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Criticism and justification of undergraduate academic dishonesty: development and validation of the domestic, market and industrial orders of worth scales[*]

Oksana Dremova [a], Natalia Maloshonok [a], Evgeniy Terentev [a] and Denis Federiakin [b]

[a]Centre for Sociology of Higher Education, Institute of Education, National Research University Higher School of Economics, Moscow, Russia; [b]Centre for Psychometrics and Measurement in Education, Institute of Education, National Research University Higher School of Economics, Moscow, Russia

ABSTRACT

Despite university efforts to create honour codes and a culture of integrity, student academic dishonesty remains a widespread problem around the world. Previous theoretical and methodological approaches, which informed the development of measures for the prevention of dishonest behaviour, focus only on student justifications of academic misconduct as abnormal or deviant acts. However, understanding the arguments that both criticize and justify dishonesty at universities is crucial for developing an effective integrity policy. Based on Boltanski and Thevenot's theory, we develop and validate a questionnaire measuring the prevalence of students who draw on domestic, market and industrial orders of worth justifying or criticizing academic dishonesty. A total of 3,538 students from six Russian universities participated in the study. The results supported the applicability of the proposed model, demonstrating the validity and reliability of the instrument. The instrument can be utilized by universities for monitoring what order of worth prevails among students and developing honour codes and integrity policy.

Introduction

Student academic dishonesty is a large-scale problem for universities worldwide. A majority of students engage in dishonest practices such as plagiarism, copying homework, cheating on an exam, at least once during their studies (McCabe and Treviño 1993; Chapman et al. 2004; Jeergal et al. 2015; Denisova-Schmidt, Huber, and Leontyeva 2016; Maloshonok and Shmeleva 2019). In recent years, the number of academic dishonesty cases among students has risen (Bacon et al. 2020). The existing research discusses several reasons for this, including technology availability and accessibility, which makes it easier to cheat, the fast development of online instruction with a lack of or insufficient proctoring, and poor academic integrity counselling that may lead to students'

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misperception and misunderstanding of institutional policies regarding academic dishonesty (ProctorU 2016; Peled et al. 2019; Krienert, Walsh, and Cannon 2021). Widespread dishonesty in universities calls into question the quality of higher education, which may decrease the value of a degree (Golunov 2014; Denisova-Schmidt 2017) and lead to workplace dishonesty (Whitley and Keith-Spiegel 2002; Harding et al. 2004; Lucas and Friedrich 2005; Mulisa and Ebessa 2021). Given these issues, researchers and policymakers are concerned with deterring dishonest acts at universities.

Two approaches to preventing cheating behaviour are usually employed: (1) the detection and punishment of dishonest acts and (2) prevention of such acts by developing values and a culture of academic integrity. The first group of methods has been effective (Corrigan-Gibbs et al. 2015; Chirikov, Shmeleva, and Loyalka 2020); however, universities have increasingly employed the second group of methods, such as honour codes (Ferguson et al. 2007; Löfström et al. 2015).

Despite the great efforts that universities have invested in the development of academic integrity, the problem of the high prevalence of dishonest behaviour remains unsolved (Baran and Jonason 2020; Stephens et al. 2021). We hypothesize that the low efficiency of attempts to prevent dishonest behaviour can be partly explained by the way policymakers formulate arguments promoting academic integrity and criticize dishonest behaviour. As a rule, integrity policies are developed based on theories and statements that consider academic dishonesty an inherently negative phenomenon. The same approach was shared by the theories explaining the student justification of dishonest acts (Brimble and Stevenson-Clarke 2005; Shu, Gino, and Bazerman 2011; Burnett, Smith, and Wessel 2016; Pulfrey, Durussel, and Butera 2018). However, students may consider academic dishonesty to be normal rather than deviant behaviour. In a previous paper (Dremova, Maloshonok, and Terentiev 2020), we employed the theoretical framework of Boltanski and Thévenot (1999) to demonstrate the plurality of grounds that students use for criticism and justification of dishonest acts at universities. Following Boltanski and Thevenot methodology, we analysed interviews with students and identified six orders of worth that are used for the criticism and justification of academic dishonesty: inspired, domestic, civic, opinion, market, and industrial.

This paper aims to provide an instrument for measuring the prevalence of students who use different principles of equivalence for criticizing or justifying dishonest behaviour at university and to test the psychometric properties of this instrument by confirmatory factor analysis. We suggest measurable indicators only for three of six orders of worth due to the restrictions, which were applied by the survey principals on the length of the questionnaire used in the study. They are domestic, market, and industrial. In the domestic world, students criticize or justify dishonest behaviour by appealing to traditions that they learn from significant persons with high reputation and authority, such as parents and teachers. Students with market order of worth considering using dishonest practice if it helps to minimize their efforts and yield better results. For the industrial world, the judgement of dishonest behaviour depends on the degree to which it leads to a decrease in the professional competences and skills of students and the efficiency of graduates' work (Dremova, Maloshonok, and Terentiev 2020).

These three orders of worth could be more affected by the university than the other three. Students who draw on domestic order to justify dishonest behaviour could be identified through the selection procedures and not admitted to a university. For students

who use the market principle of equivalence, universities can organize the learning process in such a way that cheating and plagiarism become unbeneficial. To cope with industrial arguments justifying student dishonesty, an explicit matching between the required professional skills and an educational programme could be established.

Theoretical approaches explaining student criticism and justification of dishonest behaviour

