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The Role of Determinism and Free Will in Unfairness in School

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Abstract

The purpose of the conducted studies was to elaborate a questionnaire of attitudes towards cheating in school and investigate the relation between determinism and free will and attitudes towards unfairness in school. In order to elaborate on the questionnaire of attitudes towards cheating in school, Study 1 was carried out among 198 adolescents – students of technical schools and high schools. The elaborated tool was characterised by satisfying psychometric properties. Study 2, in which 107 students participated, examined the role of belief in free will and determinism as factors related to attitudes towards cheating in school. The study showed ambivalent results between variables. The only factor that was clearly positively related to negative attitudes towards cheating was scientific determinism.

Keywords: cheating, determinism, free will

Introduction

Time of adolescence is a period of learning in high school – high school or technical school, and therefore it is time of acquiring knowledge in various fields. The issue of studies concerns the problem of school unfairness, which is an omnipresent issue in Polish schools. Studies of the CBOS (Centre for Public Opinion Research) from 1997 show that 52% of Polish people recognised cheating during school final exam as an activity that is not outrageous. Literature review suggests

that there is widespread consent to cheating in Poland. For instance, the study conducted on a sample of 6500 Polish students, mostly teenagers, by the Foundation for the Development of Education demonstrates that only a minority of young Poles perceive cheating at University as unethical (Chudzicka-Czupala et al., 2013, pp. 67–68). The term school unfairness in this article will be limited to the phenomenon commonly known as cheating and will concern unfair practices during school exams, which are supposed to verify knowledge and result in a school mark that is simultaneously the expression of the student's academic achievement. The problem of cheating in schools is so significant that this phenomenon leads to pointlessness of the knowledge verification process and assessment process. In the event of cheating, the mark does not reflect the student's real achievements because it has been obtained with the omission of the widely understood process of learning. For some authors this phenomenon is called shortcut education.

The period of adolescence is a time of searching for the meaning and sense life, which is related to various philosophical approaches.

This time is also related to the discovery of abstract thinking, therefore philosophical exploration of the world becomes particularly important (Joubish, Khurram, 2011). The terms of free will and determinism are connected to this exploration. In the issue of free will and determinism there are two conclusions. The first assumes that the presence of determinism excludes the presence of free will. The second does not exclude this presence (Kane, 2005).

The first approach is known as incompatibilism, which occurs in two variants. The first variant is *hard determinism*, in which it is assumed that reality and human actions have a cause-effect nature, which in turn excludes the presence of free will (Wegner, 2002). The second variant of incompatibilism is libertarianism, which assumes that people constitute exceptions in nature, which have the ability to make choices and present behaviours not determined by events from the past.

The second conclusion, in relation to the issue of free will and determinism, tries to reconcile both phenomena and is called compatibilism or *soft determinism*. According to this conclusion, people make informed decisions (depending on various factors) and by doing so they influence their own fate (Baumeister, 2008). Studies show that the position assuming that determinism does not exclude the presence of free will is closer to people (Pauhlus, Carey, 2001).

The free will vs determinism dilemma is an issue described by philosophers. However, psychology handles the practical aspects of this dilemma. In earlier studies (Vohs, Schooler, 2008) it was experimentally proven that exposure to

a deterministic message increases the level of cheating in discovery activities and a reduced belief in free will mediates in this dependency. In addition, it was proven that exposure to a deterministic message increases the level of cheating and exposure to a message reinforcing belief in free will does not increase this level. The authors of the study state that negation of free will constitutes an excuse for any unethical activity. Therefore, it was proven that people's behaviour can be influenced by changing their feeling of responsibility.

Two main goals of the study was to: 1) prepare a tool to measure attitudes towards cheating in school; 2) investigate the relation between belief in free will and determinism and attitudes towards cheating among a group of adolescents.

Research Methodology

Study 1

Research Sample

198 students aged 16 to 19 years ($M=17.27$; $SD=1.52$) participated in the study. 65.8% of them were women and 34.2% were men. 24.2% of the participants were first grade students, 31.8% were second grade students, 30.8% were third grade students, and 13.1% were fourth grade students. Students of technical school constituted 56.6% of the group and students of high school constituted 41.9% of the group. The group was differentiated in terms of place of residence. The students filled in a questionnaire (paper-pencil method) during a lesson.

Instrument

The construction of items to the questionnaire of attitudes towards cheating was carried out based on the analysis of the contents of free statements of 1070 students, which were answers to six questions concerning: causes of cheating during tests, causes of not cheating during tests, feelings after cheating during a test, reasons for helping classmates during tests, behaviours in a situation of an attempt to copy without consent, and feelings in a situation of attempts to cheat by others (Gózdź, 2019). This resulted in construction of 172 test positions, which covered behavioural, cognitive, and emotional elements of attitudes towards cheating (details available from the author). The participants responded to each position on a 5-point scale (1 = disagree; 2 = rather disagree; 3 = hard to say; 4 = rather agree; 5 = agree). First, the descriptive statistics of examined test positions were calculated, which turned out to differentiate results.

