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"Thought Experiments in Law"

Doctoral Dissertation Summary

The Dissertation summarized here deals with the presence and meaning of thought experiments in the field of Law. Thought experiments are a method of reasoning usually associated with physics or analytical philosophy. However, if one assumes the thesis of lack of fundamental methodological distinctness of Law and other fields of human activity, one can consider the presence of thought experiments in Law to be at least probable. The Introduction submits two main theses. The first one, descriptive in nature, states that thought experiments on the field of Law are performed and play a vital role. The second, normative thesis, states that these experiments are a useful and efficient legal reasoning tool, and should be used deliberately and with greater methodological understanding of their function and specificity.

The Dissertation is divided into three chapters. The first one presents the thought experiments phenomenon from a general and philosophical perspective; the second one places them in the context of legal reasoning; the third one is a comprehensive description of examples of their presence and role of theoretical and applied legal reflection in various fields.

Chapter I begins with a short historical outline, highlighting the context of the emergence of the term "thought experiment" itself, as well as presenting a much longer history of the method it labels. Another sub-chapter is a basic analysis of the thought experiment phenomenon so that it is possible to create an operational definition, allowing for further deliberations. The method applied here is the comparison of three well-known thought experiments, which vastly contributed to debates in their respective fields in order to find their common features that can be considered distinctive for this method of reasoning. These experiments are: Galileo's "two falling spheres", John Searle's "Chinese room", and Judith Thomson's "famous violinist". The first one has been formulated in the field of physics, the second one –analytical philosophy, and the third one is normative in nature and involves an ethical issue. The analysis performed in the described sub-chapter allowed to point out a few distinctive features that characterize all of these experiments – an imagined character of a situation described in the experiment, forming a thought experiment in the context of some hypothesis and its "test" character, and the fact that the

entire experiment takes place "in one's thoughts", and thus there is no need for any external research methods. These findings allow to form an operational definition of a thought experiment – it is "a thought tool or method of reasoning, which aims to examine the consequences of a tested hypothesis or adopted normative assumptions by means of mental simulation of a counter-factual situation."

Another sub-chapter focuses on describing the notion of counter-factuality and its entanglement in philosophical contexts of various kinds; this leads to formulating a postulate on replacing the notion within the thought experiment analysis with the notion of "conceivability" as a more adequate and less controversial concept. It stems chiefly from the fact that a thought experiment does not require a situation that never happened and cannot happen. Its crucial feature is the fact that the "feasibility" of such situation is irrelevant to the function and purposes of a thought experiment.

Subsequently, the function of thought experiments is described. Based on the analyses of Mach, Sorensen, and Brożek, a thesis is submitted and validated – thought experiments are the primal and widespread reasoning function, not dissimilar to such mental activities as daydreaming, storytelling, or deliberating on possible courses of action. In view of this, the roots of the thought experiment stem from concrete thinking, aimed at solving practical problems. The main advantages of this type of reasoning are its low cognitive cost and the ability to use previously gained knowledge to solve problems that may appear in the future. It happens relatively rarely that thought experiments result in revealing an internal inconsistency of a theory or a hypothesis, which causes it to be rejected; much more often they allow to reveal an inconsistency between a hypothesis and some element of "background knowledge" (it may be a different theory, common knowledge, conviction, or intuition), which can result in the necessity of rejection or major reformulation of a tested theory. The succeeding sub-chapter is devoted to the types of problems thought experiments may solve. The analysis of both features of such reasoning and actual examples leads to a conclusion that thought experiments can be useful in solving theoretical, practical, and interpretative problems. Thought experiments are "tests" of whether something is possible or necessary; thus, a thesis that they may be helpful only in solving theoretical problems seems valid. In this context, the notions of "possibility" and "necessity" are analyzed under practical and hermeneutical reflection, with submission of arguments that, in a form relative to structure and goals of a thought experiment, these notions may be

sensibly used in these fields; moreover, they are in fact used in the colloquial language. The status of conclusions that are possible to be achieved will be slightly different, but the "testing method" itself and the reasoning structure remain similar, regardless of the field of reflection, in which they are achieved.

Chapter I also describes the most frequent criticisms of thought experiments, along with answers to these criticisms. Many of these were formulated in the context of a dispute on the epistemic status of thought experiments, in which two main sides can be determined – the "Platonists", claiming that thought experiments allow a specific "insight" onto the very structure of laws of nature, and the "Empirics", who believe that thought experiments are simply a different form of an argument and as such, they cannot provide any new information. The concept of experiments as a tool for testing hypotheses by juxtaposing them with the "reorganized" knowledge of an experimenter,formulated in previous sub-chapters, lays ground to the answers to the claims of the "Empirists" without the need of recounting the convoluted intuitions of the "Platonists."Chapter I ends with formulating and describing the postulated criteriaof an evaluation of a thought experiment, which would allow to evaluate the "encountered" thought experiments on one side; on the other, they could become a basis for creating own experiments in a way that allows to avoid errors and inaccuracies. These criteria are: (i) meeting the general construction requirements by the thought experiment, (ii) conciseness, (iii) situating it in the "background knowledge", (iv) limited assumptions, and (v) adjusting it to the audience. These criteria are not binary and are rather fields of conscious analysis every thought experiment should undergo in order to consider it successful enough.