There are several theories that have been used to study students' justifications of their dishonest actions: (1) neutralization theory, (2) social cognitive theory and (3) the theory of moral disengagement. According to neutralization theory, students attempt to shift the blame onto something or someone to justify their dishonest actions (Sykes and Matza 1957). For example, they rationalize their dishonest acts by using explanations concerning pressure to obtain better grades, gaining employment upon graduation, a desire to succeed or lack of preparation, etc. (McCabe 1992; Brimble and Stevenson-Clarke 2005). In line with this theory, all students understand that academic dishonesty is a deviant behaviour; therefore, they try to neutralize its negative effects on their consciousness. According to Bandura's social cognitive theory (SCT), when a student witnesses a peer's dishonest behaviour and the following consequences of that behaviour, he or she will take it into account for future actions (Bandura 2002, 2006; Hendy, Montargot, and Papadimitriou 2021). For example, if a peer benefits or gets punished for cheating, the observing student may decide to repeat – or avoid – the same behaviour in the future (Bandura 2002). However, previous research has studied only students' justifications for cheating rather than their reasons for not engaging in dishonest acts (Burnett, Smith, and Wessel 2016; Parks-Leduc, Guay, and Mulligan 2021). Thus, this theory considers only one side of students' justifications that may be to their benefit rather than detriment. Bandura's theory about moral disengagement (Bandura 2002) explains students' justifications of dishonest behaviours by their concern of being a good person, and as dishonest behaviour could lead to self-recrimination, they tend to behave in ways that follow their moral standards (Shu, Gino, and Bazerman 2011; Pulfrey, Durussel, and Butera 2018). Therefore, students provide different justifications to make their cheating actions morally acceptable (Pulfrey, Durussel, and Butera 2018). For example, they explain it by the benefits for the whole group of students or friends, the flexibility of rules or the adaptation to different situations, etc. However, it is not clear how the abovementioned studies established that academic dishonesty is counter to student moral values, as existing research demonstrates that the views of students on cheating vary (Dremova, Maloshonok, and Terentiev 2020; Karanauskienė et al. 2020).

All the reviewed theories aim to mitigate self-censoring and portray oneself as a good and a respectable person. They assume that students understand that academic dishonesty at the university is wrong and deviant (Stephens 2019). However, some studies demonstrate the opposite results (Karanauskienė et al. 2020). Many students worldwide engage in cheating, and the current methods for its prevention (honour codes, sanctions, etc.) do not work effectively. Students in different situations may refer to various values and rationalisations that do not consider academic cheating to be fraudulent or dishonest. We hypothesize that students perceive the same actions and practices differently

depending on their rationalisations. They may view actions that are considered dishonest by other groups of people (students, researchers and teaching staff, etc.) as natural and normal.

Although many studies try to identify students' justifications for cheating, very few attempt to examine the rationalisations for students' criticism of dishonest acts. The lack of studies examining students' criticism of academic dishonesty may be explained by the fact that all the theories applied to the investigation of students' views towards cheating do not consider students' criticism of such actions, which is equally significant in understanding students' decision-making processes in terms of fraudulent behaviour. This may also be the reason why methods for cheating prevention are not effective.

Boltanski and Thevenot lens to examine dishonest behaviour

To overcome the limitations of existing theoretical approaches to exploring student justifications and criticisms of dishonest behaviour, we apply the approach developed by Boltanski and Thevenot ('pragmatic sociology' or 'the sociology of critics'). This theory has gained significant attention among sociologists and political scientists in the last twenty years and is often discussed as one of the most important contributions to contemporary social theory (Bénatouïl 1999; Wagner 1999; Blokker 2011). However, there have been no attempts to use it in the analysis of academic dishonesty, apart from our previous paper (Dremova, Maloshonok, and Terentiev 2020). Based on the analysis of semistructured interviews with Russian and British students, we showed the productivity of using Boltanski and Thevenot theory to examine views on academic dishonesty among university students. This paper laid the foundation for the current study, which aims to develop and validate a questionnaire to measure the prevalence of different orders of worth.

The theoretical and methodological approach developed by Boltanski and Thevenot has three main peculiarities, which are important in application to the analysis of academic dishonesty: (1) the contesting of the external researcher's position in the analysis of public discussions on academic dishonesty; (2) the plurality of foundations (or orders of worth in the terminology developed by Boltanski and Thevenot) used for criticism and justification of dishonest behaviour; and (3) recourse to political philosophy as providing the systematic theoretical statements of knowledge forms used in the practice of criticism and justification of dishonest behaviour (Wagner 1999).

First, Boltanski and Thevenot state that there are no strong foundations for arguing that the researcher's external position is superior to the position of social actors engaged in social practices (Susen 2014). Accordingly, they focus on the analysis of actual arguments used by participants of social practices for justification and criticism rather than producing criticism external to these social practices (Wagner 1999). Applied to the analysis of academic dishonesty, this implies the rejection of the initial undisputed attitude towards academic cheating as abnormal and unfair. Instead, it implies the analysis of arguments used in public discussions around academic dishonesty and the elicitation of their basic principles (which Boltanski and Thevenot name 'principles of equivalence'), even if these arguments are aimed at justifying dishonest behaviour. It is important that both types of argument – justification and criticism – should be

taken into account, and the same analytical procedures should be applied to their analysis.

Second, Boltanski and Thevenot postulate the plurality of different foundations for the evaluation of social practices. They argue that actors construct their arguments using different 'metaphysics' or perceptions of what the common good is, which are incompatible and irreducible to each other (Wagner 1999). Applied to academic dishonesty, this means that there is a range of possible arguments for both its criticism and justification, and there is no argument that should be seen as universally legitimate.

The third distinctive aspect is strongly related to the second. Plural orders of worth employed in public discussions refer to the limited set of arguments used in these orders. Boltanski and Thevenot distinguish six of them: the market order, the industrial order, the civic order, the order of inspiration, the domestic order and the order of fame (Boltanski and Thévenot 2006). In our previous paper (Dremova, Maloshonok, and Terentiev 2020), we showed the productivity of using this classification in the analysis of academic dishonesty. Market order refers to the argument when academic dishonesty is discussed through the lens of personal costs and benefits that cheating could cause. The industrial order evaluates cheating practices with reference to the usefulness of knowledge and competencies developed in classes for the prospective professional career. The civic order puts into the centre of discussion the collective good and norms. In the inspiration order, the main principle of evaluation is personal comfort and feelings. The domestic order is based on the appeals to the traditions that students learn from significant persons in their environment (primarily school and family). Finally, the order of fame is related to the argument through the lens of reputational risks and consequences of cheating.

In this paper, we focus on three orders of worth distinguished by Boltanski and Thevenot – domestic, market, and industrial. The motivation for the selection of these orders is twofold. The first motivation is pragmatic. Due to the inclusion of the examined constructs in the questionnaire of the Russian survey of student experience, we were restricted by the length of the questionnaire. The second motivation is substantive. Three selected orders refer to the areas that can be more influenced by university policies. Next, we will discuss these orders more precisely.

