

## ARTICLE

# An intuitive approach to hard cases

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The article proposes an intuitive approach to the so-called 'hard cases' in law as an alternative to traditional legal-theoretical accounts of this phenomenon. The main thesis of the intuitive approach is that all judgments and decisions made in a legal setting – including both legal practice and legal theory – are intuition-based. Hence, conceptualizations of legal phenomena can be made more accurate if they are constructed with the use of scientific knowledge on the role of intuition in legal reasoning. An exemplification of this approach is presented in the context of 'hard cases'. Traditional legal-theoretical accounts of the latter, such as Hart's and Dworkin's, are juxtaposed with the Representational Change Theory of Insight. The proposed analysis claims that the Representational Change Theory allows for a more plausible and comprehensive account of legal reasoning in hard cases in comparison to the traditional legal-theoretical views on this issue.

**Keywords:** law & psychology; hard cases; intuition; insight; legal reasoning

## 1. Introduction

Perspectives in legal theory have shifted in recent years as a result of the impact of scientific findings regarding human intuition.<sup>1</sup> This tremendous amount of research provides a fresh angle to consider the process of reasoning in legal cases.<sup>2</sup> The overarching goal of this paper is to indicate how scientific evidence on intuitive mechanisms can be useful for the legal-theoretical assessment of the so-called 'hard cases'. The article argues that, at the present moment the dominant legal-theoretic models of reasoning in hard cases provide a very narrow role for intuition. Simultaneously, from a scientific standpoint, intuitive processes are indispensable parts of human decision making – hence the models in question cannot deliver a satisfactory explanation of how hard cases are solved by lawyers. This neglect of intuition can arguably be the derivative of legal theorists' attempt to construct an account of reasoning in legal cases which, in essence, matches their assumptions regarding law rather than reveals the operation of the relevant mental mechanisms. As tensions between these models and their scientifically informed counterparts mount, the robustness of the former appears to be gradually weakened.

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<sup>1</sup> For a general review on the crucial psychological research see, *inter alia*: A. Tversky & D. Kahneman, 'Judgment under uncertainty: Heuristics and biases' (1974) *Science*, 185(4157), <[10.1126/science.185.4157.1124](https://doi.org/10.1126/science.185.4157.1124)>, 1124–1131 [hereinafter Tversky & Kahneman (1974)]; D. Kahneman, *Thinking, Fast and Slow* (Penguin Books 2012) [hereinafter Kahneman (2012)]; G. Gigerenzer, P. M. Todd & ABC Research Group, 'Simple heuristics that make us smart' (1999) [hereinafter Gigerenzer & Todd (1999)]; A. Glöckner & C. Witteman, 'Beyond dual-process models: A categorization of processes underlying intuitive judgement and decision making', (2010) *Thinking & Reasoning*, 16(1), <[10.1080/13546780903395748](https://doi.org/10.1080/13546780903395748)>, [hereinafter Glöckner & Witteman (2010)] 1–25; T. Zander, M. Öllinger, & Kirsten G. Volz, 'Intuition and insight: two processes that build on each other or fundamentally differ?', (2016) *Frontiers in Psychology*, 7(1395), <[10.3389/fpsyg.2016.01395](https://doi.org/10.3389/fpsyg.2016.01395)>, [hereinafter Zander et al. (2016)] 1–12. For the impact of psychology and intuition on the domain of law see: B. Brożek, *The Legal Mind. A New Introduction To Legal Epistemology* (2019) <[10.1017/9781108695084](https://doi.org/10.1017/9781108695084)>; G. Gigerenzer & C. Engel (eds.), *Heuristics and the law* (2006) [hereinafter Gigerenzer & Engel (2006)]; M. Jakubiec, 'Metaphors, law and artefacts, or a few remarks on legal concepts from the perspective of cognitive science', (2017) *Archiwum Filozofii Prawa i Filozofii Społecznej*, 14(1), <<http://archiwum.ivr.org.pl/796/metaphors-law-and-artefacts-or-a-few-remarks-on-legal-concepts-from-the-perspective-of-cognitive-science/>> 52–65; and B. Brożek, *Umysł prawniczy* [eng. 'The Legal Mind'] (2018) [hereinafter Brożek (2018)] with the literature cited therein.

<sup>2</sup> For the general review on legal reasoning see N. McCormick, *Legal reasoning and legal theory* (1994) and J. Stelmach & B. Brożek, *Methods of legal reasoning* (2006) with the literature presented therein.

The article sketches a proposal for an intuition-based model of legal reasoning in hard cases focusing on the phenomenon of insight. The latter is deliberately detached – but not separated – from the more general phenomenon of intuition. The proposed argumentation draws on two psychological conceptions on the considered subject: the discontinuity model of insight and the Redistribution Theory. Additionally, both of these conceptualizations share the general premises of the psychological Theory of Representational Change which the main goal is to illustrate how the human mind generates solutions to atypical problems – and the answer it brings lies in the occurrence of insight. The presented paper attempts to adapt this solution to legal hard cases.

The individualization of the psychological phenomenon of insight from the more general concept of intuition goes under the postulate of the main researchers concerned with human thought processes: interdisciplinary investigations of decision making should look beyond the folk psychological separation of intuitive and analytical processes of reasoning. Simultaneously, within the scope of the proposed psychological approach to legal reasoning intuition is recognized as significant, or even crucial, for it works as an informative database allowing the construction of legally relevant arguments. The presented perspective of extrapolating insight should not, therefore, be perceived as diminishing the role of classical intuitive judgments in legal reasoning. Rather, insight should be considered as a specific conceptual tool, being separated in the pursuit of elucidating concrete mechanisms of the legal mind. The proposed approach can support the explanation of different court decisions in similar cases, to which the sole general concept of intuition appears to be ineffective.

The article is divided into five sections. Introductory section one presents the scope of the article and its main issues. Section two outlines the advantages of defining and describing legal reasoning from the psychological perspective, for the theory of law. Section three follows this deliberation and formulates a definition of hard cases based on the notion of legal indeterminacy. Section four covers the intuitive approach and proposes the Representation Change Theory of Insight as the foundation of the intuitive model of reasoning in hard cases. Section five defends the thesis that hard cases are primarily a matter of human intuition and that legal theory should construct its analysis concerning this fact.

## 2. Legal reasoning: Theoretical and empirical perspectives

Legal reasoning is one of the pivotal issues considered by legal theorists.<sup>3</sup> It appears that is the latter particularly interested in two aspects of the firstly mentioned issue: namely how lawyers reason and how they should reason when they solve legal problems. In the case of the former, that is the descriptive approach to legal reasoning, scholars occasionally refer to various psychological phenomena underlying legal mental processes such as emotions or intuition.<sup>4,5</sup> Concerning sole intuition, mentioned references may be described as folk-psychological in nature, for the evidence used by legal theorists to explain the role of intuitive mechanisms in legal reasoning is mainly introspective.<sup>6</sup> Not underestimating the importance of these theoretical considerations, during the last decades, the legal mind is under robust empirical investigation which aims to reveal psychological background underpinning its core.<sup>7</sup>

From the psychological perspective, the reasoning is understood as the process of deriving a conclusion from previously acquired knowledge.<sup>8</sup> In other words, reasoning involves formulating inferences based on

<sup>3</sup> Apart from sources cited in the footnote 2, for more contemporary studies on legal reasoning see e.g. K. J. Vandeveld, *Thinking like a lawyer: An introduction to legal reasoning* (2018) and G. Bongiovanni, G. Postema, A. Rotolo, G. Sartor, C. Valentini & D. Walton (Eds.), *Handbook of legal reasoning and argumentation* (2018).

<sup>4</sup> See S. A. Bandes, & J. A. Blumenthal, 'Emotion and the Law', (2012) *Annual Review of Law and Social Science*, 8, <10.1146/annurev-lawsocsci-102811-173825> 161–181; and M. Soniewicka, 'Reasons and Emotions in the Discussion on Genetic Intervention in Human Procreation' (2019) *Roczniki Filozoficzne*, 67(3), <http://dx.doi.org/10.18290/rf.2019.67.3-4> 73–91, with the literature presented therein.

<sup>5</sup> See for instance J. C. Hutcheson Jr, 'Judgment Intuitive The Function of the Hunch in Judicial Decision', (1928) *Cornell Law Review*, 14(3), <https://scholarship.law.cornell.edu/clr/vol14/iss3/2> 274–288 [hereinafter Hutcheson (1928)].

<sup>6</sup> The attempts to use the conceptual tools of psychology in describing legal reasoning are already presented – for instance, see J. Crowe, 'Not-So-Easy Cases', (2018) *Statute Law Review*, 40(1), <https://doi.org/10.1093/slr/hmy027> 75–86 [hereinafter Crowe (2018)]. The work of Crowe is an excellent example of using the contemporary findings of behavioral psychology in legal theory – although his description of hard cases might be reinterpreted with the introduction of the concept of insight (see Crowe (2018), 83, and compare with section 4. herein).

<sup>7</sup> Apart from Crowe, there is a growing number of experimental and conceptual analyses of legal decision making from the psychological perspective – see the research mentioned in this and the following section (particularly the references in the footnotes 22, 24, 25, 29 and 32).

<sup>8</sup> The definition presented is one widely used in textbooks for students of cognitive psychology. See, e.g., R. J. Sternberg & K. Sternberg, *Cognitive Psychology* (6th ed, 2012) 489.

delivered premises. This definition does not require either those premises or conclusions to be 'right' or 'accurate', and the same goes for the mental process which links premises with the conclusion, meaning that they do not have to be formally valid in any manner.<sup>9</sup> Reasoning can also be unconscious in the sense that the person who has reached a particular conclusion may be fully or partially unaware of how this has been achieved or on what premises the conclusion is based.<sup>10</sup>

The above-presented sketchy characterization can be described as a type of empirical perspective. Such an approach might engender some criticism, but simultaneously be useful for the legal theorist because of its potential application to the descriptive considerations of legal reasoning.<sup>11</sup> As the empirical view goes beyond folk-psychological accounts of the latter, the evidence it provides may enrich purely theoretical perspectives of a prevailing number of conceptualizations in the legal domain. In the attempt to make use of psychological evidence in legal theory, nevertheless, a complete separation of descriptive and normative stances towards legal reasoning is not feasible, as these two stances are intertwined.<sup>12</sup> The legal domain consists of its normative image which drives the legal practice – however, according to contemporary research, a practical sphere of law may not always follow its normativity. On the one hand, hence, lawyers try to reason following the rules they find appropriate, while on the other hand, how they actually reason is sometimes at odds with what those appropriate rules suggest. Therefore, whereas scientific investigations of legal reasoning can be useful to indicate how it may stray from normative standards, it appears to be of limited importance in the discussion regarding how lawyers should reason. Its eventual significance in the latter context can pertain to, for instance, showing the limitations of lawyers' cognitive capacities, which the normative theories should take into consideration if they are to be used in real-world situations.<sup>13</sup> However, as it has already been stated, even the empirical approach to legal reasoning has a normative dimension. Researchers, therefore, if they claim that there are circumstances when lawyers make mistakes in their reasoning, have to assume a normative standard of the latter. Hence, for this article, legal reasoning is defined as the process of formulating a conclusion by legal professionals in the legal domain according to the normative standard put forward by legal theorists. There are three important components of this definition that require further clarification.<sup>14</sup> Firstly, a legal professional is understood as a person with specialist legal knowledge and con-

<sup>9</sup> By formal validity, I understand any set of criteria created to determine whether a process of inferring is proper or not. For instance, the 'way' a certain person concludes that it is going to rain because she or he just saw a yellow dog is an example of reasoning, although such an implication does not probably correspond to the reality.

