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The Aristotelian Theory of Adjudication from the Perspective of Dual Process Theory

Koncepcja orzekania Arystotelesa z perspektywy teorii dwutorowości

Summary

In his theory of adjudication, Aristotle observes that the judicial process should be based on rational and impartial evaluation of the merits of given case and on the application of law. This paper focuses on the bipolar character of the theory of adjudication analyzed from the perspective of the modern dual process theory. It seems that the bounded rationality of judges may create a potential threat to the impartiality and rationality of judgments in complex cases. In this context the hybrid model of categorization adopted from cognitive psychology is to be confronted with the Aristotelian theory of adjudication. The influence of heuristics and biases on judicial decisions is also to be considered. The conclusion refers to the prospects of an Aristotelian virtue-centered model of adjudication following the assumption of bounded rationality.

Keywords: Aristotle, *epieikeia* (*ἐπιείκεια*), dual process theory, hybrid model of categorization, heuristics and biases, bounded rationality

Streszczenie

W ramach swojej teorii orzekania Arystoteles zwraca uwagę na to, że proces sądowy powinien być oparty na racjonalnej, bezstronnej ocenie okoliczności danej sprawy, a także na zastosowaniu prawa. Przedmiotem tego artykułu jest dwubiegunowy charakter teorii orzekania analizowany z perspektywy współczesnej teorii dwutorowości. Wydaje się, że ograniczona racjonalność sędziów może potencjalnie stanowić zagrożenie dla bezstronności oraz racjonalności

orzeczeń sądowych w złożonych przypadkach. W tym kontekście hybrydowy model kategoryzacji zapożyczony z psychologii kognitywnej zostanie skonfrontowany z teorią orzekania Arystotelesa. Ponadto uwzględniony zostanie wpływ heurystyk poznawczych oraz złudzeń poznawczych na proces orzekania. Konkluzja odnosi się do trafności modelu orzekania wynikającego z filozofii Arystotelesa z zastosowaniem twierdzenia o ograniczonej racjonalności decydentów.

Słowa kluczowe: Arystoteles, *epieikeia* (*ἐπιείκεια*), teoria dwutorowości, hybrydowy model kategoryzacji, heurystyki i złudzenia poznawcze, ograniczona racjonalność

0. Introduction

The main purpose of this paper is to confront the Aristotelian theory of adjudication with the contemporary findings of behavioral law and economics concerning the theory of decision-making. Therefore, the topic of this paper pertains to the relationship between particular decisions and the requirements of impersonality and objectivity. The justifiability of judicial decisions on the application of general rules to particular cases is thus crucial for adjudication, which can be defined as a process of taking decisions which are guided by the requirements of law and practical reason. These decisions play a double role. Firstly, they offer ultimate and authoritative solutions to particular conflicts. Secondly, they provide a publicly accessible justification for the verdict. However, Aristotle observed that in some cases it is impossible to apply general rules to individual cases without changing their content, and in such cases fairness requires departing from formal rules rather than abiding by them.

The research question of this paper concentrates on the antinomy between emotion as a component of moral actions, including adjudication, and the requirements of practical reason and justifiability. Namely, if a process of adjudication is

controlled by reason, how is it possible and how could it be achieved according to Aristotle? The second part of the paper will confront Aristotelian theory with the contemporary dual--process theory (DPT), widely accepted in cognitive psychology and some contemporary psychological theories of law. It should be observed that both Aristotelian theory and the DPT emphasize the close relationships between deliberation and intuition. In the Aristotelian model of adjudication, the relationship between general rules and particular cases seems to lead to a solution based on a kind of moral intuition. Aristotle suggests that in many cases the mechanical application of rules is not possible, and judges should refer to equity as a particular mode of evaluation in the light of fairness, distinguishing between the relevant characteristics of cases. The question remains of how the principle of equity is recognized and applied by judges. Aristotle seems to understand equity as a special capability of judges, or simply a kind of judicial virtue. Such virtue as a habitual property of a judge is based on experience, education and inclination towards practicing the virtue. Thus a judge who possesses this virtue is able to capture the essence of the case and the solution to the legal problem in an automatic, intuitive way. If equity is a matter of practice, then the question arises of whether it is possible to describe the decision-making process as a relation between rule application and reference to other judgments or verdicts as examples. It thus seems that intuition, as an element reflecting habit and some unconscious inclinations of human nature, plays an important role in the Aristotelian theory of action, since they are correlated with virtues. Moral intuitions are also linked with emotions. Aristotle does not associate them with any virtue or vice. He claims that the excellence of human life is based on the practice of virtues which lead to habituation. A virtuous judge who practices the virtue of justice has proper inclinations towards just acts. On the other hand, the practice of virtue requires a proper response to and control over emotions (Cf. Bombelli 2016, 41–48).

