

# Locus of Control and the Dynamics of Moral Fluctuation and Rationalization

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**Abstract:** This article presents the results of research in which the participants were exposed to a moral dilemma opposing two alternatives defined in terms of saving human lives, in two different moments three weeks apart. The two dilemmas employed were almost identical, with only one difference: while the hypothetical scenario, presented in the first moment, was purely impersonal, a relevant interpersonal aspect was inserted in the second dilemma. The results reveal a choice reversal phenomenon from the first - impersonal - scenario to the second - personal. Also, at both moments, the participants filled in a scale evaluating their moral attitude, concerning their standing on a continuum ranging from the utilitarian to the deontological end - the two ethical perspectives which apply to the dilemma presented. Results show moral attitude variations from the first measurement to the second, suggesting that even if in the personal dilemma their decision stemmed from emotional reasons rather than ethical ones, they also display a moral rationalization phenomenon, through their increased adherence to the deontological perspective that could morally justify the chosen action. Locus of control had a significant role in these variations: the participants with an internal locus of control expressing more extreme moral attitudes in both situations - toward the two opposing ethical stances from one moment to the next - as compared to those with an external locus of control.

**Keywords:** moral dilemma, utilitarianism, deontology, locus of control, moral rationalization, ethical systems.

## Introduction

Before initiating research on the subject of morality, it is first necessary to define the concept. At a first glance, it seems that such a definition is fairly easy to provide, almost pertaining to common sense. At a more thorough investigation though, it soon becomes clear that any attempt at defining morality correctly and extensively, in a manner that meets the consensus of psychologists regardless of their orientation, raises the problem of the relativity of the terms employed: „*the moral domain is a set of prescriptive judgments which touch upon issues, such as human rights, justice and welfare pertaining to how people ought to relate to each other*” (Turiel, 1983, p. 3). This definition is not satisfactory from an operational standpoint because, by trying to cover the entire “jurisdiction” of the phenomenon, it becomes too broad and generic in order to pinpoint the specific essence of morality (Armstrong, 2008). Thus, the issue of providing a scientific definition had to be approached differently. The conclusion was reached that if what is moral varies from one culture to another, from one social class to the next, and as a function of political orientation and timeframe, then psychologists need a definition

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of the moral domain that is not based on specific areas of applicability (such as the above mentioned domains of human rights, justice and welfare) (Graham et. al, 2010). To reach this objective, Haidt & Kesebir (2010, p. 800) proposed an alternative way of defining moral systems by their functions: „moral systems are sets of values, virtues, norms, practices, identities, institutions, technologies and psychological mechanisms which work together to suppress or regulate egoistic tendencies and to make social life possible”. The functionalist approach has at least one advantage over the content based approach: it allows for the recognition of a broad variety of people as respecting moral precepts, at least from a descriptive angle, even if those societies are structured in ways which would incline some researchers to consider them normatively immoral (for example, patriarchies) (Haidt & Kesebir, 2010).

This present paper explores the idea that individuals adhere to certain moral systems as dictated by subjective motivations (and as a result, their adherence to one system or another is expected to fluctuate according to situational, affective, cognitive and social factors) and by certain personality traits (namely, locus of control) that make them more prone to choose the respective moral system. As a result, we adhere to the claim that there is no such thing as a singular system of moral values to which someone adheres, not at an individual level and certainly not at a universal level. On the one hand, the moral perspective applied by the person can vary from one situation from the next. On the other hand, people explain their actions by referring to a certain moral theory (deontological, utilitarian, etc) after they actually make a moral decision, in order to justify and rationalize their respective choice.

### *Theoretical approaches to morality*

Morality changes its operational definition from one particular theoretical framework to the next. In other words, its definition reflects the viewpoint of the psychologist who put forth his specific theory on morality. For a long time, the researchers' aim in the moral domain was to reach a consensus on what morality means, in the form of a unified, universally accepted theory. On the course of reaching this goal, what psychologists discovered instead were a multitude of sources of variability for the moral judgments that individuals make day by day. Some of them are: the source of the moral decision: affect, cognition, or moral intuition (Bjorklund et. al, 2000; Cushman et. al, 2006; Piaget, 1965/1932; Wheatley & Haidt, 2005); the consequences that are considered as a result of the choice made: consequences impacting self or others (March & Heath, 1994); the type of moral dilemma to which the subject is exposed (Monin et. al, 2006); the moral values' system which the individual adheres to (Rozin et. al, 1999; Cushman, et. al, 2009); the author of the moral transgression being evaluated (March et. al, 1994); the existence of sacred, protected values in a person's moral beliefs system (Baron & Spranca, 1997), and the hierarchy of the values endorsed, their order in terms of priority for that person (Iliev et. al, 2009).

The followers of different psychological orientations hold contrasting views on the topic of morality. The psychoanalytical theory claims that human beings are biological creatures “with powerful instincts, for which civilization is the greatest impediment”. As such, people try to be moral in order to free themselves from the pressure of their deeply rooted, subconscious feelings of guilt and inadequacy. By not abiding to individual moral standards, the person experiences intense guilt, so in essence, moral behavior is a way of avoiding an unpleasant state. The conceptually contrasting paradigm – behaviorism – defines morality as a set of acquired behaviors which individuals try to adhere to because they are motivated by their fear of punishment and, respectively, their desire for rewards. Thus, people are moral as a result of this conditioning process, which is first applied by parents who distribute rewards for socially acceptable behaviors and sanctions for immoral ones; later in life this is taken over by society, which reinforces moral conduct.