Domestic order

In the domestic world, a person cannot be considered in separation from belonging to a family and an estate. People's worth is evaluated by those in a position of trust and authority (Boltanski and Thévenot 1999). Face-to-face relationships and respect for traditions are important for people using this principle of equivalence. Students employed this ground for criticizing or justifying dishonest behaviour appealing to traditions and rules of behaviour that they learn in family or school from significant persons with high reputation and authority, such as parents and teachers. Previous research has attempted to explore the link between academic dishonesty, family characteristics and school background and showed the significance of this dimension. Qualls, Figgars, and Gibbs (2017) found that characteristics of an individual's family of origin are important predictors of academic dishonesty. Students experiencing severe forms of physical discipline tend to engage in higher levels of academic dishonesty. Students reported that the

use of less punitive disciplinary techniques was not associated with increased college cheating (Qualls 2014). Some parents can permit students to employ dishonest techniques (Abou-Zeid 2016; Buckner and Hodges 2016; Aljurf, Kemp, and Williams 2020) or even help them cheat on high-stakes exams (Metwally 2013; Abou-Zeid 2016). Furthermore, students who cheat in high school are significantly more likely to cheat at university (Josephson Institute of Ethics 2009). The domestic dimension is meaningful for some students in justifying or criticizing academic dishonesty, which can be a reason for the low effectiveness of university methods to prevent cheating and plagiarism.

Market order

In the market world, people compete for the acquisition of scarce goods that affect the price attached to the desired commodity. Relationships are competitive, and the main qualities of successful individuals are opportunistic in spotting and seizing the opportunities of the market (Boltanski and Thévenot 1999). For criticizing or justifying dishonest behaviour at university, students from the market world are oriented by the 'price' of getting the desired grades (or degree) that will be a function of the required resources and efforts, the probability of being successful in cheating or of getting caught, and the severity of punishment for misbehaviour (Dremova, Maloshonok, and Terentiev 2020). Students look for opportunities to minimize their efforts and yield better results and consider using dishonest practice for that (Dremova, Maloshonok, and Terentiev 2020). Previous empirical studies (Kerkvliet and Sigmund 1999; Freiburger et al. 2017) show that the market principle of equivalence is relevant for students. Freiburger et al. (2017) found that increased certainty of being caught decreases the likelihood of cheating behaviours of students. The same results were observed by Kerkvliet and Sigmund (1999). They also found that an increase in the benefits associated with undetected misconduct encourages students to cheat (Kerkvliet and Sigmund 1999). Students who cheated on exams or papers were less likely to believe that people in the business world generally act in an ethical manner or that good ethics is good business (at a marginal level) (Ma 2013). The applicability of market order for dishonest behaviour can be traced to the national level. There was a strong association between self-reported academic cheating on exams and the country level of the corruption perception index (Orosz et al. 2018).

Industrial order

The industrial order is based on efficiency and can be measured on a scale of professional skills and competencies (Boltanski and Thévenot 1999). Successful people in the industrial world are experts. Hence, dishonest behaviour will be criticized in this world if it leads to a decrease in the professional qualities of students and the efficiency of graduates' work. One such argument is that cheating leads to the graduation of unqualified professionals, who may even unintentionally endanger human lives in their future workplaces (Dremova, Maloshonok, and Terentiev 2020). The justification of misconduct can be based on the proposition that it does not affect professional capabilities. For example, students report that some classes and assignments are useless for their future

professional activity. McCabe, Trevino, and Butterfield (1999) indicated that employment upon graduation is a frequent reason that students use to explain dishonest behaviour.

Previous studies demonstrate the association between dishonest behaviour at universities and the workplace. Whitley and Keith-Spiegel (2002) discovered that students who cheat at university are more likely to be engaged in unethical practices at their future workplaces. Harding et al. (2004) also point out that there is a strong connection between the prior academic misconduct of students and their self-reported dishonest behaviours at workplaces. Scholars suppose that students who have cheated at university will choose to cheat at work if they have such an opportunity (Harding et al. 2004). In contrast, students who considered any type of dishonesty a serious offense had a greater tendency to be ethical in their workplaces (Guerrero-Dib, Portales, and Heredia-Escorza 2020).

Methods and data

Instrument development

The questionnaire was developed in the period from winter 2019 to spring 2020 and went through several stages of revisions and data collection. The preliminary pool of items was created based on the application of the theoretical framework of Boltanski and Thevenot theory to the narratives of students about academic dishonesty. Twenty-three semistructured interviews with undergraduate domestic students at three Russian universities and undergraduate domestic students at three British universities were conducted in 2019 to check the applicability of this theory to different national contexts. The results of this qualitative study presented by Dremova, Maloshonok, and Terentiev (2020).

The analysis of the interviews performed in (Dremova, Maloshonok, and Terentiev 2020) allows us to collect the arguments that students use to criticize and justify academic dishonesty. The thematic analysis was performed by three experts. At the first stage of the analysis, each expert worked separately to identify each piece of the narratives in which order of worth was present. Then, the experts shared the coding results with each other and came to final codes across all interviews through discussion. In the next step, we created a list of items by selecting the main arguments from the narratives assigned to three of six orders of worth: domestic, market, and industrial. We chose ten main arguments from the list, as we were restricted by the inclusion of only ten items in the Russian survey of student experience. Therefore, we decided to develop the instrument only for three of the six orders of worth. Domestic, market and industrial worlds were chosen for two reasons. First, they are the more frequent codes in undergraduate interviews. Second, they can be more easily influenced by universities than the other three orders of worth.

We intend to use the developed instrument to investigate students' criticism and justification of all forms of academic dishonesty. However, we included only items referring to exam cheating in the instrument to make questions clearer and more specific, as recent research showed that students report cheating more often during examinations (Harper, Bretag, and Rundle 2021).

These items were tested in a pilot study conducted in April 2020 with the participation of 14 students. This pilot study aimed to ensure that the questionnaire items accurately

addressed the research questions and that they were well defined and clearly understood. As a result, the list of items was slightly corrected. The final questionnaire included the following ten items measured on a four-point Likert scale ('Completely disagree', 'Somewhat disagree', 'Somewhat agree', 'Completely agree'):

Domestic world

- I am ashamed to use cheat sheets in an exam
- I know from school that there is nothing wrong with cheating
- I try not to use cheat sheets in exams because I have been raised like that.