Aristotle defines emotions (*pathe*) in *Nicomachean Ethics* as: "feelings accompanied by pleasure or pain, listing appetite, anger, fear, confidence, envy, joy, love, hatred, longing, emulation, and pity as examples" (*EN* 1105b 21).[1] Those emotions seem to be a necessary part of a thought process concerning any moral action, as they will surely affect the feelings of the individual involved. The same applies to the actions of judge who should take the consequences of a particular judgement into account. The question remains whether, and to what extent, judges may control their emotions and intuitions, where they come from, and where they lead the decision-makers (*Rhet*. 1354a 24–31). Aristotle seems to give a partial answer, suggesting that there is an essential difference between feeling emotions and acting upon them. The relationship between action and feelings in a general sense (*pathe*) seems to be crucial for some dispositions of character, such as vices and virtues. Aristotle does not separate deliberation and emotions, concentrating rather on their moral importance and a proper disposition for certain types of acts. The influence of the emotions upon a moral agent seems to be shaped by habits. The dispositions to feel particular kinds of *pathe* on certain occasions refer to states (*hexeis*). Those states can be understood as "the things in virtue of which we stand well or badly with reference to the passions" (*EN* 1105b 26). Therefore, this paper consists of three parts. The first focuses on the Aristotelian concept of rule-following and the practice of equity as bases for his theory of adjudication. The second part builds upon insights from cognitive psychology and contains a more detailed approach to deliberation and intuition as coexisting processes of human cognition. In the last part, the assumptions of dual process theory will be used as the basis for further application of the hybrid categorization model (HCT). The model explains the functional characteristics of rule fol-

[1] All references to the *Nichomachean Ethics* refer to the translation by Crisp (2000).

lowing and exemplary categorization and the interactions between them. In conclusion, the findings of the DPT are to be referred to the Aristotelian proposition concerning rule following and equity following as bases for his model of adjudication.

1. The Aristotelian virtue-centered theory of adjudication and law as a union of nomos *and* epieikeia (ἐπιείκεια)

Judicial independence and rationality seems to be one of the most important characteristics of any judge. It is widely believed and commonly accepted that judicial process should be based on the rational evaluation of merits of any given case, on the best understanding of legal acts and related precedents and the most comprehensive and coherent justification for judicial decisions. This proposition was in fact initially formulated by Aristotle, who explains that: "This is why it is not a person that we allow to rule, but rather law, because a person does so in his own interests and becomes a tyrant" (*EN* 1234a 35).

The argument from tyranny and human fallibility is important. There are however additional reasons why judges should be bound by rules rather than allowed to decide according to their will. Those arguments refer to the institutional advantage of statutory law and legislation over judge made law. In *Rhetoric* Aristotle presents strong justification for legal formalism, when he observes that there are two significant reasons why judicial discretion should be minimal, and why judges should generally be bound by pre-existing, prospective, legal rules. The point of departure for his theory is a cognitive one. He claims that whereas legislation is typically based on the deliberative process of creating legal rules, courts have to act promptly and have much less time to draw conclusions and look for the best solutions. Aristotle thus justifies formalism and the rule of law referring to the institutional superiority of legislation over judges, who have very limited access to exter-

nal resources. Moreover, judges are also exposed to manipulation, emotions and even self-interest.