The existence of all these different perspectives on morality illustrates the relativity of the meaning given to this concept according to the theoretical framework in which it is studied. As was mentioned earlier, there is no consensus on what constitutes moral behavior and no universally accepted set of criteria for a clear-cut separation between moral and immoral conduct. Among the variability sources for morality, the source of moral decisions (affect vs. cognition) has generated two opposite, distinctive approaches in this field (the rationalist vs. the emotivist approach), approaches which have created one of the most productive debates in the field of moral psychology (Valdesolo & DeSteno, 2006; Schnall et al., 2008; Greene, 2008; Blair, 1995; Shweder, 1999; Haidt, 2001; Hoffman, 1982). This dispute was initiated in the philosophical domain; the rationalist approach was put forth by philosophers, such as Rawls (1971) and Kant (1959), and by psychologists, such as Piaget (1965) and Kohlberg (1969), whereas the emotivist approach was supported by Hume (1739/1978) in the philosophical domain and by Damasio (1994) in the psychological one.

The rationalist position was the first to win the spotlight within moral psychology. Theorists, such as Piaget (1965) and Kohlberg (1969) fell squarely on the side of Kant and Rawls. The capacity to reason was seen as the main instrument in distinguishing right from wrong. For instance, Kohlberg claims that moral judgment develops as a function of the maturing cognitive abilities of the child – as a child’s ability to reason develops and grows, so does his moral capacity of discriminating between the alternatives available in a given ethical dilemma. Most modern rationalists agree on the primacy of reason in moral thinking and behavior, even if they also admit that the impact of reasoning on judgment is mediated through emotional mechanisms (Pizarro & Helion, 2011).

In opposition to rationalism, the emotivist perspective (e.g., Haidt, 2001) claims that emotions play the main role in people’s moral judgments as well as in the way they make moral decisions. The body of research that emerged to scientifically validate this approach has indicated that emotions are a much more powerful influence on judgment than was previously believed. Emotions seem to

pervade human judgment, and people often let themselves become influenced by their emotional reactions to a situation, even if these emotions have nothing to do with the problem at hand (Schwartz & Clore, 1983; Bodenhausen et. al, 1994; Lerner & Keltner, 2001). These new discoveries have seriously damaged the view of humans as ideal rational creatures.

Another source of variability for moral judgment that is relevant for the research at hand is the type of moral dilemma which the individual is exposed to. An ethical dilemma is a complex situation which often implies a conflict between two moral imperatives. By respecting one moral imperative, the subject automatically transgresses the other. A common feature of all ethical dilemmas is the conflict. In considering each alternative, the agent sees solid reasons to act in accordance with the principles that they touch upon, but taking action that upholds both principles is impossible. Thus, the agent seems doomed to moral failure, regardless of his choice, because no matter how he decides to act, he will bring about a morally reprehensible consequence. Moral dilemmas within moral psychology are the most employed material in the research on how ethical decisions are made and what influences the decision making process. Usually, researchers manipulate certain variables in order to measure how participants' view of the situation shifts, and what the factors are that influence their decisions in ethical dilemmas.

Generally, ethical dilemmas can be classified into four types of prototypical moral situations: moral reactions (emerge when judging the behavior of others), moral dilemmas (when ethical principles collide), moral weakness (failure in maintaining one's self control in order to do the right thing), moral fortitude (when choosing the right moral alternative implies doing a morally reprehensible thing, for the greater good; in other words, emotion emerges first, but needs to be overridden by reason in order for the right call to be made) (Monin et. al, 2006).

#### *The deontological versus utilitarian perspective in moral decision making*

The utilitarian perspective puts forth the idea that the moral value of an action is determined strictly in terms of the consequences it brings about; as such, the moral course of action is the one that maximizes the overall benefits obtained and minimizes the losses suffered by a number of individuals. In other words, the moral worth of a decision is only determined by its outcome. The cost-benefit orthodoxy applies here: a person who makes a moral decision must weigh the costs and benefits of each possible alternative, and choose the option which, overall, brings the most benefits to those involved (Mill, 1962; Bartels, 2008; Darwall, 2003a).

The deontological perspective determines the morality of an act by abiding to a principle or immutable law (Darwall, 2003b). People who adhere to this ethical system think that some actions are simply immoral in themselves, regardless of the consequences they attract. For example, if a person does something that is morally wrong (lie, for instance), then the action is immoral no matter what the consequences are. Baron and Spranca (1997) coined the term "sacred/protected

values” to refer to values that are held as inviolable by the person, and acquire a sort of sacrosanct status.

Tetlock et al. (2000) defines sacred values as *“any value that a moral community implicitly or explicitly treats as possessing infinite or transcendental significance that precludes comparisons, trade-offs, or indeed any other mingling with bounded or secular values”*(p. 853). When subjects were presented with propositions of trade-offs of sacred values for material compensations, Tetlock et al. (2000) observed strong cognitive, affective (e.g., moral outrage) and behavioral responses (moral cleansing). Similarly, Baron and Spranca (1997) defined sacred values as *“those values that resist trade-offs with other values, particularly with economic values”* (p. 2). These findings indicate that protected values are deontological rules and prescriptions concerning actions and inactions (e.g., “do not harm another human being”), in contrast to utilitarian principles that focus on the assessment of costs and benefits.

Both ethical perspectives are translated, at an individual level, in moral attitudes (Arvola et al., 2007) which determine what option will be chosen by the subject in morally relevant circumstances. The body of research conducted in this area has revealed a series of decisional characteristics of each perspective. Protected values are frequently linked to deontological rules which draw attention to the permissibility of the act itself, in the absence of any sort of examination of the consequences of those acts. This sometimes translates into “omission bias”(Baron & Ritov, 2004) – a tendency to prefer to allow a greater evil to happen than act in order to bring about a smaller evil instead. Harmful actions are seen as less moral than equally harmful omissions; the inaction (passivity) has the psychological advantage that the subject does not disregard (or break) an absolute law, even if this entails a greater price in terms of consequences.

Another phenomenon characterizing the deontological attitudes is the insensitivity to quantity (Iliev et al., 2009): the deontological perspective does not take into account the quantity of harm attached to the available alternatives from which the person must choose; it only focuses on the measure that each of these alternatives abides by the principle that applies in the respective situation.