Market world

- If a course is boring, then you can use cheat sheets in the exam.
- If a course is useless for my future career, then I can use cheat sheets
- If a student is afraid to forget the material, then that student can use cheat sheets on an exam.
- If there is not enough time to prepare for the exam, then I can cheat

Industrial world

- If I plan to have a job related to my degree, then using cheat sheets is unacceptable
- If I want to gain knowledge and skills necessary for my future career, then I don't cheat
- Cheating leads to the graduation of unskilled professionals

Sample

To measure the psychometric properties of the instrument, it was included in the questionnaire of the larger student experience online survey carried out as a part of the project 'Monitoring of student experience' of the Consortium 'Evidence-based digitalization for student success'[1] in April – May 2020 at eight Russian public universities located in the South, the Privolzhsky, the Siberian and the Far East federal districts, three of which are highly selective universities. In total, 6,163 students took part in the project. Due to the large number of items in the questionnaire, some parts of the survey were displayed only for a certain proportion of the respondents. Ten items about academic dishonesty developed in this study were randomly assigned to 60% of the respondents. The question items could not be skipped by the respondents. Therefore, there are no missing values in these variables in the data.

The total sample for this study is 3,538 students from 6 universities, and 61% of respondents are female. The sampled students specialized in engineering and technologies (54%), social sciences (27%), and mathematics and natural sciences (19%). The response rate ranged from 2% to 54% in different universities, with a mean of 16%. Descriptive statistics are presented in Table A1 in the Appendix.

Analysis

We used a confirmatory factor analysis to confirm the structure of the survey (Little 2014). The model was estimated as an item factor analysis model, which takes into account the ordered nature of item responses by utilizing polychoric correlations instead of Pearson correlations. As a result, the model becomes a graded response model from the item response theory paradigm (Wirth and Edwards 2007). To estimate the model parameters, we used the lavaan package v. 0.6–8 (Rosseel et al. 2021) for R software v. 4.0.3.

To evaluate model fit, we used the most trusted and widely accepted indices from the SEM paradigm: root mean squared error of approximation (RMSEA), standardized root mean square residual (SRMR), comparative fit index (CFI), and Tucker-Lewis index (TLI) (Iacobucci 2010). Lower values of the two former indices are preferable (lower than 0.05), signalling absolute model fit: the distance of the estimated model from the data-generating model (RMSEA) and absence of local item dependency conditional on person parameters (SRMR). For the latter two indices, higher values are preferable (higher than 0.95), signalling incremental model fit: the distance of the model from the baseline model, where all variables are unrelated. As a measure of reliability, we used two indices: Cronbach's alpha and McDonald's SEM Omega (Zinbarg et al. 2005).

Results

According to the survey results, the market order of worth in justifying cheating is the most prevalent among Russian students (see Table A2 in Appendix for more information). Three out of four undergraduates reported that they completely or somewhat agreed that it is reasonable to use cheat sheets on an exam if a student is afraid to forget the material. Sixty-three percent of students think that it is acceptable to cheat if a course is useless for a future career or if there is not enough time to prepare for the exam. The most popular argument against cheating is grounded by the industrial world: 65% of respondents completely or somewhat agree with the statement 'If I want to gain knowledge and skills necessary for my future career, then I don't cheat'. Although the prevalence of criticism of cheating behaviour from the domestic world is lower, this order of worth is also important, especially family traditions. More than half of the students responded that they try not to use cheat sheets in exams because they have been raised like that.

The main purpose of this paper is to test the psychometric properties of this instrument by confirmatory factor analysis. The results show a good fit of ten items to the three-factor structure (see Table 1). The item-factor loadings are all significantly different from zero at the $p < 0.001$ level and interpretable (Table 2). Cronbach's alpha of each scale ranged from 0.67 to 0.77, and McDonalds Omega ranged from 0.73 to 0.83, which suggests that each scale can be considered a reliable measure.

Table 3 demonstrates that inter-scale correlations between the three factors are significant at the $p < 0.001$ level and range from 0.64 to 0.80 ($p < 0.001$) in absolute values. This means that factors are related to each other but do not overlap. The correlation between market and domestic orders of worth is negative, which can be explained by the differences in the principle of equivalence underlying these orders of worth. In the domestic

Table 1. The estimates of the model fit.

Statistics	Values
The baseline model	
Degrees of freedom for Chi-Squared statistic	45
Chi-Squared statistic	43,173.610
Sample size	3,538
The estimated model	
Number of free parameters	43
Degrees of freedom for statistics	32
Chi-Squared statistic	539.282
RMSEA	0.067
90% CI for RMSEA	[0.062; 0.072]
SRMR	0.041
CFI	0.988
TLI	0.983

Table 2. The estimates of the measurement model.

Item	Standardized factor loading	Standard Error
Domestic world (Cronbach's alpha = 0.687, McDonald's SEM Omega = 0.748)		
I am ashamed to use cheat sheets in an exam	0.735	0.010
I know from school that there is nothing wrong with cheating	−0.657	0.013
I try not to use cheat sheets in exams because I have been raised like that	0.723	0.011
Market world (Cronbach's alpha = 0.769, McDonald's SEM Omega = 0.825)		
If a course is boring, then you can use cheat sheets in the exam	0.731	0.010
If a course is useless for my future career, then I can use cheat sheets	0.715	0.010
If a student is afraid to forget the material, then that student can use cheat sheets on an exam	0.731	0.010
If there is not enough time to prepare for the exam, then I can cheat	0.753	0.010
Industrial world (Cronbach's alpha = 0.673, McDonald's SEM Omega = 0.731)		
If I plan to have a job related to my degree, then using cheat sheets is unacceptable	0.690	0.012
If I want to gain knowledge and skills necessary for my future career, then I don't cheat	0.771	0.012
Cheating leads to the graduation of unskilled professionals	0.602	0.013

Table 3. Factor correlations.

	Domestic world	Market world
Market world	−0.778	
Industrial world	0.799	−0.640

world, people's actions are guided by tradition and position in the hierarchy of trust, while in the market world, people compete. The correlation between the industrial and domestic world is positive, while a correlation with the market order of worth is negative. This is a substantial result that does not contradict the theoretical assumptions of Boltanski and Thevenot. This may be explained by the Soviet background of Russia. Parents of the current students grew up in the system of planned economy (Carr and Davies 1969) and in a society where collectivist values were dominant (Velichkovsky et al. 2019). The government regulated social and economic processes, all organizations and factories were public, and there was no market competition. There was an enormous influence of the government on families and schools where the 'right citizens' were

formed. This national characteristic can be the reason for a strong positive correlation between domestic and industrial orders of worth and a strong negative association between the market and industrial worlds observed in this study.