> Now, it is of great moment that well-drawn laws should themselves define all the points they possibly can and leave as few as may be to the decision of the judges; and this for several reasons. […] laws are made after long consideration, whereas decisions in the courts are given at short notice, which makes it hard for those who try the case to satisfy the claims of justice and expediency. The weightiest reason of all is that the decision of the lawgiver is not particular but prospective and general, whereas members of the assembly and the jury find it their duty to decide on definite cases brought before them. They will often have allowed themselves to be so much influenced by feelings of friendship or hatred or self-interest that they lose any clear vision of the truth and have their judgement obscured by considerations of personal pleasure or pain. In general, then, the judge should, we say, be allowed to decide as few things as possible. But questions as to whether something has happened or has not happened, will be or will not be, is or is not, must of necessity be left to the judge, since the lawgiver cannot foresee them. (*Rhet*. 1354a)

Laws should be enacted by lawgiver rather by judges, for two major reasons. Firstly, rules should be general and, at the same time, applicable to particular cases. This certainly leads to some tensions between, on the one hand, the content of a general rule and the intention of the lawgiver, and on the other hand the particular characteristics of individual cases and the application of those specific facts to general rules by judges.
Aristotle offered a comprehensive theory of adjudication strongly connected with his theory of justice in general, and the practice of doing justice (equalizing) in particular. Aristotle applied the concept of corrective (rectificatory) justice which was focused on the restoration of the initial balance between parties. The compensation for wrongful acts was thus based on the principle of arithmetic proportionality. According to Aristotle, the damage which was being committed by the wrong-doer

and the damage which was suffered by the victim, were not necessarily identical. Therefore, a wide scope of indeterminacy exists between the subjective nature of an act of injustice and the actual consequences of this act (*EN* 1133 a.). This "virtue--centered" theory of adjudication sketched by Aristotle has recently been both elaborated and reaffirmed by L. Solum (cf. Solum 2013, 12–30). According to Solum, the virtue-centered theory of justice is based on five concepts: *a judicial virtue*, *a virtuous judge*, *a virtuous decision*, *a lawful decision*, *a just decision*. It seems that the starting point for further evaluation of judicial decisions should be associated with the first concept, namely *a judicial virtue*, in form of, *inter alia*: "temperance, courage, good temper, intelligence, wisdom and justice." As Solum observes "The central normative thesis of a virtue--centered theory of judging is that judges ought to be virtuous and to make virtuous decisions." Then he proposes to confront this concept of virtuous decisions with cases, where the degree of complexity could be associated with a high level of required knowledge and expertise pertaining to both law and facts. Complex cases are

> When the facts are complex, other intellectual skills, e.g., a highly developed situation sense, may be required to see what even relatively simple legal rules require. Thus, in complex cases, it may be the case that only someone with sufficient legal knowledge and in possession of a high degree of judicial virtue will be able to fully grasp which outcome is just and why this is so. (Solum 2013, 26)

Complex cases contain two potential threats to impartiality and the soundness of the rational justification of the decision. Firstly, they may result in the misapplication of complex rules flowing from errors in interpretation of complicated relations between different rules. Secondly, they may result in systematic errors concerning the facts and causal links, which are caused by the intellectual limits of human cognitive capacities.

Some problems, such as the over- and under-inclusiveness of legal rules and the significance of *synderesis* and *epieikeia*, are notorious and extensively discussed in both philosophical and legal literature. By carefully reading Book V Chapter 10 of the *Nicomachean Ethics* one can debunk some problems and shortcomings pertaining to the virtue-centered theory of adjudication.

The criteria based on an individual's views should not play an important role in adjudication because their application would result in undermining the rule of law as such. Therefore the following question arises – how to reconcile the application of general rules to particular cases in extreme situations, where it is agreed that the pure application of the black letter rules does not lead to a fair solution and, at the same time, it is difficult to find an unanimously accepted solution which does not correct those rules? Many judges may agree on the fact that the rule-based solution is deficient in a particular case and at the same time disagree on the remedy. The problem focuses on the fact that in the long run any departure from rules results in arbitrariness and tyranny, replacing the rule of law with the rule of judges. How then can the discrepancy between the individual fair decision and the commonly accepted, impersonal requirements of justice be overcome by virtuous judges, if at all?

