Studia Humana
Volume 8:2 (2019), pp. 32—46
DOI: 10.2478/sh-2019-0016

About Possible Benefits from Irrational Thinking in Everyday Life

Magdalena Michalik-Jeżowska

University of Rzeszów,
Rejtana 16c Av.,
35-959 Rzeszów, Poland

e-mail: madelaine.mmj@gmail.com

Abstract:
In this work, no denying the role, or even more so, the value of rational thinking, it is assumed that it is not the only effective tool for man to achieve his valuable goals. It is conjectured here that sometimes irrational thinking is an equally good (and sometimes even better than rational thinking) means of achieving them. In the light of these assumptions, the goal of my work is to indicate the benefits that may be the result of irrational thinking in the colloquial (i.e. unscientific) domain of everyday human practice. The given examples of irrational thinking come from research in the field of cognitive and social psychology and behavioural economics. Their results prove that irrational behaviours (including thinking) are neither accidental nor senseless, and on the contrary systematic and easy to predict, they constitute important arguments for considering the phenomenon of irrational thinking. I also discuss this issue although only to a limited extent.
Keywords: rational and irrational thinking, cognitive psychology, behavioural economics, morality.

1. Introduction

It has been assumed that thinking, including its subtype – reasoning,[1] is crucial for the effective, everyday functioning of people. As such, it is supposed to increase the probability of undertaking an optimal action to achieve valuable goals set by man. Although what has been written applies to thinking in general, it refers in particular to rational thinking, because in our culture rationality is considered a desirable value and at the same time a norm for most (if not all) types of human activities. In the context of the cultural depreciation of irrationality,[2] the idea to consider the potential benefits of irrational thinking can therefore look like an intellectual provocation. The commonness of irrational thinking indicated by many researchers[3] as the basis for drawing conclusions and making decisions in everyday life proves that this is not the case. Of course, the commonness of a phenomenon cannot be an argument in its favour. In particular, it cannot prove its merits. Nevertheless, considering the case from the evolutionary point of view, persistently repeated behaviour (here: the commonly occurring tendency to irrational thinking) can be seen as a useful

(and therefore evolutionarily conserved) adaptation to environmental requirements.[4] Accepting this point of view in this work, I focus on looking for possible benefits that irrational thinking can bring as a means of achieving specific individual goals in the sphere of everyday life.

2. The Issue of Distinguishing Acts of Rational and Irrational Thinking

Indication of possible benefits from irrational thinking is a challenge, because it is very difficult and sometimes impossible to accurately distinguish acts of rational thinking from acts of irrational thinking. This difficulty is connected with the fact that "rationality" as well as "irrationality" in accordance with the new paradigm currently in development are not completely disjunctive or mutually contradictory concepts. On the contrary, the new approach to the issue of rationality and irrationality emphasises the relative character of the opposition of both concepts and their mutual, complex relationships. This corresponds to the currently advanced model of human nature and psyche, according to which "man is not – and cannot be – a being that is fully and consistently rational (…) [He is – MMJ] a complex mental: cognitive-emotional and emotional-impulsive structure (…) [which is – MMJ] internally omnifariously intertwined, that is, there is a mutual interaction of components, rational ones affect emotional ones, emotional components affect rational ones (this direction of impact is generally stronger), impulsive ones impact on emotional ones" [17, p. 90]. The distinguished, qualitatively different, integral components of the human psychic structure appear in it with varying intensity and dimension. Their mutual relationship depends, among others, on the phylogenetic and ontogenetic level of human development, culture, personality and needs, and the specific situational circumstances of thinking and acting. More importantly, although different types of human activity entail mutual relations, varying in scope and proportions, between the above-identified structural elements of the human psyche, no sphere of human activity can be said to be the exclusive domain of rationality or irrationality.[5]

In the face of the syncretic character of human thinking,[6] signalled above, the issue of adequate rationality criteria seems to be a serious problem. Traditionally, rational thinking is perceived as a methodical activity, focused on cognition, that meets clearly defined criteria. In the context of the irrationality of colloquial thinking considered here, the criteria of rationality, assigned to its three types – logical rationality, pragmatic[7] and practical rationality – seem to be important. The test of logical rationality is the consistency of adopted premises and the deductive character of reasoning. In the domain of pragmatic rationality, efficiency is important and sufficient. In turn, the criteria of practical rationality are: goal orientation, preparation through prior reflection and efficiency.[8] All the above characteristics and at the same time requirements of rational thinking are imperfect criteria, therefore they should not be always treated as reliable indicators of rationality of a given piece of thinking.[9]

3. Suggested Additional Definition of Irrational Thinking

In the face of the indicated difficulties with distinguishing rational and irrational thinking is it possible to consider the benefits of one or the other? I think so. Clearly conclusive criteria seem to be possible only in a world with little complexity. Social reality, as the domain of everyday life, and thus the conceptual apparatus describing it, lacks this feature. Therefore, should we depart from its conceptual categorisation? Of course not. Even if our judgments about the rationality or irrationality of a particular act of thinking have to be, to some (even a minimum) degree an estimation, the conceptual order obtained in this way is conductive to better human orientation in the world and functioning in it. On the other hand, perhaps a more fruitful strategy would be the qualification of thinking in terms of its rationality or irrationality, focused on its outcome and/or its procedure. Both possibilities are indicated by the definition of irrational thinking proposed by Cezary Mordka. Under this definition, irrational thinking is "any kind of thinking that does not solve the motivational problem or solves it inconsistently with the accepted criterion (such criteria as:

economy, simplicity, fruitfulness in the sense of predictability, etc.), i.e. in a non-optimal way" [10].[10]

In this work attention is focused on these cases of irrational thinking which, although they lead to solving the motivational problem, they do it in a non-optimal way. In other words: for the purpose of this work, irrational thinking is understood as thinking containing (first of all) systematic errors in reasoning. These may be very different errors, e.g. they may consist in: not taking into account all relevant premises,[11] overestimation (not necessarily conscious) of a selected piece of information,[12] or in concluding on the basis of clearly insufficient premises[13] or even inadequate information, such as "red-haired people are deceitful". I assume that these and other errors in thinking that will be considered in this work may benefit the person who commits them, although often this potential profit can be seen only in a slightly wider perspective than the context of a particular motivational problem.