Chapter II begins with describing three main methods of treating legal reasoning. These methods are: formal-logic, argumentation, and hermeneutics. It is indicated that all three main "method blocks" are not properly emphasizing the role of concrete thinking in Law, focusing on abstract thinking. Even hermeneutics, while emphasizing the meaning of "circular thinking" does not provide tools allowing for a precise analysis of the manner, in which thinking using a specific case can influence a comprehensively understood legal reasoning process.It leads to the conclusion that in order to create a good description of methods of functioning of thought experiments in Law, a different model of legal reasoning is necessary. The subsequent sub-chapter describes the model of legal reasoning that divides them into top-down reasoning, conducted from the abstract to a case, and bottom-up

reasoning, where a specific case is analyzed and only on such basis, more general conclusions are built. The key for the described model is the mutual dynamics of both types of reasoning, since it is not possible to solve legal problems efficiently while using only one of them; top-down reasoning requires clarification that is only possible in the context of analysis of specific cases, while conclusions from the bottom-up reasoning must ultimately be incorporated into some abstract structure, so that they can be used as a basis for resolution. The next sub-chapter describes legal syllogism as typical top-down reasoning and *ad analogiam,* as typical bottom-up reasoning. It also indicated that the role of reasoning through analogies may be a good starting point for understanding thought experiments, which are also a manifestation of concrete thinking, based on an analysis of some – imagined, in this instance – case. The final sub-chapter is a description of thought experiment in the context of the proposed model of legal reasoning. Thought experiment is the bottom-up type of reasoning, but its testing function makes it inherently strongly tied to top-down reasoning and interacts with them profoundly.

Chapter III constitutes a proper description of thought experiments in the field of Law. Subsequent sub-chapters are an example-based analysis of their appearance and role in the fields of philosophy of law, legal dogmas, creating, and finally – applying the Law.

The role of thought experiments in the philosophy of law is analyzed based on two main examples – Joseph Raz's "society of angels" and John Rawls' "veil of ignorance". It emphasizes the fact that the presence of thought experiments in the field of philosophy of law seems entirely natural, owing it to the fact that it constitutes a branch of philosophy. It would seem strange if philosophy of law would be devoid of them. The analysis of the examples above employs the criteria of thought experiment evaluation developed in Chapter I. Both advantages and controversies are noted. In the case of "society of angels", the main problem is the issue of placing the experiment in the "background knowledge" and adopting a strong assumption, which – during mental simulation of an imagined situation –may lead to conclusions that undermine the sense of the entire thought experiment. In the case of "veil of ignorance", the controversy may lay in the fundamental difficulty in conducting mental simulation of a described situation. A vital conclusion is the notion that despite these reservations, both thought experiments significantly contributed to the legal-philosophical debate and are still an important reference point in the deliberations on the role of sanctions in Law or the definition of justice.

The importance and function of thought experiments in the field of legal dogmas is described in the next sub-chapter. In view of an interpretative character of most dogma problems, thought experiments in this field are juxtaposed with those used in the field of analytical philosophy. In both cases, the main aim of a thought experiment is "testing" the hypothesis on the interpretation of a given term (in the case of Law – mainly a rule of law or a legal notion.) "Background knowledge" of such experiments is the knowledge of Law and its accepted interpretations, but also normative beliefs or "common sense". The sub-chapter also includes a difficulty in an unequivocal statement, which dogma-related problems are purely interpretative, and which also include a practical aspect. It describes the role of cases in the reasoning process conducted in the field of legal dogmas; it also includes a thesis that many cases are not only examples or counter-examples, but it fills the definition and function of thought experiments in full. The goal of such cases is testing the limits of a postulated interpretation by creating such an imagined situation, which would force using such interpretation. It may transpire that conclusions formed as a result of such thought experiment will force one to reject such interpretation of a rule of law or a legal notion, and modifications will be necessary. Thought experiments are also a way to test how given legal notions will "behave" in different situations. Given the necessity of "multiple tests" and consideration of the largest possible number of situations, thought experiments are a very "frugal" tool for dogmatists, who would otherwise have to "search" each time for actual situations pertaining to their needs. These deliberations are enriched by an analysis of a dogmatist and legal definition of the notion "act" in the field of criminal law, indicating which elements of such definition required and still require developing using thought experiments. Similarly, the idea of "usucaption" is described in the field of civil law. The chapter also includes the justification of a thesis that because of the fact that the Law regulates various aspects of social life, it must be sated with knowledge on specialist and ethical issues, as well as "common sense" intuitions, since otherwise its interpretation will be entirely detached from reality. Thought experiments are a good tool of such "anchoring" of interpretation in "background knowledge". Furthermore, legal dogmas are a symptomatic example of a legal field, in which thought experiments, while widespread in practice, remain largely unnoticed because of a lack of methodological awareness of the status of some parts of conducted reasoning.

