
Moral Reasoning Among Croatian Students of Different Academic Orientations

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Abstract

Previous studies demonstrated that different academic contexts could have different effects on moral development, i.e. in most cases formal education enhances moral reasoning, but sometime erodes it (for example for medical students). The aim of this study was to examine differences in moral reasoning among students of different academic disciplines (health care, law, social sciences and humanities). In research participated 386 students ($M_{age}=23,12$): 154 law students, 55 nursing students, 123 other social sciences students, a 53 humanities students. Participants took Test of Moral Reasoning (TMR) (Proroković, 2016) which measures index of moral reasoning (in range from 0 to 1), and idealistic orientations (humanistic and conservative). The results showed that there was no difference in the moral reasoning index among students of different academic orientations. Furthermore, students of different academic disciplines differed in the humanistic orientation in a way that students of social studies were more humanistically oriented than law students. Some of the possible explanations for the lack of differences with regard to academic orientations is that overall stimulating environment that college provides is perhaps more important for moral reasoning development than specific academic contexts. Findings of this study are consistent with the findings of some of the previous studies.

Keywords: moral reasoning, idealistic orientation, academic orientation, students.

Introduction

According to Kohlberg's theory of morality, which represents the dominant theory of moral development and, as such, is the most widely tested theory in this domain, moral development involves two main processes. One is acquisition of positive attitudes toward moral norms and principles and the other one is development of competencies required to deliver consistent and differentiating judgments related to moral norms and principles (Lind, 1986). These competencies, which in fact represents moral reasoning, Kohlberg defined as "the capacity to make decisions and judgments which are moral (i.e., based on internal principles) and to act in accordance with such judgments" (Kohlberg, 1964, p. 425, as cited in Lind, 2000). The question is which of two mentioned processes are more relevant for moral behavior? Lind notes that the adoption and understanding of moral rules is inferior as it does not guarantee that a person will act in accordance with them, while measures of moral reasoning abilities are correlated more significantly with moral behavior (Lind, 1986).

A lot of longitudinal and cross sectional studies focused on relation between moral reasoning and education. In King and Mayhew's (2002) review article based upon 172 studies it was found that only in two studies was not confirmed relation between moral reasoning and education. All other studies affirmed that higher education makes a substantial contribution in moral reasoning (King & Mayhew, 2002). Pascarella & Terenzini (2005, as cited in Hren, 2008), concluded that the progress of postconventional moral reasoning during college attendance, is greater than that which could only be attributed to maturity, neither such progress could be explained with the initial differences in moral reasoning, intelligence or social status between students and non-students. Rest (1986, as cited in Narvaez, 1993) and Lind (2015) also confirmed that education is more significant variable than age. Some crossectional studies assessed that 50% of variance in moral reasoning can be explained by formal education (Thoma, 1986) while longitudinal studies reported that 38% of variance can be attributed to education (Rest & Deemer, 1986, as cited in Hren, 2008). There are many possible explanations of the influence of the faculty: the general environment of faculties and universities that encourages exchange of ideas, exposure to different perspectives, seeking for truth and careful reasoning as main academic values, fostering integrity and personal

responsibility (King & Mayhew, 2002). As these authors note it is justifiable to suppose that different context i.e. university climate, which can be partly influenced by type of academic orientation, can have different effect on promoting moral development. In some academic environments students are more encouraged to deal with moral dilemmas whereupon are exposed to practice higher, postconventional, moral reasoning. As a result those kind of students are expected to be more effective in promoting postconventional moral reasoning than their peers who did not have such opportunities and whose environment did not include, or included in a lesser extent, prosocial behavior and attitudes (King & Mayhew, 2002). According to Rest and Narvaez (1994), faculties involving inquiries, appeals, and openness to new evidence and arguments positively affect moral development, whereas faculties that are not open to questioning and examining and which are too career-oriented and respect conservative values inhibit moral development.