<sup>10</sup> Unconsciousness is often associated with intuitive reasoning, although it may be conceptualized differently – see e.g. Glöckner & Witteman (2010), 3–5 and Zander et al. (2016), 2–3. Compare with the concept of consciousness in legal domain – for instance B. Janik, & M. Próchnicki, 'Naturalizing the subjective side of the crime: a few introductory remarks on the role of consciousness in criminal law based on American and Polish examples' (2018) *Balkan Journal of Philosophy*, 10(1) <10.5840/bjp20181015> 37–44 with the literature cited therein.

<sup>11</sup> Law is prescribed herein as two intertwined spheres of reality and normativity. The normative sphere in this perspective can be viewed as the derivative of reality – therefore legal theories cannot be at odds with science. Law always pertains, directly or indirectly, to the realistic social situations which can be the subjects of practical legal decisions. As follows, I assume that normative models of reasoning should not conflict with the presuppositions of descriptive theories, for presupposing the opposite would make normative models which are unprofitable or even misleading for legal practice. Saying the aforementioned, I am not suggesting that the methodology of legal scholars should be changed, but only that if there is a contrary between legal and scientific theory, the former may be prescribed as partially biased.

<sup>12</sup> For instance, the decision to believe in the set of facts which was presented by a certain person will not be prescribed as legally relevant in a deliberated legal perspective. However, if the same set of facts is presented during a court trial by the witness and the decision is made by the judge to believe them, such a line of reasoning would be legally relevant, and prescribed as the testimony. This is due to the influence of the normative sphere of the law on the descriptive sphere of the legal practice. Reasoning in the legal domain always remains under the influence of normative rules – in this sense, it is formulated by 'the perspective of law' in similar way that legal procedure creates 'new facts' (see J. R. Searle, *Speech acts: An essay in the philosophy of language* (1969), 51, and J. C. Hage, R. E. Leenes & A. R. Lodder, 'Hard cases: a procedural approach', (1993) *Artificial intelligence and law*, 2(2), <10.1007/BF00871759> 115–116 [hereinafter Hage et al. (1993)]).

<sup>13</sup> There is no normative exclusion on any part of the social life of human beings which cannot be regulated. Law cannot exist without its normative sphere, and the above-illustrated perspective denies this factor by using the purely 'descriptive' manners of scientific conceptualization. This view is therefore excluded as an example of alienation leading towards radical naturalization – see B. Brożek, 'On the naturalisation of law', (2017) *Polish Law Review*, 3(1) <<https://polishlawreview.pl/resources/html/article/details?id=158624>> 13, 21. See also: J. Stelmach, 'Old and new interpretations of legal naturalism', (2017) *Polish Law Review*, 3(1), <10.5604/01.3001.0010.7109> 1–12.

<sup>14</sup> Two first elements – legal professionals and legal domain – were chosen with regard to psychological notions on human intuition. The legal professionals represent real specialists conducting decision making processes based (at least partially) on their intuitive skills, whereas the legal domain stands for the environment within which decisions are made. The detailed description of intuition and its role in human decision making is provided later herein. The notion of 'acceptance by legal theory' – that is the compatibility with the normative standard – ensures the inclusion of the normative assumptions in the presented definition. Legal theory is understood herein in an abstractive manner – as the sum of legal knowledge, including the practical skills of legal practitioners.

siderable practical experience in conducting and solving legal cases.<sup>15</sup> Secondly, the legal domain consists of legally relevant information. Thirdly, normative standards put forward by legal theorists are standards generally regarded by the latter as correct methods of reasoning involving legal matters. To exemplify this further, two instances are provided.

The first example refers to the process of solving divorce cases in the Federal Republic of Germany. According to German law, 'a marriage may be dissolved by divorce if it has broken down', which takes place if 'the conjugal community of the spouses no longer exists and it cannot be expected that the spouses restore it'.<sup>16</sup> Importantly, as the relevant provisions state,<sup>17</sup> 'it is irrebuttably presumed that the marriage has broken down' if:

1. the spouses have lived apart for three years  
and
2. the spouses have lived apart for a year and both spouses petition for divorce or the respondent consents to divorce.

The 'irrebuttability' of those presumptions is illusive, as almost all presumptions in the legal domain are contestable.<sup>18</sup> This indication, however, does not change the fact, that in the majority of the cases either three years of separation or one year of living apart and a consensual divorce petition stand for the proper – that is normatively valid – conviction that the marriage cannot be restored. From the perspective of the theory of decision making, therefore, the process of solving the divorce case in Germany can be perceived as heuristic-like, as it provides a reasoning rule which most often allows reaching the correct conclusion, but in a minority of cases, it may lead to a mistake – for instance, when the 'conjugal community of the spouses' can exist or the spouses can restore it, even if *e.g.* there was a period of three years of separation.<sup>19</sup> The visualization of the considered legal reasoning is proposed by Wagner in the form of a fast and frugal decision-making tree.<sup>20</sup> Wagner builds up the judicial decision-making process in the described cases by indicating which general questions the judge must answer. The first one is 'do the parties consent to a divorce?'. If the answer is 'yes', the second question considered to be is: 'have the parties been living apart for one year?'. If the answer is also 'yes', no other questions are asked, and the judge passes the divorce decision. If the answer to the first question is 'no', the judge checks if there has been a period of three years of separation, and additional general questions of possible hardship on the part of the spouse or children are investigated, according to Section 1565 (2) and 1567 (1) BGB, but no additional information is required for the judge to formulate their decision. The judgment is, therefore, built upon an imperfect heuristic procedure, in the sense that the validity of the rule from the second sentence of Section 1565 (2) BGB may be wrongly evaluated. To exemplify, if the parties consent to a divorce and have been living apart for one year, the judge can immediately assume that the marriage has broken down – even if that may not be true in the scope of the actual case. Despite the last-mentioned fact, the presented reasoning is fully accepted by the theory of law – understood as the sum of legal knowledge, including skills of legal practitioners – since neither the German judiciary nor the German doctrine conflicts with rulings made with the justification based on Wagner's model. Put differently, since there is no judicial or doctrinal undermining of the legal foundation of the illustrated way of concluding, the model of Wagner is legally (or normatively) valid.

<sup>15</sup> Also, by introducing the element of personification I assume the dualistic nature of law – that is the coexistence of normative and descriptive realms – as a substantial premise for the presented analysis in the sense that neither of those two realms can separately provide the satisfactory illustration of legal reasoning.

<sup>16</sup> Section 1565 of Bürgerliches Gesetzbuch [hereinafter BGB]. Translation via: <https://www.gesetze-im-internet.de> <[https://www.gesetze-im-internet.de/englisch\\_bgb/englisch\\_bgb.html](https://www.gesetze-im-internet.de/englisch_bgb/englisch_bgb.html)>.

<sup>17</sup> Sect 1566 BGB.

<sup>18</sup> For instance, the presumption that the person accused and judged by the highest court as guilty is the actual perpetrator may be overturned by new evidence according to the legal procedures in most democratic countries. Moreover, the possible impairment applies in theory for the legal validity of every statutory passage considered, including constitutional (Hage et al. (1993) 115–116). For the divorce case presented, it is theoretically possible that the spouses have lived apart for three years but there is a very high likelihood of the marriage being restored. Such situations, however, rarely occur.

<sup>19</sup> For a general review on the role of heuristics in human reasoning see P. E. Meehl, *Clinical versus statistical prediction: A theoretical analysis and a review of the evidence* (1954), 24–28; Tversky & Kahneman (1974) 1124–1131; Gigerenzer & Todd (1999) 37–118 and 141–190; and G. Gigerenzer, 'Heuristics', in G. Gigerenzer & C. Engel (edn), *Heuristics and the law* (2006) 17–44 [hereinafter Gigerenzer (2006)]. For the role of heuristics in the legal domain see also Gigerenzer & Engel (2006) 45–140.

<sup>20</sup> G. Wagner, 'Heuristics in Procedural Law', in G. Gigerenzer & C. Engel (edn), *Heuristics and the law* (2006) 281–302 [hereinafter Wagner (2006)].

The second example consists of two experimental analyses of judicial decisions. The first one was conducted by Danzinger, Levav, and Avnaim-Pesso who investigated over a thousand judicial decisions on parole requests in Israel.<sup>21</sup> The results showed the increase in the tendency to rule 'in favor of status quo' (that is, to reject the parole request) with each subsequent decision. This tendency, however, ended suddenly after the meal breaks in court sessions.<sup>22</sup> The research supported the thesis that legally irrelevant factors, such as resting and eating a meal, can influence the ruling of the judge decisively. The second investigation was conducted by Englich, Mussweiler, and Strack and focused on the phenomenon called anchoring.<sup>23,24</sup> The participants in their experiment, who were all experienced German judges, were asked, *inter alia*, to make a sentencing decision in a presented artificial criminal case. However, before delivering their verdict, they had to throw a pair of dice constructed in such a way that they always showed the same digits. The judges were not aware of the fact that the dice were loaded, believing that the numbers would be determined at random. However, the results demonstrated that their rulings were influenced by the numbers they had seen, even though they were convinced that throwing the dice had not had any impact on their decisions. Importantly, the authors of both these experiments shared the common opinion that factors, such as the mental condition which favors a certain tendency in terms of the ruling, or the influence of the psychological bias of anchoring, should not affect legal decisions.<sup>25</sup>

From the psychological perspective, all the above-mentioned cases refer to lawyers inferring conclusions from the premises in the legal domain. From the normative perspective, however, only Wagner's model can be called 'legally valid'. This is due to the fact, that only Wagner's conception includes legal normative assumption – the 'irrebuttability' of marriage being broken down, being directly derived from the relevant legal provisions. The latter experimental examples do not include any such legal standard. Wagner's model, therefore, not only describes the heuristic-like procedure of legal decision making, but additionally 'matches' the process of judicial decision making with the normative presuppositions of German civil law. Although the second-mentioned experimental examples do not provide any considerations regarding legal standards, it is beyond doubt that a legal decision influenced by random numbers or the judges' 'mood' cannot be regarded as correct. Conversely, such a bias could and should be considered as a circumstance justifying overruling such a judgment by a higher court. However, despite the aforementioned differences, all of the presented cases share significant similarities. Firstly, in all of them, the deliberation on the problem of reasoning is presented from the perspective of psychological findings on human non-analytical processes of decision making. In other terms, all mentioned examples are based on psychological concepts bound up with intuition – such as heuristics or cognitive biases.<sup>26</sup> Secondly, the actual justification provided by the legal professionals in all of the cases was constructed in a legally appropriate manner, without any notion of the legally

<sup>21</sup> S. Danzinger, J. Levav & L. Avnaim-Pesso, 'Extraneous factors in judicial decisions', (2011) *Proceedings of the National Academy of Sciences*, 108(17) <10.1073/pnas.1018033108> 6889–6892 [hereinafter Danzinger et al. (2011)]. See also critical review: K. Weinshall-Margel & J. Shapard, 'Overlooked factors in the analysis of parole decisions' (2011) *Proceedings of the National Academy of Sciences*, 108(42) <10.1073/pnas.1110910108> E833, and a reply of the authors: S. Danzinger, J. Levav & L. Avnaim-Pesso 'Reply to Weinshall-Margel and Shapard: Extraneous factors in judicial decisions persist' (2011) *Proceedings of the National Academy of Sciences*, 108(42) <10.1073/pnas.1112190108> E834.