The proponents of virtue jurisprudence seem to rely on the difference between proper rules reflecting socially acceptable and stable legal norms, continuously applied as "properly so called" legal standards – *nomoi*, and *psephismata* which refer to episodic enactments applied only in particular cases. Therefore, it could rightly be said that firstly, *nomoi* have a broader scope than *psephismata*, and secondly that *nomoi* have a general nature, while *psephismata* are episodic in the sense that they apply only to specific situations. In particular, R. Kraut seems to suggest that Aristotle understood justice as an equivalent of a broader concept of lawfulness based on a "coherent

legal code that is not altered furiously and unpredictably," being the foundation of "stable system of rules and laws" (Kraut 2002, 106). It seems, however, that even if the wider concept of law (*nomos*) is accepted and contrasted with the episodic decrees identified with some black letter rules (*psephismata*), it does not solve the problem. On the one hand, the formalistic application of episodic rules might be called tyranny. On the other hand, it does not mean that the application of *nomoi* could be based on some unspoken, implicit understanding of law by judges. Aristotle himself objected to such a solution, stating clearly that:

> [w]hat is equitable, therefore, is just, and better than one kind of justice. But it is not better than unqualified justice, only better than the error that results from its lacking qualification. And this is the very nature of what is equitable- a correction of law, where it is deficient on account of its universality (*EN* 1137b).

Aristotle seemed to emphasize the problem, stating that even if we apply the wider concept of law based on legal rules (*nomoi*) there is still a real tension between them and the solution that is fair for individual cases, constituting *epieikeia*. Actually, it seems that the requirements of *epieikeia* are of a higher authority than the laws, and hence they are really significant for the judicial process. At the same time, Aristotle distinguished between the act of judging in a particular case (an act of fairness) and the requirement of fairness, since the latter is not based on a single decision. The collection of fair decisions leads to the creation of *epieikeia* rather than the other way around.

It seems however that there is yet another problem with virtue-centered adjudication, namely the influence of emotions upon judges. Emotions play an important role in Aristotelian ethics, psychology and rhetoric. Aristotle refers to the influence of emotions upon judges, when in *Rhetoric* he rightly observes that:

> It is not right to pervert the judge by moving him to anger or envy or pity-one might as well warp a carpenter's rule before using it. Again, a litigant has clearly nothing to do but to show that the alleged fact is so or is not so, that it has or has not happened. As to whether a thing is important or unimportant, just or unjust, the judge must surely refuse to take his instructions from the litigants: he must decide for himself all such points as the law-giver has not already defined for him. (*Rhet*. 1354a 24–31)

Aristotle observes that judges may be influenced by emotions, when litigants refer to other cases, to some facts that are irrelevant for a given case. Generally, however, he seems to be conscious that the weakest part of his theory of adjudication pertains to the relationship between general rules and particular cases. Firstly, the application of particular facts to general rules is always exposed to some form of manipulation, as has been demonstrated in *Rhetoric*. Judges have to distinguish between what is relevant and irrelevant with regard to general rules. If the litigants are allowed only "to show that the alleged fact is so or is not so, that it has or has not happened" the influence upon judges is considerably diminished. However, the second part of Aristotle's pronouncement concerning judicial decisions on the relevance and justice seems to be problematic as well. How can judges evaluate the relevance of facts without comparing them to other facts? How can they evaluate whether a thing is just or unjust without referring either to the very general principle of justice or particular acts of justice or injustice? Aristotle seems to be aware of this problematic characteristic of general rules which are very often too broad or too precise. Thus the classical problem of underinclusivness or overinclusivness shifts the decision from the lawmaker to judges, who apply equity rather than rule of law in many complex cases. Aristotle refers here to the general model of the interstitial lawgiver. The model is based on the assumption that in the case of under of overinclusiveness, where rules are to

narrow or too broad, judges follow the intentions of the lawmaker and indeed act as temporary legislators.[2] This exercise of reinventing the lawmakers' intention seems to be exposed to manipulation as well. And even if judicial virtue lies in proper application of general rules to particular cases, it is interesting how this process could be explained in terms of a more modern description of cognitive apparatus and human cognition. Therefore, the question arises of how reason and intuition interact with the judicial process? This problem has been thoroughly addressed in both cognitive psychology and behavioral law and economics, where the proponents of theory of bounded rationality emphasized the complex characteristics of human cognition, embracing both conscious and unconscious decision--making processes.

