EXPERIMENTAL LOGIC IN LEGAL ANALYSIS AND COMMUNICATION: THEORY AND PRACTICE

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Abstract: The concept of experimental logic of John Dewey assumes that creativity and subjectivity are the basis of a complex system of legal institutions. The aim of the article is to discuss this concept, to show its assumptions in relation to legal reasoning and to justify, based on this concept, an experimental approach to solving legal problems. A lawyer who wants to go beyond matrix thinking must develop a certain mental and practical agility. Understanding and applying the experimental logic of John Dewey allows for achieving this agility. Although the reasoning based on the assumptions of formal logic is undoubtedly necessary in the work of a lawyer, any strict application of the syllogistic form is not appropriate, as it does not refer to the actual development of law. The dichotomy between theory and practice is completely illusory, since the solution of a legal problem must take into account all its aspects, not only its formal part.

Introduction

Pragmatic legal reasoning allows for a flexible approach to legal problems. Unlike formal logic based on the "if – then" syllogism, this method of analysis gives the opportunity to choose effective tools of reasoning and communication, tailored to the circumstances of the given case. A lawyer who wants to go beyond matrix thinking must develop some mental and practical agility. Understanding and applying the experimental logic of John Dewey (Mendell, 1994), an American philosopher creating at the turn of the 19th and 20th centuries allows for achieving this agility. His concept of pragmatic legal reasoning assumes that creativity and subjectivity are the foundation of a complex system of legal

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institutions. Other systems of legal reasoning attempt to eliminate these aspects by constructing a strictly "scientific" system of legal theory. However, complex human reasoning in every area, including legal, is multifaceted and pragmatic in the fullest sense of these expressions. The goal of the article is to discuss the concept of J. Dewey's reasoning, to present its assumptions in relation to legal reasoning and to justify, based on this concept, an experimental approach to solving legal problems.

In his short essay entitled "Logical Method and the Law" John Dewey presented the theory aimed at offering those involved in the legal decision-making process "a single way of treating cases for certain purposes or consequences in spite of their diversity" (Dewey, 1924). According to Dewey, administrative officials, judges and lawyers should trust in experimental logic and be guided by the general principles considered useful for dealing with concrete legal problems (Dewey, 1924). In other words, by analyzing the consequences of legal reasoning in completed cases, the lawyer can formulate better decisions on cases she is currently working on. Dewey believed

that the analytical system that stands behind the common law is consequentialist. This means that the legal analysis and communication in this system are to be focused on final products and not on the process that leads to these products. This position is justified because the daily operation of the legal system seems to be based on practical aspects of how lawyers deal with specific cases in specific factual situations.

For Dewey (and other pragmatists (Levy, 1991)), human reasoning is a system of trial and error. According to the pragmatic concept, human beings works most efficiently when they are flexible enough to be able to try new ideas smoothly and flexibly. Thanks to this, they can draw on a wide range of conceptual schemes, using those that best suit the given situation. A specific analytical skill useful in a given situation may prove to be completely useless in another situation, not necessarily significantly different. One should then reach for another, more useful skill. Dewey believed that this kind of intellectual dexterity leads to the achievement of goals and the most rational and useful results. In his opinion,

this is the best reasoning, based on the so-called experimental logic.

Dewey believed that legal reasoning reflected a phenomenon he called "a common structure or pattern of human inquiry" (Dewey, 1938). In his opinion, legal reasoning is based on the general paradigm of human thinking: people use his "Renaissance" abilities in a similar way, regardless of the ventures they are involved in. The structure of reason is not, as some might suppose, fixed and abstract. Dewey parted from the rationalist philosophical tradition represented by Rene Descartes and Immanuel Kant and adopted a more fluid and practical form of thinking (Rorty, 1982), designed to follow a straight path to practical results rather than abstract concepts of mind or cognition, developed by other epistemologists and logicians. In simple language, thinking is good if it works. It works when, thanks to it, a person achieves what they want to achieve. Dewey did not agree with the rationalist tradition, emphasizing that there are closed, solid and true forms of intuition and logic on which the human mind rests. For Dewey, human reasoning is an experimental process of inquiry and reflection (Dewey, 1938).