<sup>22</sup> The percentage of positive decisions (that is, in favor of the parole request) at the beginning of each session was estimated at around 65%. With every subsequent case, it gradually dropped to nearly 0%, but after the break, it returned to circa 65%. No legally relevant factors were found which might justify this change from the perspective of judicature. *Supra* note 14 (Danzinger et al. (2011) 6889).

<sup>23</sup> B. Englich, T. Mussweiler & F. Strack, 'Playing dice with criminal sentences: The influence of irrelevant anchors on experts' judicial decision making', (2006) *Personality and Social Psychology Bulletin*, 32(2) <10.1177/0146167205282152> 188–200 [hereinafter Englich et al. (2006)].

<sup>24</sup> In the presented case, the effect of anchoring was generated by numbers which acted as anchor values (see T. Mussweiler & F. Strack, 'Comparing is believing: A selective accessibility model of judgmental anchoring', (1999) *European review of social psychology*, 10(1) <10.1080/14792779943000044> 135–167). Notably, the numeric cases of the anchoring phenomenon have also been demonstrated in damage cases – see for instance G. Pogarsky & L. Babcock, 'Damage caps, motivated anchoring, and bargaining impasse', (2001) *The Journal of Legal Studies*, 30(1) <10.1086/468114>, 143–159 and C. Guthrie, J.J. Rachlinski & A.J. Wistrich, 'Judging by Heuristic – Cognitive Illusions in Judicial Decision Making', (2002) *Judicature*, 86(1) <<https://heinonline.org/HOL/LandingPage?handle=hein.journals/judica86&div=16&id=&page=&t=1561130763>> 44–50.

<sup>25</sup> Englich, Mussweiler, and Strack directly state that 'judicial sentencing decisions should be guided by facts, not by chance' and that 'on normative grounds, the sentences that criminal judges impose should be immune to random influences' (Englich et al. (2006) 197). Danzinger, Levav, and Avnaim-Pesso at the beginning of their work indicate that "judicial rulings can be swayed by extraneous variables that should have no bearing on legal decisions" (Danzinger et al. (2011) 6889). This last opinion can be applied to the 'tendency of ruling in favor of status quo', provided that this tendency is caused by legally irrelevant factors.

<sup>26</sup> Additionally, the presented experimental analyses appear to fulfill the appeal of Glöckner & Witteman (Glöckner & Witteman (2010) 3) to scrupulously investigate concrete psychological phenomena within the domain of decision-making, such as the domain of law.

irrelevant factors being considered. That is to say that the justification of the judgments was made upon legal normative standards of reasoning, while the actual decision making process was influenced by intuitive biases. It is also possible, therefore, that German judges make divorce decisions based on the premises which are different from those demonstrated in their justifications – although such a thesis requires an experimental investigation. However, despite this notion, Wagner's model not only uses the psychological explanation for judicial reasoning but also matches the normative assumptions derived from German legal prescriptions. The two other examples reveal mental mechanisms of judicial decision making which cannot stand for the basis of the sentence, for they are in opposition to the law. Obviously, the period of imprisonment should not be determined by rolling pair of dices and the parole granted or denied depending on the judge's mood. The accordance with the normative standards from the previous definition of legal reasoning, therefore, should be understood in such a manner that it excludes processes which cannot generate legally valid decisions.<sup>27</sup>

The characterization of legal reasoning introduced above permits to include its both normative and descriptive – psychological – aspects in investigations regarding this phenomenon. Legal reasoning is hence presented as the perception of legal doctrine on the issue 'how lawyers think and conclude'.<sup>28</sup> As a consequence, factors that influence the course of legal problem solving are excluded from the definition, without considering their scientific value in this regard. This, in turn, authorizes the juxtaposition of the traditional approaches of legal scholars to the matter of legal inferring processes and conceptualizations rooted in scientific findings.<sup>29</sup> A model of legal reasoning based on psychological concepts should, therefore, be profitable for legal theory in two respects. First, it should allow for the problem of the accuracy of normative models to be addressed.<sup>30</sup> Second, it can enlarge the field of legal theory as it tries to reconcile the law with the revelations of the contemporary psychology of the human mind.<sup>31</sup>

The above-presented experimental analysis of judicial decision making reveals several biases which were so far omitted in, or marginalized by legal theory. This state of the matter mostly results from the lack of an accurate methodological background for the domain of law – involving, among others, the conceptual grid of psychological tools potentially useful in analyzing legal reasoning. Nowadays, however, the intuitive mechanisms are becoming illustrated in a way that allows for performing interdisciplinary analysis for various domains. The proposition for such a descriptive approach in the legal realm should not stand contrary to the traditional conceptions of legal reasoning, but rather alongside them, mutually revising their advantages and flaws. The intuitive approach to hard cases proposed in this paper is consistent with the presented perspective, serving as an informative background – for the comparison of the normative and descriptive theories regarding the issue of legal decision making in atypical situations.

For the rest of this work, therefore, legal reasoning is understood in the same manner as it was presented in this section.<sup>32</sup>

<sup>27</sup> The presented state of matter not only results from the normative and descriptive spheres of the legal domain, but it supports their coexistence. This perspective does not deny the importance of experimental revelations on practice legal decision making. Instead, they urge legal theorists to challenge the contemporary normative assumptions under the influence of the realistic illustration of legal reasoning. Conversely, however, every theory which does not permit making normatively proper decisions has to be reinterpreted or excluded from the legal domain, even if it appropriately reflects the descriptive realm.

<sup>28</sup> This approach is partially based on the premises of Folk Psychology – see Ł. Kurek, 'Naturalism and the legal image of man', (2017) *Revus. Journal for Constitutional Theory and Philosophy of Law/Revija za ustavno teorijo in filozofijo prava*, 32 <10.4000/revus.387137-58>; and Ł. Kurek, 'Supervenience and the Normativity of Folk Psychology in the Legal-Philosophical Context', in B. Brożek, A. Rotolo & J. Stelmach (eds.), *Supervenience and Normativity* (2017), 161–175 [hereinafter Kurek (2017)] for general review.

<sup>29</sup> Additionally, some traditional legal theories can be classified under the presented definition as underlining or diminishing the role of reasoning in the legal domain. For instance, legal scholars conceptualize the actions of judges and other legal professionals in hard cases by often focusing on the premises and processes of inference by which lawyers make their decisions (see H. Hart, 'The concept of law' (1961) 107 [hereinafter Hart (1961)], R. Dworkin, 'Taking Rights Seriously' (1978) 82, 280 [hereinafter Dworkin (1978)], R. Dworkin, 'Law's Empire' (1986) 72 [hereinafter Dworkin (1986)]). Although it appears to be rooted in the nature of legal cases, some propositions can arguably be classified as diminishing the role of such understood reasoning in hard cases (see Hutcheson (1928) 274 and next; and Hage et al. (1993) 123–125).

<sup>30</sup> As stated before, I assume that normative models should reflect scientific findings, or at least not be in conflict with them.

<sup>31</sup> Aside from the literature mentioned previously, a substantial number of analyses enriching this issue have been presented by Polish legal theorists. See e.g. J. Stelmach, 'Legal Instinct', (2017) *Polish Law Review*, 3(1) <<https://polishlawreview.pl/resources/html/article/details?id=157559>>, 153–159; T. Pietrzykowski, *Intuicja Prawnicza. W Stronę Zewnętrznej Integracji Teorii Prawa* [eng. 'Legal Intuition. Towards an External Integration of Legal Theory'] (2012); Kurek (2017); and Brożek (2018).

<sup>32</sup> The presented formulation of legal reasoning provides two aspects of the concept. The first one is realistic and pertains to the practical situation of formulating a line of argumentation by a legal practitioner which is subsequently accepted (or not rejected) by judges, other lawyers or legal theorists. The second aspect is idealistic or normative. This approach assumes that legal professionals possess and apply the entirety of legal knowledge relevant for the case, and the process of the acceptance of the legal theory is faultless – meaning that there was neither a bias making the acceptance inaccurate nor any area of legal knowledge that was omitted due to e.g. human deficiency. In this article, the term legal reasoning is used in its normative sense unless indicated otherwise.

### 3. Hard cases

The term 'hard case' is used by lawyers in two main senses. The first one can be described as a common understanding of the considered phenomenon, according to which hard cases generate trouble for legal practitioners due to *e.g.* complexity or wide scope of their matter.<sup>33</sup> By the second understanding of the discussed notion, hard cases are those court situations that are famous in legal theory for being atypical in the context of their respective legal systems.<sup>34</sup> Those cases were usually solved by supreme courts and their judgments have abounded in resolutions which were subsequently subjected to theoretical disputes.<sup>35</sup> This second understanding of deliberated occurrence has also been investigated by legal scholars and with many approaches presented as a result.

To exemplify, the topic of hard cases constituted, *inter alia*, the core of the famous legal debate between Herbert Hart and Ronald Dworkin. Hart discusses hard cases from a linguistic perspective. He identifies vagueness and 'open texture' as linguistic phenomena which are, to a large extent, responsible for the occurrence of hard cases.<sup>36</sup> In this regard, he separated the so-called 'core' and 'penumbra' types of legal cases. The former takes place when there is no doubt concerning the meaning of the terms appearing in the legal rule as well as to its (the rule) practical application.<sup>37</sup> The latter – 'penumbra cases' – are the hard cases in Hart's reasoning. Conversely to the 'core case', a hard case occurs when there are questions regarding the application of the legal rule in a particular situation because of the vagueness of its terms.<sup>38</sup> Additionally, Hart distinguishes two types of 'hard cases'. The first type involves those about which legal practitioners differ in their opinions on the solution. The second type of hard cases, on the other hand, covers those which are practically 'impossible to solve' since there is no legal rule to direct the course of the court action.<sup>39</sup> The answer Hart provides to the question 'what should a judge do in cases where there are not enough rules to follow?',<sup>40</sup> focuses on judgmental 'discretion' – the role of the judge in such situations is, hence, to make 'the best moral judgment he can on any moral issues he may have to decide'.<sup>41</sup> A different explanation was presented by Ronald Dworkin – in his scenario a hard case occurs when 'no settled rule dictates a decision either way'. The judge, therefore, has to construct his or her judgment on the basis of either 'principles' or 'policies'.<sup>42</sup> By incorporating those two as integral parts of the legal domain Dworkin argued that the legal system is indeed complete in the sense that it provides the solution in any situation and the judge's discretion in 'hard cases' does not go beyond the law. From this perspective, judges' discretionary power can be described as limited by the normative standards put forward by Dworkin's conception.