Analysis

In order to determine the number of factors comprising the composition of the questionnaire of attitudes towards cheating in school, exploration factor analysis was carried out by using the analysis of main components (PCA) and *Varimax* orthogonal rotation. The reliability of the tool was measured using the internal cohesion index of Cronbach's alpha. All calculations were carried out using statistical packet SPSS 25.

Research Results

The KMO measurement of sampling relevance amounted to 0.625. Four factors, which in total explained 50.38% of variance, were distinguished based on the scree chart. The first factor was called cheating causes and positive emotions related to them and explained 15.78% of variance. The second factor was called subsidiarity standard and positive emotions related to help and explained 15.32% of variance. The third factor, which was called fairness standard, explained 10.73% of variance. The fourth factor was called unwillingness to help and negative emotions related to cheating and explained 8.56% of variance. In further analysis, positions with factor loads smaller than 0.5 were removed (the matrix of rotated components is available from the author).

Factor I consisted of 53 positions: 1–24, 26–48, 51, and 53–57. The reliability of this factor (Cronbach's alpha) amounted to 0.98. Factor II consisted of 41 positions: 105–106, 108–110, 112–119, 122–123, 125–128, 130–141, 145–153, and 155. The reliability of factor II, measured with the Cronbach alpha method, amounted to 0.98. Factor III consisted of 28 positions: 60–87, and 89. Cronbach's alpha of this factor amounted to 0.97. Factor IV consisted of the following 24 positions: 91, 93–95, 97–100, 143, 158–164, 166–170, and 172. The reliability of factor IV (Cronbach's alpha) amounted to 0.95.

Study 2

Research Sample

The group consisted of technical school students ($n=107$) aged 16 to 18 ($M = 17.4$; $SD = 1.91$), 77.9% of whom were female and 22.1% male. 31.3% of the students were first-graders, 9.6% second-graders, 36.5% third-graders, and 22.6% fourth-graders. The group was differentiated in terms of place of residence.

Instruments

The questionnaire described in Study 1 was used to measure attitudes towards cheating in school. The FAD-Plus tool (Paulhus, Carey, 2011), in the Polish adaptation by E. Charzyńska and E. Wysocka (2014), was used to measure belief in free will and determinism. The tool consists of 27 positions graded in a 1 – 5 scale (1 – don't agree at all, 5 – definitely agree), comprising 4 scales: Free will, Scientific Determinism, Fatalistic Determinism, and Unpredictability. Free will is understood here as possessing control and assuming responsibility for one's own actions in relation to that control. In Scientific Determinism it is assumed that genetic and environmental factors constitute a mobilising cause of one's personality and behaviour. Fatalistic Determinism reflects the idea according to which the future has already been planned and there is no way to change it. Unpredictability is linked to the belief that only random events control the fate of the Universe (Paulhus, Carey, 2011).

Research Results

Results of the second study are presented in Table 1. Free will, against expectations of its negative connection with cheating, had a weak positive correlation ($r = 0.252$) with factor I – cheating causes and positive emotions related to them. The higher the level of the belief in possessing control and assuming responsibility for one's own actions was, the more positive attitudes towards cheating were shown by the examined students. Free will also had a moderate positive correlation ($r=0.370$) with the second factor – subsidiarity standard and positive emotions related to help. The higher the level of the belief in possessing control and assuming responsibility for one's own actions was presented by the examined students, the more they were characterised by a tendency to help classmates during tests and felt positive emotions in relation to that tendency. Free will also had a weak positive correlation ($r=0.292$) with the fairness standard. The higher the level of the belief in possessing control and assuming responsibility for one's actions was presented by the students, the more often they expressed the opinion of lack of need to cheat during tests and the belief that being fair is more important than the mark. A correlation between unwillingness to help and negative emotions related to cheating and free will was not found.

Table 1. r-Pearson correlations between FAD-Plus scales and Questionnaire of attitudes towards cheating in school scales.

Factor	Free Will	Scientific Determinism	Fatalistic Determinism	Unpredictability
Factor I	.252**	.106	.224*	.272**
Factor II	.370**	.180	.245*	.302**
Factor III	.292**	.324**	.312**	.265**
Factor IV	.156	.236*	.368**	.171

* $p < 0.05$; ** $p < 0.01$

Scientific determinism had a moderate positive correlation with fairness standard ($r = 0.324$) and unwillingness to help and negative emotions related to cheating ($r = 0.236$). The higher the fate in genetic and environmental factors constituting the mobilising cause of personality and behaviour was, the higher the conviction about necessity of fairness of behaviour and tendency to refuse to help classmates during tests and negative emotions related to cheating were.

