

The Influence of Study Specialization on the Moral Reasoning in University Students

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Abstract: Significant importance has been attributed to moral judgment with regard to the moral and complex personal development of an individual. The study is focused on the moral thinking of university students, being interested in whether or not and to what extent does the university students' specialization of study affect their moral judgment. A total of 180 students participated in the survey, half of them with technical specialization and the other half with humane disciplines. The Moral Judgment Test was used as a research tool for measuring their moral reasoning. The results showed a significant relation between the students' moral reasoning and study specialization. Students with humane study specialization showed a much higher level of moral reasoning, referring to an input in the discussion on the method of developing university students' moral competences.

Key words: moral reasoning, study specialization, technical studies, human studies.

1 Introduction

Lately, also thanks to the increasing amount of social problems, morals have become a frequently discussed topic. Accordingly, we have reported an increasing popularity of a rather young psychological discipline – moral psychology. Taking into account its subject of interest, moral psychology has found a relatively wide application also in social sciences; using own methodology tools, terminology apparatus and own research procedures. As a psychological discipline it pays attention to an individual's psychical life with primary focus on the motivation of human activity, it is aimed to reveal how and why people do and behave in a particular way, referring to the analysis of ontological changes in the individual's psychic.

The moral judgment competence plays a key role in the area of psychological moral research. Professional literature offers many views on moral judgment that

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are divided in three areas by Klimešová (2009): (1) moral judgment based on the observation of social rules, (2) moral judgment resulting from inner values, and (3) moral judgment defined as a moral competence.

Moral judgment competence is by psychologists a long-term sought bridge between moral values on one hand and moral behavior on the other hand. As Lind (2008) said, moral judgment competence joined separately researched moral parts – moral judgment and moral behavior. This statement had been inspired by Kohlberg (1984) who specified moral judgment competence as an ability to make moral decisions and subsequently act there upon. Moral judgment competence represents the ability of an individual to make moral judgments based on his/her inner principles and then to act in compliance with such judgments. It is an ability to judge and respond to ethical, affection and social justice of a situation (Nucci, Narvaez, 2008). Piaget (1952, 1965) uses a synonymic term “moral adulthood” that reflects both respecting of rules and the sense of social justice.

The moral judgment process is better described in Lind’s dual aspect theory of moral behavior and development (2008) where the first aspect “moral principles” saturates the affection part and the second aspect “the principles - conditioned behavior” specifies the cognitive part. Cognitive dimension implies knowledge, findings, information offered by the society in which the individual lives. They are cognitive maps related to moral issues that represent the basis of moral judgment by the subject in order to assume a moral standpoint. The affection dimension includes the application of own offered moral schemes that necessarily imply the emotional experience of own moral behavior. Of course, it results in the experience acquired on basis of own response in particular moral situations. Both the cognitive and affection aspects represent jointly two inseparable and integral parts - the whole within which they can be distinguished only theoretically.

The form of education has been shown as the major factor supporting moral judgment development (Kohlberg, 1984; Schlaefli et al., 1985; Wilson et al., 1992; Rest et al., 1999; Lind et al., 1985; Lind, 2008). No factor has proven comparable effects so far, resulting from prepared empirical studies to which the moral judgment subject matter in relation to various correlates represents a permanently actual topic.

Riesch et al. (2000) monitored moral judgment among nursing students in order to descriptively research the moral judgment of future nurses at the end of their educational process. Slováčková conducted a research in 2001 dealing with the comparative monitoring of moral judgments and moral attitudes of Czech and foreign students of medicine. Based on her research outcomes, it can be paradoxically stated that the level of moral judgment with Czech students during the study showed a decreasing trend. Moral judgment of the Czech students has significantly decreased with increasing age and study grade compared to non-significant judgment increase in case of foreign students of medicine. Self et al.

(1998) reached similar results of decreasing moral judgment of medicine students during their university studies. In the context of the mentioned research studies, Branch's contribution (2000) on the stimulation of medicine students' moral judgment is very interesting.