One of the most frequently invoked values in moral dilemmas used in studies so far is the sanctity of human life. The scenarios that pitch the two moral attitudes (deontological and utilitarian) against each other typically ask the subject to make a choice between two alternatives. One is correct from a deontological standpoint (“Don’t press a lever to save five human beings, if by doing so you sacrifice the life of one person”) and another is correct from a utilitarian standpoint (“sacrifice one person’s life if this is the only price to saving five other lives”) (Greene, 2008; Hauser, 2006).

Thus, the participant who adheres to the utilitarian theory will claim that it is moral to derail a moving train on an alternate track on which there is only one person, if by following its present course the train runs over and kills other five people. This is so because the person adheres to the belief that his moral duty is to

save as many people as possible (maximization of the benefits and minimization of the costs). Five human lives hold priority over one, from a quantitative angle. In contrast, the individual who adheres to the deontological principle has as a duty to not kill, and as such, sacrificing a human life to save five is not a viable alternative for him. In this case, life represents an absolute value with infinite utility. That means it cannot be traded off in exchange for anything else, not even for five other lives. In any context in which an absolute value is involved, mathematics is entirely excluded from the equation, as the magnitude of the consequences becomes irrelevant. Human life, in itself, has infinite value, so it cannot be thought of in quantitative terms (five lives versus one); if a life were less valuable than five, than it would have finite value, because it could be traded off for something considered more valuable (like the other five lives, in our example).

*The link between moral principle systems applied in solving ethical dilemmas and locus of control*

Locus of control refers to the degree in which individuals believe they can control the course of the events in their lives. This construct was developed by Julian B. Rotter (1966), according to whom internality and externality represent two ends of a continuum, rather than a typology. Individuals with an internal locus of control believe that the events in their lives largely represent the consequences of their own choices, actions and behaviors; they believe they have control over external circumstances, and they act purposefully toward influencing the environment in order to bring about the results they desire. On the other hand, individuals with an external locus of control think that others in positions of authority, destiny or luck determine the situations they experience.

Previous studies (ex. Trevino, 1986, Trevino & Youngblood, 1990) have investigated the influences of locus of control on moral decisions and behaviors; the general idea stemming from their results is that for individuals with an internal locus of control, the external rules of a given ethical system are only general guidelines. They prescribe a course of action in hypothetical schematic situations, which do not apply to specific situations that entail all of their unique aspects: “in situations that require us to choose between saving the life of a person or the lives of more people, it is moral to act to save the most people”. To internals, these general guidelines lose their applicability as the situation gains in complexity: the more data that is associated to the problem, the more the situation distinguishes itself as unique, drifting further apart from the schematic situation and the general guideline; as a result, internals’ decision will be tailored to apply specifically to that problem.

Research on the locus of control construct (e.g., Baiocco et al., 2009; Hashimoto & Fukuhara, 2005) shows that internals are very receptive to new information relevant to the situation they evaluate, and they take this information into account, acknowledging each piece of the information’s proper affective or cognitive “weight” in the situation. In opposition, externals need the rules and the

structure that the general guidelines provide. If they adhere to a moral system (the utilitarian one, for instance), they will be more likely to follow the principle that advises “maximizing the benefits and minimizing the costs” in all the situations in which this can apply. To them, the principle is much more than a general guideline; it is an immutable law that dictates to what end action must be taken. It prescribes a procedure that must follow this rule in order for the decision to be morally correct. On the other hand, the differences between these two categories of people, with regard to their tendency toward making internal attributions for their behavior and decisions, can lead to significant fluctuations in their adherence to ethical systems that are relevant to a given situation. In other words, it is possible for the internals, who tend to act according to their own intentions and attitudes more often as compared to externals, to shift their advocacy from one value system to the next, in order to justify the actions that they feel they must take.

### **The present study**

The objectives of this study are to verify if there are any differences determined by locus of control in the subjects’ decisions in two successive morally charged situations, and in the moral attitudes justifying these decisions, in the sense of personal positions taken between the two ethical extremes – utilitarian and deontological. The construction of the two moral dilemmas was inspired by a Cikara et al. (2010) study. In the first stage of this study, the subjects were exposed to an impersonal moral dilemma, which presented them with two choices: saving the life of a person or the lives of more; in this phase, most subjects gave the utilitarian response, on the grounds that the quantitative principle was what should determine the choice. In the next stage (in which a second experimental group participated), the researchers kept the initial scenario and only modified the status of the one person who needed to be rescued: he was now someone close to the participant. Results show that in this dilemma, people usually disregard the utilitarian principle and choose to save the person who was significant to them.

The present study used a within-subjects design and introduced - in the second version of the same dilemma - the affective influence emerging from the one victim’s status. The aim was not only to investigate how the options of the subjects change from one dilemma to the next, but also to check if, by choosing the friend; people also shift their moral attitude to an ethical system that would morally enable them to make that choice. We developed and used a scale that evaluates a person’s general moral value system - their standing on a continuum from utilitarian to deontological, the two ethical systems relevant to the situation at hand. Participants were asked to fill in this scale right after they expressed their decision in the hypothetical scenario presented. First, we expected that the moral decisions will vary from one moral dilemma to the next in a manner similar to that from the research we cited previously. Second, we presumed that the ethical arguments included in this instrument (arguments sustaining the legitimacy of the deontological or utilitarian position) will be used by the subject for the purpose of

morally defending their decision in both situations, being invoked as justifications for the chosen courses of action. This would generate significant fluctuations of the attitude scores from the first decision to the second.

The attitudinal fluctuations would demonstrate – besides the obvious moral flexibility that people display – that a moral rationalization phenomenon is set in motion when subjects make the second decision. Although we assume that people will choose to save the victim that is close to them for affective reasons (and not ethical ones), we predict that participants will rationalize their action as moral by abandoning utilitarianism and switching to deontology (which they ignored when making their choice in the first dilemma- the impersonal one).