4. General Reasons for Irrational Thinking

Before I move on to consider some errors in reasoning, resulting in irrationally made decisions, five general reasons for irrational thinking indicated by Stuart Sutherland will be discussed.[14] These general motives inform us about the benefits that are associated with this kind of thinking. As such, the reasons highlighted below can be seen as arguments suggesting that irrational thinking is not an accidental freak of nature or an incomprehensible deviation from rational thinking treated as a model and norm, but rather a kind of sensible mechanism that optimises, together with rational thinking, the human decision-making process and the resulting action.[15]

According to the first explanation derived from evolutionary psychology, the animal ancestors of man due to living in a very unfriendly environment usually had to act hurriedly – fight or flee. In this situation, reflection was an ill-advised strategy, reducing the possibility of survival. From the point of view of this most important goal (survival) it was better to quickly make the wrong choice (here: escape when there was no danger) than none (due to too long reflection). This explanation would explicate why people act according to set patterns[16] in stress or rush, instead of considering all the circumstances of the case. Why has this irrational mechanism survived? Because in our society, survival (and at the optimum level) does not require only rational decision making.[17]

The second general reason for the irrationality of thinking is related to the structure and functioning of the human brain, in particular to the nerve cell networks. Initially these cells are connected together at random. In the process of learning, some of the connections are strengthened while others are weakened. Mastering a given concept, e.g. "house" or "bird" means that it is represented by activating many cells scattered over a vast area of the brain that form a certain system. "The cells that are activated fire simultaneously (…) so that processing is very fast (…) moreover, such systems of cells generalise readily. If presented with a number of different birds, they will classify as a bird a member of a species not previously shown" [15, p. 307]. Just like every mechanism, this one also turns out to be unreliable sometimes. Because the same cells participate in learning of different things, as a result of acquiring new material, sometimes the previous connections change, and (generally) small errors can happen. The existence of such systems would explain errors caused by the availability and the halo effect because in both of them man pays too much attention to the most striking feature – i.e. the one that at the cellular level corresponds to the activation of these cells between which there are the strongest connections. Despite possible errors the functioning of this data processing system is beneficial for us, because it is quick, effective and effortless due to its unconscious character.

The third reason for irrational thinking is directly connected with mental laziness. An effective way to avoid strenuous and prolonged mental effort are heuristics – "ways of thinking that will usually produce a passable but not perfect result quickly" [15, p. 308].[18]

The fourth reason for irrational thinking is the inability to use elementary probability theory, statistics and derived concepts, which is largely the result of the current education system. Sutherland believes that this inability is responsible for the error of not knowing the principle of

regression to the mean, according to which "if an event is extreme (either way), the next event of the same kind is likely to be less extreme. It affects all events in which chance plays a role" [15, p. 252].[19]

Sutherland's last reason for irrational thinking and behaviour is self-serving bias expressed, among others, in the desire to show that one is right or to raise one's self-esteem. This bias combined with other factors would explain the unwillingness to reject a hypothesis one has accepted, as well as aversion to changing one's own wrong decision, and even persistent failure to notice the disadvantage of a purchase.

An interesting supplement to the presented general reasons of human irrationality is the concept of "haphazard brain" proposed by Gary Markus. Starting from an evolutionary perspective, Marcus writes about two main systems of thought coexisting in man – the ancestral system, also called the reflex system and the deliberative system. The ancestral system as evolutionarily older than the deliberative one is found in virtually all multicellular organisms. It performs its tasks quickly and automatically, consciously or unconsciously. It administers many of everyday behaviours such as the automatic adjustment of the step to an uneven surface or sudden recognition of an old friend. In its operation this system depends on evolutionarily old brain structures – the cerebellum and basal ganglia responsible for motor control and the amygdala responsible for emotions.[20] Marcus emphasises that we should not assume that the ancestral system is inherently irrational. In his opinion this system "likely wouldn't exist at all if it were completely irrational. Most of the time, it does what it does well, even if (by definition) its decisions are not the product of careful thought" [9, p. 64].

The other system of thinking assumed by Marcus – the deliberative one "deliberates, considers, chews over the facts – and tries (sometimes successfully, sometimes not) to reason with them" [9, pp. 63-64]. This system "consciously considering the logic of our goals and choices" is evolutionarily young, and hence if found in other species, it is only in few. Perhaps it is characteristic only for humans. According to Marcus's presumption, this system has its cerebral location mainly in the forebrain, in the prefrontal cortex.[21] The aim of calling it "deliberative" and not "rational" is to emphasise the lack of guarantee as to the quality of the results of its work, i.e. the real rationality of its considerations. Despite its intelligence, this system often settles for reasoning that is less than ideal. Moreover, although it is more evolutionarily advanced, it has not taken complete control of the cognitive process, because it almost always relies on indirect information, which, coming from the not really objective ancestral system, may not constitute a balanced set of data from which the deliberative system could carefully draw rational conclusions. Worse, in a situation of stress, fatigue or distraction (and therefore when a reliable analysis is most needed), the individual deliberative system usually switches off, giving way to the primitive reflex system.

Gary Marcus maintains that, from the point of view of the rationality of human thinking and functioning, a serious problem is the way in which the systems he identifies interact with each other. In theory, the deliberative system worthy of this name should be

> above the fray and unbiased by the considerations of the emotional. (…) [As such – MMJ] it would systematically search its memory for relevant data, pro and con, so that it could make systematic decisions. [It would be also – MMJ] attuned as much to disconfirmation as confirmation and utterly immune to patently irrelevant information (…) Such a system [would be also able to – MMJ] (…) stifle violations of its master plan. (<<I'm on a diet. No chocolate cake. Period>>) [9, p. 103].

Unfortunately, the above description of the deliberative system is a catalogue of wishful thinking, for which three circumstances are responsible: the relative "youth" of the system, its "building materials" which are inadequate old parts (e.g. contextual memory) and the lack of true independence from the ancestral system, which only partly takes into account the general goals of the organism.[22] In the light of the outlined concept, the irrationality of human thinking is the result

of far from perfect cooperation between the brain structures (the ancestral and deliberative systems) that manage the cognitive functioning of man.

5. Benefits Resulting of Irrational Thinking in Everyday Life

Recent studies in the field of behavioural economics provide a body of evidence for the irrational nature of human decisions, and thus indirectly the irrationality of thinking.[23] This new field of research, based on psychology and economy, rejects the assumption about the fundamental rationality of human decisions, attributed to neoclassical economics.[24] According to this criticised assumption, people make decisions on the basis of the information available to them, they can calculate the value of various options that they choose from (e.g. using the probability theory), they are able to understand the consequences of any potential choice. Thus characterised actors are presumed to be making logical and sensible decisions and even if they happen to make a wrong decision from time to time, they quickly learn from their mistakes either on their own or with the help of market forces.[25]