Considering the moral judgment level, Schillinger-Agati and Lind (2003) compared Brazilian and German university students. Approximately 700 university students participated in the study resulting in the findings that while the German students can be definitely considered as representatives of progressivism, the Brazilian ones showed a different moral consideration example. On one hand, they had expected an increasing trend in the university students' moral judgment level, there was also expected orthodox thinking tendency on the other hand, taking into account traditional religious background caused by a different quality of education.

Cultural differences within moral judgment became a research subject of further empiric studies as well, e.g. Gump et al. (2000) compared moral judgment of Mexican Americans with Anglo-Americans; Zhang (2012) monitored moral judgment of Chinese adolescents from various provinces; Chaganti (2012) brought into attention the differences between Indian students from various areas; Slovak and German university students were confronted by Lajčiaková (2009) etc.

Moral judgment is a vital topic attracting the attention of domestic and foreign researchers. In relation to the nature of study, education form and quality, Auvinen's research team (2004) studied moral judgment in Finland, longitudinally monitoring moral judgment development during the educational process – nursing specialization. Based on their research outcomes, King and Mayhew (2002) created an organizational frame for the university education context analysis. They had summarized 172 studies, applying the Defining Issues Test (Rest, 1979) and the results indicate that significant benefits were acquired by the university students within the moral judgment development process during teamwork. The type of university, study specialization or academic disciplines have proven as irrelevant factors. Lind (2011) also talked about education with included the forming of moral attitude in relation to ideals and towards the development of moral competences.

Teaching ethical conduct represents also a part of sport education. Chatzopoulos et al. (2008) verified the validity of the Moral judgment test (MJT-PE) with these students. The research group consisted of 281 respondents, men and women and the research analysis confirmed the validity of the moral judgment construction with the score positively correlating with the original test version results (MJT). The moral judgment of sport lecturers was subject to research conducted by Henkel and Earls (1985). Their study was aimed to determine characteristic types of moral judgment and its variability with regard to gender, education and coaching experiences. The biggest differences were reported in the coach sub-team. The whole group of 47 sport lecturers reached the score by

37,8% lower than comparable groups in other analogical empiric studies. Desplace's research work (2007) dealt with managerial education effects on moral judgment. He stated that the students' discussions about ethical issues within university managerial studies significantly and positively influence the moral judgment of university students.

The above-mentioned empiric studies have inspired us to conduct a research on the influence of study specialization on the moral judgment of university students. The research aim was to immerse deeper into the moral judgment of university students, taking into account their study specialization.

2 Methodology

2.1 Purpose

We were interested in the relation between the moral judgment level and their study profiling and subsequently to find out whether the study specialization affects their moral judgment. Moreover, our attention was focused on the moral judgment differences between the students of humane and technical study specializations.

Since moral judgment represents a dynamic process subject to various changes, we focused on the actual moral judgment level of the students.

2.2 Hypotheses

Based on the above-mentioned research outcomes and goals, we presumed that the study specialization type closely correlates with the moral judgment level (H1). Furthermore, we expected that there is a statistically significant difference between the students of humane and technical specializations in the moral judgment level, being in favor of the students of humane disciplines (H2). We supposed that the students of humane disciplines, considering their study contents, are more frequently exposed to decision-making processes related to solving moral conflicts than those with technical specializations and that it very positively influences their moral judgment development.

2.3 Participants

The research group consisted of 180 university students, thereof 90 students of the 2nd grade attended humane-oriented study programs and 90 students of the 2nd grade attended technical study programs. The average respondents' age referred to 20.58 years. Considering the gender, there were 100 women and 80 men participating in the research.

2.4 Instrument

The Moral Judgment Test (MJT, Lind, 2008) was used to measure the level of moral reasoning. In this test, vignettes with moral dilemmas are presented and questions are posed that require the respondent to make a moral judgment and choices on moral action regarding parties in the dilemma and to give an appreciation of the quality of the moral arguments.