In this context, we presume that the differences in the participants' locus of control will be associated to variations in the action alternatives chosen in the second dilemma. We expect the internals to be more prone to abandon their rigid utilitarian standing in this complex and emotionally charged situation, and to choose the salvation of the singular (and personally relevant) victim. Moreover, in both situations, the internals' answers will reflect more extreme moral attitudes compared to the externalists, meaning a stronger adherence to the ethical utilitarian principles in the first scenario and a stronger adherence to deontological principles in the second. The main reason for this phenomenon is the internals' more intense tendency to internally attribute their behavior, to consider that their actions are consistent with their general beliefs and, as such, to build more solid psychological grounds for their decisions.

## **Hypotheses**

In the first phase of the study, the participants are asked to make a choice in the impersonal dilemma. In this case, we predict that most participants will apply the utilitarian principle and save the most people. These results would replicate those of numerous other studies that used similar methodologies, and they came up with this conclusion (Fischer & Ravizza, 1992; Foot, 1967). The explanation for this is that the impersonal dilemma is very similar to the schematic, prototypical situation which the utilitarian theory provides as an example of when the utilitarian rule (“maximization of benefits for the most people”) applies.

**H1:** In the impersonal dilemma presented in the first phase of the study says that, most participants will give the utilitarian response- saving three people at the cost of sacrificing one.

In the personal dilemma presented in the second phase of the study, we predict that participants' choice will be drastically influenced by their relationship with the one victim in the scenario (of friendship), and this affective interpersonal detail will determine a shift in the subjects' options toward the other alternative (Bartels, 2008; Greene, 2009; Greene et. al, 2001; Greene et. al, 2004).

**H2:** In the personal dilemma (presented in the second phase of the study), most participants will choose to save the one person.

The third hypothesis refers to the ethical attitude shift presumed to accompany

this decisional change from one moment to the next. Thus, we expect that the participants will use the ethical standing evaluation scale as an instrument in order to morally motivate the option they expressed in that dilemma. For the participants whose decision fluctuates between the first phase of the study to the second (from the utilitarian option to the other one) the moral justification will be highlighted by a significant shift in a declared moral attitude from the utilitarian to the deontological extreme of the continuum. However, while the first decision actually stems from an adherence to the utilitarian principle of maximizing the benefits, the second decision is not a consequence of subjects' endorsement of the ethical deontological system. Instead, it stems from the emotional motivation of saving the friend. Regardless of these actual psychological underpinnings of their decision, we expect the participants to justify it by adopting the arguments provided by deontological ethics, a phenomenon revealed by the correspondent change of the moral attitude scores as compared to the first moment.

**H3:** The participants whose decisions fluctuate between the two moments of measurement from the utilitarian response to the deontological one will have significantly lower scores (closer to the deontological extreme) on the moral attitude scale in the second moment as compared to the first one.

The last two hypotheses refer to differences induced by the locus of control in the decisions made to the personal dilemma and the amplitude of the shift in moral paradigm to which the participants adhere in the two moments of the study. Firstly, a study in organizational psychology conducted on sales managers (Cherry & Fraedrich, 2003) examined the role of the locus of control in predicting the moral judgments and moral decisions that individuals make in ethically charged situations. Results show that externals usually attach greater importance to respecting utilitarian norms – even in particularized situations, whereas internals attach greater importance to deontological norms. Thus, in our study we expect a greater frequency of the decision to save the one victim among internals, especially in the personal dilemma, which entails a personal relationship with the unique victim, thus an additional motivation to abandon the utilitarian stance.

**H4:** In the second moment of the study, the decision to save the one victim will be more frequent among the internals as compared to the externals.

Secondly, we expect that for both dilemmas, the internals' answers on the moral attitude measurement scale will reflect a stronger adherence to the ethical pole that justifies their option – a stronger adherence to utilitarianism for the first dilemma, and a stronger adherence to deontology for the second one (their scores will reflect a more extreme adherence to the respective system). This last hypothesis is also supported by Adams-Webber's (1969) claim that internals rely on their own judgments with regard to ethical vs. morally reprehensible actions, and they make moral choices, such as to avoid subsequent self-condemnation, remorse and guilt. On the other hand, externals take moral actions in such a way as to avoid being punished or sanctioned by an instance (person, institution) exterior to them. In other words, externals fear external sanctions, and this influences their

justifications for moral intentions and judgments, whereas internals fear internal sanctions. On the same line of reasoning, we expected that the externals - who openly expressed their option for the utilitarian system when presented to the impersonal dilemma – will remain more “faithful” to this ethical system in order to maintain intact their exterior justification. Cherry & Fraedrich(2003) also suggest that internals place greater importance on making decisions based on a pre-existent ethical system, if they strongly believe in its legitimacy, as compared to the externals. They are more motivated to adhere to an existent moral system because they need to be able to justify their actions to themselves in terms of their own beliefs, as their drive for maintaining a consonance between principles and decisions is higher.

**H5:** In the case of the impersonal dilemma, the internals will significantly obtain lower scores on the moral attitude scale than the externals, while in the case of the personal dilemma the internals will have significantly higher scores than the externals.

### **Experimental design**

To test these hypotheses, we used a 2 x 2 mixed experimental design, having as independent variables the moment of measuring (within subjects variable, with two levels: moment 1- impersonal dilemma, moment 2- personal dilemma) and the locus of control (between subjects variable), and as dependent variables, the decision made for each dilemma presented in the two phases of the study, and the score obtained on the moral attitude measurement scale after each presentation of the dilemma.

#### *Participants*

140 high school students participated in this research. They were pupils at “Cuza-Vodă” Theoretical High School in Huși, grades IX-XII, Philology and Social Sciences profiles, with ages ranging between 16 and 19. From these subjects, 94 were girls (68% female) and 46 were boys (32% male). 12 subjects were eliminated based on a partial filling in of the locus of control scale. After determining the median value of the scores, we distributed subjects to each of the two experimental groups: subjects with an internal, and respectively, external locus of control. Another 26 subjects were eliminated, because the scores they obtained on the locus of control scale (between 10 and 14) were too close to the median value (12), which made it difficult to categorically determine their belonging to one experimental group or the other. Finally, we were left with 102 subjects divided into two experimental groups, according to the locus of control, 51 with an internal locus of control, and 51 with an external locus of control. From these subjects, 67 were girls (66% female) and 35 were boys (34% male). 26 subjects were 16 years old, 34 were 17 years old, 22 were 18 years old, and finally, 20 subjects were 19 years old.