The presented assumptions of neoclassical economics correspond to the old understanding of human nature, as a structure essentially (or even exclusively – Plato, Descartes) rational and therefore predestined for "functioning as a logical machine."[26] Researchers from the field of behavioural economics note that the assumption about the rationality of human choices is contradicted by the observed anomalies occurring when market participants make decisions. Neoclassical economics could only "explain"[27] them if they were rare and/or accidental. The problem is that, as research shows, irrational behaviours are neither accidental nor senseless. On the contrary, they are systematic and easy to predict. It is claimed here that "people are susceptible to the influence of the immediate environment[28] [the so-called context effect – MMJ], emotions, short-sightedness,[29] and other forms of irrationality" [1, p. 287] resulting in systematic errors in the decision-making process. Emphasising the regularity and predictability of cognitive errors (*nota bene* the basic concept of behavioural economics) creates space for the development of countermeasures, a kind of "glasses", correcting the picture "distorted" by someone's vision defect. Behavioural economists believe that the procedures[30] developed thanks to analysing the results of their research will help prevent people from making irrational decisions that result in such behaviours. To this end, they design experimental research to determine how to achieve the correction of the cognitive error as systematic as the error itself. For the purposes of this article, only the experimental examples of human irrationality are relevant, so I will limit myself to them here. Out of many constantly committed errors in thinking, resulting in an irrational decision, those that can be seen as beneficial have been chosen (according to the subject of this text).[31]

Several studies designed by behavioural economists aimed to establish real relationships between wages, motivation and results at work. These studies tested the common sense, proper to neoclassical economics, thesis that higher motivation (here corresponding to a higher bonus) causes increased effort, resulting in achieving the established goal (here better results at work). The research results showed that the above reasoning was wrong. It turned out that small and medium bonuses result in improvement of the performance, while very high ones, on the contrary, mean "overmotivation," i.e. a state of increased motivation pressure causing distraction, and as a result, a sudden deterioration of the achieved results. Further research showed that the negative impact of a very high performance bonus is related to the type of rewarded activity. It turned out that the more cognitive skills a given job required, the more likely the fiasco of the expected results was. On the other hand, when the rewarded activity was purely mechanical a very high bonus resulted in increased efficiency.[32] Commenting the above research, Dan Ariely stresses that the negative impact of a high bonus is related to the increased stress experienced by the employee. This observation suggests that "our tendency to behave irrationally and in ways that are undesirable might increase when the decisions are more important" [2, p. 63].[33] In other words: a fully rational action is more likely when decisions are made about abstract or less important matters. In such

matters, the mind has the best conditions for cool, detached and objective concentration on the circumstances of the case.[34]

In the inference scheme which would correspond to the preliminary assumptions adopted in the above studies (i.e. the tested hypothesis), a high bonus for improving performance at work as a premise for action leading to this improvement would result in the actual enhancement of the results in question. For this to happen, it would have to really motivate people to put in more effort and this multiplied effort would have to be effective. The motivational role of a high bonus seems to be unquestionable. The situation is different with the efficiency of the effort. To say the obvious: the potential capability for increased and adequate effort (e.g. guaranteed by the education and/or experience) is a necessary condition, but not sufficient to achieve the established goal. Situational factors are always important, but some of them are difficult to predict and therefore they cannot be taken into account earlier in a rationally carried out analysis aimed at estimating the probability of achieving a given goal. The conducted research confirmed the significant influence of situational factors, ignored by the neoclassical economics, (here: increased stress corresponding to a high stake and the type of the task). Thus, while neoclassical economists actually thought that for more productive work, apart from individual disposition, a high bonus would suffice, their reasoning was irrational as a result of not taking into account all the relevant premises. On the other hand, if, as it has been suggested, it is impossible to take into account in reasoning all premises relevant to a given issue, a rational strategy may be to stop at what is undisputed (here: the motivational nature of a high bonus). Sometimes the belief that "where there's a will there's a way", usually overly optimistic, is confirmed in practice, proving that a person really determined in his actions is in some way independent of what in "normal circumstances" would surely limit him. It may happen, therefore, that for someone who really needs money[35] a high bonus, triggering extraordinary determination, will become a sufficient condition for effective action.

We can use the presented studies proving the difficulty of the rational estimation of the probability of achieving the desired result (here: a significant improvement in the performance of a given task), citing Rafał Krzysztof Ohme, to emphasise benefits we all derive from irrationality. He notes that

> thanks to the fact that we are irrational, it is impossible to totally predict our behaviour (...) and thus we cannot be controlled. (...) Secondly, due to irrationality in our naivety we do not know that something is impossible. Knowledge about lurking difficulties does not encourage us to change the *status quo*. However, discoveries, inventions and innovations are born thanks to the questioning of the existing state of affairs. It drives the development of mankind. Irrationality is adaptively desirable because it offers security and develops civilization. Although it works against reason, it is undoubtedly the work of our mind [13 p. 13].

What has been written so far indicates that rational thinking does not have to be the best or the only tool for making important decisions. This conclusion has strong empirical confirmation in experiments devoted to supportive behaviour.

It has been known for a long time[36] that lending support to another person or a group of people is greatly affected by the potential "donor's" emotions, especially his ability to feel compassion for those in need and/or his disposition to feel empathy. Experimental studies in the field of social psychology have established that whether help will be provided or not is greatly connected with the whole situational context in which supportive behaviour is desirable. This context consists of, among others, the features: of the potential donor (e.g. his current mood, whether he is in a hurry or not, etc.), the situation itself (the place of the incident – a city or a village, the number of witnesses, etc.) and the recipient (his affinity or friendship or only similarity to the potential "donor,"[37] his appearance, which may suggest the need for help or lack of it[38]). Simply put, it can be said that all these circumstances of the case result in creating or not a compassionate attitude towards the victim and, consequently, in giving or not giving help. Other

studies,[39] in turn, confirmed the influence of what sociologists call "identifiable victim effect" on the occurrence of assistance activities, in the form of payment of a donation to the needy. These studies showed that people are more than twice as eager to help (here: generous) when they know the face (even from a photo) and the data of a specific person in need, (the identifiable victim effect), rather than when the information about the needy is not individualised. It means that only an identifiable, and not a statistical, victim of a natural disaster, war or poverty arouses sympathy and or empathy, while a statistical victim (in the sense: anonymous) does not. Why does it happen? In this context, the so-called "drop-in-the-bucket effect" is more important than the other two factors distinguished by psychologists (i.e. closeness and vividness). It is connected with someone's faith in his ability to single-handedly and completely help the victims of a tragedy. It occurs when our own possibilities of providing help are assessed as irredeemably and wholly insufficient to change a dramatic situation for the better (for example, to prevent starvation of millions of people suffering from drought in a remote African country[40]); in this situation, the futility and senselessness of potential help efforts leads to emotional detachment from the needy, resulting in failure to give them any help.[41]

Rationally speaking, if saving one person is good, then saving a few is more so. Similarly, the misery of a nation seems to be more evil than the tragedy of one person. Therefore, the above-mentioned studies, contradicting these common-sense conclusions, seem to prove the irrational character of reasoning of the examined persons. On the other hand, the indicated reasons explaining the results of these studies, elucidating the mechanism of the creation of compassion and consequent help, paradoxically show that rational thinking, like a Hobbesian calculation (weighing reasons) plays a significant role in the occurrence of help. The preference for an action aiming to aid someone specific instead of helping many abstract persons or such an objective is rational, because it is easier to rectify the situation of one person rather than of many anonymous people. In addition, in the case of helping an individual, it is easier to control how the help will be used. In short: helping a specific victim is more rational, because it is at least potentially more effective and effectiveness proves instrumental rationality.