The MJT measures how a subject deals with arguments that oppose his or her position on a difficult moral problem. The main score, the C-score or C-index, reflects the degree to which judgments about moral arguments are determined by moral reasoning as opposed to opinion agreement. The MJT confronts a person with a moral task, not only an assessment of moral attitudes or values. Individuals who show consistency in their judgments of pro and contra arguments receive high level of moral reasoning (Lind, 2008, p. 200).

The C-score of the MJT ranges from 1 to 100. C-score is sometimes graded low or pre-conventional (1-9), medium or conventional (10-29), high or post-conventional (30-49) and very high (above 50).

Independent variables (features of the situation)			Dependent variables (pattern of evaluation)			
I. Context of dilemma	II. Stage of moral reasoning	III. Quality of the argument (pro/contra)	Evaluation of the arguments' acceptability by subject (24 items, 9-point scale)			
Workers' dilemma (To take the law into their own hands)	1 2 3 4 5 6	Pro Contra	Completely unacceptable -4 -3 -2 -1	0	Completely acceptable +1 +2 +3 +4	
Doctor's dilemma (Mercy-killing dilemma)	1 2 3 4 5 6	Pro Contra	Completely unacceptable -4 -3 -2 -1	0	Completely acceptable +1 +2 +3 +4	

Tab. 1 Design of the Moral Judgment Test

The methodology reliability was verified by our research group. This scale produced a Cronbach alpha of .59 for the entire sample. The participants were also asked to specify their ID data – age, gender and study specialization.

3 Results

Based on the research data, the following are selected results through which you can acquire a more detailed insight into the university students' moral judgment subject matter.

The first hypothesis monitored the proximity of correlation between the university students' moral judgment level and their study specialization. We were interested in the relation between two variables – study specialization and moral reasoning within a group of university students. We presumed that the study specialization would significantly correlate with the students' moral judgment level. Correlation analysis revealed that there is a significant relation between two monitored factors - study specialization and moral reasoning ($r = .575$; $p < .001$). The C-score values are essentially associated with the university students' specialization. Accordingly, we can state that our first hypothesis on the existing close correlation between the study specialization type and moral judgment level has been proved.

Table No. 2 shows that the students of humane disciplines are characterized by a higher average C-score than those of technical specializations in the term of particular dilemmas' solving and total C-score. Based on the reached C-score value, the students of humane disciplines reached a very high score in case of the doctor 's dilemma, a high score in case of workers' dilemma and their total reached C-score reflected a high level of moral judgment. However, the students of technical disciplines reached lower score values. The C-score values reached in case of both doctor 's dilemma and workers' dilemma indicate the medium level of moral judgment similar to the total C-score.

Study specialization	N	C-score (doctor's dilemma)	C-score (workers' dilemma)	Mean C-score
Human studies	90	54.3	49.5	38.5
Technical studies	90	24.6	28.7	27.5

Tab. 2 *The C-score of the students of human and technical studies*

We were interested in statistical significance of the mentioned differences between the moral judgment by the students of human and technical specializations. We expected higher moral judgment level at the students of human disciplines. During the study within particular courses they are more exposed to solution of various moral situations than the students of technical specializations.

	F	Sig.	t	df	Sig. (2-tailed)	AM	SD
Moral reasoning	.000	.001	.279	178	.000	13.56	2.02
			.268	167.194	.000		

Tab. 3 Comparing groups (*t*-test), significant at $p < .001$

Based on the analysis of results (*t*-test of statistical significance – table No. 3) it is apparent that there is a statistically significant difference between the monitored groups – students of humane and technical specializations differ in the moral judgment level with observed difference being in favor of the students of humane specializations ($t(178) = .268$; $p < .001$). We can state that our second hypothesis of a statistically significant difference in the moral judgment level between the students of humane and technical specializations was proved. The statement was supported by the fact that the students with humane study orientation are confronted with various moral-based conflicts and a wide pallet of moral issues during the study within selected courses.