To give a direct example of hard case under presented views, according to Hart's conception, in *Riggs v Palmer* the rules of law arguably state that no one should change the will of the testator and that criminal punishment should satisfy the legal domain unless the statutory passage provides otherwise, or the judge found the case disputable and used his discretionary power to 'freely' establish the verdict. This perspective was proposed by Judge Gray, who indicated in his dissenting opinion that he 'cannot find any support for the argument that the respondent's succession to the property should be avoided because of his criminal act when the laws are silent' and that the public policy 'does not demand it, for the demands of public policy are satisfied by the proper execution of the laws and the punishment of the crime'.<sup>43</sup> The presented opinion supports the positivistic solution to the case, namely to act according to the strict interpretation while remaining as close to the literal meaning of the statutory passage as possible. The view of Dworkin, on the

<sup>33</sup> See the definition of the 'difficult' case in Hage et al. (1993) 2.

<sup>34</sup> By the term 'atypical' I assume that such cases formulate a legal issue which has not yet been solved by the legal system, or that the existing solution has been challenged by legal specialists.

<sup>35</sup> There are many examples of such cases, well known for most legal scholars – *e.g.* *Riggs v. Palmer*, 115 N.Y. 506 (1889), *Henningson v. Bloomfield Motors, Inc.*, 32 N.J. 358, 161 A.2d 69 (1960), *Donoghue v. Stevenson* [1932] AC 562, [1931] UKHL 3, 1932 SC (HL) 31, [1932] UKHL 100, *Re Wünsche Handelsgesellschaft* (22 October 1986) BVerfGE (*Solange II*).

<sup>36</sup> Hart (1961) 123.

<sup>37</sup> The interesting critique of Hart's description of core cases was brought by Fuller, who indicated the role of a contextual framework for legal decision making. As he states: 'If in some cases we seem to be able to apply the rule without asking what its purpose is, this is not because we can treat a directive arrangement as if it had no purpose. It is rather because, for example, whether the rule be intended to preserve quiet in the park, or to save carefree strollers from injury, we know, "without thinking", that a noisy automobile must be excluded' – L. L. Fuller, 'Positivism and fidelity to law-A reply to Professor Hart', (1957) Harv. L. Rev., 71, <10.2307/1338226> 663.

<sup>38</sup> H. L. A. Hart, 'Positivism and the Separation of Law and Morals', (1957) Harv. L. Rev., 71 607 and next [hereinafter Hart (1957)].

<sup>39</sup> Hart (1961) 252.

<sup>40</sup> The term 'rules' is understood here similarly to its illustration in Hart's version of positivism – see Dworkin (1978) 17.

<sup>41</sup> Hart (1961) 254.

<sup>42</sup> Dworkin (1978) 83.

<sup>43</sup> *Riggs v. Palmer*, 115 N.Y. (1889) 519.

other hand, implies the diversification of legal rules and legal principles and states the hierarchy of those two in favor (in the case of conflict) of the latter. This method prevailed in the presented case, as the majority of judges agreed on the notion that the literal meaning of the statutory passages should be abandoned under the principles of the law, since 'it never could have been their [legislators] intention that a donee who murdered the testator to make the will operative should have any benefit under it' and providing otherwise 'would be a reproach to the jurisprudence of our [New York] state and an offense against public policy'.<sup>44</sup> These two approaches, although fundamentally different, present two legal perspectives of reasoning which premises are accepted by a legal system, in the sense that they matched normative standards of legal theory. They both also focus on adjusting the justification of the judicial decision to the normative needs of the legal domain, and because of that notion the possibility of certain legal bias – that is to illustrate the process of legal reasoning in conformity with the premises of the legal system, but without the consideration of the coherence with the reality – appears to be at least plausible in presented conceptions.<sup>45</sup>

Apparently, the whole discussion between Hart and Dworkin, although it mainly addressed the issue of the nature of law, was primarily constructed around the phenomenon of hard cases itself.<sup>46</sup> Legal scholars composed numerous approaches on their basis to define the latter. For instance, Gardner's conception provides a heuristic-based, 'fast and frugal tree' – a kind of Wagner's-like procedure permitting the nature of the legal case to be specified.<sup>47</sup> Susskind, on the other hand, it focuses mainly on the definition of a clear legal case, as opposed to hard cases.<sup>48</sup> For Susskind, there are two types of clear cases. First, a case can be considered a clear one if, beyond any doubt, it can be decided by the judge, and the chosen option can undoubtedly be accepted by reasonable parties (a potentially clear case). Second, the case is also a clear one if it has been already solved by the court and the decision was unchallenged by parties and any other person in any way (a retrospectively clear case). Both of those propositions (and a few more) are interestingly criticized by Hage who provides a procedural approach to define a hard case.<sup>49</sup> In this work, the legal case is hard if it has more than one possible outcome, and during the procedure at least one of the parties concerned was forced to take an a-rational decision-making process.<sup>50</sup> In Hage's conception, the source of hard cases lies in the dialogical nature of court disputes.

The aforesaid variety of conceptualizations calls for a terminological clarification. For this article, therefore, 'hard cases' are understood as those which are indeterminate by legal reasoning in the sense that neither the judicature nor legal theory can determine their outcomes. This definition is undoubtedly a broad one and may also be considered ambiguous; on the other hand, however, it provides conceptual apparatus required to assess hard cases from the psychological perspective. Specifically, the proposed conceptualization authorizes the introduction of an intuitive approach to the phenomenon of hard cases – and this is since it permits the analysis of mental processes responsible for legal reasoning in such situations. Importantly, it also remains open to the possibility that non-legal factors are determining the lawyers' decision, while simultaneously being assessed in the scope of respective normative standards of legal theorists.

The issue of decision indeterminacy is crucial in the context of the Theory of Representational Change, being the core fundament for the construction of the insight-based model of legal reasoning in hard cases proposed herein. The mentioned conception is used by psychologists to assess issues of decision indeterminacy in various non-legal settings concerning different types of human problem solving.<sup>51</sup> The term 'inde-

<sup>44</sup> Ibid., 513.

<sup>45</sup> This focus is enforced by the main question Hart and Dworkin are trying to answer – that is 'what is the law'. Importantly, the analysis of those two researchers was naturally introspective because of the lack of the most recent conceptual tools available for contemporary studies, such as psychological findings on insight.

<sup>46</sup> Dworkin (1978) 81 and next.

<sup>47</sup> A. von der Lieth Gardner, *An Artificial Intelligence Approach to Legal Reasoning* (1987) 38–66. Compare with Wagner's model: Wagner (2006) 288–291.

<sup>48</sup> R.E. Susskind, *Expert Systems in Law: A Jurisprudential Inquiry* (1987) 196.

<sup>49</sup> Hage et al. (1993) 148, 150.

<sup>50</sup> A-rational decision-making process occurs when the party involved in a legal procedure is forced to abandon its legal argumentation. As the authors state: '(...) if both parties in a legal conflict have different interpretations of a statutory passage, while no compelling reason was found (...) why one interpretation is to be preferred above the other one, a decision must be made regarding the correct interpretation. This decision obliges at least one party to take a direction in the procedure, namely to argue on the basis of this particular interpretation, which it did not want to go voluntarily, and which did not necessarily follow from the rules of the procedure. Cases that contain such underdetermined stages in their procedures are hard cases' (Hage et al. (1993) 120).

<sup>51</sup> S. Ohlsson, 'Information-processing Explanations of Insight and Related Phenomena' in M. Keane & K. Gilhooly (eds.), *Advances in the Psychology of Thinking* (1992) 1–44 [hereinafter Ohlsson (1992)]. For further examples see also J. W. Schooler, S. Ohlsson, & K. Brooks, 'Thoughts beyond words: When language overshadows insight' (1993) *Journal of experimental psychology: General*, 122(2) <10.1037/0096-3445.122.2.166> 166–183; E. M. Bowden, M. Jung-Beeman, J. Fleck, & J. Kounios, 'New approaches to demystifying insight', (2005) *Trends in cognitive sciences*, 9(7) <10.1016/j.tics.2005.05.012> 322–328.



terminacy', however, covers various understandings within the legal domain. To give an example, according to Berman and Hafner,<sup>52</sup> a legal case is 'indeterminate' when it is possible to justify two different and inconsistent solutions under the same rules and facts of the case. This definition can be considered roughly plain, as it appears to omit the complexity of the legal normative realm. A more refined attempt to assess indeterminacy in law was introduced by Brian Leiter – as he states: 'to say that the law is indeterminate, then, is equivalent to saying that the legitimate sources of law together with the legitimate, interpretive and rational operations are indeterminate'.<sup>53</sup> These four factors – sources, and legitimate, interpretive and rational operations – are described by Leiter as 'the class of legal reasons', or in brief 'the Class'. The Class has also been used to differentiate between legal 'indeterminacy' and legal 'underdeterminacy' – according to Leiter, the latter occurs when, in the context of the class of legal reasons, more than one (but not any) outcome of a legal case can be justified. Conversely, the first one takes place if any such outcomes can be justified on the basis of the Class.<sup>54</sup> The psychological and legal notions indeterminacy, therefore, share a common premise, crucial for the following deliberation – the indeterminate decision consists of at least two different solutions, or no direct solution being recognized. The role of the presented intuitive approach is to reveal the cause of such a stand using the conceptual tool of insight.

Summarizing the argumentation so far, for this analysis hard cases are understood as legal problems the solution of which is indeterminate. This perspective arguably allows for scrutinizing the lawyers solving processes in such situations with the use of psychological tools provided by the behavioral theories on human decision making. Following aforesaid, the Theory of Representational Change is introduced later herein to not only outline a conceptual illustration of lawyers' decision making in hard cases but also to possibly deliver an explanation of the divergencies in lawyers' verdicts in hard cases.