Discussion

The Boltanski and Thevenot framework for understanding student arguments for and against misbehaviour is helpful for understanding the high prevalence of dishonest practices (despite university efforts to deter cheating and plagiarism) for several reasons. First, it suggests focusing not only on the justification of dishonest behaviour but also on criticism of such acts. Reasons for academic misconduct that students report are insufficiently informative for effective integrity policies. According to Curasi (2013) and Hakim et al. (2018), there is a significant divergence between reasons for academic dishonesty that students report in surveys or interviews and the reasons that they provide to faculty members once they have been caught cheating. This indicates that the actual reasons for dishonesty may be completely different from those they claim. Understanding what arguments students consider important in deciding not to engage in dishonest activities is not less significant than explanations of misconduct. They should be embedded in honour codes and academic integrity policy of universities. Second, this approach allows researchers and educators to take a neutral observer's position and look at student dishonesty as a social fact instead of morally unacceptable and socially undesirable behaviour, as it is usually viewed by other theories.

Students can use various orders of worth to criticize and justify dishonest behaviour. Therefore, some propositions of honour codes for them can be more influential than others. The suggested instrument for measuring domestic, market and industrial orders of worth scales allows us to estimate the prevalence of students from different orders of worth. This information can be used to understand the optimal content of honour codes and an 'integrity portfolio' for university policy.

Based on the propositions of the Boltanski and Thevenot framework, we can suggest that practices for deterring academic dishonesty will differ for students oriented on domestic, market, and industrial orders of worth. Thus, our preliminary results demonstrate the high prevalence of Russian students who justify academic misconduct by using arguments from the market world. These findings coincide with the discussion about the consumerist orientation of contemporary students (Naidoo and Jamieson 2005; Bunce, Baird, and Jones 2017). This situation can be managed through the revision of the grading system and learning process at university rather than through academic integrity policies and revisions of the honour codes. For example, to decrease possible benefits from cheating in terms of costs/benefits of getting high grades, exams and tests can be replaced by essays, or the weight of the tests can be decreased in the cumulative grade for a course. The other way is to increase the cost of misconduct through control and sanctions for misbehaviour. For students who justify dishonest behaviour by employing arguments from the industrial world, it is important to make a clear connection between classes and their future professional activity, highlight the importance of different aspects of classes for the development of professional skills, use more practical cases from professional fields to explain content, etc. In addition, statements about the harmful effect of dishonest behaviour on professional knowledge and skills and career success included in

honour codes can be helpful at institutions with a high prevalence of such students. For students utilizing arguments from the domestic world, it is important to form an integrity culture and mentorship from faculty. Faculty members should become important persons whose views and behaviour patterns affect the value systems and behaviour of such undergraduates. Information about the prevalence of each type of student allows universities to focus on practices that can affect more students and optimize financial resources and efforts invested in such practices.

The developed instrument can be used in further quantitative research and for the monitoring of students' criticism and justification of academic misconduct. As the structure and content of the university policies on academic misconduct and honour codes appear to be closely connected with students` decision-making processes on cheating, it is important to construct policies carefully with specific details about what constitutes academic dishonesty, the importance of academic integrity, procedures for cheating prevention, and sanctions for such actions. All these details should be in line with the students' prevalent orders of worth. It is also crucial to involve students in the process of honour code creation and oversight. Such an approach may contribute to the establishment of proper communication between the university and its students (Dix, Emery, and Le 2014; Raman and Ramlogan 2020). Thus, both parties may benefit, the university maintains and enhances its integrity culture and the students obtain clear instructions and rules concerning academic misconduct.

This study serves as only a starting point in the creation of a comprehensive validated instrument that will also measure the prevalence of students who employ inspired, civic, opinion orders of worth for criticizing and justifying academic misconduct. Future research should examine the relation between the prevalence of students' worlds and their individual characteristics, such as gender, age, and academic results. It is also important to investigate the mechanisms that students apply when choosing a certain order of worth. Regarding the validity of the instrument, it would be valuable to conduct a similar study in a different national context, since the prevalence of the orders of worth among students may differ across cultures.

Limitations

This study has some limitations. First, we do not explore the differences in understanding what behaviour at university is considered academic dishonesty. Our developed instrument included items about cheating as the most obvious, widespread and non-controversial form of academic misconduct. However, we do not take into consideration other types of dishonest behaviour, such as plagiarism.

Second, the instrument includes different numbers of items for domestic, market, and industrial scales. This is caused by the methodology of the instrument development based on the results of semistructured interviews with students. We relied on undergraduate narratives when formulating the items. Narratives referring to market order of worth prevailed, while student criticism and justification drawing on the domestic world were less frequent.

Third, the data are restricted by their convenience sampling method, the national context, and the number of represented universities. It is not representative of the Russian higher education system, and we cannot generalize the results to all universities.

Moreover, we do not test the validity of the instrument in other national contexts, nor its applicability for cross-national comparison.

Finally, the instrument measures only three of six orders of worth. Further methodological work should be done for the development of instruments measuring the other three orders of worth.

Conclusion

Despite the great efforts that universities invest in the development of academic integrity, the problem of student dishonest behaviour remains large-scale across the world (Baran and Jonason 2020; Stephens et al. 2021). The low effectiveness of university efforts for deterring academic misconduct can be explained by the fact that integrity policies are developed on the basis of theories and statements that consider academic dishonesty only as a negative phenomenon, which can contradict student perception. This study demonstrates benefits from applying Boltanski and Thevenot theory (Boltanski and Thévenot 1999) to exploring student dishonesty at universities through understanding what orders of worth students use when they justify or criticize dishonest acts.

It also provides an instrument for measuring the prevalence of students who draw on domestic, market and industrial worlds to criticize and justify academic misconduct. To develop the instrument and demonstrate the promise of the use of Boltanski and Thevenot theory, we conducted semistructured interviews with students (Dremova, Maloshonok, and Terentiev 2020). Employing data from a cross-sectional survey of Russian students and confirmatory factor analysis, we demonstrate the construct validity of the instrument. The instrument can be utilized in institutional research for the development of policies preventing academic misconduct. Information about the prevalence of students employing arguments from the different worlds is helpful in optimizing the resources and practices that prevent misbehaviour.