2. Adjudication from the perspective of dual process theory (DPT)

The process of the application of law may be regarded as a special case of decision-making. It is a formalized process where a crucial role is performed by rule-based categorization. Such an arrangement results in the repetition of verdicts and also in the repetition of omissions. Nevertheless, the multi-level structure of the process of the application of law diminishes the number of judicial and administrative errors. In this con-

[2] In this respect, the distinction between easy and difficult cases as proposed by J. Bell in the context of a temporarily legislating judge could be helpful. Cf. J. Bell (1983, 228): "The difference between easy cases and hard cases could be illustrated by the way lawyers expect deductive reasoning from rules and precedents in the former, but discursive, policy arguments in the latter. This second kind of reasoning brings in moral, social and political perspectives, rather than a narrow concern for the precise text f the law." The distinction precisely corresponds with the Aristotelian distinction between the factual element and the relevance of the fact within the light of wider principles such as justice or fairness, endorsed in *Rhet*. 1354a 24–31 and *EN* 1137b.

text one may ask about the specific role of intuition and its influence upon rational decisions within the decision-making process. However, the concept of judicial rationality seems to be far from obvious, since there is no single and universally accepted criterion of rationality. In practice, courts are simply expected to deliver a coherent and persuasive justification based on the meaning of statutes and precedents. Such rationality refers to four aspects of adjudication differentiated by J. Wróblewski: validation, interpretation, evidence and legal consequences (Wróblewski 1988). Although this model could be regarded as an adequate reconstruction of adjudication practice, nevertheless it does not take into account the characteristic features of the cognitive apparatus. Meanwhile, the proponents of the theory of bounded rationality in cognitive psychology and behavioral law and economics stress the influence of unconscious, automatic processes, of associational character, that would be intuitive in the process of decision-making performed by judges (Rachlinski 1998, Guthrie et al. 2000).

The concept of bounded rationality was introduced in cognitive psychology, and later on successfully applied in economics and legal theory (Jolls et al. 1998). The theory of bounded rationality, at least to some extent, supplements traditional rational choice theory. It takes into account that human cognitive abilities are not unlimited, and therefore human agents including judges and officials have limited computational skills and memory. Both judgments and decisions demonstrate systematic departures from the rational choice model. This finding refers both to legal and non-legal contexts. It has been observed that judges are prone to both types of departures from the standard rational choice model (Vermeule 2006). This phenomenon is partly explained by the way in which actors apply the so-called rules of thumb (Kahneman and Tversky 1979). In the context of applying law, those rules of thumb are very often based on so-called availability heuristics, where the frequency

of an event is estimated by judges on the basis how easy it is to recall other instances of this type.

Thus some fundamental theoretical explanations of the characteristics, origin and the nature of cognitive process are to be applied as a defeasible hypothesis. One such theory is associated with dual process theory. According to the model of dual process theory (DPT), intuitive processes in the form of heuristics and cognitive inclinations may be explained by the acceptance of the hypothesis of the complex character of cognitive process where, alongside conscious (deliberative) activities, there are also unconscious (intuitive) activities. This functional complexity is being analyzed within DPT, with regard to evolutionary psychology as well as experimental cognitive psychology. According to the second thesis, the delimitation of both systems, i.e. intuitive PT1 and deliberative PT2, is of a purely functional character, yet their activities may correspond to an action of the relevant parts of the human brain (Bennett and Broe 2010). Moreover, it is stressed that intuitive processes are connected with emotions (Damasio 1994).