4 Discussion

The research objective of our study referred to effects of study specialization on the moral conclusions of university students. At first, we focused our attention on the relation between study specialization and moral judgment. We were interested whether or not a relationship exists between the selected variables and if yes, how close is such a relationship. Correlation analysis confirmed a statistically significant positive relation between the study specialization and moral reasoning of the university students. Subsequently, we focused on effects of study specialization on the students' moral judgment. We expected a statistically significant difference in the moral judgment level between technically oriented and humane oriented students with the higher level attributable to students of humane specializations. Our presumption was confirmed; the monitored research groups of university students differed in the moral judgment level – students of humane specializations reached higher average score in moral judgment. Auvinen et al. (2004) reached similar conclusions, documenting a statistically significant relationship between the nursing study specialization and moral judgment level at the students in the

longitudinal study and confirmed the influence of this study specialization on moral judgment. These research conclusions were supported by another empiric study with similar research objective – the relation between ethical education and moral sensitivity at the nursing students (Park et al., 2012). These conclusions have made the authors to think about assisting professions. Nurses have an important place among the assisting professionals referring to a rather broad range of various occupations (e.g. social workers, physicians, psychologists, psycho-therapists, lecturers, etc.). Demands laid on the assisting person's personality are undoubted. In this term and in relation to our research objective, we should not neglect the moral competences of assisting professionals, referring to the tool of the implementation of the assisting profession content, representing the relation between the assisting person and the client. In this relation we are able to explain a significant relation/effect of study specialization within the assisting professions on moral judgment of future assisting professionals.

Our findings related to the effects of study specialization on moral judgment of university students have been supported by further conclusions of similar empiric studies. Schlaefli et al. (1985) proved a positive influence of humane study programs on university students' moral judgment. Rose (2012) documented similar results in his empiric study.

We have to take into account also the study limitations in relation to our research conclusions.

Participants came from a limited number of universities in Slovakia. A larger sample from different universities in Slovakia could have enhanced the possibility to generalize the results and to increase the power of the study to detect significant differences and associations.

5 Conclusion

Our study offers the insight in moral considerations of university students with both humane and technical specialization. Based on the research conducted by us, the asked research question whether the study specialization of university students has something to do with their moral judgment level should be answered particularly and positively.

In the context of the research outcomes of our study, we can state that there is a strong relation between the students' moral judgment and their study specialization in case of humane study orientation. University students of humane specialization showed a higher level of moral judgment than their technically oriented colleagues.

The ability to think and judge morally represents one of the general educational goals of a university. There is a question how the moral competences can be

developed and strengthened. Lind (2003) recommends to forget the traditional models and replace them with an open, democratic educational approach full of trusting and supporting atmosphere, where the students will be able to develop all their abilities in the best possible way. Group discussions resolving semi-real dilemmas seem to be a highly efficient tool. They are moral conflicts that do not jeopardize any of the attendees but could cause real contradiction between moral principles accepted by an individual on one hand or result in dispute between the participants on the other hand.

Research studies confirmed that persons learning how to solve conflicts of contradictory values and principles were able to resolve daily life conflicts in a more efficient manner (Heidbrink, 1985; Lind 2003).

The moral dilemma discussion is aimed to develop moral judging, moral competences (to participate on moral discussions related to interpersonal conflicts, to assume responsibility for own decisions and to integrate moral emotions in moral judgment) and thus to avoid force and power application to conflict solving (keeping a calm and peaceful dialogue). The essence of moral dilemma discussion is that hypothetical dilemma solving on the “protected” academic forum stimulates similar competences that are necessary to overcome actual dilemmas appearing in the day-to-day life. The moral dilemma discussion could be compared to vaccination, i.e. it stimulates the body’s (subject’s) ability to fight with a virus through inoculation of a weakened virus tribe dose.

