

## REVIEW

From Prof. Yolanda Konstantinova Zografova-Draganova, PhD, Institute for Population and Human Research, BAS, for the acquisition of the scientific degree "doctor" in professional field (3.2. Psychology), with candidate Veselina Hristova Kadreva.

Doctoral student Veselina Kadreva's dissertation on the topic "Moral judgment and emotions: research using bio-indicators" is devoted to problems creating an occasion for numerous studies and discussions in the field of psychology and related scientific branches. Questions surrounding the role of emotions and rational processes on moral judgment, on the choice between different moral dilemmas, are significant for the development of scientific knowledge in a field that is difficult for objective analyses. At the same time, such inquiries are also relevant from a scientific and applied point of view against the background of the complex dynamics in modern human relations and the expansion of tolerance in moral choices of a different nature at the individual, group and community level.

With the topic presented in this manner and the discussed problem in the field of experimental approaches in the research of moral judgment within a paradigm of moral dilemmas, the dissertation addresses the difficult challenge to test the conclusions of an established theory such as the Dual-Process Theory of Moral Judgment by Greene et al. Of course, there is also a base with quite a few critically oriented experimental and analytical attempts in this scientific field, but regardless of this fact, and because of the existing criticisms, the task is even more complicated. The risks are to end up repeating well-known experiments on moral dilemmas such as the Trolley Dilemma, etc., although replications that lead to new discoveries are valuable and contribute to the development of scientific psychological knowledge.

The structure of the dissertation is developed in 10 parts, which are not clearly defined as chapters of the work, but they include the introduction and contributions, which could not be called chapters. It should be structured more clearly in the content itself. The first few parts (2nd, 3rd, 4th) present the theoretical approaches in the field

of moral judgment research. The author competently and with a deep knowledge of the discussed problems, but also with a critical position, analyzes the state of art, not forgetting both the conceptual approaches and the types of empirical studies. A special place is devoted to the basic theory and the experimental studies resulting from its principles - the Dual-Process Theory of Moral Judgment. According to the theory, affirming the role of two main operating systems – intuitive and reflexive, in situations of moral judgment, the regulatory power of emotions comes to the fore.

In the theoretical section, research is presented on factors most often studied in connection with the emotions accompanying moral judgment - for example, the presence of physical contact when causing harm, and factors influencing moral conflict are also examined, but to a lesser extent studied.

Discussions surrounding the criteria for moral choices, which have classical origins in philosophical theories and are reflected both in contemporary philosophical ethical approaches and in psychological knowledge, continue the well-known dilemma of whether the consequences of an action or the principles that motivate it should be included in the criteria for moral reasoning and evaluations. The trolley dilemma itself, as the doctoral student notes, stems from searches in the field of philosophical knowledge. The ideas and imperative of Kant and his followers regarding the obligatory universal nature of morality are widely known – moral principles are absolute and cannot accept different interpretations according to the situation. In contrast to this imperative, the utilitarian theory of moral judgment is also widespread, where, as noted by Kadreva, when there is an opportunity to obtain a common benefit for the group, for the community, it is morally permissible.

In part of the theoretical section, attention is paid to a specific analysis of the various factors involved in research in the field. This is a very useful, excellently written in detail piece, since so the author provides a clear path to clarifying one's own research and the factors involved in specific interrelationships, and so to speak, finding one's own niche in the research problematic.

The dissertation is based clearly on the experimental research of Greene and colleagues, whose theory and specifics of the experiments are presented in detail. Both the studies produced by the theory and the criticisms and unconfirmed influences of emotions on moral judgment found by various authors are reviewed. In

fact, the two cognitive systems indicated by the authors of the theory reflect two main sides in mental regulation, and it could not be said that in itself the affirmation of unconscious processes in the form of experience and intuition and conscious rational reasoning presents something new, since this are basic positions in psychological science. After all, the experimental treatment and focus on the leading role of emotions are the basis of searches and checks of their real place in moral examination. This is where the aspects of the contribution of the dissertation, in which the author builds a clear experimental design, with precisely conducted procedures and original achieved results.

The experimental part of the dissertation covers three main experiments, two of which contain classic case studies such as the Trolley Dilemma in different specific cases faced by the respondents in their choices and moral judgments. In the third experiment, emotional states - amusement, disgust, fear and sadness - were induced, with the aim of checking their influence on moral evaluation.

Criticism of the experimental production of the Dual-Process Theory was provoked by the shortcomings indicated in the paper, such as "lack of systematic control of stimuli, failure to consider single stimuli, failure to consider additional factors, insufficient distinguishableness of the specificity of the emotional response in dilemmas". And although the determining role of emotions has been proven in various experiments, it is also debatable, as Kadreva points out, whether and to what extent their place is defined and clear in "conceptualization of the stimulus, in the interpretation of a given question", etc.