#### 4. The intuitive approach

The intuitive approach to hard cases hypothesizes that lawyers' reasoning, while referring to the latter, relies heavily on their intuition. It utilizes the empirical evidence on how intuitive mechanisms operate and specifies the feasible implications of those for the domain of law. It has to be indicated, however, that the psychological phenomenon of intuition is an extremely complex matter regarding numerous studies pertaining to different mental processes correlated with intuitive thinking.<sup>55</sup> Presented considerations, therefore, following the prior investigation on the issue of hard cases, deliberately limit the scope of implemented psychological deliberations to the phenomenon of 'insight'.<sup>56</sup> Such reduction does not exclude the non-insight notions pertaining to the general basis of intuitive mechanisms – rather it creates a certain type of clarification for legal domain, using the very concrete psychological concept, while simultaneously preserving the fundamentals of psychology of intuition. Additionally, proposed curtailment can overpass the folk-psychological understanding of mental mechanisms underlying intuition, particularly embodied in the ordinary separation of intuitive and analytical thinking.<sup>57</sup>

The sole existence of legal intuition is not unfamiliar to the theory of law and attempts to introduce particular concepts from psychological findings to the legal domain – including insight – have also been already performed.<sup>58,59</sup> An example of how psychological perspective may recompose and arguably enrich legal-theoretical investigations on the role of intuition in legal reasoning is Brožek's analysis of Joseph Hutcheson's theory of judicial hunch.<sup>60</sup> Hutcheson in his deliberations introspectively describes the manner he – as a professional and experienced judge – proceeds while solving hard cases:

<sup>52</sup> D.H. Berman & C.D. Hafner, 'Indeterminacy: A Challenge to Logic-based Models of Legal Reasoning', (1987), *International Review of Law, Computers & Technology*, 3(1) <10.1080/13600869.1987.9966251> 1–35.

<sup>53</sup> B. Leiter, 'Legal Indeterminacy', (1995) *Legal Theory*, 1(4), <10.1017/S135232520000227> 481–492 [hereinafter Leiter (1995)].

<sup>54</sup> *Ibid.*, p. 481.

<sup>55</sup> For basic introduction to the field see: G. P. Hodgkinson, J. Langan-Fox & E. Sadler-Smith, 'Intuition: A fundamental bridging construct in the behavioural sciences', (2008) *British Journal of Psychology*, 99(1) <10.1348/000712607X216666> 1–27; and Kahneman (2012) with the literature cited therein. See also: Tversky & Kahneman (1974); and A. W. Kruglanski & G. Gigerenzer, 'Intuitive and deliberate judgments are based on common principles', (2011) *Psychological review*, 118(1), <10.1037/a0020762> 97–109.

<sup>56</sup> Zander et al. (2016) 3 and next.

<sup>57</sup> Glöckner & Witteman (2010) 1–25.

<sup>58</sup> See Hutcheson (1928), and Hage et al. (1993) 2. See also Dworkin notions on 'constructive model' – Dworkin (1978) 160.

<sup>59</sup> Importantly, those attempts not always appear to at least partially fulfil the appeal of Glöckner and Witteman to analyze 'the processes underlying intuition before making strong claims about its performance' – see Glöckner & Witteman (2010) 1.

<sup>60</sup> Brožek (2018) 59 and next.

‘While when the case is difficult [hard in presented terminology] (...) I, after canvassing all the available material at my command, and duly cogitating upon it, give my imagination play, and brooding over the cause, wait for the feeling, the hunch – that intuitive flash of understanding which makes the jump-spark connection between question and decision, and at the point where the path is darkest for the judicial feet, sheds its light along the way.’<sup>61</sup>

Hutcheson addresses the aforementioned characterization of judicial reasoning as being driven by a general mental mechanism of legal intuition (hunch). This illustration, however, is rightly considered by Brożek to be an unintentional pre-description of legal insight – the psychological phenomenon of atypical problem solving investigated experimentally for more than three decades, notwithstanding the earlier work of the Gestalt psychologists.<sup>62</sup> The most prominent examples of research on insight are Metcalfe and Wiebe,<sup>63</sup> Bowers,<sup>64</sup> Ohlsson,<sup>65</sup> and Siegler.<sup>66</sup> Importantly, nowadays insight is again being exposed and analyzed, mainly in connection to neuroimaging studies on problem solving, as it arguably can propose a novel perspective for the analysis of human creativity and decision-making.<sup>67</sup> In the scope of presented argumentation the phenomenon of insight is selected for exemplifying the concretized effect of utilizing the intuitive approach to reconceptualize legal reasoning in hard cases.<sup>68</sup> To elucidate the details of the aforesaid proposition, insight’s most important psychological features are shortly illustrated below.

The comparison of several definitions of insight from the most relevant psychological literature about the latter,<sup>69</sup> reveals its crucial features:

‘(...) insight is the capacity to gain accurate and a deep understanding of a problem and it is often associated with movement beyond existing paradigms.’<sup>70</sup>

‘Insight occurs when a person suddenly reinterprets a stimulus, situation, or event to produce a nonobvious, nondominant interpretation.’<sup>71</sup>

‘(...) the term insight has been used to refer to the sudden and unexpected understanding of a previously incomprehensible problem or concept.’<sup>72</sup>

<sup>61</sup> Hutcheson (1928) 278.

<sup>62</sup> For general review see M. Wertheimer, *Productive thinking* (1959) 70, 107; and D.P. Schultz & S.E. Schultz, *A history of modern psychology*, (10th ed. 2011) 261–285 and literature cited herein.

<sup>63</sup> J. Metcalfe & D. Wiebe, ‘Intuition in Insight and Noninsight Problem Solving’, (1987) *Memory & Cognition*, 15(3) <10.3758/BF03197722> 238–246 [hereinafter Metcalfe & Wiebe (1987)].

<sup>64</sup> K.S. Bowers, G. Regehr, C. Balthazard & K. Parker, ‘Intuition in the Context of Discovery’, (1990) *Cognitive Psychology* 22(1) <10.1016/0010-0285(90)90004-N> 72–110 [hereinafter Bowers et al. (1990)].

<sup>65</sup> See Ohlsson (1992) 1–44.

<sup>66</sup> R.S. Siegler, ‘The rebirth of children’s learning’, (2000) *Child development*, 71(1) <10.1111/1467-8624.00115> 26–35.

<sup>67</sup> See: S.M. McCrea, ‘Intuition, Insight, and The Right Hemisphere: Emergence of Higher Sociocognitive Functions’, (2010) *Psychology Research and Behavior Management*, 3, <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3218761/#>> 1–39 [hereinafter McCrea (2010)]; J. Kounios & M. Beeman, ‘The Cognitive Neuroscience of Insight’, (2014) *Annual Review of Psychology*, 65 <10.1146/annurev-psych-010213-115154> 71–93 [hereinafter Kounios & Beeman (2014)]; N.K. Horr, C. Braun, T. Zander & K.G. Volz, ‘Timing matters! The neural signature of intuitive judgments differs according to the way information is presented’, (2015) *Consciousness and Cognition*, 38 <10.1016/j.concog.2015.10.008> 71–87; and K. Rothmaler, R. Nigbur & G. Ivanova, ‘New Insights Into Insight: Neurophysiological Correlates of the Difference Between the Intrinsic “Aha” and the Extrinsic “Oh Yes” Moment’, (2017) *Neuropsychologia*, 95 <10.1016/j.neuropsychologia.2016.12.017> 204–214.

<sup>68</sup> Interestingly, apart from Hutcheson, there exist a much recent examples of misjudging intuition and insight in legal theory. For instance, Crowe’s description of legal reasoning in hard cases states: ‘*The judge* [in hard cases] *may therefore be expected to move back and forth between her initial judgment and the legal framework of rules and principles, seeking guidance on the appropriate decision. This may involve modifying her original assessment of the case and the acceptability of various possible results. However, it may also involve modifying her understanding of the legal rules and principles*’ (Crowe (2018) 83). Crowe claims herein that hard cases cannot be the subject of human intuition, but he forgets about insight – and aforementioned characterization appears to match the Theory of Representational Change.

<sup>69</sup> Kounios & Beeman (2014) 73.

<sup>70</sup> McCrea (2010) 28.

<sup>71</sup> Kounios & Beeman (2014) 71.

<sup>72</sup> Zander, et al. (2016) 3.

In the scope of the above, insight can be understood as the process of a mental creation of a novel solution to an atypical problem.<sup>73</sup> Some of its main characteristics are: an impasse (a deadlock in problem solving), an 'Eureka' or 'Aha!' moment (an abrupt receiving of the solution), and positive emotional response (feeling of excitement) after reaching the answer.<sup>74</sup>

From the perspective of the intuitive approach, the correlation between insight and intuition is especially intriguing. Specifically, according to the contemporary research, it is not clearly evident if intuition can actually generate the impasse— which insight subsequently overcomes – or whether intuition simply encompasses insight, with the latter being one of the stages of intuitive problem solving. Facing this dilemma, two models of the intuition-insight relationship were presented by Zander et al.<sup>75</sup> The first one is the continuity model of intuition based upon the analysis of Bowers et al.,<sup>76</sup> where insight emerges from intuitive thinking and the sole occurrence of a spontaneous realization is not perceived as a separate mental mechanism, but rather as a concomitant feeling of reaching the possibility of the conscious verbalization of the answer.<sup>77</sup> In the continuity model, therefore, experience based tacit knowledge firstly triggers the intuitive feeling of coherence towards the solution, but that perception cannot be consciously expressed. Afterwards, the second stage of intuition (the insight stage) occurs, and the solution becomes possible to express verbally. The role of insight in this conceptualization is not independent. Instead, insight serves as a conceptualization of the final part of intuitive problem solving, which main characteristics are: an impasse (the answer cannot be consciously expressed) and 'aha' moment (the answer becomes consciously available). Intuition, on the other hand, is perceived in the continuity model as a collective set of particular occurrences: memory (or experience), tacit knowledge, and insight itself. The crucial assumption of the continuity model, therefore, is that insight emerges directly from intuitive knowledge and processes.<sup>78</sup>

Notwithstanding the variety of usefulness of presented conceptualization, the continuity model provokes criticism. One of its main counterarguments claims that the continuity model does not provide a satisfactory explanation why insight (or insight stage) actually occurs. Two proposed answers – the sole 'arrival' of the solution to the consciousness, or a substantial change in problem understanding – are not furtherly investigated within the scope of considered conceptualization. Crucially, none of the explanations mentioned in the previous sentence is also preferred by the continuity model. For legal domain, therefore, the lastly mentioned appears to be of limited utility. The actual problems in legal practice – taking the possibilities of time for deliberation, consulting the issue with other legal specialists, or exploring the various sources of legal 'written' knowledge – in the scope of insight problem solving arguably refer more to the reorganization of the understanding of legal standard behind the case. In legal-theoretical context, therefore, the explanation of processes underpinning the creation of the solution of the legal case is vital, and this undermines the serviceableness of continuity model of insight for the presented analysis.

The second model of insight – the discontinuity model – may be described as standing in 'opposition' to the former. The discontinuity model was based on the research of Ohlsson,<sup>79</sup> in which he focuses on the mental reinterpretation or reconstruction of a problem.<sup>80</sup> Ohlsson puts the sum of his conception under

<sup>73</sup> The atypicality of the problem is understood subjectively in sense that it is compared only to the internal sphere of knowledge of the particular person engaging the concrete challenge. The atypical problem is, hence, embodied in a factual situation which has not been previously experienced by the problem solver, or its previously used interpretation now generates an improper solution.