The moral dilemma discussion has practical utilization from elementary schools through colleges, high schools and universities up to lifelong education. For example, the moral dilemma discussion represents an integral/mandatory part of ethical subjects in Mexico and the Columbian government recommends this method to its schools, especially to the faculties of medicine (Lind, 2006).

The paper has drawn attention to the moral reasoning among university students. Further studies in this field, extended to different countries and different study specializations, may help to improve the moral reasoning of university students. With a better understanding of moral reasoning within university students, various counselling or educational implications can be derived for assisting students to develop holistically in terms of moral thinking, moral sensitivity and moral behavior as they venture into the world of work. However, as Kohlberg (1973) said, the demands and opportunities that are provided by higher education may be indispensable for the development of moral reasoning.

References

- AUVINEN, J. – SUOMINEN, T. – LEINO-KILPI, H. – HELKAMA, K.: The development of moral judgment during nursing education in Finland. In: *Nurse Education Today*, vol. 24, 2004, n. 7, p. 538-546.
- BRANCH, W. T.: Supporting the moral development of medical students. In: *Journal of General Internal Medicine*, vol. 15, 2000, n. 7, p. 503-508.
- DESPLACES, E. D. – MELCHAR, E. D. – BEAUVAIS, L. L. – BOSCO, M. S.: The impact of business education on moral judgment competence: an empirical study. In: *Journal of Business Ethics*, vol. 74, 2007, n. 1, p. 73-87.
- GUMP, S. L. – BAKER, R. C. – ROLL, S.: Cultural and gender differences in moral judgment: A study of Mexican Americans and Anglo-Americans. In: *Hispanic Journal of Behavioral Sciences*, vol. 22, 2000, n. 1, p. 78-93.
- HEIDBRINK, H.: Moral judgment competence and political learning. In: LIND, G. – HARTMANN, H. A. – WAKENHUT, R. (eds.): *Moral Development and the Social Environment. Studies in the Philosophy and Psychology of Moral Judgment and Education*. Chicago: Precedent Publishing Inc., 1985.
- HENKEL, A. S. – EARLS, F. N.: The moral judgment of physical education teachers. In: *Journal of teaching in physical education*, vol. 4, 1985, n. 3.
- CHAGANTI, VINAY K., A.: Study of moral judgment competence among Indian students. In: *Journal of Higher Education*, vol. 7, 2012, n. 1, p. 61-73.
- CHATZOPOULOS, D. – MOURATIDOU, K. – KARAMAVROU, S.: Validity study of the Moral Judgment Test in Physical Education: development and preliminary validation. In: *Perceptual and Motor Skills*, vol. 106, 2008, n. 1, p. 51-62.
- KLIMEŠOVÁ, M.: *Morálne usudzovanie vo vzťahu k životnej spokojnosti*. [The Moral reasoning in relation to life satisfaction.] [online]. [cit. 2013-01-14].
http://www.pulib.sk/elpub2/FF/Sipko2/pdf_doc/39_9.pdf
- KOHLBERG, L.: Continuities in childhood and adult moral development revisited. In: BALTES, P. – SCHAIE, W. (eds.): *Life-span developmental psychology, research and theory*. New York: Academic Press, 1973.
- KOHLBERG, L. *The Psychology of Moral Development. Vol. 2, Essays of Moral Development*. San Francisco: Harper and Row, 1984.
- LAJČIAKOVÁ, P. Morálna kompetencia slovenských a nemeckých vysokoškolákov. [The moral judgment competence in Slovak and German university students.] In: HELLER, D. – CHARVÁT, M. – SOBOTKOVÁ, I. (eds.): *Me & we and they, 26th Psychological Days*. Brno: Masaryk University, 2009.