### *Instruments*

**Locus of control** was established by the scores obtained by subjects to the Internal External Locus of Control Scale built by J. Rotter (1966). This is the most widely used instrument for determining locus of control. The Rotter Scale has been administered to subjects in numerous researches, and it explores the perceived causal relationship (as seen by the participant) between his/her behaviors and their reinforcing experiences. It translates into the belief that the person has about the effectiveness of their behavior in achieving desired outcomes. The source of reinforcement – internal or external to the individual – is linked to personality traits (the way information is treated and employed, sensitivity, the sense of control over the circumstances a person experiences, etc) or to how the person handles the pressures of certain social and contextual factors (their resistance to peer pressure, their resistance to social influence attempts, their liability to change their attitudes, etc). The instrument contains 29 forced choice items: 23 regular items and 6 filler items that serve the purpose of preventing a participant's awareness of what the scale measures, of minimizing the social desirability tendency. The answers given to the filler items do not influence the total scores of the subjects at the locus of control. High scores reflect an external locus of control, and low scores- an internal locus of control. After determining the median value of the scores, we divided the participants into two groups – internals and externals. Cronbach's Alpha for the Rotter Scale was 0.93; this coefficient indicates good reliability of the instrument. The subjects in the internal locus of control group believe that they can influence what happens to them, they can determine the outcome of situations they encounter and they can successfully act to produce changes in their external environment. Thus, they adopt a proactive attitude toward the problematic situations that arise and take action in the hope of overcoming them. The subjects in the external locus of control group think that they can exert little control over what happens to them. They believe that destiny, the specific situation, luck or any other external source determines the outcome of a circumstance in which they find themselves. Since they believe their actions cannot influence external events, people with an external locus of control display a more passive attitude. They do not engage in active problem solving because they think it is unlikely that anything they do could bring significant changes.

**The moral dilemma** used is typical for the studies conducted in this area; it asks the participants to imagine themselves in the situation of a protagonist who must choose between two alternatives, both of them leading to the loss of some human lives but the rescue of others. Its scenario represents an adaptation of the trolley problem, opposing two alternatives of action which lead to the loss of human lives (victims of a hypothetical accident which can be rescued by the protagonist), in different quantities: one in the first alternative and three in the second. The first alternative is the normative option from a deontological

standpoint, which induces insensitivity to quantity (“*One life values as much as three*”); in this version, the protagonist (a doctor) chooses to drive toward the location of a victim in an accident, although while he is on the way there, he receives a phone call and someone lets him know that, at a different location, there are three other victims, and the distances toward both locations are equal from where he is at the time of the call. The second alternative – saving the three victims for the detriment of the one to whom the doctor was initially heading – represents the right thing to do from a utilitarian perspective - which deems a moral action if it brings about the most good for the people involved.

The scenario presented was the following: “*Imagine you are a physician who receives a phone call telling you that someone (a close friend, in the personal dilemma) had a severe accident and is losing blood at a very fast rate. You are asked to hurry to his/her location (A). You agree to help him, get into the car and head in his/her direction. On the way there, you receive another call informing you about three other people whose lives are in danger, and you are asked to go to their location in order to save them. From the place where you currently are, the distances to the two locations are equal. If you continue your way to location A, you will save the victim, but the other three people will die. If you go to location B, you will save the three victims, but the victim in the other location will die. Where would you decide to go? A / B*”.

The decision of the participants in the situation presented in the moral dilemma was registered through the subjects’ given response to the item asking for their option: saving the life of the one person or saving the lives of the other three.

The moral attitude was measured by the scores obtained on a scale, developed on the basis of a pilot of a group of 30 participants, selected from the same population as the one in which we conducted the research. Our goal was to obtain an instrument assessing the moral reference system that the participants rely on when making a moral judgment in the dilemma presented in this study. We conceptualized this personal reference system as a reflection of an individual’s standing between the two ethical extremes applicable to the dilemma at hand: the deontological system and the utilitarian one. As such, we divided the participants in the pilot study into two groups. Each group was given the original version of the dilemma (the impersonal version, where no personal relationship between the doctor and the victim is suggested), but with a supplementary addition: the decision that the protagonist took. Half of the participants received the scenario in which the doctor decided to save the one victim (the deontological decision), and the other half – the one in which the doctor decides to save the other three victims (the utilitarian decision). Afterwards, the participants were asked to imagine that they are in the protagonist’s place, and to express their thoughts and emotions about the decision they had just made. Most of these verbal statements represent ethical justificatory arguments that apply to the situation and can be invoked to defend the perspective corresponding to the choice made – deontological or utilitarian. Thus, we gathered the arguments which sustain the legitimacy of both of these ethical

moral perspectives in the population investigated.

The second step in the construction of this instrument was the frequency analysis of the ethical arguments provided by the pilot study participants, for both versions of the dilemma (the one to which the deontological decision was made by the protagonist, and, respectively, the one in which the utilitarian one was taken). Then, we formulated items for each element with a frequency over three. Each of these items was attached to a Likert scale ranging from 1 (“*total disagreement*”) to 4 (“*total agreement*”), thus obtaining the initial version of the moral attitude measurement scale, which contained 13 items. Finally, we pretested the scale on another sample of 30 participants from the same population; three items were eliminated from the scale, the Cronbach’s Alpha of its final version being 0.88. Six of the items reflect the utilitarian standpoint (for example, “*My duty is to save as many people as possible*”), and the other four – the deontological standpoint (“*That one person has as much right to live as the other three people*”). An important characteristic of the scale relevant for the interpretation of its results is that the deontological arguments included are of a general nature – they only touch upon the aspect of the non-quantifiable value of human life. Thus, this set of items associated with deontological ethics applies in the same manner to both moral dilemmas presented to the participants. Moreover, it does not contain any argument that is relevant to the aspect of an interpersonal relationship between the doctor and the one victim, such as the obligations that friendships entail (since there was no such mention of a relationship in either of the scenarios presented in any of the pretesting sessions), which would offer a supplementary ethical legitimization to the decision to save this single victim at the cost of losing the lives of the other three. In analyzing the data, we used the total score of this instrument, after reversing the scores on the four items that denote the deontological view. High total scores indicate a utilitarian moral attitude in judging the dilemma presented and low scores- a deontological one.

