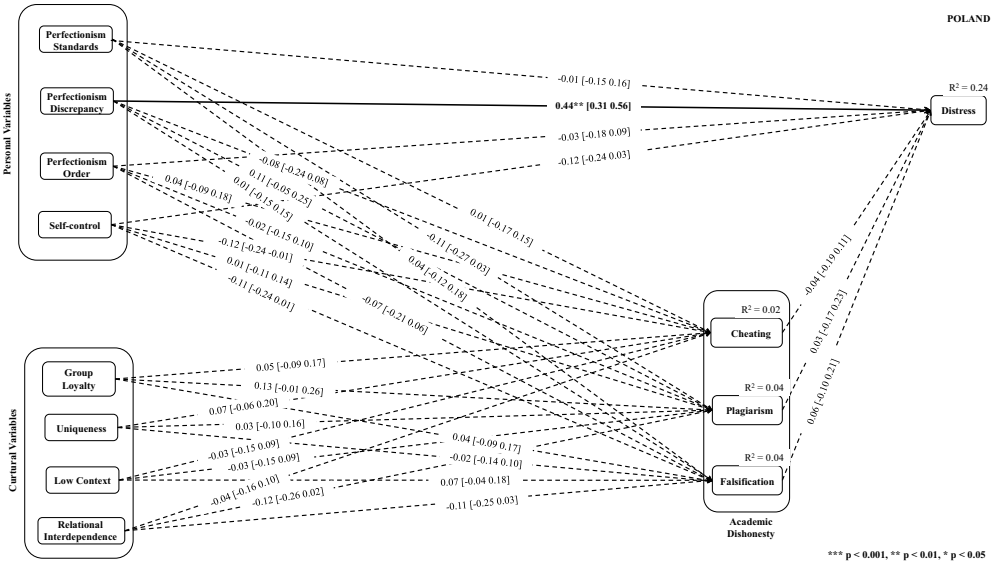
Perfectionism Standards
Perfectionism Discrepancy
Perfectionism Order
Self-control
Curtural Variables
Group Loyalty
Uniqueness
Low Context
Relational Interdependence
Distress
R² = 0.14
Cheating
R² = 0.08
Plagiarism
R² = 0.06
Falsification
R² = 0.07
Academic Dishonesty
-0.10 [-0.24 0.04]
0.26** [0.13 0.37]
-0.07 [-0.22 0.06]
-0.20** [-0.31 -0.08]
0.09 [-0.05 0.23]
0.13* [0.01 0.27]
-0.07 [-0.21 0.08]
0.13 [-0.01 0.26]
-0.08 [-0.22 0.06]
-0.06 [-0.17 0.05]
0.03 [-0.09 0.14]
-0.02 [-0.14 0.09]
-0.13 [-0.32 0.04]
-0.04 [-0.19 0.10]
-0.02 [-0.16 0.12]
-0.19** [-0.32 -0.05]
0.13 [-0.02 0.28]
0.12 [-0.04 0.28]
-0.06 [-0.23 0.11]
-0.07 [-0.21 0.07]
-0.05 [-0.19 0.09]
0.11 [-0.02 0.26]
-0.03 [-0.17 0.11]
-0.02 [-0.18 0.13]
0.06 [-0.06 0.20]
-0.13* [-0.28 -0.01]
-0.16* [-0.31 -0.01]
-0.07 [-0.19 0.06]
-0.09 [-0.24 0.06]
0.05 [-0.08 0.18]
-0.07 [-0.21 0.08]
*** p < 0.001, ** p < 0.01, * p < 0.05