Note

1. https://en.edtechdata.ru/

Disclosure statement

No potential conflict of interest was reported by the author(s).

Notes on contributors

Oksana Dremova is an analyst at the Centre for Sociology of Higher Education, National Research University Higher School of Economics. She is interested in research related to student academic dishonesty, academic integrity policies at university and student extracurricular engagement.

Natalia Maloshonok is a senior research fellow at the Centre for Sociology of Higher Education, National Research University Higher School of Economics. She earned a PhD in Sociology in 2014. Her focus lies on student experience at a university, undergraduate and doctoral studies, gender stereotypes in education and Web survey methodology.

Evgeniy Terentev is a senior research fellow at the Centre for Sociology of Higher Education, National Research University Higher School of Economics. He earned a PhD in Sociology in 2016. The area of his research interests lies in the undergraduate and graduate students' experience, transformations of doctoral education in Russia and worldwide, academic profession.

Denis Federiakin is a research fellow at the Centre for Psychometrics and Measurement in Education, National Research University Higher School of Economics. His interests are focused on methodology, psychometrics, and statistics in the social sciences.

ORCID

Oksana Dremova 🔟 http://orcid.org/0000-0001-6434-2251
Natalia Maloshonok 🔟 http://orcid.org/0000-0003-4523-7477
Evgeniy Terentev 🔟 http://orcid.org/0000-0002-3438-2786
Denis Federiakin 🔟 http://orcid.org/0000-0003-0993-5315

References

Abou-Zeid, M. N. 2016. "Academic Integrity: A Perspective from Egypt." In *Handbook of Academic Integrity*, edited by T. Bretag, 135–145. Singapore: Springer.

Aljurf, S., L. J. Kemp, and P. Williams. 2020. "Exploring Academic Dishonesty in the Middle East: A Qualitative Analysis of Students' Perceptions." *Studies in Higher Education* 45 (7): 1461–1147. doi:10.1080/03075079.2018.1564262.

Bacon, A. M., C. McDaid, N. Williams, and P. J. Corr. 2020. "What Motivates Academic Dishonesty in Students? A Reinforcement Sensitivity Theory Explanation." *British Journal of Educational Psychology* 90 (1): 152–166. doi:10.1111/bjep.12269.

Bandura, A. 2002. "Social Cognitive Theory in Cultural Context." *Applied Psychology* 51 (2): 269–290.

Bandura, A. 2006. "On Integrating Social Cognitive and Social Diffusion Theories." In *Communication of Innovations: A Journey with Ev Rogers*, edited by A. Singhal, and J. Dearing, 111–135. Beverley Hills: Sage Publications.

Baran, L., and P. K. Jonason. 2020. "Academic Dishonesty among University Students: The Roles of the Psychopathy, Motivation, and Self-Efficacy." *PLoS One* 15 (8): e0238141. doi:10.1371/journal.pone.0238141.

Bénatouïl, T. 1999. "A Tale of Two Sociologies: The Critical and the Pragmatic Stance in Contemporary French Sociology." *European Journal of Social Theory* 2 (3): 379–396. doi:10.1177/136843199002003011.

Blokker, P. 2011. "Pragmatic Sociology: Theoretical Evolvement and Empirical Application." *European Journal of Social Theory* 14 (3): 251–261. doi:10.1177/1368431011412344.

Boltanski, L., and L. Thévenot. 1999. "The Sociology of Critical Capacity." *European Journal of Social Theory* 2 (3): 359–377. doi:10.1177/136843199002003010.

Boltanski, L., and L. Thévenot. 2006. *On Justification: Economies of Worth*. Vol. 27. Princeton: Princeton University Press.

Brimble, M., and P. Stevenson-Clarke. 2005. "Perceptions of the Prevalence and Seriousness of Academic Dishonesty in Australian Universities." *Australian Educational Researcher* 32 (3): 19–44.

Buckner, E., and R. Hodges. 2016. "Cheating or Cheated? Surviving Secondary Exit Exams in a Neoliberal era." *Compare: A Journal of Comparative and International Education* 46 (4): 603–623.

Bunce, L., A. Baird, and S. E. Jones. 2017. "The Student-as-Consumer Approach in Higher Education and Its Effects on Academic Performance." *Studies in Higher Education* 42 (11): 1958–1978.

Burnett, A. J., T. M. E. Smith, and M. T. Wessel. 2016. "Use of the Social Cognitive Theory to Frame University Students' Perceptions of Cheating." *Journal of Academic Ethics* 14 (1): 49–69.

Carr, E. H., and R. W. Davies. 1969. *History of Soviet Russia: Foundations of a Planned Economy, Vol. I-II: 1926–1929.* London: Macmillan.

Chapman, K. J., R. Davis, D. Toy, and L. Wright. 2004. "Academic Integrity in the Business School Environment: I'll Get by with a Little Help from my Friends." *Journal of Marketing Education* 26 (3): 236–249. doi:10.1177/0273475304268779.

Chirikov, I., E. Shmeleva, and P. Loyalka. 2020. "The Role of Faculty in Reducing Academic Dishonesty among Engineering Students." *Studies in Higher Education* 45 (12): 2464–2480.

Corrigan-Gibbs, H., N. Gupta, C. Northcutt, E. Cutrell, and W. Thies. 2015. "Measuring and Maximizing the Effectiveness of Honor Codes in Online Courses." In *Proceedings of the Second (2015) ACM Conference on Learning@ Scale*, March, 223–228.

Curasi, C. F. 2013. "The Relative Influences of Neutralizing Behavior and Subcultural Values on Academic Dishonesty." *Journal of Education for Business* 88 (3): 167–175.

Denisova-Schmidt, E. 2017. "The Challenges of Academic Integrity in Higher Education: Current Trends and Prospects." In *CIHE Perspectives*. Vol. 5, edited by Lisa Unangst, Helene Bernot Ullero, and Laura Rumbley, 1–27. Boston: Boston College.

Denisova-Schmidt, E., M. Huber, and E. Leontyeva. 2016. "On the Development of Students' Attitudes Towards Corruption and Cheating in Russian Universities." *European Journal of Higher Education* 6 (2): 128–143. doi:10.1080/21568235.2016.1154477.