Several studies have attempted to measure differences in moral reasoning considering academic disciplines (Snodgrass & Behling, 1996; St Pierre et al., 1990; Bidwell & Vreeland, 1963, as cited in King & Mayhew, 2002), and their results are contradictory. For example, St. Pierre et al. (1990, as cited in King & Mayhew, 2002) found that accounting students as well as students in other business disciplines (such as finance, management, marketing) had lower levels of postconventional moral reasoning in comparison to psychology, math and social work students. On the other hand, Snodgrass and Behling (1996; as cited in King & Mayhew, 2002) did not found differences in the moral reasoning between business and non-business students (arts and humanities, social sciences and natural sciences). Medical students represent specific population. In most studies that deal with them, there was no progress in moral judgment during faculty time (Morton, 1996; Self, Schrader, Baldwin & Wolinsky, 1993, as cited in Hren, 2008; Patenaude, Niyonsenga, & Fafard, 2003; Self & Baldwin, 1994). According to Patenude, Niyonsenga, & Fafard (2003), medical students do not progress in moral judgment but return to instrumental, relativistic arguments after three years of medical training. Hren (2008) was observing moral reasoning at medical and electrical engineering students in Croatia. Contrary to expectations and results from literature, he found no progress of moral reasoning in the function of study length at the students of electrical engineering. Medical students had initial progress of moral reasoning up to third year of study, followed by stagnation and decline towards end of study. Based on inconsistency of result obtained on Croatian participants and most of the results from previous researches, the aim of this research was to examine does the moral reasoning changes with length of study at Croatian students of different academic orientations. Additionally, we wanted to see does students of different fields of science differed in moral reasoning due to the differences in level of stimulation of the environment and the specificity of curriculum. Research included students of social sciences, humanities studies, nursing and the law study. The law students were excluded from the category of social sciences where they belong to, due to the specificity of law study; e.g. law study or/and law practice may bring individuals to moral dilemmas which have to be solved in accordance with law rules, which may be contrary to their moral viewpoints. Ultimately, this can result with moral reasoning stagnation or regression. Furthermore, instead of medical students, that are commonly used sample in the studies of moral reasoning, nursing students were included in this research, with the intention to check does similar effect of moral reasoning stagnation/regression occurs in other health care students.

Participants

386 students from different universities in Croatia participated in this study, 302 women of average age 23,14 years (sd = 3.19) and 83 males of average age 23.12 (sd = 3.05). Regarding study year, 38 participants were first year students, 32 second year, 138 third year, 119 fourth year and 57 fifth year students. Related to the study orientations, 154 participants were students of law, 55 students of nursing, 123 students of social sciences (psychology, sociology, economy, anthropology and communication sciences) and 53 students of humanities (philosophy, archeology and history).

Instruments

Test of Moral Reasoning (TMR; Proroković, 2016), is an adapted version of the Moral Judgement Test (MJT; Lind, 2000). It consists of two moral dilemmas, described in detail, in which the individual in the story makes a certain decision. The subject firstly has to assess the extent to which he or she agrees with the decision made by the story character. The decision is followed by twelve arguments. Six of them are in favour (*pro*), and other six against (*contra*) the character decision. These arguments represent Kohlberg's stages of moral development. The subject's task is to assess, on a six-point scale (without the option of a neutral response), the extent to which each argument is (un)acceptable. As a measure of the level of moral reasoning, the so-called Index of Moral Reasoning (IMR) can be calculated. IMR reflects the deviations from the 'optimal profile'. The optimal profile is based on the hypothesis that a person at the highest level of moral reasoning is one who assesses the argument which represents the sixth and highest stage of moral reasoning as most important, assesses the argument that represents the fifth stage as one degree less acceptable, and so on to the argument which represents the first and lowest stage of moral reasoning. IMR is a parameter that varies within the range of 0 to 1, where a lower score

indicates a lower level, and a higher score a higher level of moral reasoning. The IMR shows a normal distribution, which is leptokurtic to a low extent. The results of tests to date (Proroković, 2016) have shown good metric characteristics for this measurement instrument and that the IMR is a valid indicator (with both criterion and construct validity) of the level of moral reasoning.

Furthermore, this test also allows getting two very rough measures: humanistic and so-called conservative orientation. These measures can be calculated from responses on *pro* and *contra* arguments. Humanistic orientation (HO) represents the average of the answers on *pro* arguments arguments of the first dilemma and *contra* arguments of the second dilemma. The conservative orientation (KO) is based on the average of the answers to the *contra* arguments of the first dilemma and the *pro* arguments of second dilemma. These features are novel, that is, humanistic and conservative orientation are not an integral part of the previous instruments of moral judgement, including one of the most widely used tests of this kind, Lindt's Moral Judgement Test.

Procedure

The research was anonymous and online. The instruction and link to the questionnaire were published on official and Facebook pages of the student's groups of each individual study. In case of ambiguity or additional questions students could contact the researcher at the e-mail address mentioned in the instructions.