- LIND, G. – HARTMANN, H. A. – WAKENHUT, R. (eds.): *Moral Development and the Social Environment. Studies in the Philosophy and Psychology of Moral Judgment and Education*. Chicago: Precedent Inc., 1985.
- LIND, G.: *Moral ist lehrbar. Handbuch zur Theorie und Praxis der moralischen und demokratischen Bildung [Morality can be taught. Handbook on theory and practice of moral and democratic education]*. München: Oldenbourg, 2003.
- LIND, G.: *Effective moral education*. Konstanz: University of Konstanz, 2004.
- LIND, G.: The Meaning and Measurement of Moral Judgment Competence Revisited – A Dual-Aspect Model. In: FASKO, D. – WILLIS, W. (eds.): *Contemporary Philosophical and Psychological Perspectives on Moral Development and Education*. Cresskill, NJ: Hampton Press, 2008.
- LIND, G.: Moral education: Building on ideals and fostering competencies. In: *Contemporary Issues in Education*, vol. 2, 2011, n. 1, p. 45-59.
- NUCCI, L. P. – NARVAEZ, D. (eds.): *Handbook of Moral and Character Education*. New York: Routledge, 2008.
- PIAGET, J.: *The origins of intelligence in children*. New York: International Universities Press, 1952.
- PIAGET, J.: *The moral judgment of the child*. New York: Free Press, 1965.
- PARK, M. – KJERVIK, D. – CRANDELL, J. – OERMANN, H. M.: The relationship of ethics education to moral sensitivity and moral reasoning skills of nursing students. In: *Nursing Ethics*, vol. 19, 2012, n. 4, p. 568-580.
- REST, J.: *Revised manual for the defining issues test: An objective test of moral judgment development*. Minneapolis, MN: Moral Research Projects, 1979.
- REST, J. R. – NARVAEZ, D. – BEBEAU, M. J. – THOMA, S. J.: *Postconventional moral thinking. A Neo-Kohlbergian approach*. Mahwah, NJ: Erlbaum, 1999.
- RIESCH, K. S. – von SADOVSZKY, V. – NORTON, S. – PRIDHAM, F. K.: Moral reasoning among graduate students in nursing. In: *Nursing Outlook*, vol. 48, 2000, p. 73-80.
- ROSE J. D.: Development of Moral Reasoning at a Higher Education Institution in Nigeria. In: *Emerging Leadership Journeys*, vol., 5, 2012, n. 1, p. 81-101.
- SELF, D. J. – BALDWIN, D. C.: Sex and Moral Reasoning. Does Medical Education Inhibit the Development of Moral Reasoning in Medical Students? A Cross-sectional Study. In: *Academic Medicine*, vol. 73, 1998, n. 10, p. 91-93.
- SCHIAEFLI, A. – REST, R. – THOMAS, S. J.: Does moral education improve moral judgment? A meta-analysis of intervention studies using the defining issues test. In: *Review of Educational Research*, vol. 55, 1985, n. 3, p. 319-352.

- SCHILLINGER-AGATI, M. – LIND, G.: Moral Judgment Competence in Brazilian and German University Students. In: *Annual Meeting of the American Education Research Association*, 2003.
- SLOVÁČKOVÁ, B.: Morální kompetence a morální postoje u studentů lékařské fakulty Univerzity Karlovy v Hradci Králové.[Moral judgment competence and moral attitudes among students of the Medical Faculty of Charles University in Hradec Kralove.] In: *Psychiatrie*, vol. 5, 2001, n. 2, p. 74-79.
- WILSON, L. K. – REST, J. R. – BOLDIZAR, P. J. – DEEMER, D. K.: Moral judgment development: The effects of education and occupation. In: *Social Justice Research*, vol. 5, 1992, n. 1, p. 31-48.
- ZHANG, J.: Factors of Chinese Adolescent's Moral Judgment Competence – Findings from Hubei Province. In *Ethics in Progress Quarterly*, vol. 3, 2012, n. 1, p. 83-95.