The third of the above indicated reasons for the lack of help for statistical victims – the "drop-in-the-bucket effect" – which *nota bene* has a rational nature (a futile effort is irrational), leads us to an experiment designed to check whether greater rationality in thinking promotes aid. Before the test one group of respondents was asked to solve a simple mathematical equation. The goal was to prime (i.e. to put people in a particular, temporary state of mind) the participants so that they would be in a special disposition to think logically during the experiment. The respondents from the other group were asked a question aimed at evoking emotions in them – "When you hear the name George W. Bush, what do you feel? Please use one word to describe your predominant feeling." After that the respondents were given the information either about Rokia or about the general problem of food shortage in Africa. In the next step, the experiment participants were asked about the sum of money they would allocate for a given cause. The results showed that people who were primed to experience emotions, and therefore those whose reasoning was irrational (because it was under the influence of additional emotional premises, irrelevant from the point of view of a rational procedure of drawing conclusions), allocated much more money to Rokia than to the fight with the general the problem of hunger. Their results were, therefore, similar to the results of previous studies, the participants of which were not primed in any way. This means that without the priming, the respondents were guided by compassion when individualised information was involved. On the other hand, people who were primed to think logically (in the sense dispassionate) turned out to be misers – they allocated equally small amounts to both causes. It suggest that:
"A cold calculation does not increase our concern for large problems; instead, it suppresses our compassion. So, while more rational thinking sounds like good advice for improving our decisions, [purely rational – MMJ] thinking can make us less altruistic and caring" [2, p. 296].

From the point of view of the goals of this work, other experimentally confirmed irrational phenomena are also interesting. By this I mean the overestimation of what is the product of our own labour, unwarranted by its objective value (the so-called Ikea effect),[42] and the equally irrational

favouring of own ideas ("not-invented-here"). Both phenomena have their negative and positive sides. The most obvious benefit associated with these cognitive errors is the motivation to act. The tendency to perceive the effects of one's own work or creativity as better and more useful than similar works of other people seems to be an extremely effective incentive to undertake a new task, as well as one that requires a long and/or strenuous effort (scientific work).

One of the most interesting, in my opinion, research carried out by behavioural economists concerned the issue of honesty. In the set of crimes consisting in theft, two subgroups can be distinguished: 1. "evident" thefts committed by "professional" criminals; 2. thefts and frauds committed by people who consider themselves to be honest. Every year in the United States, the value of theft and fraud perpetrated by people in the latter of the "categories" exceeds the material losses caused by "professional" criminals.[43] This circumstance provoked researchers to experimentally determine whether and to what extent people, who deem themselves "honest," will succumb the temptation of fraud when exposed to it.

The respondents were the students of the Harvard Business School. The first group was asked to take a test consisting of 50 multiple-choice, general-knowledge questions. The questions should be answered within 15 minutes and then the answers should be transferred to a scoring sheet. At the end both sheets should be submitted to the examiner. It was possible to obtain 10 cents for each correct answer. The second group of students took the same test and just like the first one had to mark the answers on the scoring sheet, but in this case this sheet already contained the correct answers, hence the participant were tempted to "correct" their mistakes. After transferring their answers, they were to calculate those that were correct, write that number at the top of their scoring sheet and hand both sheets to the examiner who paid the respondents the due amount. The third group was asked to do the same as the second group, the only difference was that they were told to destroy their worksheet and submit only the scoring sheet to the examiner. The best conditions for cheating were created for people from the fourth group. After completing the task, they were supposed to destroy both cards and instead of informing the examiner about the obtained result, they were to collect the prize from a jar with coins on the table.

As it could be expected, the most honest were the students from the first control group as they did not know the correct answers, unlike the other three groups, and therefore could not benefit from this knowledge. The average of correct answers was 32.6 out of 50 questions. The results of the respondents from the subsequent groups were higher: in the second group the average number of correct answers was 36.2; in the third - 35.9; in the fourth group - 36.1. What is important, the researchers found that it was not just a few individual students that significantly overstated the number of their correct answers – the majority of participants cheated. Similar results were also obtained in studies conducted at MIT, Princeton, UCLA and Yale. The similarity of the obtained results allowed the researchers to come to the following conclusion: when given the opportunity, people [often – MMJ] cheat. The banality of this conclusion contrasts with another regularity observed in the above-mentioned experiments – the lack of relationship between the scale of fraud and the amount of risk of being caught red handed.[44] According to the authors of the experiment, the lack of such a connection proves that: "even when we have no chance of getting caught, we still don't become wildly dishonest" [1, p. 243].[45]

There is still a question about the reason for this limitation. Perhaps one[46] of the researchers, Don Ariely, administering these test is right. In his opinion, people generally care about honesty and want to be honest. However,

> their internal honesty monitor is active only when they contemplate big transgressions, like grabbing an entire box of pens from the conference hall. For the little transgressions, they don't even consider how these actions would reflect on their honesty and so their superego stays asleep [1, p. 246].

What is more, these minor offences are not prevented by the rational cost-benefit analysis, accented by neoclassical economics, or the probability of being caught. It is suggested here that even if such considerations take place, they do not affect the integrity of the one who contemplates.

According to Dan Ariely's suggestion, cheating at tests in order to obtain a small financial gain is not (just like cheating an insurer or tax office) treated as denying someone's general integrity. This conclusion is supported by the results of the above experiment, showing that generally everyone who had such an opportunity cheated, even though the respondents representing the elite of society (students of one of the best universities in the United States) probably believed in socially supported moral values, forbidding, among others, committing crimes. The results of this experiment testify to the irrationality of their thinking for two reasons: 1. Reasoning that uses a double standard: one for "criminal" theft and the other for "minor" fraud (dishonesty shown in the above experiment) is irrational; 2. Assuming that cheating at a test is a rational phenomenon, because it is a sensible grasp of an opportunity and not taking it would be a "sin of omission", the lack of correlation between the benefits from the fraud and the risk of being caught, established in these studies, proves the irrationality of the respondents' actions, and indirectly the irrationality of their reasoning.