The DPT urges theoreticians to take a position of skepticism towards the commonly accepted assumptions concerning the deliberative character of decision-making processes within the field of law application of law. According to some dual--process theories, a clear distinction between intuition and deliberation is possible. Intuitive processes, on the one hand, are described as unconscious, automatic, fast, parallel, effortless, and having a high capacity. Deliberate decisions on the other hand, are thought to be accessible to conscious awareness, slow, sequential, effortful, rule-governed, and having a limited capacity (Kahneman 2011). The strong separation thesis was put forward by S. Sloman, who claims that intuition and deliberation are completely distinct and separable processes, since they are: "two systems, two algorithms that are designed to achieve different computational goals" (Sloman 2002).

On the other hand, some theories proposed a very weak or even a "no separation" thesis. For example, the so-called integrative model of automatic and deliberate decision making is grounded in the assumption that every decision is based on an automatic process. This theory was endorsed by N. Horstmann, A. Ahlgrimm and A. Glöckner, who demonstrated that:

> […] people can integrate a multitude of information in a weighted compensatory manner within a short time frame due to automatic-intuitive processes. However, these automatic-intuitive processes can be supervised and modified by additional operations of the deliberate system. Crucially, the deliberate decision mode is not conceived as a completely distinct and separable system. Rather, processes of information search, information production or information change affect the basic automatic process that finally determines the decision. (Horstmann et al. 2009, 337)

Generally speaking, the role of intuition seems to be twofold. On the one hand, it is a condition, if not a necessary condition, for initiating a decision-making process. The significance of intuition is increasing when there is an information deficit, a shortening of the time horizon and with activities performed within uncertainty. Hence, one may accept, following R. Posner, that intuition increases the effectiveness of decision-making processes (in economics this refers to allocative effectiveness, which is connected to the economic costs of decision making and law application).[3]

On the other hand, one may observe several problems linked to the influence of intuition upon the process of law

[3] Posner (2007, 19) states that: "[…] People are not omniscient, but incompletely informed decisions are rational when the cost of acquiring more information exceed the likely benefits in being able to make a better decision. A fully informed decision in such circumstances – the sort of thing a person makes who cannot prioritize his tasks – would be irrational."

application. One of the problems concerns legal institutions which are understood as a set of formal and informal rules which successfully shape the motivation of decision-makers. The question arises of whether the negligent attitude towards intuition and its non-inclusion as a factor co-shaping the content of a decision may lead to the introduction of regulations, which would then lead to the sub-optimal allocation of resources due to unrealistic assumptions concerning cognitive processes and, subsequently, decision-making processes. Within this context one may imagine an increased number of legal conflicts, making the cost of legal proceedings too high for participants, or increasing the costs of the functioning of the judicial system or administration. In the American jurisprudence, especially within the behavioral economic analysis of law, it has been pointed out that many regulations which did not take into consideration the significance of intuition tend to lead to the inefficient allocation of resources (Sunstein 2000, Rachlinski 2010).

In the literature on behavioral law and economics, it has been pointed out that heuristics and biases lead to systemic problems and inadequacies which significantly influence the process of applying the law (Petersen 2013, Golecki 2015).

Secondly, it seems that ignorance about the complex character of cognitive processes leads to the adoption by the organs dealing with the application of law of overly rigorous requirements. Such an attitude results in allocative ineffectiveness as the standards are based on the assumption of the purely deliberative and rational character of decision-making processes (Jolls et al. 1998, Sunstein 2001, Golecki et al. 2016). Moreover, within the prescribed conditions it is not possible to achieve an institutional point of equilibrium, as the participants of legal discourse still accept the unrealistic assumption concerning the uniquely deliberative character of those decisions concerning the application of law. This attitude is reflected in the systemic errors made during the process of applying the law (Vermeule

2006, Sunstein 2001).Within the context of tort liability for libel one may point out: overly rigorous standards of diligence in regard of the problem of over-deterrence and systemic flaws involved in adjudication concerning the rationality of actions, based on the delusion associated with hindsight bias (Cf. e.g. Golecki 2015).

The influence of intuitive processes on the application of law is visible within heuristics, which are gradually recognized (discovered), classified and explained within the context of the duration of cognitive processes (the cognitive aspect) as well as in regard to the consequences of their effect on the process of the application of law (the institutional and legal aspect). The processes of this type consist of heuristics: anchoring and adjusting, availability, representativeness.