Results

Table 1. Descriptive data for the index of moral reasoning (IMR), humanistic (Ho) and conservative (Co) orientation

		IMR	Ho	Co	
Study orientations	Law (n=154)	<i>M</i>	0.499	-0.034	-0.119
		<i>Sd</i>	0.089	1.134	0.967
		<i>Lill.</i>	>.20	>.20	<.10
		<i>Skew.(st.err)</i>	0.08(.19)	0.04(.19)	-0.30(.19)
		<i>Kurt.(st.err)</i>	0.03(.38)	0.19(.38)	-0.05(.38)
	Social sciences (n=122)	<i>M</i>	0.495	0.423	-0.290
		<i>Sd</i>	0.081	0.957	1.097
		<i>Lill.</i>	<.10	<.05*	>.20
		<i>Skew.(st.err)</i>	-0.28(.22)	-0.46(.22)	0.20(.22)
		<i>Kurt.(st.err)</i>	-0.18(.44)	-0.04(.44)	-0.59(.44)
	Humanistic sciences (n=50)	<i>M</i>	0.481	0.235	0.023
		<i>Sd</i>	0.077	1.042	1.234
		<i>Lill.</i>	>.20	<.10	>.20
		<i>Skew.(st.err)</i>	0.05(.34)	-0.12(.34)	-0.02(.34)
		<i>Kurt.(st.err)</i>	0.12(.66)	0.99(.66)	-0.61(.66)
	Nursing study (n=53)	<i>M</i>	0.473	0.199	0.120
		<i>Sd</i>	0.069	0.905	0.783
		<i>Lill.</i>	>.20	<.10	<.10
		<i>Skew.(st.err)</i>	0.33(.33)	0.31(.34)	-0.46(.33)
		<i>Kurt.(st.err)</i>	0.47(.65)	0.12(.64)	0.02(.64)
Year of study	First (n=38)	<i>M</i>	0.495	0.212	-0.203
		<i>Sd</i>	0.076	1.159	1.094
		<i>Lill.</i>	<.20	>.20	>.20
		<i>Skew.(st.err)</i>	0.32(.38)	1.25(.38)	-0.42(.38)
		<i>Kurt.(st.err)</i>	1.09(.75)	0.67(.75)	-0.39(.75)
	Second (n=32)	<i>M</i>	0.518	-0.125	-0.127
		<i>Sd</i>	0.089	1.276	0.911
		<i>Lill.</i>	>.20	>.20	>.20
		<i>Skew.(st.err)</i>	0.52(.41)	-0.11(.41)	0.22(.41)
		<i>Kurt.(st.err)</i>	0.68(.81)	-0.79(.81)	-0.86(.81)
	Third (n=133)	<i>M</i>	0.479	0.326	-0.026
		<i>Sd</i>	0.076	0.985	0.996
		<i>Lill.</i>	>.20	<.10	<.05*
		<i>Skew.(st.err)</i>	-0.17(.21)	0.05(.21)	-0.38(.21)

	<i>Kurt.(st.err)</i>	-0.02(.42)	0.25 (.42)	-0.43(.42)
Fourth (n=118)	<i>M</i>	0.495	0.037	-0.162
	<i>Sd</i>	0.082	0.913	1.051
	<i>Lill.</i>	<.10	<.01*	>.20
	<i>Skew.(st.err)</i>	0.02(.22)	-0.43(.22)	0.10(.22)
Fifth (n=57)	<i>Kurt.(st.err)</i>	-0.29(.44)	-0.33(.44)	-0.35(.44)
	<i>M</i>	0.505	0.262	-0.192
	<i>Sd</i>	0.094	1.153	1.078
	<i>Lill.</i>	<.20	>.20	>.20
	<i>Skew.(st.err)</i>	-0.30(.31)	-0.34(.31)	0.32(.31)
	<i>Kurt.(st.err)</i>	-0.38(.62)	0.54(.62)	0.44(.62)

IMR-index of moral reasoning; Lill-Lilliefors test; Ho-humanistic orientation; Co-conservative orientation

Homogeneities of variances were checked, in all situations Leven's test confirmed that the variance of the groups did not differ significantly, so the analysis of differences was carried out by analysis of variances.

First analysis included examining effect of length of study (year of study) on IMR. There was no significant difference in IMR between students of different years of study, neither when analysis was conducted on whole sample ($F_{(4,368)}=1,36$; $p>0,05$), or when was conducted for every group separately (social sciences $F_{(3,114)}=2,43$; $p>0,05$; law $F_{(4,148)}=0,59$; $p>0,05$; nursing study $F_{(4,46)}=1,59$; $p>0,05$; humanities study $F_{(4,45)}=0,26$, $p>0,05$). In addition, there was no significant correlation between age and IMR ($r_{(371)} = -0.04$; $p>0.05$) or years of study and IMR ($r_{(371)} = 0.02$; $p>0.05$).