Does the tendency to small scams found in the studies have any advantages? The indicated predominance of material losses resulting from theft committed by "honest" people over the amount of bandit spoils seems to deny this possibility. On the other hand, perhaps, above-average honesty, as an actual, not desirable, characteristic of the general public might not be as socially useful as it seems. Every day, each of us makes many decisions. Their number and limited resources at our disposal (time, attention, information available) result in the necessity of sorting them into important, less important and irrelevant. It is probable that assigning the same weight to all decisions will result in the failure of the entire system. Perhaps just as it is impossible to simultaneously receive all external stimuli that come to us from the outside, so it is equally unrealistic to analyse all decisions we make on a day-to-day basis in terms of their compliance with our moral values and standards.

6. Conclusion

Perhaps, as I have suggested, a functioning, relatively moral society (in the sense of: "roughly" and officially adhering to the most important laws[47]) is better than an inefficient community of morally scrupulous people. However, can we always and/or in every area of life afford this kind of nonchalance as a society?

It is clear that not all decisions made every day are equally important. Similarly, not every one of them has a moral aspect. Nevertheless, in our times many, once morally neutral, private matters have gained moral significance. We can mention here the question of nutrition, consumer choices, holiday arrangements, lifestyle, the standard of living, etc. As moral problems, they all demand resolution in the form of a specific individual decision. What is more, individual solutions to these issues, having a direct impact on the natural environment, have ceased to be private matters of specific people. It is connected with the threat of ecological disaster on the scale of our entire planet pointed by many nature researchers (including philosophers[48]). In this situation, someone's rational thinking oriented towards achieving individual happiness, within the constraints of the current law and available possibilities, considered in a wider context of what is good of future generations, or even the current generation, but in the perspective of the next 30 years, maybe turn out to be irrational, because it leads to a significant deterioration of the living conditions of all inhabitants of the Earth. This possibility is emphasised by Andrzej Szahaj who notes that "the sum of micro-rationality may add up to macro-irrationality, which changes this micro-rationality into micro-irrationality" [19, p. 94].

Let us return to the indicated oversupply of problems demanding rational consideration, enforcing in some way their selection in terms of importance. Does this surplus inevitably and irrevocably imply that we must choose between them, i.e. give up the rational consideration of

many of them? It is difficult to disagree with Sartre, Jonas or environmental ethicists, who in unison opt for a very broad range of individual moral responsibility, and therefore for moral scrupulousness (i.e. hyper-rationality), as a condition for the survival of our planet and species. However, as a result of the overabundance of issues perceived as requiring rational consideration, our existential situation seems to resemble Dworkin's dilemma associated with the design of a just social system, i.e. at the same time sensitive to ambition and indifferent to natural endowment.[49] If this comparison is legitimate, what can we do? Perhaps a compromise solution would be the inurement from an early age to practising modesty/humility understood as an attitude always taking into account the possibility of one's error.[50] In this sense, a humble person would always be willing to consider a given question in detail, should the need arise, and in its absence would rely on standard, previously worked out solutions.[51] What would attest to such a need? Own doubts about how to proceed, and in their absence – reservations or criticism from third parties, not necessarily close or significant. We are left with the problem of coexistence, openness to criticism and trust in one's own judgment and possibilities[52] It is difficult to be self-assured with a constant, or even abstract, conviction that you can always be wrong. On the other hand, perhaps it is exactly the point that the belief in the possibility of error should remain abstract. As such, it would not cause decision-making stalemate, nor moral pedantry consisting in an equally meticulous analysis of all circumstances of the case before any decision is made.[53]

References

1. Ariely, D. *Potęga irracjonalności*, transl. by T. Grzegorzewska, Wrocław: Wydaw. Dolnośląskie, 2009.
2. Ariely, D. *Zalety irracjonalności*, transl. by T. Grzegorzewska, Wrocław: Wydaw. Dolnośląskie, 2010.
3. Bińczyk, E. *Epoka człowieka. Retoryka i marazm antropogenu*, Warszawa: PWN, 2018.
4. Bombik, M. Typy racjonalności (I), *Studia Philosophiae Christianae* 37, 1, 2001, pp. 5-42.
5. Dobrowolski, J. *Filozofia głupoty. Historia i aktualność sensu tego, co irracjonalne*, Warszawa: PWN, 2007.
6. Gajewski, M. *Funkcje i dysfunkcje myślenia irracjonalnego, Annales Universitatis Mariae Curie-Skłodowska* XLII., 2, Lublin: Wydaw. UMCS, 2017, pp. 9-26.
7. Kleszcz, R. Kryteria racjonalności, *Filozofia Nauki* IV, 2 (14), 1996, pp. 121-133.
8. Kleszcz, R. *O racjonalności. Studium epistemologiczno-logiczne*, Łódź, 1998.
9. Marcus, G. *Prowizorka w mózgu*, transl. by A. Nowak, Sopot: Smak słowa, 2009.
10. Mordka, C. *Filozofia jako doksologia* (unpublished).
11. Nęcka, E., Orzechowski, J., Szymura, B. *Psychologia poznawcza*, Warszawa: „Academica" Wydaw. SWPS, PWN, 2006.
12. Niemczuk, A. *Racjonalność praktyczna – jej natura i działanie* (unpublished).
13. Ohme, R. K. *Preface to the Polish edition of G. Marcus's book, Prowizorka w mózgu*, In G. Marcus, *Prowizorka w mózgu*, transl. by A. Nowak, Sopot: Smak słowa, 2009.
14. Solek, A. Ekonomia behawioralna a ekonomia neoklasyczna, *Zeszyty Naukowe Polskiego Towarzystwa Ekonomicznego* 8, 2010, pp. 21-34.
15. Sutherland, S. *Rozum na manowcach. Dlaczego postępujemy irracjonalnie*, transl. by H. Jankowska, Warszawa: Książka i Wiedza, 1996.
16. Szczepański, J. Sfera irracjonalności, In *Sprawy ludzkie*, Warszawa: Czytelnik, 1978.
17. Szmyd, J. *Myślenie i zachowanie nieracjonalne*, Katowice: „Śląsk" Wydaw. Nauk., 2012.
18. Tałasiewicz, M. O pojęciu «racjonalności», *Filozofia nauki* 3 (1-2) 1995, pp. 79-100.
19. *Co jest racjonalne w życiu? Rozmowa z profesorem Andrzejem Szahajem przeprowadzona przez Jacka Żakowskiego*, Niezbędnik współczesny inteligenta (suplement Polityki), nr 5, 2019, pp. 90-98.