It seems obvious that heuristics may influence decisions concerning the acceptance of particular legal consequences within the process of law application; e.g. the amount of fee, compensation (Sunstein 2005).

Going back to the influence of heuristics on the general decision-making process, it can be said that their effect on the judicial process has been verified. The heuristics of availability are linked to the process of estimating a given action as more probable in the context where this situation is more available as an act of hypothetical imagination than as a remembrance.[4] A particular type of availability is the delusion of hindsight bias, which is connected to the process of ascribing greater probability to situations which are already known to have happened, even though their original probability (*ex ante*) was minimal. The heuristics of representativeness is visible within the process of categorization of objects with regard to their similarity to the prototype (exemplary, prototypical categorization). This

[4] The heuristics of availability and representativeness are of similar nature, since both enable agents to overcome the deficit of information and to act even in ignorance. Cf. Kahneman (2011, 129; 151).

type of categorization differs from theoretical categorization, which is based on the rule that the object is categorized due to the description of its necessary features. Anchoring and adjusting heuristics are evident within the process of non-reflexively accepting a given number and the subsequent adjustment of the quantity according to the process of receiving of further, more detailed information.[5] All these processes may, to some extent, influence judges and jurors (Jolls et al. 1998, Rachlinski 2010).

3. Epieikeia *and the hybrid model of categorization: between rules and examples*

The applicability of rules and standards could be referred to the heuristic of representation. Representation matters especially in cases where agents have to refer to typical situations, categorizing objects and situations. Different modes of categorization may result in different decisions. The process of categorization attracted the attention of many scholars in the cognitive sciences; especially cognitive linguistics, neuropsychology and cognitive psychology (Golecki et al. 2016). Two general views on the essential characteristics of this process have been presented so far. Some scholars claim that categorization has a unified structure and thus could be embraced in a single model (Guthrie et al. 2000, Nosofsky 1992). The other view is based on the opposite assumption, namely that the belief that categorization is not only complex but also hybrid – in different situations subjects categorize objects according to different patterns explained by different categorization strategies. This approach could be described in the hybrid model of categorization (HMC). The difference between the two approaches seems to be relevant for the understanding

[5] For an excellent description of the experimental research and practical tests which prove the effects of anchoring on computation, cf. Kahneman (2011, 119–128).

of the psychological characteristics of categorization, and it pertains to such areas of cognitive psychology as the theory of learning, processing or deciding. It seems that the distinction between the two approaches is even more important for legal theory, and more precisely for the descriptive theory of legal interpretation and adjudication. In a series of experiments it has been proven that the HMC holds in cases of legal interpretation and it can thus be applied as an explanatory device when the representative examples supersede the application of legal rules.[6]

According to the HMC the process of categorization is understood as a kind of decision-making process pertaining to the relationship between a given object and a general category. Generally, an item can be classified as belonging to the category or not. A review of the literature on concepts and categorization suggests four different models of categorization (categorization strategies) (Smith et al. 1998, 169). In deciding whether the object On belongs to a particular category, the categorization may be based on following strategies:

(1) Determination whether the test object matches with a rule which defines a given category. The rule on the category A sets out some conditions for category membership. This strategy is commonly described as a rule-based strategy.

(2) Determination of the similarity of the test object to the memorized exemplars of a given category. In this case the categorization procedure is based on a series of automatic computations of similarity between the object and the exemplary representations of some objects (exemplars) belonging to the category. This strat-

[6] Generally, this theory has been put forward by Smith and Sloman (1994), developed in Smith et al. (1998) and partly verified experimentally in Golecki et al. (2016), where the eye-tracking research on the group of subjects clearly indicated the interaction between rule-based and exemplar-based modes of categorization in legal contexts.

egy, usually called the exemplar based categorization strategy, operates in the following manner, containing a two-step procedure:

(a) retrieving stored exemplars similar to the tested object;
(b) selecting the category whose retrieved exemplars are in some respect most similar to the test object.