Fatalistic determinism had a weak positive correlation with the first factor ($r = 0.224$) and second factor ($r = 0.245$) and a moderate positive correlation with the third factor ($r = 0.312$) and fourth factor ($r = 0.368$). The higher the examined students' conviction that the future has already been planned and there is no possibility to change it was, the more positive the attitude towards cheating and helping classmates during tests were. However, stronger correlations indicate that the belief in already determined future and no possibility to change it has a greater influence on attitudes related to being honest during tests and unwillingness to help and negative emotions related to cheating.

Unpredictability had a weak positive correlation with cheating causes and positive emotions related to them ($r = 0.272$) and fairness standard ($r = 0.265$), i.e., an ambivalent relation. The higher the belief that the fate of the world is determined by random events, the higher the level of positive attitudes towards cheating. However, at the same time the conviction about the necessity of honest activities was also higher. Simultaneously, unpredictability had a moderate positive correlation ($r = 0.302$) with the second factor – subsidiarity standard and positive emotions related to help. The higher the conviction about the randomness of events in the world, the higher the tendency to help others during tests.

Therefore, ambivalent relations between free will, fatalistic determinism, and unpredictability and attitudes towards cheating are visible here. All the three variables are connected in a positive way to engaging in cheating and engaging in unfair

helping classmates, but at the same time to the conviction about the necessity of fairness. In addition, fatalistic determinism also shows a positive relation to the tendency to refuse to help classmates and negative emotions related to cheating.

In turn, scientific determinism shows a clearly negative relations towards cheating. The higher the conviction that genetic and environmental factors constitute the mobilising cause of personality and behaviour, the higher the tendency to fair actions, refuse to help classmates, and negative emotions related to cheating.

Discussion

The conducted studies allowed for preparing a questionnaire of attitudes towards cheating in school. The structure of the tool was verified with the use of the exploration analysis method, which revealed four factors included in the tool: cheating causes and positive emotions related to them, subsidiarity standard and positive emotions related to help, fairness standard, and unwillingness to help and negative emotions related to cheating. The reliability measured with the α -Cronbach method was high and satisfactory.

The presented results support the view that the belief in free will is valuable support for prosocial behavior – willingness to help in cheating (Baumeister, 2009). It was the highest correlation. Some philosophical analyses may conclude that fatalistic determinism is compatible with highly ethical behavior (Baumeister, 2009), but the presented results suggest that the relation is ambiguous.

Negative relations between free will and readiness to cheat and positive relations between determinism and positive attitudes towards cheating were expected (based on the results of Vohs and Schooler's research). However, it turned out that these relations are ambivalent and ambiguous: free will correlated positively with both positive attitudes toward unfair attempts to increase one's mark, as well as a classmate's mark, and fairness standard. Similar correlations were shown by unpredictability. Fatalistic determinism positively correlated with variables mentioned above and with negative attitudes towards cheating. Only scientific determinism showed positive relations with fairness standard and negative attitudes towards cheating. Such findings may result from cultural differences between Poland and the United States of America. Cheating is treated differently in both countries. In the United States of America (and in Western culture), cheating is treated as a negative phenomenon and is socially stigmatised, while in Poland the phenomenon of cheating became a social norm and is not socially stigmatised (Wideman, 2008; Chudzicka-Czupala et al., 2013). This phenomenon is so strongly

normalized in Poland that even people with a high level of faith in free will cheat. What is more, socialization in the Polish school relies mainly on teaching submissiveness and dependence on the teacher, which develops the feeling of greater value of environmental factors. Being a “good student” means submission to the will of the teacher, which is close determinism. Hence the ambivalence in relations between variables. Both possessing control and assuming responsibility for one’s own behaviour and the conviction that random events rule our fate, as well as the conviction that the future has already been planned and an individual has no ability to change it, show positive relations with positive attitudes towards cheating, as well as fairness standard. In addition, differently from what was expected, the idea assuming that genetic and environmental factors constitute as a reason for one’s behaviour turns out to be the only explicit factor “protecting” against cheating. Persons with a high belief in scientific determinism will be more convinced about the necessity to be honest and will have a more negative attitude towards cheating by both themselves and their peers.

Conclusions

The only experimental study carried out so far on the role of free will and determinism in cheating is the study by Vohs and Schooler (2008). It is a psychological examination set in Western culture. The results of the research presented in this paper are contradictory to the earlier ones. Other researchers point out that cultural factors may influence attitudes towards cheating (Chudzicka-Czupała et al., 2013). Hence, it is necessary to conduct intercultural research that could explain the discrepancies arising and ultimately determining the role of determinism and free will in school dishonesty.

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