Notes

1. I define reasoning here as "the process of formulating conclusions on the basis of premises, i.e. using previously acquired or commonly available knowledge" [11, p. 420].
2. "To acknowledge the rationality of some view, act or man means to define it in a positive way. To deny them rationality means to show disregard, to exclude from the range of acceptable controversy" [18, p. 79].
3. Cf., among others, [1], [15], [9], [17], [6], [5].
4. This is not the only way we can use the evolutionary paradigm. Following Gary Marcus, we may as well argue that the universality of irrational thinking, and even the fact that it outnumbers the acts of rational thinking, results from the fact that rational thinking is one of our youngest capabilities, shaped in the process of the evolution of our species. The "young age" of rational thinking capability, explained by the "provisional", i.e. "unfinished" character of brain structures responsible for rational thinking, accounts for the frequency and regularity of errors made by people in thinking, resulting in the irrationality of thinking [9].
5. Although "scientific thinking mainly releases rational factors and makes them dominant, it does not disencumber itself – and cannot disengage – from other factors, e.g. feelings, intuition, faith, etc. And the ludic action of man releases mainly emotional and sentimental elements, but even they are completely devoid of rational elements" [17, pp. 90-91].
6. In the sense of the co-occurrence of rational (e.g. criticism) and irrational elements (e.g. excitement or bias) in one act of thinking.
7. J. Życiński distinguished pragmatic rationality as a type of rationality [4]. Although this type of rationality could be reduced to practical rationality, such a "procedure" would be unfortunate, because as a result the term "practical rationality" would gain a ("permanently") instrumental sense.
8. In the strict sense, these are the criteria of the rationality of action indicated by R. Kleszcz [8, pp. 44-85] cited in [4, pp. 38-39]. Since thinking is a kind of activity and is often a direct incentive to act, the criteria distinguished by Kleszcz can be also applied to it (thinking). Other criteria of the rationality of practical reasoning are indicated by [12] A. Niemczuk in his unpublished text. He distinguishes 5 criteria of practical rationality: 1. Affirmation of being, 2. Criticism and self-knowledge, 3. Non-contradiction, 4. Realism and effectiveness, 5. Respect for the hierarchy of values. These criteria correspond to the meta-principles of rationality highlighted by R. Kleszcz, described in the next footnote.
9. Pundits are usually aware of the shortcomings of various rationality criteria, therefore, in accordance with the postulate advanced by Jan Szmyd [17, p. 93] they try to modify the existing criteria of rationality in such a way that they conform to modern knowledge about the complexity of the human cognitive apparatus and the specifics of cognitive activity of people. Such an attempt was made by R. Kleszcz who criticizes "standard conditions of rationality" (such as 3 conditions of rationality indicated by K. Szaniawski: 1. Proper (strict) articulation, 2. Respect for logic requirements, 3. Proper justification). He replaces them with a two-storey model of rationality, i.e. two levels of principles (criteria) of rationality. Level I – the level of meta-principles – would contain general and universal principles adequate for all areas of cognition and activity that would not be "rigid" rules. This means that their every use would entail the necessity to specify them, taking into account given circumstances. Kleszcz distinguished 4 meta-principles: 1. Language precision, 2. Observance of logic requirements (minimum rationality), 3. Criticism, 4. Ability to solve problems. All the rules are important and necessary, but the author assigns particular importance to the requirement of observing the rules of logic. On the other hand, the criteria of rationality of level II, as adequate for certain specific spheres (types) of cognition would correspond to the models of rationality proper for these different domains [7, pp. 122-131].
10. Cited in [6, p. 17].
11. What can be expressed in constant and tendentious disregard for information contrary to the decision made earlier or to one's own view on some matter or even to one's own worldview (dogmatism).
12. Concretisation/examples of this error are: 1. "The halo effect" as a result of which one very positive trait of the object affects its overall assessment; 2. "The devil effect" – object assessment based on one negative feature; 3. stereotypical perception of the object – it can be positive ("All Richards are nice chaps") or negative ("All blacks are lazy") [15, pp. 34-36].
13. Stuart Sutherland calls the tendency of coming to unjustified conclusions on the basis of clearly inadequate information the most common manifestation of irrationality [15, p. 10].
14. Cf. [15, pp. 305-309].
15. *Nota bene* emotions, similarly to irrational thinking, are complementary to rational thinking. This is not surprising, because emotions are traditionally included in the sphere of irrationality. Researchers like Damasio (cf. idem *Descartes' Error*) emphasise that emotions, as the basis of a reaction to a stimulus that is faster than reflection (thanks to not engaging neocortex), improve the decision-making process. For this reason, many contemporary emotion researchers (among others Damasio, philosophers: R. Solomon and M. C. Nussbaum or evolutionary psychologists) regard emotions as a kind of "mechanisms" complementary to slower reflective thinking. On a more general level Gary Marcus writes about the insufficiency of rational thinking as the basis of an effective decision-making process. Starting

from an evolutionary point of view, he maintains that evolution has provided people with two complementary systems – the ancestral, unconscious reflex system and the evolutionarily posterior (and thus badly underdeveloped) deliberative system. These systems have different skills and a different scope of activity. The domain of the ancestral system are routine tasks, and of the deliberative one – new situations that require going beyond the usual patterns. However, their competences are not completely disjunctive. The reflex system not only works better when there is not enough time for a thorough analysis of the circumstances of the case. It also works well (if we give it enough time!) when it is necessary to take into account many variables. Similarly, because the ancestral mind is focused on estimating statistical data (it originally served to estimate the likelihood of finding food and predators in a specific area), it may be a better tool than the deliberative system in a situation where solving a problem requires compiling a spreadsheet. In short: the ancestral reflex system can sometimes have an advantage over the deliberative system in synthesising extensive data (*vide:* a "blink" described by Malcolm Gladwell or "intuition" understood as, following Ap Dijksterhuis – a Dutch psychologist – a premonition that is the result of insightful, unconscious thought processes, brought to perfection by years of experience). What is more, "it is not completely irrational, but only less deliberative" [9, pp. 104-105].

16. It should be emphasised that "acting according to set patterns" is neither a thoughtless act, nor is it "automatic" or "reflexive" in the strict sense of these words. Some insight in the "circumstances of the case" is always necessary, as in stereotypical thinking which although brief (a stereotype as a kind of cognitive pattern allows us to improve, i.e. shorten the time of reasoning) is still thinking though not as precise and reliable as reflective rational thinking. On the other hand, the same mechanism – acting according to set patterns – seems to occur in the case of emotional priming. A single situation resulting in a particular emotion in a given person may generalise to a situation of a similar or even different type in the future, resulting in an automatic interpretation of the new situation in a previously "primed" way cf. [2, pp. 312-316].

17. Sutherland claims that negative effects of irrational thinking in the private sphere are rather small, because most matters in this sphere are trivial. Only four are truly important in this domain: "which neighbourhood to live in and which house to buy; which career to follow and which options to choose within that career; whom, if anyone, to live with and when to stop doing so; whether to have children (an outcome that is in any case often involuntary). In all these choices, there are usually many unknowns, which means that rational thinking may only marginally increase one's chance of a successful outcome" [15, p. 315].