Next ANOVA with different academic orientations as independent variable and IMR as dependent variable showed that there was no difference in the level of moral reasoning $F_{(3,372)}=1,60$, $p>0,05$.

In addition, we calculated differences in conservative and humanistic orientation between students of different studies orientations and different years of study. Although this issue wasn't mentioned in our aim and research problems we calculated this analysis due to the fact that Proroković (2016) just recently described this parameters. Since this is one of the first researches in which test of Moral Reasoning (Proroković, 2016) is used we wanted to see whether this measures of orientations discriminate our groups.

Analyses of differences showed that students of different years of study didn't differed neither in conservative ideological orientation ($F_{(4,372)}=0,46$; $p>0,05$) nor humanistic ideological orientation ($F_{(4,373)}=2,01$; $p>0,05$). Furthermore, in the level of conservative ideological orientation students of different academic orientations also didn't differ ($F_{(3,374)}=2,39$; $p>0,05$), but we found significant difference in the level of humanistic ideological orientation ($F_{(3,375)}=4,53$; $p<0,05$). The law students had a lower level of humanistic orientation than other social sciences students (Table 1), between other groups there were no differences.

Discussion:

The aim of this research was to determine whether moral reasoning changes during the study, and whether it differs between students of diverse academic orientations. At the beginning it has to be mentioned that this research is cross-sectional, which substantially limits its conclusions. The motivation for this research authors found in previous one conducted on Croatian students who showed no progress in moral reasoning at electrical-engineer studies during faculty time while medical students had a specific pattern of changes (specific changes for medical students are not in focus of this paper, for more information see Hren, 2008). Our results mostly comply with results of Hren (2008) since there was no difference in the level of moral reasoning between student of different ages of study and this effect was stable for every separate group of students (different academics orientations). This is quite surprising result since most authors found moderate to high correlations between moral development and level of education (e.g. Kholberg, 1986; Rest, 1986, as cited in King & Mayhew, 2002. But, Lind (2015) wrote that in recent times higher education has a smaller effect on moral development. He reported that typical increase from first to fifth year of study is about 4 points (of C-score), which is, in best case, a modest impact, that is relatively uncoordinated with our expectations related to effect of higher education (Lind, 2000a, Schillinger, 2006, as cited in Lind, 2015). Why there is no moral reasoning development in Croatian students during their study? Hren (2008) had an explanation for medical students, due to the specificity of clinical practice, but when it comes to electro-engineer students he assumed that highly technically and procedurally saturated curriculum, without contents including moral dilemmas or moral issues, partly could attributed to this result. But, in our research were included social, humanistic and health care science students whose curriculum is quit saturated with specific ethical questions and

dilemmas. There is two possible explanations for our results. First explanation could be that Croatian faculties do not implement adequate educational procedures to encourage moral development. Second explanation can be based on a fact that Hren (2008) found the significant difference between control, non-students group and first year students in level of moral reasoning. He pointed out that most of previous researches on this topic were conducted on Anglo-Saxon's samples of students. Croatian high school educational system is much broader and more comprehensive than American. As a result of that it is possible that moral development encouraged by education for Croatian students already happened during their high school education, and that American students get more stimulating environment for moral reasoning development during study for the first time. Anyway, future researches are needed to test this assumption.

Not just there was no progression of moral reasoning with length of study, but moral reasoning of all Croatian students (regardless of academic orientation) was relatively the same. This is in line with some previous researches that did not found the difference between the various academic disciplines. For example, Snodgrass and Behling (1996; as cited in King & Mayhew, 2002) found no significant differences in moral reasoning between business and non-business students. Rest and Narvaez (1991) said that the effect of the faculty education on moral development does not lie on the curriculum and seems not to follow the academic discipline. The influence of the faculty on the development of moral reasoning is not primarily mediated through specific curricular activities or through the teaching of specific academic content. Out-of-school activities can be equally important as well as general stimulation that is enabled through study.

When it comes to two new measures derived from TMR, we found difference in the level of humanistic orientation between law students and other social science's student. Although a significant difference only occurred in comparison to social sciences student, probably due to the differences in sample sizes, in Table 1 we can see that law student actually had lowest level of humanistic orientation in relation to all other groups of student. This probably can be attributed to curricular and co-curricular activities on law study which teach students to primary follow the rules and laws, while person's specific needs and circumstances are less important. Anyway, as it was said before, this is a new construct and additional researches are needed to develop appropriate interpretation of ideological orientations from this instrument.