<sup>74</sup> See Metcalfe & Wiebe 1987, p. 240 and next. It has to be indicated, however, that from the perspective of psychological examination all of these mentioned characteristics are disputable as definite factors of insight. For instance, Kounios and Beeman argue that there are cases of insight without an impasse. This can happen when (1) a person finds solution while not focusing on any specific strategy of solution, (2) while person involved in process of problem solving and not reaching an impasse experiences an 'aha' moment, or (3) while insight occurs without any problem under consideration (Kounios & Beeman (2014) 73).

<sup>75</sup> Zander, et al. (2016) 6.

<sup>76</sup> Bowers et al. (1990) 74.

<sup>77</sup> '(...) the cognitive processing from an intuitive hunch toward an explicit insight is gradual and proceeds in two stages. In the first stage, the guiding or intuitive stage, environmental cues trigger the activation of tacit knowledge associatively connected in semantic memory, which results in an implicit perception of coherence that (yet) cannot be explained verbally. (...) In the second stage of intuition, the integrative or insight stage, information becomes consciously available, which is enabled via a gradual accumulation of the previously activated concepts.' – Zander et al. (2016) 6.

<sup>78</sup> What is particularly important for our further deliberations, insight is generated from the perspective of the continuity model due to the gradual accumulation of intuitive knowledge – that is the experience in recognizing and utilizing environmental patterns of certain domain of decision making. After a 'breaking point' is reached, the answer to the task becomes consciously available, and the solution is in accordance with previously accumulated intuitive cues – see Zander et al. (2016) 6.

<sup>79</sup> Ohlsson (1992); S. Ohlsson, Deep learning: How the mind overrides experience (2011) 88–94 [hereinafter Ohlsson (2011)].

<sup>80</sup> A number of researchers construct their analyses of insight on the reconstruction of mental representation of the problem – see for instance Ohlsson (1992); S.J. Shettleworth, 'Do animals have insight, and what is insight anyway?', (2012) *Canadian Journal of Experimental Psychology/Revue canadienne de psychologie expérimentale*, 66(4) <10.1037/a0030674> 217–226.

the name of the Theory of Representational Change, crucial part of which is the Redistribution Theory of Insight.<sup>81</sup> According to the latter, an impasse in the process of problem solving is created by the wrong mental representation of the task. To break this deadlock and reach the solution, therefore, a person needs to recompose his or her initial view on the question. This account of insight is particularly interesting from the legal-theoretical perspective. For instance, considering the previously discussed phenomenon of hunch, Hutcheson's conceptualization of the latter matches the features of insight (impasse as 'brooding over the case', 'Aha' moment as intuitive flash of understanding), which was already noticed by Brožek.<sup>82</sup> The sole introducing of a concrete psychological concept to the legal conceptualization is a step in the right direction considering utilizing psychological evidence in legal domain – however, it leaves unexplained what mechanisms are actually responsible for the insight itself.<sup>83</sup> Importantly, only after reaching this latter stage of investigation it is possible to actually re-assess the argumentative of legal theory, for previously ended conceptualizations – although of unquestionable great usage – cannot match the normative legal standards, as they remain principally descriptive.<sup>84</sup> The Redistribution Theory of Insight, on the other hand, delivers detailed analysis of processes underpinning the insight problem solving, and because of that fact it is chosen – alongside the discontinuity model – to exemplify the intuitive approach. To ensure the latter, the vital aspects of the Redistribution Theory are provided below.

The Redistribution Theory partitions 'insight sequence' into four stages: search, impasse, insight, and aftermath.<sup>85</sup> Search occurs when the person who attempts to solve the problem investigates its fact, and gradually gains an understanding of the inferences present within the task. Importantly, according to Ohlsson, the problem solver generates and values the different options available to obtain a solution. The stage of an impasse is caused by the cessation of the generation of those options.<sup>86</sup> If an impasse occurs, the further processing of the task depends on its cause. Ohlsson distinguished between warranted and unwarranted types of impasse. In the case of a warranted impasse, the problem solver 'lacks the competence, capacity or knowledge that is necessary for the solution'.<sup>87</sup> Because of that fact, the generation of the solution is impossible without expanding the knowledge of the person working on the task.<sup>88</sup> The third stage – insight – can only happen if the impasse is unwarranted, which for Ohlsson means that the problem solver has the knowledge and skills indispensable for achieving an answer prior to the task. If this condition is fulfilled, insight can occur in its wake.

For the Redistribution Theory, insight is a mental event. The person who encounters an unfamiliar problem generates its initial representation.<sup>89</sup> This representation subsequently creates the next 'layers' of understanding, based on subjective rules of inference. Importantly, those rules additionally prevent retrieval from

<sup>81</sup> The choice of the Redistribution Theory implies the application of The Theory of Representational Change and the Discontinuity Model of Insight, as both of those are based on the assumptions of the former. The Redistribution Theory, in turn, was chosen – besides the argumentation presented further in this section – due to their correspondence with both, the presented conceptualizations of legal insight (Hutcheson-Brožek), and the layer-like process of supporting the concrete decision on the basis of previously attained presuppositions. The aforementioned does not change the fact that whether or not insight occurs in court rooms can only be answered with experimental verification.

<sup>82</sup> See pp. 18–19 of this paper.

<sup>83</sup> Apart from introducing a purely novel conceptualization of judicial problem solving, the full work of Brožek attempts to reconstruct the general model of the legal mind on the basis of three components: intuition, language and imagination. The analysis of insight, therefore, remains secondary to the concept of legal intuition – in contrast to the work presented, where insight is vital for providing the main example, and intuition creates the foundations of the intuitive approach presented. See: Brožek (2018) 17.

<sup>84</sup> In the context of this analysis, the answer 'legal hard cases are solved by the psychological process of insight' – even if experimentally proven – would not be satisfactory, for the usefulness of purely physiological explanations, in the context of legal theory, remains imperceptible for the law. To truly enrich the legal domain, therefore, the implications of their consequences, pertaining to the understanding of existing legal concepts, have to be considered.

<sup>85</sup> Ohlsson (2011) 87–116.

<sup>86</sup> In this context, Ohlsson recalls two pre-initiators of an impasse: mental effort and a subjective emotional response. As he states: '*If solution attempts are costly in terms of effort or time, problem-solving activity might cease altogether. If solutions are cheap to generate (...) [problem solver] might continue to re-execute solutions already found unsatisfactory. Subjectively, the person experiences himself as "stuck," out of ideas, unable to think of a new approach; his mind is "blank"*' (Ohlsson (2011) 91).

<sup>87</sup> Ohlsson (2011) 91.

<sup>88</sup> To give a couple of simple examples, it would be almost impossible for the non-legal specialist from Poland to solve procedural questions in a complicated trades secret case within the British system of law (or even for the Polish lawyer without specialist knowledge in British Trade Law) and vice versa. The same applies to the person who wishes to create a computer program in a programming language that he or she knows nothing about.

<sup>89</sup> As Ohlsson states, the mental representation of the task must occur. This is due to the fact, that the human mind constantly generates heuristic interpretations to ensure the ecologically functional understanding of the irregular and imperfectly known environment which human beings proceed in (Gigerenzer (2006) 36). As a consequence, on the other hand, heuristic processes of mind can generate biases (Tversky & Kahneman (1974) 1125) and impasses (Ohlsson (1992) 11).

the person's knowledge store, something which is inconsistent with considering options.<sup>90</sup> The layers (inferences based on initial representation) are subsequently valued in comparison to their simulated effects and subjective feeling of satisfaction. This fact causes the impasse – if the initial representation of the problem leads to the parts of personal knowledge store which are misleading or not useful for solving the problem, the solver experiences the feeling of 'deadlock'. The initial representation constrains mental capacity and does not allow elements of knowledge indispensable for solving the task to be employed. The impasse stage, however, can force the solver to reevaluate the option he or she has chosen and to create alternatives. This process can be described as being the inverse of generating conclusions on the basis of initial representation of the problem – here, those conclusions are reconsidered and valued prior to their respective premises and which, in turn, are reevaluated as well in the case of unsatisfactory results. If the initial representation of the problem is eventually reevaluated,<sup>91</sup> insight can occur and the impasse may be broken. Ohlsson distinguishes three main types of changes to mental representation which allow for breaking an impasse: elaboration, re-encoding, and constraint relaxation.<sup>92</sup> Elaboration occurs when the initial representation of the problem is incomplete – that is, when another piece of information (already stored in the memory) is indispensable for the answer to be reached. This information can be attained with the use of short-term or long-term memory knowledge, usually by studying the problem and noticing the relevance of previously omitted fact.<sup>93</sup> The second process helping to break an impasse, re-encoding, operates under the assumption that the initial representation of the problem is fundamentally mistaken.<sup>94</sup> Finally, the constraint relaxation process holds that the wrong representation pertains to the solution of a problem.<sup>95</sup>

The presented features of The Redistribution Theory provide the conceptual toolbox to introduce a novel perspective in the theoretical analysis of hard cases – conceivably distinct from previously mentioned approaches. This perspective focuses on the mental representation of the problem – that is on the subjective illustration human mind recreates from the facts of the task it undertakes. The perception and understanding of the faced question are not embodied in analytic processes of reasoning – instead, they have their core in personal intuitive experience. Consequently, after being exposed to the problem, the human mind immediately produces the mental 'model' of the issue with propositional solving options.<sup>96</sup> From the legal-theoretical point of view, the advantage of introducing mental representation lies in underscoring how mental models of inference, which control the process of reasoning in legal cases, are actually constructed by legal minds. For instance, in the scope of the Redistribution Theory, it is possible to assume that divergent solutions to hard cases stem from the fact that lawyers can construct different mental models of the same hard case – and that can happen because of the variety of their individual, subjective experience of the legal system and legal normative standards, embodied in their legal intuition.

<sup>90</sup> For instance, in a homicide case, an experienced judge would presumably have an initial representation of the rules he or she must obey while giving the justification for the judgement. Assuming that one of them states that the justification must be based on legal premises, the option to explain the verdict by means of a subjective feeling of an 'evil look' on the face of the defendant would not be considered – unless the initial representation is changed.

<sup>91</sup> Reevaluation breaks the boundaries created by the concrete 'layer' of intuitive rules. Those boundaries, if broken down, allow previously rejected options to be considered. The initial representation is only reevaluated if those options also prove futile for attaining a solution. If one of the previously rejected options can generate a satisfactory solution, insight can occur on this concrete 'level' or 'layer' of understanding.

<sup>92</sup> Ohlsson (1992) 12.

<sup>93</sup> For instance, in the Glass Jar Problem (how to open a glass jar with a metal lid and without breaking it; Ohlsson (1992) 11) the crucial pieces of information necessary to solve the task are that the jar is made of glass and the lid is made of metal (easily and rapidly attained by glancing at both objects) and that metal expands faster than glass when heated (must be recalled from the long-term memory).

<sup>94</sup> In Karl Duncker's candle problem (how to attach a candle to the wall so that the wax does not drop on the floor, while having only a pack of thumbtacks; Ohlsson (1992) 14) the container of thumbtacks is usually perceived by the person who is solving it from the perspective of its primary role – as a container of thumbtacks. To solve the task, however, the container has to be represented in a different manner, namely as a separate object which can hold a candle.