### *Procedure*

In the first phase of this research, the participants completed the Internal External Locus of Control Scale, during one of their classes. They were rewarded for their participation in the study with two extra grade points in their next test in Latin. The participants were guaranteed the confidentiality of their personal information, which were only going to be used in the scientific purposes of this research. Also, they were told that the aim of this experiment is to investigate people’s reactions to moral situations and the influence of some personality traits on moral decisions making. On the basis of their answers, the participants were divided into the two groups (internals and externals).

One week later, the participants were exposed to the moral impersonal dilemma, after which they were asked to complete the one-item scale asking for their direct decision in this situation. Then, they completed the moral attitude measurement scale. The third phase took place three weeks later; the participants

were exposed to the personal moral dilemma, where the one victim who calls the doctor for assistance first is his/her “best friend”. They were required to fill in the decision item and the moral attitude scale. In all of the three phases of the study, the participants were identified through their name, which they were asked to write on the questionnaire.

## Results

In the testing hypothesis H1, regarding the choices made in the dilemma presented at the first moment of measurement (the impersonal version), we used the binomial test, comparing the percentage of the participants who gave the utilitarian response to the equivalence situation (the 50% percentage). The test results indicated that 92% of the participants chose the utilitarian alternative, a percentage significantly higher than 50% ( $p < 0.01$ ), while only 8% chose the deontological alternative. Thus, the results confirm the H1 hypothesis, in the sense that most of the participants made the utilitarian decision, choosing to save three people to the detriment of the one person.

The results of the binomial test used to verify the second hypothesis H2 - with regard to the choices made to the dilemma presented at the second moment of measurement (the personal dilemma) – indicate that 87% of participants chose to save the one victim, a significantly higher percentage than 50% ( $p < 0.01$ ), while only 13% made the utilitarian decision.

The first stage in testing hypothesis H3 – which predicts that the participants whose decisions fluctuate between the two moments of measurement from the utilitarian response to the deontological one will display significantly lower scores (closer to the deontological extreme) on the moral attitude scale in the second moment as compared to the first – was the selection of the participants whose decision changes from the first moment of measurement to the second one. Out of the 94 participants who gave the utilitarian response to the impersonal dilemma, 81 gave the deontological response to the personal dilemma. These participants constituted the group on which the subsequent analyses focused.

In the second stage, we used a Paired Samples T Test to compare the scores of these participants on the moral attitude measurement scale between the two moments of the measurement of the study. The difference was significant,  $t(80) = 16.52$ ;  $p < .01$ , the mean at the first application (after the utilitarian decision on the impersonal dilemma) being 32.15, and the mean at the second application (after the deontological decision on the personal dilemma) being 17.32.

To test hypothesis H4 – with regard to the differences between the two categories as defined by the locus of control between their decisions to the second dilemma (the personal one), we analyzed the relation between locus of control and the option chosen by the participants.

For the dilemma presented in the second moment of measurement, the results of the test were:  $\chi^2 = .79$ ;  $p = .37 > .05$ . For the first moment of measurement, the differences between the two groups were also statistically insignificant:  $(\chi^2(1) =$

2.17;  $p = .14 > .05$ ). Thus, in both moral decisions, the option made is not significantly associated with participants' locus of control – the decisions of both groups as defined by this personality trait are equivalent in both situations (most of them choosing - regardless of their locus of control - to save three victims when confronted with the impersonal dilemma, and that one victim when confronted with the personal one).

The last hypothesis (H5) predicts that, in the case of the personal dilemma, the internals will have significantly higher scores on the moral attitude measurement scale as compared to the externals. Given that the sample of participants used for this analysis included only those whose decision shifted from the utilitarian choice in the first dilemma to the deontological choice in the second, we first checked for the differences induced by locus of control in this decisional shift. We concluded that the percentages of the two groups were relatively even; from the 81 participants who modified their decision as mentioned, 41 were externals and 40 were internals (the between group's difference being statistically insignificant, according to the binomial test applied,  $p = 1 > .05$ ).

The analysis of the combined effect of the research moment and locus of control on the moral attitudes displayed, through a repeated measures variance analysis, revealed a significant interaction effect between the two variables ( $F(1,79)=38.39$ ;  $p < 0.01$ ), apart from the main effect of the research moment which was mentioned above. The comparisons indicate that the attitude scores in the first moment (after the impersonal dilemma) significantly differ as a function of the locus of control -  $t(79) = 2.97$ ;  $p=.004 < .01$  – the internals' mean being significantly higher (33.65) than the externals' (30.68). However, in the second moment of measurement, the difference ( $t(79) = 8.59$ ;  $p < .01$ ) reverses, so that the mean of the internals' attitudinal mean becomes significantly lower (14.18) than for the externals' (20,39).

Moreover, the within – groups' analysis of the attitudinal variations between the two research moments revealed that the shift in moral attitudes toward the deontological end is significant both for externals ( $t(40) = 9.08$ ;  $p < .01$ ) and internals ( $t(40) = 9.08$ ;  $p < .01$ ), the moral attitude means in the second moment (when confronted with the personal dilemma) being significantly lower than those in the first moment (after the decision in the impersonal dilemma).

Table 1 presents the means and standard deviations on the moral attitude scale of participants with internal and external locus of control in the two research moments. The interaction effect described above is represented in Figure 1.