ISRAEL
Personal Variables
Perfectionism Standards
Perfectionism Discrepancy
Perfectionism Order
Self-control
Curtural Variables
Group Loyalty
Uniqueness
Low Context
Relational Interdependence
Distress
R² = 0.29
Cheating
R² = 0.10
Plagiarism
R² = 0.16
Falsification
R² = 0.12
Academic Dishonesty
0.10 [-0.01 0.22]
-0.37** [-0.48 -0.26]
-0.09 [-0.19 0.02]
-0.29*** [-0.41 -0.18]
-0.05 [-0.18 0.09]
-0.10 [-0.22 0.01]
-0.16** [-0.28 -0.04]
0.09 [-0.03 0.20]
0.08 [-0.02 0.19]
-0.26*** [-0.37 -0.13]
-0.28*** [-0.39 -0.16]
-0.13* [-0.26 -0.01]
-0.07 [-0.19 0.05]
0.03 [-0.11 0.16]
-0.11 [-0.25 0.04]
0.19** [0.07 0.29]
-0.11 [-0.22 0.01]
0.01 [-0.10 0.13]
0.15** [0.04 0.25]
0.03 [-0.10 0.15]
0.07 [-0.06 0.19]
0.03 [-0.08 0.15]
0.06 [-0.06 0.17]
-0.06 [-0.18 0.05]
-0.10 [-0.21 0.01]
-0.02 [-0.13 0.09]
-0.12 [-0.25 0.01]
0.03 [-0.12 0.17]
0.10 [-0.03 0.22]
-0.03 [-0.14 0.08]
0.04 [-0.09 0.15]
*** p < 0.001, ** p < 0.01, * p < 0.05


USA
Personal Variables
Perfectionism Standards
Perfectionism Discrepancy
Perfectionism Order
Self-control
Curtural Variables
Group Loyalty
Uniqueness
Low Context
Relational Interdependence
Distress
R² = 0.66
Cheating
R² = 0.35
Plagiarism
R² = 0.35
Falsification
R² = 0.36
Academic Dishonesty
-0.15* [-0.28 -0.02]
0.34** [0.18 0.46]
-0.01 [-0.12 0.07]
-0.24*** [-0.37 -0.14]
0.20* [0.04 0.33]
0.23** [0.08 0.37]
0.20* [0.04 0.32]
0.10 [-0.03 0.22]
0.11 [-0.02 0.22]
-0.24** [-0.38 -0.11]
-0.22** [-0.34 -0.09]
-0.25*** [-0.37 -0.13]
-0.03 [-0.18 0.12]
-0.03 [-0.19 0.12]
0.01 [-0.16 0.16]
0.06 [-0.09 0.19]
0.05 [-0.26 0.29]
0.28* [0.01 0.50]
0.16 [-0.15 0.42]
0.20** [0.08 0.32]
0.20** [0.07 0.33]
0.14* [0.03 0.27]
0.12 [-0.01 0.25]
0.05 [-0.07 0.18]
0.03 [-0.10 0.15]
-0.34** [-0.46 -0.22]
-0.35** [-0.48 -0.21]
0.21** [0.09 0.34]
0.14* [0.03 0.26]
0.04 [-0.08 0.16]
-0.35** [-0.47 -0.23]
*** p < 0.001, ** p < 0.01, * p < 0.05


ROMANIA
Personal Variables
Perfectionism Standards
Perfectionism Discrepancy
Perfectionism Order
Self-control
Cultural Variables
Group Loyalty
Uniqueness
Low Context
Relational Interdependence
Distress
R² = 0.38
Cheating
R² = 0.13
Plagiarism
R² = 0.11
Falsification
R² = 0.12
Academic Dishonesty
-0.04 [-0.17 0.07]
0.54** [0.40 0.65]
0.01 [-0.09 0.12]
-0.14* [-0.26 -0.02]
0.13 [-0.02 0.29]
0.15 [-0.01 0.31]
0.08 [-0.06 0.23]
0.01 [-0.12 0.13]
0.03 [-0.09 0.16]
-0.28*** [-0.41 -0.15]
-0.18* [-0.32 -0.03]
-0.24** [-0.36 -0.10]
-0.03 [-0.16 0.10]
-0.02 [-0.16 0.12]
0.02 [-0.11 0.16]
-0.08 [-0.20 0.03]
-0.01 [-0.12 0.10]
0.10 [-0.01 0.20]
-0.05 [-0.15 0.08]
-0.11 [-0.26 0.04]
-0.07 [-0.20 0.07]
0.16* [0.02 0.29]
0.14* [0.01 0.27]
-0.04 [-0.15 0.07]
-0.20** [-0.32 -0.07]
-0.02 [-0.18 0.15]
0.20** [0.08 0.31]
-0.07 [-0.21 0.06]
0.01 [-0.14 0.16]
0.06 [-0.06 0.17]
0.04 [-0.09 0.16]
*** p < 0.001, ** p < 0.01, * p < 0.05