<sup>95</sup> In the nine dot problem (how to connect nine dots which are drawn in three rows, three dots each, without lifting the pen; Ohlsson (1992) 15) the initial model of the answer usually assumes that crossing the boundaries of an invisible square, in the form of which the dots are presented, is forbidden. Noticing that this part of the mental representation of the solution is incorrect is again indispensable to break the impasse.

<sup>96</sup> In this context, the creation of a mental representation of the task is based upon human intuition – that is tacit knowledge and experience-based rules of inference (see: Ohlsson (2011) 76 and next). Because of this notion, the implication of the Redistribution Theory of insight should be prescribed as a part of the presented intuitive approach from the perspective of this article, as the author assumes that legal intuition, created in the process of legal education, stands for the actual understanding of the system of law by lawyers.

Summarizing this section, the goal of presented intuitive approach is not to create a general theory of legal reasoning.<sup>97</sup> Instead, intuitive approach provides the necessary means to expand the understanding of mechanisms laying behind legal decision making. As these mechanisms are either omitted by legal theorists, or introduced with scarce consideration of legal normative standards, the presented perspective delivers the promise of connecting classical legal theoretical view on legal reasoning and its psychological counterpart. The aforementioned formulates the main purpose of the intuitive approach, and that is to reduce the loop-hole between legal theory and legal practice – i.e. between the manner of how legal reasoning is conceptualized by lawyers and how it actually works.

The section above outlines the relevance of intuitive approach for legal-theoretical assessment of reasoning in hard cases. However, to directly illustrate how the presented perspective may be informatively profitable for legal theorists, the next section applies the intuitive approach – with the specific usage of insight – to reconsider and reconceptualize two examples of well-known hard cases: *Riggs v. Palmer* and *Owens v. Owens*.

## 5. Legal reasoning in hard cases: An intuitive approach

The main rationale behind the intuitive approach is stated in the claim that legal-theoretic models of reasoning may arguably be more accurate and profitable for the theory of law – if based on the scientific investigation on intuitive and intuitively-related mental mechanisms.<sup>98</sup> Notwithstanding the foregoing, the relevance of the intuitive approach is not merely general. The presented analysis can have a concrete application, which constitutes its several merits, indicated later in this section. Below, the Redistribution Theory is propositionally introduced to reconceptualize the *Riggs vs Palmer* hard case under the assumptions of intuitive approach. Additionally, the effect of the former is juxtaposed with a number of Dworkin's notions on regarded legal issues.

*Riggs vs Palmer* is the first case used by Ronald Dworkin in his discussion with Hart to distinguish the principles of law from rules of law.<sup>99,100</sup> The case was brought against Elmer Palmer, who murdered his grandfather to prevent him from changing his last will and thus denying him his inheritance. Dworkin argues that the judges of the New York Court of Appeals overruled the rule of law, giving priority to the legal principle. The statutory regulations found that the will of the testator can in no circumstances be controlled or modified and this interpretation was recognized by the Court. However, it was brought under the consideration of the judges that such an interpretation stands against the legal principle that 'no one shall be permitted to receive profit from her or his crime'. The final verdict upheld the latter principle as fundamental for the system of law and therefore Elmer Palmer did not receive his inheritance. Interestingly, a similar question was addressed by the Supreme Court of North Carolina a year before the *Riggs vs Palmer* case was considered. In the case *Owens vs Owens*,<sup>101</sup> the judges stated that although 'the unnatural and wicked act of taking her husband's life' was morally detestable for the plaintiff, who was the wife and a co-murderer of Mr. Owens, they could not find 'any legal obstacle' which 'can be in the way of her seeking to get what the law in unqualified terms gives her'. The respective rules of law were approximately equipollent for both courts. Importantly, in the context of intuitive approach it is additionally possible to hypothesize that the experience-based rules of reasoning were also similar in both cases, as the education and practice of the judges was arguably based on the premises of the same legal system. In 1888 (*Owens vs Owens*) and 1889 (*Riggs vs Palmer*), the dominant understanding of how judges should proceed and decide cases was based on John Austin's version of analytical positivism. Without introducing the full scope of Austin-based theory,<sup>102</sup> one of the main assumptions of 19<sup>th</sup> century American positivism urged court judges to interpret the legal prescriptions as literally as possible.<sup>103</sup> Moral issues were not allowed to influence judicial decisions, since it was the right of the legislature to provide laws and the obligation of courts to execute them in a way they are delivered by the ruler.<sup>104</sup> Crucially for the future deliberation, moral and ethical decisions are also based on human intuitive

<sup>97</sup> In sense of Posner – see R. A. Posner, 'Legal reasoning from the top down and from the bottom up: the question of unenumerated constitutional rights', (1992) *The University of Chicago Law Review*, 59(1) <10.2307/1599942> 433–450 [hereinafter: Posner (1992)].

<sup>98</sup> See section 2 and 3 of this article.

<sup>99</sup> *Riggs v. Palmer*, 115 N.Y. (1889), 506.

<sup>100</sup> Dworkin (1978) 23.

<sup>101</sup> *Owens v. Owens*, 100 N. C. (1888) 240.

<sup>102</sup> See, for general review: J. Austin, *The province of jurisprudence determined* (1832); Hart (1957) 71. <<http://www.jstor.org/stable/1338225?origin=JSTOR-pdf>> 593–629; and Hart (1961) 18.

<sup>103</sup> The same applies to the rules of operating on precedents – see Hart (1961) 29, 95.

<sup>104</sup> 'Ruler' is naturally understood here as any entity authorized to create laws – e.g. the nation, the king, the democratic government, the occupant etc.

mechanisms, which makes it a possible scenery for the occurrence of insight.<sup>105</sup> Moreover, the former legal assumptions directed the education of the lawyers, as well as the judges. The court judge was therefore trained to enact the laws in court in a positivistic manner. Put differently, judicial intuition of the judges in both courts should plausibly deliver similar answers to the problems based on analogical legal issue. Yet, the final judgments of *Owens vs Owens* and *Riggs vs Palmer* were almost mutually opposite.

Surprisingly, the aforementioned considerations can support the usefulness of intuitive approach to *Riggs vs Palmer*, with the starting point in the assumption that legal education can arguably create legal intuition, which, in turn, can influence legal decisions.<sup>106</sup> Additionally, within the scope of this article *Riggs vs Palmer* is considered as indeterminate by legal reasoning. There are two main arguments for supporting this statement: first, the case was judged with a dissenting opinion constructed by Judge John Gray, and secondly it created a tremendous number of legal disputes, starting with the presented polemics of Hart and Dworkin. The controversy in judicature, as well as in legal theory, regarding whether or not the judgment over *Riggs vs Palmer* was appropriate, have, hence, undoubtedly arisen in the domain of law.<sup>107</sup> The two presented factors, therefore, mark the *Riggs vs Palmer* case as being indeterminate from the point of view of the proposed analysis, accordingly to the argumentation given in section 2.

With abovementioned assumptions, Dworkin argumentation may arguably be reinterpreted in some of its parts within the scope of the intuitive approach. The latter allows for an investigation of *Riggs vs. Palmer* which differs in two respects from its classical legal-theoretic assessments. Firstly, it revises the role of intuition in solving the considered case, and secondly, it perceives the normative standards driving judicial minds as intuitively-based. Consequently, the fundamental question to answer here – being simultaneously the one of the crucial issues justifying the whole presented argumentation – is on what basis judges, or lawyers, make their decisions. This matter also appears to be at the heart of previously presented legal-theoretical accounts of Hart and Dworkin.

From the perspective of the Redistribution Theory of Insight, in the case of *Riggs vs Palmer*, judicial experience based intuition would presumably deliver the initial representation of the task based on the premise that the law should be executed literally with the exclusion of subjective moral issues.<sup>108</sup> Analogically to Ohlsson, this initial view could dictate the subsequent steps of understanding the problem. In the presented example, those steps could consist of the set of inferences, such as ‘the system of law is complete’, ‘there is a legal rule which gives the heritage to the plaintiff’, ‘there is no legal rule which provides otherwise’, ‘the rule that a murderer should not inherit is moral, therefore it cannot be applied’ et cetera.<sup>109</sup> This set of intuitive rules of legal mind creates judicial intuition which, in turn – according to the intuitive approach – determine judicial verdicts by the influence on their process of decision making.

The question occurs in terms of the scope of the difference between the *Owens vs Owens* and *Riggs vs Palmer* verdicts, namely what could cause the substantially different decisions in similar cases, since the intuitive cues appears to be similar for both courts.<sup>110</sup> This difference cannot be explained on the

<sup>105</sup> See e.g. J. Haidt, ‘The emotional dog and its rational tail: a social intuitionist approach to moral judgment’, (2001) *Psychological review*, 108(4) 814–834; and J. Haidt, ‘The new synthesis in moral psychology’, (2007) *Science*, 316(5827) <10.1126/science.1137651> 998–1002. Notably, intuitive-based morality can arguably be of significant importance for legal domain, considering expert intuition and artificial intelligence. In the latter context of moral agency of human being and expert systems, compare the latter with: B. Brożek, & B. Janik. ‘Can artificial intelligences be moral agents?’, (2019) *New Ideas in Psychology*, 54 <<https://doi.org/10.1016/j.newideapsych.2018.12.002>> 101–106.

<sup>106</sup> Kahneman (2012) 237–242. For the sole context of expert intuition additionally see D. Kahneman & G. Klein, ‘Conditions for intuitive expertise: a failure to disagree’, (2009) *American Psychologist*, 64(6) <10.1037/a0016755> [hereinafter Klein & Kahneman (2009)]; and K. A. Ericsson, ‘Expertise’, (2014) *Current Biology*, 24(11) R508–R510.

<sup>107</sup> The sole usage of just two elements – the dispute in legal theory and in judicature – can support the critique that definition proposed in section 2 covers a very broad range of cases. This argument, however, appears to be defeasible. First, not every dispute in judicature can be an example of hard case, as most of such controversies are being solved by higher courts. Only a few, therefore, cause the real problem of indetermination. This also appears to stand a true in the case of theoretical legal arguments, as under the whole scope of legal knowledge some of the disputes are the matter of the lack of knowledge of the participants of the latter, rather than holding a real issue of indeterminacy.

<sup>108</sup> This is an intended simplification, as the internal set of intuitive rules consists of many examples. For instance, if a judge has a strong resentment towards people who murder their family members (because, for instance, his own family member was murdered) the initial representation could differ or be biased, notwithstanding her or his legal education. This issue does not undermine the presented analysis, since it does not assume (or exclude) its own experimental verification, but only generates its proposition of clarifying a novel perspective in legal theory.

<sup>109</sup> Notably, those rules, their conclusions and inferences are subjective. They can be questioned on the basis of legal theory or general science, but in the presented model they are part of judicial intuition, and hence they determine the verdict. To explicitly identify those rules would presumably be impossible – nevertheless, on the basis of legal and historical findings on legal positivism and judgments it can be arguably justified to determine examples of probable positivistic thinking in court rooms.