Dix, E. L., L. F. Emery, and B. Le. 2014. "Committed to the Honor Code: An Investment Model Analysis of Academic Integrity." *Social Psychology of Education* 17 (1): 179–196. doi:10.1007/s11218-013-9246-2.

Dremova, O. V., N. G. Maloshonok, and E. A. Terentiev. 2020. "Seeking Justice in Academia: Criticism and Justification of Student Academic Dishonesty." *Monitoring of Public Opinion: Economic and Social Changes* 4: 366–394. doi:10.14515/monitoring.2020.4.972. (In Russ.)

Ferguson, K., S. Masur, L. Olson, J. Ramirez, E. Robyn, and K. Schmaling. 2007. "Enhancing the Culture of Research Ethics on University Campuses." *Journal of Academic Ethics* 5 (2): 189–198.

Freiburger, T. L., D. M. Romain, B. M. Randol, and C. D. Marcum. 2017. "Cheating Behaviours among Undergraduate College Students: Results from a Factorial Survey." *Journal of Criminal Justice Education* 28 (2): 222–247. doi:10.1080/10511253.2016.1203010.

Golunov, S. 2014. *The Elephant in the Room: Corruption and Cheating in Russian Universities.* Vol. 132. New York: Columbia University Press.

Guerrero-Dib, J. G., L. Portales, and Y. Heredia-Escorza. 2020. "Impact of Academic Integrity on Workplace Ethical Behaviour." *International Journal for Educational Integrity* 16 (2): 1–18. doi:10.1007/s40979-020-0051-3.

Hakim, L., Y. Soesato, L. M. Dwiharja, A. F. Prakos, R. Y. Kurniawan, N. Marlena, and I. Widayati. 2018. "The Impact of Alienation Through Neutralization on Students' Academic Dishonesty." *Journal of Teaching in International Business* 29 (2): 161–179.

Harding, T. S., D. D. Carpenter, C. J. Finelli, and H. J. Passow. 2004. "The Influence of Academic Dishonesty on Ethical Decision Making in the Workplace: A Study of Engineering Students." Proceedings of the ASEE Annual Conference and Exposition, Salt Lake City, UT.

Harper, R., T. Bretag, and K. Rundle. 2021. "Detecting Contract Cheating: Examining the Role of Assessment Type." *Higher Education Research & Development* 40 (2): 263–278.

Hendy, N. T., N. Montargot, and A. Papadimitriou. 2021. "Cultural Differences in Academic Dishonesty: A Social Learning Perspective." *Journal of Academic Ethics* 19 (1): 49–70.

Iacobucci, D. 2010. "Structural Equations Modeling: Fit Indices, Sample Size, and Advanced Topics." *Journal of Consumer Psychology* 20 (1): 90–98. doi:10.1016/j.jcps.2009.09.003.

Jeergal, P. A., R. Surekha, P. Sharma, K. Anila, V. A. Jeergal, and T. Rani. 2015. "Prevalence, Perception and Attitude of Dental Students Towards Academic Dishonesty and Ways to Overcome Cheating Behaviours." *Journal of Advanced Clinical and Research Insights* 2 (1): 2–6. doi:10.15713/ins.jcri.32.

Josephson Institute of Ethics. 2009. "Study on High School Character and Adult Conduct." Josephson Institute of Ethics. https://josephsoninstitute.org/surveys/.

Karanauskienė, D., V. J. Česnaitienė, B. Miežienė, and A. Emeljanovas. 2020. "Differences in Understanding Academic Integrity: A Lithuanian Case." In *Corruption in Higher Education*, edited by Elena Denisova-Schmidt, 25–29. Moscow: HERB.

Kerkvliet, J., and C. L. Sigmund. 1999. "Can We Control Cheating in the Classroom?" *The Journal of Economic Education* 30 (4): 331–343.

Krienert, J. L., J. A. Walsh, and K. D. Cannon. 2021. "Changes in the Tradecraft of Cheating: Technological Advances in Academic Dishonesty." *College Teaching*, 1–10.

Little, T. D., ed. 2014. *The Oxford Handbook of Quantitative Methods*. Vol. 1. Oxford: Oxford University Press.

Löfström, E., T. Trotman, M. Furnari, and K. Shephard. 2015. "Who Teaches Academic Integrity and How Do They Teach It?" *Higher Education* 69 (3): 435–448.

Lucas, G. M., and J. Friedrich. 2005. "Individual Differences in Workplace Deviance and Integrity as Predictors of Academic Dishonesty." *Ethics and Behaviour* 15 (1): 15–35. doi:10.1207/s15327019eb1501_2.

Ma, Z. 2013. "Business Students' Cheating in Classroom and their Propensity to Cheat in the Real World: A Study of Ethicality and Practicality in China." *Asian Journal of Business Ethics* 2 (1): 65–78. doi:10.1007/s13520-011-0012-2.

Maloshonok, N., and E. Shmeleva. 2019. "Factors Influencing Academic Dishonesty among Undergraduate Students at Russian Universities." *Journal of Academic Ethics* 17 (1): 313–329. doi:10.1007/s10805-019-9324-y.

McCabe, D. L. 1992. "The Influence of Situational Ethics on Cheating among College Students." *Sociological Inquiry* 62 (3): 365–374. doi:10.1111/j.1475-682X.1992.tb00287.x.

McCabe, D. L., and L. K. Treviño. 1993. "Academic Dishonesty: Honour Codes and Other Contextual Influences." *The Journal of Higher Education* 64 (5): 522–538. doi:10.1080/00221546.1993.11778446.

McCabe, D. L., L. K. Trevino, and K. D. Butterfield. 1999. "Academic Integrity in Honor Code and Non-honor Code Environments: A Qualitative Investigation." *The Journal of Higher Education* 70 (2): 211–234. doi:10.1080/00221546.1999.11780762.

Metwally, D. 2013. "Academic Cheating in Egyptian Universities." *The Journal of Educational and Societal Research* 37: 588–601.

Mulisa, F., and A. D. Ebessa. 2021. "The Carryover Effects of College Dishonesty on the Professional Workplace Dishonest Behaviors: A Systematic Review." *Cogent Education* 8 (1): 1935408.

Naidoo, R., and I. Jamieson. 2005. "Empowering Participants or Corroding Learning? Towards a Research Agenda on the Impact of Student Consumerism in Higher Education." *Journal of Education Policy* 20 (3): 267–281.