GHANA
Personal Variables
Perfectionism Standards
Perfectionism Discrepancy
Perfectionism Order
Self-control
Cultural Variables
Group Loyalty
Uniqueness
Low Context
Relational Interdependence
Distress
R² = 0.20
Cheating
R² = 0.09
Plagiarism
R² = 0.03
Falsification
R² = 0.05
Academic Dishonesty
-0.05 [-0.21 0.11]
0.31*** [0.19 0.42]
-0.11 [-0.26 0.03]
-0.09 [-0.22 0.05]
0.08 [-0.06 0.21]
0.06 [-0.08 0.21]
-0.04 [-0.19 0.11]
0.02 [-0.11 0.14]
0.03 [-0.13 0.17]
-0.22** [-0.35 -0.08]
-0.11 [-0.25 0.02]
-0.15 [-0.29 0.02]
-0.04 [-0.20 0.12]
-0.11 [-0.33 0.09]
0.06 [-0.09 0.20]
-0.06 [-0.19 0.05]
0.24** [0.10 0.36]
0.04 [-0.09 0.18]
-0.04 [-0.20 0.11]
-0.04 [-0.18 0.09]
-0.06 [-0.19 0.09]
-0.14 [-0.31 0.01]
-0.05 [-0.22 0.11]
0.06 [-0.08 0.20]
0.04 [-0.13 0.20]
0.05 [-0.08 0.17]
0.04 [-0.09 0.18]
0.07 [-0.07 0.20]
-0.02 [-0.16 0.10]
-0.11 [-0.23 0.03]
0.07 [-0.02 0.16]
*** p < 0.001, ** p < 0.01, * p < 0.05


POLAND
Personal Variables
Perfectionism Standards
Perfectionism Discrepancy
Perfectionism Order
Self-control
Cultural Variables
Group Loyalty
Uniqueness
Low Context
Relational Interdependence
Academic Dishonesty
Cheating
Plagiarism
Faisification
Distress
R² = 0.02
R² = 0.04
R² = 0.04
R² = 0.24
-0.01 [-0.15 0.16]
0.44** [0.31 0.56]
-0.03 [-0.18 0.09]
-0.12 [-0.24 0.03]
-0.08 [-0.24 0.08]
0.11 [-0.05 0.25]
0.01 [-0.15 0.15]
0.04 [-0.09 0.18]
-0.02 [-0.15 0.10]
-0.12 [-0.24 -0.01]
0.01 [-0.11 0.14]
-0.11 [-0.24 0.01]
0.01 [-0.17 0.15]
-0.11 [-0.27 0.03]
0.04 [-0.12 0.18]
-0.07 [-0.21 0.06]
0.05 [-0.09 0.17]
0.13 [-0.01 0.26]
0.07 [-0.06 0.20]
0.03 [-0.10 0.16]
-0.03 [-0.15 0.09]
-0.03 [-0.15 0.09]
-0.04 [-0.16 0.10]
-0.12 [-0.26 0.02]
0.04 [-0.09 0.17]
-0.02 [-0.14 0.10]
0.07 [-0.04 0.18]
-0.11 [-0.25 0.03]
-0.04 [-0.19 0.11]
0.03 [-0.13 0.23]
0.06 [-0.10 0.23]
*** p < 0.001, ** p < 0.01, * p < 0.05