It is assumed that the exemplars are stored in long-term memory (LTM) and the computations are performed with the engagement of working memory (WM). The categorization decision is thus based on a process of retrieving the most similar exemplars belonging to the category. The whole process is thus based on the retrieval of memorized objects, the comparison of the objects and the identification of the most similar one (Nosofsky 1986, Golecki et. al. 2016).

Accordingly, rule-based categorization has been investigated from the perspective of its functional meaning and the connections between different cognitive processes. The main differences between rule-based and other categorization strategies include five basic characteristics (Smith et al. 1998):

(a) analytic vs. holistic processing: whereas rule application involves selective attention to and apprehension of the critical attributes (conditions with respect to the rule and features in respect to the test object), other categorization strategies do not induce any of these processes, relying exclusively on the retrieval of the stored exemplars;
(b) differential vs. equal weighting of attributes: the rule application procedure involves attending to some special attributes indicated by the rule;
(c) instantiation of abstract conditions vs. matching concrete information: the conditions endorsed by the rule are more abstract than the representation of the test object;

(d) high loads on working memory vs. low loads on working memory: working memory is usually more actively involved in rule application;
(e) serial vs. parallel processing: the distinction between rule-following and non-rule-based strategy concerns the absence or presence of some serial processing.

The rule-based categorization strategy seems to be based on conscious and complex information processing, whereas the non-rule-based strategy potentially embraces intuitive and subconscious processing. The heuristics of availability and representativeness could thus be addressed and potentially controlled within the procedural framework of adjudication. Moreover, the concept of justification of judgement as a result of the application of legal rules reflects the assumptions on which the HMC is based. The HMC proves that the process of legal interpretation can be controlled after all, and divergences from the rule-based categorization, even if they occur in fact, should not influence the final decision, which should still be reasonably explained and justified along with the rule-based categorization, rather than any other alternative, because no other alternative enables the decision maker to justify the decisions in reasonable way, i.e. by reference to the rule-object relationship.[7]

4. Conclusion

In the *Nicomachean Ethics* Aristotle explains the basic dilemmas involved in the application of law, referring to *epieikeia* as a higher form of justice. He does not, however, explain how

[7] This particular feature of the HMC could be applied as a kind of positive nudge in respect of the adjudicating process. In fact the very necessity of endorsing transparent and reasonable justification to judicial decision affects the whole process of adjudication. Cf. Golecki (2015), where the HMC model is experimentally confronted with the applicability of Polish tax law in borderline cases.

the decision is reached, referring to some form of intuition involved in applying the demands of practical reason. Significantly, Aristotle seems to refer to the justification of those decisions in *Rhetoric*, demonstrating the ways in which a legal argument should be presented in order for it to be effective. Therefore, it seems that the insights of contemporary psychology, such as the discovery of the dual nature of human cognition, may lead to the conclusion that, on the level of public debate and exchange of arguments, rationality requires some kind of rational justification for judgment. Aristotle himself outlines the limits of justification. When analyzing the phenomenon of fairness and unsatisfactory application of general rules to some particular cases he admits that: "it is right […] to correct the omission. This will be by saying what the lawgiver would himself have said had he been present, and would have included within the law had he known" (*EN* 1137b). This operation of explaining on behalf of the legislator may well be treated as a kind of rationality standard, which has to be provided with legitimate and universal justification for any given judgment, rather than just the judgement itself. Those intuitions are explained in more detail by contemporary cognitive psychology in general and the hybrid categorization model (HMC) in particular. This model explains how deliberation--based and the intuition-based decisions may interfere, and under which conditions shortcuts, heuristics and intuitions or even emotions may prevail over practical reason based on the application of rules, including legal rules. It seems that long-term human memory and experience lead to automatic and subconscious responses and decisions based on intuition rather than deliberation. Interestingly, Aristotle described such an intuition driven process of law application in *Rhetoric*. Metaphorically speaking, the distinction between rule--based model of adjudication described in the *Nicomachean Ethics* and the intuition- or emotion-based forensic practice described in *Rhetoric* coincide with the difference between

deliberation and intuition as described within the framework of the DPT.

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