18. "If you select a job applicant because you are greatly impressed by his fluency at interview (the halo effect), he is unlikely to be totally unsatisfactory even though he might not be the best of those applying" [15, p. 308] *Nota bene* the use of heuristics resulting from mental laziness instead of "full-blown" rational thinking can sometimes be pragmatically rational, as M. Bombik indicates writing that "actions in which «strong» measures to achieve a goal are used without objective need cannot be considered rational (…) [Similarly – MMJ] when with relatively little effort there is a non-zero probability of achieving a high value goal, the pursuit of this goal cannot be considered irrational, even if the probability coefficient is very low" [4, p. 13].

19. Ignorance of this principle was demonstrated by Israeli Air Force officers complaining about their trainees who when praised after a particularly good flight flew poorly next time. Since a reprimand given to those who flew extremely badly resulted in a better next flight, they concluded that reprimanding was the best method of training the champions cf. [15, pp. 251-252].

20. At the same time Marcus warns us against equating this system with emotions. He argues that although many emotions (e.g. fear) seem to be reflexive, not all can be characterised in this way. Moreover, a great deal of this system has little to do with emotions [9, p. 64].

21. Because this part of the brain is also found in other mammals, but in their case it is much less developed, this may be the premise of the thesis about the evolutionary kludge of this solution.

22. The influence of the ancestral system on the deliberative one is visible, e.g. in individual beliefs. "We feel as if our beliefs are based on cold, hard facts, but often they are shaped by our ancestral system in subtle ways that we are not even aware of" [9, p. 65].

23. Behavioural economics is a relatively new field of knowledge that is interested in how people actually act as economic agents. Among others, psychologists Amos Tversky and Daniel Kahneman are considered its precursors, who in their work *Prospect Theory: An Analysis of Decision under Risk* used cognitive psychological techniques to explain many documented discrepancies in making economic decisions in relation to the neoclassical theory. Figures important for the development of behavioural economics were also two Nobel Prize winners in economics: 1. Gary Becker – an economist and sociologist, Nobel Prize winner of 1992 and 2. Herbert Alexander Simon – an economist, computer scientist, sociologist and psychologist, who received this award in 1978. The former was the author of *Crime and Punishment: An Economic Approach* (1967), a work that drew attention to psychological factors as important for making economic decisions. The latter was the author of the theory of limited rationality, which explained how people irrationally tend to be contented, instead of trying to maximise usability.

24. In specialist literature, e.g. in the books of Dan Ariely (one of the leading behavioural economists), the term "classical economics" is used instead of the term "neoclassical economics" (cf. idem *Potęga irracjonalności* as well as *Zalety irracjonalności).* On the other hand, authors such as Adrian Solek (cf. Idem [14]) identify what Ariely calls classical economics with neoclassical economics. It is argued here that at the beginning of its development, classical economics contained numerous references to psychology, ethics and morality. For example, the author of *The Wealth of*

Nations, Adam Smith was also the author of the book *The Theory of Moral Sentiments* in which he showed that the criterion of moral principles is not the consideration of one's own benefit (Hobbes) or the compatibility of these principles with reason (Kant), but a feeling of sympathy. Similarly, Jeremy Bentham's utilitarianism, which is the ideological basis of classical economics, had many references to psychology. In contrast to this early period of development of economics as a science, "flirting" with the psychology and ethics, neoclassical economics has moved away from these sciences. As a result, neoclassical economists emphasised the rational nature of economic behaviour. In the light of this new approach, consumers as economic people (*homo oeconomicus*) are actors whose decisions and actions result from their will to make rational choices.

25. "On the basis of these assumptions, economists draw far-reaching conclusions about everything from shopping trends to law to public policy" [1, p. 285].

26. The author of this term is J. Szczepański [16, p. 127]. He emphasised that in every human being, apart from the sphere of rationality, there is a domain of irrationality, hence there is no man who functions as a logical machine.

27. In the strict sense, the "explanation" is in this case an exaggerated term, because the explication of the existence of something (here: a cognitive error) as an exception to the applicable rule seems to be rather an evasion.

28. An example of such an impact are, for example, consumer behaviours, which instead of serving to satisfy personal needs or tastes of individuals (one of the assumptions of the classical economics) sometimes serve other purposes, for example a public image. These include the experimentally determined tendency of Americans to emphasise their individuality by ordering beer of a different brand from the ones chosen by accompanying people (if it is ordered in public, i.e. orally, and not when the order is submitted in writing). The important thing here is that beer chosen by the person willing to emphasise their distinctness is often not what they would really like to order. This means that by their choice they sacrifice their own pleasure. Also in Hong Kong, the surveyed people were clearly under the influence of their surroundings in their choices. However, because Asians belong to a collectivist culture and therefore tend to emphasise (also through their consumer choices) belonging to their group, the people surveyed in the bar ordered (aloud) what their companions had previously ordered. However, when alcohol was ordered in writing (no influence of the environment on the decision), the orders of the respondents differed from the choices of their companions and thus reflected their true preferences [1, pp. 279-284].

29. A manifestation of short-sightedness is, e.g. not saving enough for future retirement. Neoclassical economics does not attach any importance to this phenomenon, because according to its rational vision of human nature, people (rational market participants) save as much as they want. Thus if the sums they save are really very small, it means that saving of this type is a rationally (though not necessarily fortunately) chosen option. However, in the light of behavioural economics, as it does not assume the rationality of human actions, the statement that people do not save enough is logical. Several reasons for this are indicated: procrastination, having a hard time understanding the real cost of not saving as well as the benefits of saving, a false belief that if someone owns a house, he is indeed rich, etc. [1, pp. 287-288].

30. One of the remediation strategies proposed by Dan Ariely is based on the earlier discovery of social psychologists who found that honesty of people is enhanced by activating their self-awareness, and strictly its part containing information about moral norms a given person identifies with. In their experiments, the activator was, for example, a mirror. In Ariely's experiments it was established that the same role can be played by the principles of the Ten Commandments written down by the subjects directly before solving a task, during which they were exposed to the temptation of cheating. Since recalling the Ten Commandments raised the honesty of the participants (they did not cheat during the test) regardless of whether they remembered all of the rules or just some of them, Ariely concluded that just thinking about a certain moral pattern encouraged honesty. This supposition was confirmed in further experiments, in which, before taking a test that was to check their honesty, the subjects had to sign the following statement: "I understand that this study falls under the MIT honour system." People who signed this pledge obtained the same results as those in the control group who did not have a chance to cheat. In the above statement, Ariely sees a kind of professional oath that obliges people of specific professions (doctors, lawyers, employees of science) to act in accordance with the ethos of a given profession. It is stressed here that occasional swearing of an oath or signing a statement on compliance with the rules is insufficient. These acts must be repeated and they always must precede making a decision in the situation of temptation because "When social and market norms collide, the social norms go away and the market norms stay" [1, p. 257], cf. [1, pp. 250-256].