In a separate part, a summary is made and the general plan of the experiments is presented. They are told in detail, the data are processed with relevant statistical methods and are presented correctly, incl. in graphic format. In addition to the presented situations of moral dilemmas, a very important fact is that bio-indicators are included, with modern equipment measuring skin conductance - an indicator of emotional intensity, tracking the gaze while reading and the time people take to answer. The purpose of the first experiment was to examine the main manipulated factors (physical contact, inevitability of death, instrumentality of harm inflicted) in their influence on moral judgments. Some similar, but also some different results from the expectations and compared to the Dual-Process Theory were obtained. The different data are about the fact that more emotions are associated with the "no

physical contact" factor in the reading dilemma, compared to the situation involving physical contact. Influences of this factor, but also of the inevitability of death, have been reported. Although these are indeed interesting results, the analysis should seek more and broader explanations from ch. of social norms, views of the respondents, In fact, the question asked in all situations "Is it permissible to act in the described way?" affects a normative aspect, and when the question is asked about the subject's personal involvement, i.e. his participation in such actions involving the sacrifice of another person is most likely internalized normative principles and beliefs. The doctoral student points out that it is likely that instead of emotions, rational reasoning develops, but this could be proven. If, for example, the experimental design also includes an interview or questionnaire completed by each participant to reveal the feelings, views, moral beliefs and even the level of moral development. Of course, this is one recommendation for possible future research. In this regard, the doctoral student's assumptions about the possibility that the effects are due to rational reasoning and not to emotional experiences are also legitimate.

After the second experiment, the influences of the factors physical contact and inevitability of death on moral judgments and in third-person formulations were clearly confirmed. No influence on emotional intensity and it is assumed that the judgment may be different in different situations and not influenced by emotions. These data are particularly important, as this opens up the possibility for a different development of theoretical knowledge in this area, which is also an important contribution of the work presented.

The third experiment with induced emotional states showed interesting effects especially of the involved state - entertainment, which actually resulted in an increased sensitivity of individuals to negative experiences and, according to the PhD student's analysis, reduced "acceptable" responses. In other words, one could say that introducing lighter, fun emotions does not "relax" personal responsibility for making a decision in a moral dilemma. Does this not suggest an incited unpleasant excitement due to the contrast – cognitions and emotions can both play a role here. In this research, the data from the questions asked about the assessment of guilt, as well as about representativeness, are also interesting and significant. They provide direction for concrete future changes in this kind of research, clarifying more

realistically the place of emotions and of rational reasoning and personality principles.

Ultimately, the summary of the experimental work concludes that the principles of the Dual-Process Theory have not been proven, but rather that rational evaluations and principles dominate.

Some recommendations and notes have already been discussed when discussing the relevant parts of the dissertation. Here I would rather suggest a reflection regarding the direct inclusion of categories such as "moral judgment" already in the instruction of the subjects. Such direct targeting of morality could affect delicate personal views and feelings, attitudes that would prevent real behavioral responses and even trigger defensive reactions. In other words, introduction into situations affecting sensitive topics, especially related to moral, ethical norms, principles to which the individual adheres, as well as the community to which he belongs, causes internal hesitations, dialogues and self-justification or self-condemnation for one decision or another. Naturally, the real situation would be far more dramatically demanding a personal response, but even when reading such dilemmas and limited choice for a solution, it is very likely that various thought processes will take place in the direction of the inability of a person to accept himself in the role of causing death to another, regardless of the possibility of saving several other lives. It would be interesting to include a methodology investigating what other possibilities the respondents see, e.g. such as looking for a way to alert a verbal third party to respond quickly and change the situation. In a situation where a person is an observer and not part of the situation or of the group involved in an activity, the regulation of his behavior is different, compared to a position as a member of the group.

It is positive that the doctoral student points out the limitations of the research and sees in future similar ones to introduce relevant changes in terms of samples, change in the stimulus material, etc. On the other hand, as noted above, it is good to look for mixed methods approaches – quantitative, qualitative, experimental, which will further develop and substantiate the ideas reached in the paper.

Relevant sources are cited, almost exclusively in Latin. The author knows in depth the achievements and development of the discussed field.

The contributions of the dissertation describe in detail the actual achievements of Kudreva. I would recommend that they be formulated rather in the direction and with an emphasis on the patterns of answers by the researched persons when adding and specifying factors essential in the choices in a situation of moral dilemmas. More specifically, contributions should not include the research itself, but achievements in the field of results and conclusions from theoretical and experimental research. But regardless of their formulation, the scientific contributions of the dissertation work are indisputable.

The abstract reflects the main parts of the dissertation - the theoretical part in general, as well as the experiments conducted by the dissertation student. It could be an even more accurate reflection of the overall content of the work.

Veselina Kadreva's own contribution to the conduct of experimental research, as well as her personal scientific engagement with the problem. The very fact that she has quite a few publications, most of them in the discussed field, published in English, including in refereed scientific journals, proves that Kadreva has a lasting scientific interest, experimental experience and a clear perspective to continue his scientific development.

On the basis of the indisputable merits of the doctoral dissertation, as well as the contributions, the clear scientific independence and competence, I confidently propose to the respected Scientific Jury to vote for the acquisition of the scientific and educational degree "doctor" to Veselina Kadreva.

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Reviewer

Prof. Yolanda Zografova