	<b>Locus of control</b>	<b>Mean</b>	<b>Std. Deviation</b>
First moment (impersonal dilemma)	External	30.68	4.68
	Internal	33.65	4.28
Second moment (impersonal dilemma)	External	20.39	3.30
	Internal	14.18	3.22

Table 1. *Means and standard deviations on the moral attitude scale*

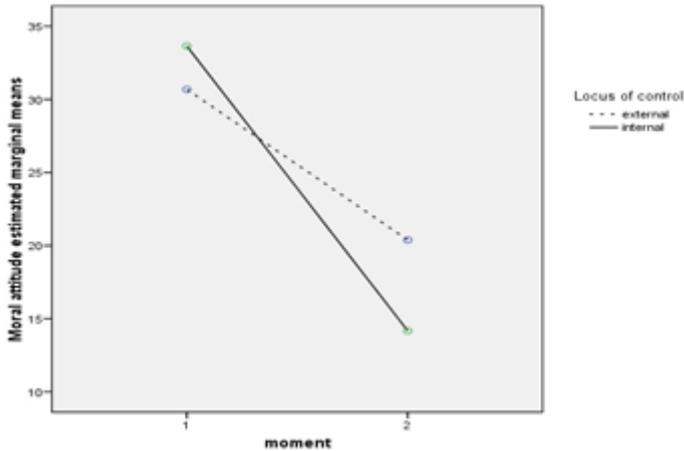


Figure 1. *The interaction effect of locus of control and research moment on the moral attitudes*

Overall, the internals manifest a greater shift in the moral paradigm to which their affiliate as compared to externals: when choosing the utilitarian option in the first dilemma, the internals display more utilitarian attitudes; when making the decision to save the single victim (and to sacrifice the other three) in the second dilemma, their moral attitudes migrate in the opposite direction, closer to the deontological end than the attitudes of participants with an external locus of control.

### Discussion

Our results concerning the first two hypotheses correspond to those obtained by Cikara et al (2010). When confronted with impersonal moral dilemmas (entailing consequences which do not impact the individual at a personal level), people apply the moral utilitarian perspective; they abdicate from this quantitative principle in situations with a potential personal impact. The difference between our investigation and the Cikara et al. study is that the former relied on between-subjects' comparisons, one of their experimental groups being exposed to the impersonal scenario, and the other to the personal one. Our research verified this phenomenon in a within-subjects' design, its results indicating that it can appear as a decisional shift between the two alternatives (saving the higher number of potential victims and, respectively, saving the close friend) within the same individual.

An important observation is that the choice to save the single victim who is a close friend at the cost of three others does not necessarily reflect a deontological perspective on the situation. A truly deontological perspective on situations, such as these would be reflected in the deontological (saving the life of the one person) at

the impersonal moral dilemma. The low frequency of this choice in the first moment of our research suggests that the deontological position has few adherents in the sample investigated. When the single victim is a close friend, he/she is rescued by the same decision maker who in the previous situation had chosen the opposite, a utilitarian answer indicates an emotional background of the decision and not an ethical judgment. The massive shift in action choices, determined by the introduction of the personal aspect (concerning the relationship with the single victim) in the second situation as compared to the first, is consonant with the body of research which revealed the strong influences of affect on moral decision making. One of the most widely used dilemmas in this realm asks individuals to choose between killing and letting more people die in order to avoid harming someone directly, as in the classical series of trolley dilemmas (Foot, 1967; Thomson, 1985). In the impersonal version of the dilemma, the subject must derail a runaway trolley on an alternate set of tracks on which it will kill a person, as a means of saving the lives of more people, who are situated on the initial path of the trolley. Is it morally permissible to push a lever that will redirect the trolley toward the one victim, in order to save five people? (Hauser et. al, 2007). In the more “personalized” version of this dilemma (the footbridge scenario), the can save the lives of the five only by pushing the single victim onto the tracks. Most participants claim that in the second case, the sacrificing of the single victim is not morally permissible (Cushman et. al, 2010). Thus, most people adopt a utilitarian moral judgment in the first case (“maximizing the number of lives saved”) and a deontological moral judgment in the second case (“using a human being as a means to a goal is wrong, no matter the magnitude of the consequences”).

Emotion is a potential source of this variation of ethical judgment from one case to the other. Greene et al. (2001) tried to establish the roles played by affect and cognition in people’s decisions to these dilemmas. Particularly, Greene proposed that the thought of harming someone directly, like in the personal dilemma, triggers a very intense negative emotional response in people, which puts forth the interdiction to take action: “Don’t do this, it’s wrong!” According to their theory, this internal affective “alarm” covers any utilitarian inclination that people might have. In contrast, people tend to think that redirecting the trolley on the alternate tracks is morally permissible because of the “impersonal” nature of this act, which just does not trigger a comparable emotional response. In the absence of this response, utilitarian moral judgment prevails in the final decision.

The same affective mechanism might be set into motion when judging the personal dilemma in our study, the emotional responses triggered by the alternative of letting a close friend die shifting the decision in the consonant decision (of saving the single victim) and this outweighs the benefits of the utilitarian option, the same way that it has in the previous studies. Yet, although the psychological source of this decision is of an affective nature, our results also show that it is anchored in a deontological perspective, which validates their response as moral. Thus, the substantial change in perspective declared by the participants from one

moment to the next can be interpreted as an effort to adapt their personal, ethical grid to the decision they had already made. Immediately after declaring their own decision, participants align to the ethical system that prescribes the course of action which they chose, thus justifying their option and motivating it to themselves and others as morally legitimate. The decision the participants make – no matter what alternative they choose – is always morally just, but through the lens of a different ethical system. Similarly, a study on the role of moral principles in determining moral judgments (Lombrozo, 2009), showed that people do change their expressed adherence from a set of moral principles to another, especially when they are provided with adequate opportunities to do so. In our research, these “opportunities” were the moral attitude items, reflecting both utilitarian and deontological arguments. Moreover, previous studies reveal that the moral principles of the decision maker do not always constitute the real causes of his moral judgments, and that many moral judgments are not accompanied by correspondent ethical justifications (Haidt, 2001). Generally, there is a relationship between people’s ethical principles and their judgments– sometimes it is that of cause-effect, and other times it is not (Lombrozo, 2009). Thus, the moral decisions that individuals make in a given situation can also function as cause for the adherence to the moral principle which ethically dictates (and defends) that course of action. As such, the significant migration of the participants’ moral attitude from the utilitarian to the deontological end could be conceived as a “disguise” of their emotional motivation as a supposedly ethical one, though increased declared adherence (as compared to the first moment of measurement) to the deontological arguments presented.