31. Dan Ariely also shares this conviction, and in *Zalety irracjonalności* he stresses that irrationality has its advantages. "It allow us to adapt to new environments, trust other people, enjoy expending effort, and love our kids" [2, p. 19].

32. The stress caused by a high bonus looks like that which accompanies the presence of other people during performing a given task. In the latter situation, it was observed that if the required activity observed by onlookers is well-learned and quite easy (such as riding a bicycle) then the presence of spectators is conducive to better fulfilment of this task. However, when the activity is difficult, its performance in the presence of witnesses results in a worse level of its performance. This experimentally proven relation is called social facilitation.

33. Cf. also chapter 1 [2, pp. 25-65].

34. It is quite often the case that we provide the most rational advice to others, that is when we consider matters that do not pertain to us. This seems significant, given that people generally reluctantly act on it.

35. Just like for the hero of the film *Slumdog Millionaire*.

36. Largely due to experiments carried out by social psychologists.
37. In the strict sense, these features characterise the "donor" to the same degree.
38. It means not only that often help is not given to unconscious people because their appearance (the swollen and red face as a result of high blood pressure) suggests potential helpers that they are dealing with an intoxicated person, not someone who needs medical intervention. It seems that people often think that a person in need of help (e.g. a mother raising money for the treatment of her child in a foreign clinic) should look according to her situation, i.e. the situation of someone who comes asking for money. An unpretentious, and preferably poor look is appropriate for this situation.
39. I am talking about an experiment conducted by Deborah Small, George Loewenstein and Paul Slovick. Researchers gave each experiment participant $ 5 for completing several questionnaires. After receiving the money, the respondents received a piece of information about hunger in the world. Then they were asked how much of their just earned five dollars they would be willing to donate for the case they were reading about. The respondents were divided into 2 groups. In the first one, which was called statistical, the information concerned the need for immediate financial assistance for several millions of people threatened by hunger in four African countries. On the other hand, the respondents from the second group (called the identifiable victim group) were presented with information about Rokia – a very poor seven-year-old girl from Mali who faced starvation. Moreover, the respondents were shown a photo of this child and an additional piece of information: "thanks to your donation and support of others, her life can change for the better". This difference in the content of the information translated into the results obtained in both groups. In the first group, the average donation to famine victims in Africa was 23% of the five-dollar earnings, while in the second group – more than double that amount, i.e. 48% [2, pp. 285-287].
40. Help for a seriously aggrieved person, a person harmed in many ways, is similarly treated as not making sense. Paradoxically, the more help someone needs, the harder it is to find those willing to give it, although it should be easier, because a more injured person seems to need help more than someone less injured. And although it really is the case, helping someone who is very disadvantaged often seems senseless. This is explained by the fact that in the face of great harm each instance of help seems too small, because it has no power to completely eradicate the ill caused by this harm. Thus, cases of providing aid to those who are aggrieved to a smaller extent are more frequent. Acting on behalf of such people is considered sensible because it completely or significantly reduces their harm, and it "makes a difference."
41. Cf. [2, pp. 289-293]. The drop-in-the-bucket effect is also, according to D. Ariely [2, p. 300] one of the important reasons why many people do nothing to counter global warming in any way. They assume that their extraordinary efforts to save the Earth from the environmental disaster – for example by driving a hybrid car, changing all light bulbs to energy-saving ones, switching to veganism, etc. – would be too insignificant to solve this problem.
42. Research on this error showed that: 1. The effort put into something changes not only the object but also the subject and his evaluation of that object (product); 2. Harder labour leads to assigning greater value to the product; 3. Our overvaluation of the things we make is so deep that we assume that others share our biased perspective; 4. The impossibility to complete something that requires great effort results in the lack of attachment to it. All the above conclusions can be used to indicate the benefits from favouring your own products [2, p. 126].
43. Every year the value of American employees' theft and fraud at the workplace is estimated at $ 600 milliard. For comparison, the total value of robberies, burglaries, larceny-thefts, and automobile thefts committed in the USA in 2004 amounted to about $ 16 milliard. Every year American insurance companies deal with individual customers who overstate the value of lost property by $ 24 milliard. According to the estimates of the American tax office, it loses about $ 350 milliard every year – this is the difference between the value of taxes that the government expects to collect and the sum it actually receives. In turn, the retail industry loses $ 16 milliard every year, due to customers who buy clothes and wear them for some time, and then they get bored with them and return to the shop, which is possible because they have not removed price tags [1, pp. 237-238].
44. Cf. results obtained in groups II-IV.
45. Alternatively, it can be assumed that the conditions that were created for the subjects from the fourth group, as too openly conducive to fraud, could generate in the experiment participants the conviction of the existence of some "catch" that would enable the disclosure of their deception. If that was the case, then their non-cheating, and the reasoning that led to it would be rational.
46. The integrity tests described here are the result of work of three researchers – Nina Mazar (a professor at the University of Toronto), On Amir (a professor at the University of California in San Diego) and Dan Ariely (at that time a professor at MIT in Massachusetts).
47. It would be a community of students from the quoted experiments who although cheated "did not go beyond a certain (relatively low, not to say «decent») level of dishonesty."
48. For example, by H. Skolimowski, H. Jonas, W. Tyburski, Ewa Bińczyk [3] and many others.
49. According to Dworkin, a just social system must attain two conflicting goals: 1. equalising the chances of all citizens, 2. creating conditions for the development of talents. Any system that wants to be just must pursue both goals. The problem is that they are practically contradictory. Likewise, making a decision often requires some reconciliation of the values and/or goals involved. In addition, decisions made by a person must also be in some way compatible with one another. In this situation, quick, based on the learnt disposition to respond appropriately to the situation, decision making, if it occurs (and often must occur), is vulnerable to errors.

50. It seems that an advocate of this solution was, for example, G. Marcel, who in *Being and Having*, noted that a thinker, as oriented at being before having, ought at any time to criticise his own thought, not to attach to it, not to treat it as own property, let alone identify with it.
51. An example of such a standard solution is the development of virtues – constant dispositions to appropriately respond to situations of a certain type.
52. It seems that the coexistence (in a given person) of openness to criticism (internal humility) and self-confidence is particularly problematic in the case of very young people. The suggested difficulty would explain arrogance typical for many young people, or even disregard for the opinion of the older generation about their own person and/or how to live, what to cherish, etc. Disregarding older people can be seen as a defence mechanism that prevents young people from losing their confidence in their own competence to make the right decisions. On the other hand, the co-existence of humility and self-confidence can be similarly difficult for mature people. If maturity brings knowledge about the inevitable relativity of things, including the relative character of one's own judgments, it can not only counteract adamant attitudes but also foster doubt in the sense of making choices.
53. On the other hand, there is a danger that such a general belief about the possibility of error might turn into a mere hypothesis. In this case, this belief would lose the status of a real possibility, which should always be taken into account seriously.