<sup>110</sup> In *Riggs vs Palmer* the main judicial opinion consists of the critique of *Owens vs Owens* – see *Riggs v. Palmer*, 115 N.Y. (1889) 514.

basis of the legal theories presented in any other way than by adjusting the existing rules of the specific normative system to make it capable of introspective perception. The intuitive approach, however, can propose a more scrupulous and illuminating perspective. According to Ohlsson, the final stage of the process of decision-making initiates the process of the valuation of the solution. Assuming that both of those cases have analogous initial representation, and the intuitive set of experience-based rules is congruent, the chosen final options would probably be similar – that is, in both cases the plaintiff who murdered his devisor should receive their inheritance, not excluding his or her criminal punishment. As stated in the justifying opinion of both courts, this option was valued against the moral intuitive rule that the murderer should not profit from his or her crime. From the perspective of the Redistribution Theory of Insight, the difference may lie in the effect of the valuation. In the *Owens vs Owens* case, the judges stated that it was the role of the legislator to protect morality and since their own role was to execute laws directly, they could not be encumbered with moral responsibility. No insight was therefore needed to ensure the final verdict in comparison to *Riggs vs Palmer*.<sup>111</sup> In this second case, however, the final decision differed. According to the Representational Change Theory, the answer was presumably valued negatively because of moral intuitive cues<sup>112</sup> and this evaluation spreads to the previously accepted layers of understanding. As a result, some of them are rejected as leading to an undesirable conclusion and a reevaluation of its premises occurs. However, this reveals alternative ways to answer a problem. Assuming that in the presented case the rule ‘a judge must obey the literal meaning of the rules’ was evaluated as leading to the undesirable conclusion, and its premise is based on the intuitive positivistic ideology which had been learned by the judge, the negative evaluation may change this perspective and open up new possibilities of introducing the moral intuitive solution. This is the stage when – according to Ohlsson – insight occurs. The judges in *Riggs vs Palmer* were restricted by the constraints of their own intuitive cues but, by negatively evaluating the options which these intuitive cues proposed in *Riggs vs Palmer*, they were forced to reject the rule that ‘no moral rules can apply to the case’. This rejection opened up a path to the previously blocked moral intuitive solution that implied the rule ‘no person shall gain profit from her or his own crimes’. The final verdict of *Riggs vs Palmer* was subsequently derived by means of intuition.<sup>113</sup>

The above-introduced illustration reveals the distinction between the intuitive approach and previously presented conceptions regarding hard cases. As it appears, the central issue, which legal theory attempts to solve in the problem of hard cases, is of a normative nature and pertains to the question of the correct understanding of law. Hart’s and Dworkin’s argumentation is, therefore, concentrated on their subjective perceiving of the background of the legal system, with the actual process of legal decision making serving as rather folk-psychological, secondary explanation.<sup>114</sup> Accordingly to the intuitive approach, however, the decision in legal case is not wholly available for the introspective analysis. From this perspective, the proposition of Dworkin and Hart are not genuine explanations of how judges made their verdicts in these cases, but rather a refined rationalizations of these judgments.<sup>115</sup> The intuitive approach is different, for it perceives judges as

<sup>111</sup> This thesis is based on the simplification that the presented model is constructed upon a theoretical conceptualization of Redistribution Theory. It is possible that under the complexity of the decision-making process of *Owens vs Owens*, insight occurred at one or many of its stages (for instance, giving the successful proposition to construct the justification), but this notion addresses the mentioned experimental verification of the model which is not deliberated in this paper.

<sup>112</sup> The process of evaluation can arguably be made by mental simulation – see Benjamin K. Bergen, *Louder than words: The new science of how the mind makes meaning* (2012) 45, and Brožek (2018) 87.

<sup>113</sup> Intuition is presented here in two meanings – as a simplification of an intuitively acquired tacit knowledge and skill, and as a general concept of human processes of thinking which cannot be consciously controlled. In this second sense, the phenomenon of insight is part of intuition. Without outlying the general spectrum of psychological knowledge, the term ‘intuition’ may sometimes be used in an inconsistent way and generate incorrect conclusions – compare with Glöckner & Witteman (2010) 5–7; and Zander et al. (2016) 2.

<sup>114</sup> One of the presuppositions of the intuitive approach is the assumption that legal theories which mostly ignore the descriptive sphere of law are prescribed as possibly inaccurate. This argument does not make legal conceptions *a priori* in contrary to the reality – rather it focuses on the cause of the possibility of this inadequacy. Law cannot exist without its practical sphere and conversely, normative assumptions and findings are inseparably embodied in legal reality. Hence, the perspective of firstly illustrate the descriptive realm – before making normative claims – can arguably deliver more consistent view for the legal theory.

<sup>115</sup> This notion appears to be relevant for the other theoretical conceptions presented herein. For instance, the judicial discretion, described by Hart as going beyond the system of law (Hart (1961) 252) is not in conflict with legal normativity (normative assumptions of the system of law), for the term ‘discretion’ is used in statutory passages and functions as part of the legal system. If, therefore, ‘discretion’ means ‘going outside the legal system’, and such action is *e.g.* admissible by judicature, no hardship is delivered to the robustness of legal theory.



real-world agents whose decisions are based on their actual legal intuition.<sup>116</sup> Simultaneously, the proposed view does not exclude the normative aspect of legal reasoning – instead, it reassess them with regard to the actual features of lawyers' minds.<sup>117</sup>

The intuitive approach assumes that legal professionals, including judges, are educated and trained specialists in the field of law. Consequently, the aforementioned share common principles of both knowledge and intuition.<sup>118</sup> The pure conceptions of legal theory are of secondary usage within its scope – although they remain indispensable to ensure logical or argumentative consistency crucial for normative assumptions. Simultaneously, the presented view does not establish a completely novel perspective on the legal system, for it perceives the assumptions generated by theoretical findings as future fundamentals of knowledge and intuition of the new generation of legal practitioners. Notwithstanding the foregoing, the proposed perspective differs from the traditional frameworks of legal reasoning, since for the intuitive approach it is not the law and its normativity which states the rules of the legal system, but legal intuition.

To summarize, considering the scope of this work, the presented model of conceptualization can easily be adapted to different examples of hard cases. The means of the Redistribution Theory of Insight provide several advantages over some traditional legal concepts embodied in top-down theoretical approach,<sup>119</sup> such as those of Hart or Dworkin. First, it can be experimentally verified, as nowadays there exists a multitude of scientific possibilities to examine the occurrence of insight in problem solving. Second, it ensures a descriptive explanation of the process of reasoning in hard cases, which can be the basis for a normative theory. Addressing this process in the opposite way – that is, to ensure a theoretical clarification on the basis of a normative concept – is arguably less profitable (although not futile), since purely introspective explanations are likely less accurate in most cases. Third, the intuitive approach creates a partially new perspective for the legal system, one which focuses on the intuition of legal practitioners and, as follows, on the process of learning and teaching the law.

## 6. Conclusion

The proposition of introducing psychology to the legal domain is hardly new – at the same time, however, several indications of presented analysis can arguably be considered as a novel view for the legal theory. The most vital thesis for the intuitive approach assumes that the legal system is a consequence of legal intuition. This perspective can be illustrated as being especially effective in terms of the phenomenon of hard cases and legal theoretical approaches to the topic of generating different solutions in similar incidents by lawyers. The introduction of the Redistribution Theory of Insight assumes that the indetermination of a legal state, understood as a possible or factual court case, generates a decisive problem which is solved by legal specialists – that is, human beings trained to be fluent in the law. As follows, according to presented psychological research, their decisions are at least partially subject to their intuition – that is, to the tacit knowledge and inferences of the legal domain which have been learned by expanding their practical experience. Those assumptions not only justify the proposed perspective of legal analysis but show its advantages in terms of accuracy, since it is based on psychological, experimentally verified presuppositions. The intuitive approach, therefore, may arguably be more accurate than traditional attempts to theoretical investigation on legal reasoning. At the same time, its purpose is not to diminish the traditional conceptions of legal theory but rather to emphasize the validity of its reevaluation and gives researchers in the legal domain the conceptual tools to do so.

The intuitive approach is not limited to one psychological theory alone, nor to the legal phenomenon of hard cases. Simultaneously, it shares the general principle that the basis of reasoning in the legal domain is mainly embodied in legal intuition. This thesis, however, does not create limitations in terms of its research methodology for interdisciplinary studies of law and psychology. As presented above, the proposition of the implementation of insight with the use of Hutcheson's theory of hunch has already been presented by

<sup>116</sup> Knowledge is understood herein as the set of facts and inferences known to the decision maker. Intuition is presented from the psychological perspective – that is as a (partially) unconscious process based on experience which leads to the recognition of a solution to a problem. This implementation is extremely sketchy, for as was indicated before, the phenomenon of human intuition is enormously complex. For an outline of the issue, and a review of the literature, see Glöckner & Wittman (2010); and K.G. Volz & T. Zander, 'Primed for intuition?', (2014) *Neuroscience of Decision Making*, 1 <10.2478/ndm-2014-0001> 26–34.

<sup>117</sup> The term 'intuitive' does not wholly exclude analytic thinking from the perspective of presented approach. The intuition is constantly corrected by human awareness – see Zander et al. (2016) 2, and references herein.

<sup>118</sup> Both their knowledge and intuition can differ considering for instance various systems of law in different countries. On the other hand, the judicial supervision of supreme courts as well as state examination of candidates for judges and prosecutors can ensure a certain amount of consistency and regularity indispensable for creating intuitive skills – see Klein & Kahneman (2009) 515–526.

<sup>119</sup> See Posner (1992) 433 and next. See also: J. J. Rachliński, 'Bottom-up versus Top-down Lawmaking', in G. Gigerenzer & C. Engel (eds.), *Heuristics and the law* (2006) 159–173.

scholars. The concept, based on the similarities between Hutcheson's description of judicial reasoning in hard cases, does not elaborate on the processes of acquiring the state of insight problem solving by judges and on proceeding with the available information to secure the verdict. Those two problems appear to be crucial in the interpretation of *Riggs vs Palmer*. Nevertheless, the aforementioned proposition may generate results in the context of multidimensional analyses of the minds of legal specialists. The basic premise – that intuition generates most of the answers to legal problems – appears to be accepted herein. Therefore, there is no reason to exclude such attempts from exploring an intuitive approach to the legal domain.

The intuitive approach does not exclude the experimental verification of its premises. Conversely, it urges researchers to examine the basic assumptions of its particular implications, as well as its general ones. Such analyses may be profitable for the better understanding and conceptualizing of the process of reasoning in the legal domain in the context of overall research on human decision-making and problem solving. Eventual positive verification of the former may in consequence put the interdisciplinary studies in the driving seat.

## Competing Interests

The author has no competing interests to declare.

**How to cite this article:** Tomasz J. G. Zygmunt, 'An intuitive approach to hard cases' (2020) 16(1) Utrecht Law Review pp. 21–38. DOI: <https://doi.org/10.36633/ulr.505>

**Published:** 26 May 2020

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