The testing of the last hypothesis revealed the influence that locus of control takes on the magnitude of this shift in moral attitude. On the one hand, the decisions made by the two groups of participants (regardless of their locus of control) were largely utilitarian in the first moment of measuring (saving the three victims), and largely deontological in the second moment of measuring. On the other hand, their adherence to each of the two ethical systems at the two different moments of measuring differed in intensity. The results show that the internals manifest a greater shift in their moral attitudes than the externals: they display more utilitarian attitudes after making the utilitarian decision in the first scenario, and more deontological views after deciding to save the single victim in the second dilemma.

The fact that, in both cases, internals exhibit more extreme moral attitudes as compared to externals suggests that a more intense need for moral justification of their actions is stronger, through the invocation of the corresponding ethical specific landmark. Internals’ moral attitude become more extreme even in the case when the decision was actually made on other grounds than the ethical ones – as it has happened in the second moment of measuring. Our explanation of this phenomenon is in terms of the decision rationalization effect; in the moral domain, this effect translates in the alignment of one’s ethical perspective to the decision

which had already been taken, in order to achieve psychological consonance between their moral line of reasoning and the option chosen. The difference induced by locus of control is derived from a specific characteristic of internals, namely their tendency to define their behavior as an effect of their own intentions. As a consequence of their stronger tendency to internally attribute their actions, their moral attitude- as a fundament of the intention – is intensified in each of the two cases in the direction of the decision made. On the other hand, the higher neutrality of externals can be derived from the fact that they allow for the external determination of their choices. In our research, such outside causation might have been perceived as brought about by the details of the scenarios used, which recommended one of the options as morally superior to the other without requiring the decision maker to have a strong adherence to the ethical system legitimizing it.

Another possible interpretation of these differences is that internals are more morally flexible, which could explain their greater shift toward the deontological extreme in the second moment, thus abandoning the utilitarian perspective. This idea is supported by studies that show internals to be more nonconformist as compared to externals (Blasi, 1980), more receptive to new information and at the same time less faithful to rigid points of view; they establish their own courses of action and make moral choices by extracting the aspects most morally relevant for each particular situation.

### **Conclusions**

The results of our study indicate that the two psychological dimensions accounting for people's actions in morally relevant situations – one of their actual decisions and the moral outlook the person has over such moral situations –do not perfectly overlap: as demonstrated by the comparisons between externals and internals. These decisions can be backed up (or upheld) by moral attitudes of different intensities (in our case, internals declaring more extremes moral attitudes to both dilemmas). Such findings reaffirm the usefulness of empirical investigations of the connections between moral problem solving and individual differences.

The ethical rationalization which follows the decision in this ethical dilemma also indicates the flexibility of the moral principles people invoke and use to morally defend their options, even when these options have different sources from the ethical ones.

Moreover, it highlights the fact that the causal sequence of the elements under investigation here – moral view and moral decision – can be reversed; moral attitudes – founded on general moral systems – quite often determine our choices – such as it happened in the case of the impersonal moral dilemma first presented in this study. But moral perspective can also be reconstructed as an effect of the decision, lining up moral standards to the action already taken. In these cases, it is not the adherence to an ethical system that determines the decision, but the decision is what will dictate the system to which the person claims they subscribe.

Moral rationalization has a supplementary note as compared to the classical post-factum rationalization phenomenon. If, in the latter, the purpose of the attitudinal shift is the reestablishment of psychological coherence between attitude and behavior, the moral one is mainly motivated by an exterior guideline – the ethical one – through which the individual is evaluated either by other people, or by himself. In our study, the decision of saving a close person is perfectly consonant to the attitudinal pull (mainly, the emotional one); the problem with this option is not its dissonance to the intrinsic psychological imperatives, but to the ethical utilitarian principle.

That is why this decision must become “morally defensible”, through the displayed adherence to the ethical deontological principles. Thus, the dynamics of the moral rationalization is induced by an evaluation (real or imagined) of the individual’s option in light of their ethical character. In the absence of such an evaluation – which can also take the form of self-evaluation – the inner ethical reconstruction becomes unnecessary; in our study, the application of the moral attitude measurement scale induced participants the sense that they were being required to explain the choice they made. If in the second moment – the one of personal dilemma – this scale had not been administered, it is very probable that the moral inner compass of the person would have not been shifted at all by their decision; in other words, they would have remained “utilitarian” thinkers who suspend ethics when moral dilemmas might affect them personally.

#### *Limits and future research*

One of the potential limits of our study concerns the imagined relationship with the person that the participant projects in the character of the single victim. Our presupposition was that when confronted with the personal dilemma, participants would imagine themselves in the place of the protagonist, and they would project a friend of their own on the “friend” character in the story. The degree of closeness between the participant and the friend he chooses to project in this situation should be controlled in future researches. If one participant projects the identity of an old friend - to whom he/she is very affectively tied – on the victim in the story, and another subject projects a new friend – to whom he/she is not very emotionally attached yet – the former will feel a stronger pressure to save the one victim. The tendency to migrate from the utilitarian end of the continuum to the deontological one would probably be stronger more so for the first case than in the second. Also, our adaptation of the trolley problem, employed in this research, should receive more in-depth exploration regarding the psycho-moral dynamics which it entails.

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