Orosz, G., I. Tóth-Király, B. Bőthe, B. Paskuj, M. Berkics, M. Fülöp, and C. Roland-Lévy. 2018. "Linking Cheating in School and Corruption." *European Review of Applied Psychology* 68 (2): 89–97. doi:10.1016/j.erap.2018.02.001.

Parks-Leduc, L., R. P. Guay, and L. M. Mulligan. 2021. "The Relationships Between Personal Values, Justifications, and Academic Cheating for Business vs. Non-Business Students." *Journal of Academic Ethics*, 1–21.

Peled, Y., Y. Eshet, C. Barczyk, and K. Grinautski. 2019. "Predictors of Academic Dishonesty among Undergraduate Students in Online and Face-to-Face Courses." *Computers & Education* 131: 49–59.

ProctorU. 2016. "Why Is Academic Dishonesty on the Rise?" *ProctorU*, October 25. https://www.proctoru.com/industry-news-and-notes/academic-dishonesty-rise.

Pulfrey, C., K. Durussel, and F. Butera. 2018. "The Good Cheat: Benevolence and the Justification of Collective Cheating." *Journal of Educational Psychology* 110 (6): 764–784. doi:10.1037/edu0000247.

Qualls, R. 2014. "The Relationship Between Disciplinary Practices in Childhood and Academic Dishonesty in College Students." *College Student Journal* 48 (3): 362–374.

Qualls, R., L. Figgars, and D. Gibbs. 2017. "The Relationship among Childhood Discipline, Adult Attachment, and Academic Dishonesty in College Students." *College Student Journal* 51 (1): 7–18.

Raman, V., and S. Ramlogan. 2020. "Academic Integrity and the Implementation of the Honour Code in the Clinical Training of Undergraduate Dental Students." *International Journal for Educational Integrity* 16 (9): 1–20. doi:10.1007/s40979-020-00058-2.

Rosseel, Y., T. D. Jorgensen, N. Rockwood, D. Oberski, J. Byrnes, L. Vanbrabant, V. Savalei, et al. 2021. Package 'lavaan' – Latent Variable Analysis v. 0.6-8. R Team.

Shu, L. L., F. Gino, and M. H. Bazerman. 2011. "Dishonest Deed, Clear Conscience: When Cheating Leads to Moral Disengagement and Motivated Forgetting." *Personality and Social Psychology Bulletin* 37 (3): 330–349.

Stephens, J. M. 2019. "Natural and Normal, but Unethical and Evitable: The Epidemic of Academic Dishonesty and How We End It, Change." *The Magazine of Higher Learning* 51 (4): 8–17. doi:10.1080/00091383.2019.1618140.

Stephens, J. M., P. W. S. J. Watson, M. Alansari, G. Lee, and S. M. Turnbull. 2021. "Can Online Academic Integrity Instruction Affect University Students' Perceptions of and Engagement in Academic Dishonesty? Results from a Natural Experiment in New Zealand." *Frontiers in Psychology* 12: 569133. doi:10.3389/fpsyg.2021.569133.

Susen, S. 2014. "Towards a Dialogue Between Pierre Bourdieu's 'Critical Sociology' and Luc Boltanski's 'Pragmatic Sociology of Critique'." In *The Spirit of Luc Boltanski: Essays on the 'Pragmatic Sociology of Critique'*, edited by S. Susen, and B. S. Turner, 313–348. London, UK: Anthem Press.

Sykes, G., and D. Matza. 1957. "Techniques of Neutralization: A Theory of Delinquency." *American Sociological Review* 22: 664–670.

Velichkovsky, B. B., V. D. Solovyev, V. V. Bochkarev, and F. F. Ishkineeva. 2019. "Transition to Market Economy Promotes Individualistic Values: Analysing Changes in Frequencies of Russian Words from 1980 to 2008." *International Journal of Psychology* 54 (1): 23–32. doi:10.1002/ijop.12411.

Wagner, P. 1999. "After Justification: Repertoires of Evaluation and the Sociology of Modernity." *European Journal of Social Theory* 2 (3): 341–357. doi:10.1177/13684319922224572.

Whitley, B. E., Jr., and P. Keith-Spiegel. 2002. *Academic Dishonesty: An Educator's Guide*. Mahwah: Lawrence Erlbaum Associates.

Wirth, R. J., and M. C. Edwards. 2007. "Item Factor Analysis: Current Approaches and Future Directions." *Psychological Methods* 12 (1): 58–79. doi:10.1037/1082-989X.12.1.58.

Zinbarg, R. E., W. Revelle, I. Yovel, and W. Li. 2005. "Cronbach's α, Revelle's β, and Mcdonald's ω: Their Relations with Each Other and Two Alternative Conceptualizations of Reliability." *Psychometrika* 70: 123–133. doi:10.1007/s11336-003-0974-7.

Appendix

Table A1. Descriptive statistics of the sample.

Variables	%
Gender	
Male	39
Female	61
Year of study: undergraduate students	
first year	26
second year	22
third year	19
fourth year	17
fifth year	4
Year of study: graduate students	
first year	6
second year	6
Major	
Engineering and technology	54
Social sciences	27
Mathematics and natural sciences	19

Table A2. Response frequencies.

	Response category			
Item	Completely disagree	Somewhat disagree	Somewhat agree	Completely agree
Domestic world				
I am ashamed to use cheat sheets in an exam	19%	30%	32%	19%
I know from school that there is nothing wrong with cheating	16%	40%	34%	10%
I try not to use cheat sheets in exams because I have been raised like that	15%	29%	38%	18%
Market world				
If a course is boring, then you can use cheat sheets in the exam	14%	42%	31%	13%
If a course is useless for my future career, then I can use cheat sheets	9%	28%	42%	21%
If a student is afraid to forget the material, then that student can use cheat sheets on an exam	5%	20%	56%	19%
If there is not enough time to prepare for the exam, then I can cheat	9%	28%	50%	13%
Industrial world				
If I plan to have a job related to my degree, then using cheat sheets is unacceptable	14%	39%	33%	14%
If I want to gain knowledge and skills necessary for my future career, then I don't cheat	8%	27%	47%	18%
Cheating leads to the graduation of unskilled professionals	13%	43%	35%	9%