Another sub-chapter describes the role of thought experiments in the field of lawmaking. Regulating an aspect of reality requires anticipation of consequences of such regulation, understood in the widest sense possible. Next to various economy analyses or comparative models, a necessary element of such process is also a deliberation on how the proposed rules of law will "behave" in specific situations. It is obviously impossible to look at such situations in the past, since the tested legal rule has not been applied yet. Such thought experiments can be described as "diagnostic". The second identified type are "normative" experiments, the goal of which is to diagnose possible problems of legal or ethical nature, which may appear when a given regulation comes into effect. The core of the analysis is a document entitled *„Wytyczne do przeprowadzenia oceny wpływu oraz konsultacji publicznych w ramach rządowego procesu legislacyjnego"* [Guidelines for Conducting an Evaluation of the Influence and Public Consultation as a Part of the Governmental Legislative Process]; the subsequent stages of the regulation evaluation process in terms of their effect described therein constitute a basis for the analysis of the role of thought experiments on the stage of describing a problem a regulation is meant to solve, formulating its goals, or the selection of the most adequate legal means. The role of "normative" thought experiments is exemplified in an analysis of a debate on future legal regulations on autonomous cars in road traffic. Thought experiments allow to recognize a number of legal and moral problems, as well as allow to debate their solutions at this point in time. As an example, the behavior of an autonomous car in the situation of an imminent accident will be determined by an algorithm. "Should" the vehicle save its "own" passengers from physical harm, even if it means the death of random pedestrians? Should the algorithm differentiate between pedestrians who are breaking the law and those that behaved in accordance with traffic laws? How will the structure of civil liability laws change, if computer will be the only driver? Lawyers and philosophers who deliberate on the shape of future legal regulations can already analyze various potential cases while experimenting in their heads, trying to determine problems that will have to be solved. It is difficult to imagine any other method of reasoning that could replace thought experiments at this point.

Another sub-chapter describes thought experiments in the process of application of law. It compares the continental system with common law systems. In case law, bottom-up thinking is much more natural and widespread among lawyers, but it is the continental system where abstract reasoning requires supplementing and "rooting" it in concrete

thinking. The sub-chapter also describes the difficulties in clearly designating what type of problems may be solved by a thought experiment in application of law. It seems that they can be helpful in making a practical decision on what norm to apply, as well as solving typically interpretative dilemmas. The sub-chapter includes an analysis of a ruling of a court of appeals and a ruling of the Constitutional Tribunal; their reasoning includes arguments that can be reconstructed as a result of conducting a thought experiment beforehand. It also submits a thesis that thought experiments may and do serve a function of coherence, allowing a judge or a clerk to test the planned solution by mentally simulating a situation that will be solved "in a world where such solution already exists". It is especially significant in case law, but wherever case law impacts subsequent decisions of judges and clerks, deliberating on the effects on potential other cases of solving the case at hand in a specific manner seems to strengthen the integrity of the legal system. The chapter also points to a "hidden" character of most thought experiments in case law. Usually the reasoning of a court includes a "ready-made argument", while the process of arriving at such argument remains unseen. It makes research of the existence and role of thought experiments in the law application process is facing some difficulties. Such "masking" of a thought experiment can partly result from lawyers considering it a method that is "epistemically suspect," since it utilizes an "imagined situation." Paradoxically, it can lead to a situation where methodologically sound thought experiments is replaced by anentirely intuitive reasoning, masked as a result of interpretation or weighing of the rules of law.

The Conclusion refers the theses submitted in the Introduction. Both the first, descriptive thesis on the existence of thought experiments in law, as well as the normative second thesis, postulating the necessity of using them in an open and conscious manner, while applying the worked out criteria of their construction and evaluation, are considered sufficiently supported. Examples and arguments that can be found mainly in Chapter III allow for justification of the significance and role of thought experiments in the field of Law, while the criteria and models, worked out in Chapters I and II allow for the creation of proper, successful, and useful thought experiments in the field of widely understood reflection on Law.

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