This study has limitations regarding their cross-sectional design, differences in sample sizes, as well as inequality number of males in females included in sample. Future researches should overcome these limitations, as well as they should include other studies like technical faculties. In our research were included only studies that implicate some courses and activities based on ethical issues and courses that could facilitate moral reasoning development, so we did not found any moral reasoning progress. Collier (1993, as cited in Hren, 2008) quotes four conditions that institutions must meet to expect the development of moral reasoning: (1) there must be a climate of mutual trust and cooperation amongst persons working in the institution; (2) everyday life of the institution should be based on the principles of honesty, legitimacy and couriering solving moral issues; (3) authority should protect the minority from conformation pressures, but also protect majority from pressures of innovations; (4) teachers to should be open to students, as well as respect their openness.

Unfortunately, according to our subjective opinion, these criteria are on Croatian faculties are met only at moderate level, and when it comes to Croatian society in general, situation is even worse. Results of this research suggest that Croatian educational system doesn't encourage moral development through study which could have a long term consequences. In literature can be found many interventions that are effective in moral reasoning increment (e.g. Lind, 2015; Goldie, Schwartz, McConnachie, & Morrison, 2002; Holm et al., 1995;) and that can easily be integrated in regular curriculum in order to improve situation.

References:

- [1] Goldie, J., Schwartz, L., McConnachie, A. i Morrison, J. (2002). The impact of three years' ethics teaching, in an integrated medical curriculum, on students' proposed behaviour on meeting ethical dilemmas, *Medical Education*, 36, 489-497
- [2] Holm, S., Nielsen, G.H., Norup, M., Vegner, A., Guldman, F. & Andreassen PH. (1995). Changes in moral reasoning and the teaching of medical ethics, *Medical Education*, 29, 420-423.
- [3] Hren, D. (2008). *Utjecaj visokoškolskog obrazovanja na razvoj moralnog rasuđivanja osoba mlade odrasle dobi [Impact of higher education om young adults' moral reasoning]*. Doctoral dissertation. Zagreb: Faculty of Humanities and Social Sciences, University of Zagreb.
- [4] King, P. M., & Mayhew, M. J. (2002). Moral Judgement Development in Higher Education: Insights from the Defining Issues Test. *Journal of Moral Education*, 31(3), 247-270.

- [5] Lind, G. (1986). Cultural Differences in Moral Judgment Competence? A Study of West and East European University Students. *Cross-Cultural Research*, 20(1–4), 208–225.
- [6] Lind, G. (2000). Moral regression in medical students and their learning environment. *Revista Brasileira de Educacao Médica*, 24(3), 24–33.
- [7] Lind, G. (2015). Favorable Learning Environments for Moral Competence Development. A Multiple Intervention Study with 3.000 Students in a Higher Education Context. *International Journal of University Teaching and Faculty Development*, 4(4).
- [8] Narvaez, D. (1993). High achieving students and moral judgment. *Journal for the Education of the Gifted*, 16(3): 268-279.
- [9] Patenaude, J., Niyonsenga, T., & Fafard, D. (2003). Changes in students' moral development during medical school: a cohort study. *CMAJ: Canadian Medical Association Journal*, 168(7), 840–844.
- [10] Proroković, A. (2016). Test moralnog rasuđivanja (TMR) [The test of moral reasoning]. In: I. Tucak Junaković, V. Čubela Adorić, A. Proroković, A. Slišković, I. Burić (Eds), *Collection of Psychological Scales and Questionnaires - Volume 8* (pp. 63–174). Zadar: University of Zadar.
- [11] Rest, J. i Narvaez, D. (1991). The College Experience And Moral Development. U: Kurtines, W.M. & Gewirtz, J.L. (ur.) *Handbook of Moral Behavior and Development. Vol 2: Research* (pp. 229-245). Hillsdale, NJ: Lawrence Erlbaum.
- [12] Rest, J. R., & Narvaez, D. (1994). *Moral development in the professions: Psychology and applied ethics*. Hillsdale, NJ: Lawrence Erlbaum.
- [13] Self, D., & Baldwin, D. (1994). Moral reasoning in medicine. In J.R Rest (Ed.), *Moral Development in the professions: Psychology and applied ethics*. (pp. 147–162). Hillsdale, NY: Lawrence Erlbaum Associates.
- [14] Thoma, S.J. (1986). Estimating gender differences in the comprehension and preferences of moral issues, *Developmental Review*, 6, 165-180.