Instead of focusing on the philosophy of mind, as rationalists did, Dewey perceived the human mind in the light of everyday experiences and orienting human knowledge to the goals or consequences of actions: "Search for the pattern of inquiry is not one instituted in the dark or at large. It is checked and controlled by knowledge of the kinds of inquiry that have and that have not worked; methods which (...) can be so compared as to yield reasoned or rational conclusions" (Dewey, 1938). He pointed out the need to ask practical, natural questions: "what would happen if I did it?", "What should I commit to?" (Rorty, 1982). In his opinion, one should not look for universal truths, but methods used here and now, which are the best methods available to achieve specific results (Dewey, 1938).

This position indicates a significant departure from traditional epistemology. Where it looks for logical constants, Dewey categorizes experience in a useful and practical way (Rorty, 1982) and determines the following stages of reasoning: (I) identifying an undefined situation; (II) localizing the problem; (III) determining a solution to the problem; (IV) reasoning regarding the solution; (V) the operational nature

of the importance of facts in solving the problem. A common structure or pattern of reasoning includes five logically separate steps that can be used to determine whether or not an action will be useful: (i) the difficulty experienced, (ii) its location and definition, (iii) options for a possible solution; (iv) reasoning about options, (v) further observation and experience leading to their acceptance or rejection (Rorty, 1982).

The steps in this process reflect the way in which people usually objectively and practically think about problems (Dewey, 1910). Importantly, Dewey does not propose a new way of thinking, but tries to describe the way that huma beings usually think. Thanks to this, he wants to convince the recipient to take a more critical look at his analytical habits, which in turn will make him more competent in applying the analysis and more precise in using his skills. Legal reasoning within the meaning of Dewey's concept means applying Dewey's common pattern or structure of human reasoning to a particular intellectual domain, in this case – the law. Actors in the legal system use their analytical skills in resolving legal issues within the legal discourse community. This contextual application is a consequence of the pragmatic nature of human reasoning, while the pattern of inquiry remains largely the same (Osiejewicz, 2020).

Theoretical Assumptions of Experimental Logic

Reasoning in all areas of human intellectual interest, including legal reasoning, begins to confirm the existence of an undefined situation. Recognizing that an unspecified situation exists is the first step in the investigation. It is about identifying an unspecified situation which should be considered to be related to the legal system. This means that the entire cognitive process depends on the recognition that we are dealing with a legal problem, as opposed to a political, scientific, social or technical problem (Neustadt and May, 1986).

When an undefined situation is considered a legal problem and thus placed in the appropriate reference field, the reasoning process can be continued (Rand, 2003). Prejudices are important at this stage. According to Dewey, the lawyer starts from the vague expectations of a certain application or at least alternative applications, and then

looks for the rules and data that will confirm the application or which will allow to choose between competing applications. Therefore, the lawyer starts with the "unclear conclusion" he intends to reach, of course for the benefit of the client, and then analyzes the facts so as to find material from which it is possible to construct favorable statements about the facts and formulate the premise. At the same time, they are looking for legal rules applicable in similar cases and principles justifying a particular perspective and the way of interpreting facts. The pattern of legal reasoning is based on the more general pattern of human reasoning and is purely pragmatic (Dewey, 1938; Dyrda, 2018).

The unclear conclusion Dewey is talking about is largely determined by the result that will be most beneficial for a particular client of a particular lawyer in the context of the legal problem encountered. As soon as a legal problem is identified and begins to form a specific legal issue, the first step of anyone who deals with legal reasoning is to highlight a likely conclusion or applications that will resolve the situation (Dewey, 1938). Relying largely on prejudices as to the likely (or at least possible) results of reasoning, the person making legal

decisions captures the legal problem in a way that favors initial unclear conclusions. According to Dewey, the way in which a problem arises is decisive for accepting or rejecting specific options (Rand, 2003). Consequently, the way the legal issue initially develops often decides on the outcome of the case, since at this stage a decision is made about the applicable law (Dewey, 1924). The law applies to facts, and the way facts are organized or expressed in a given case is determined by the law that will apply to this case (Rand, 2003). That is why it is so important to organize the facts in the most perfect way that will allow the most favorable legal regulations to be used.

The experimental logic described by Dewey involves a trial and error process that varies depending on the circumstances and even who is involved in the process. When actors in the legal system engage in the process of experimental investigation, they examine, evaluate and evaluate the data that they have at their disposal, using elements that they think work, and rejecting those that they think are not useful. Lawyers look for theories that match their case and their legal problems, evaluate the link between

these theories and the proposed results, and calculate whether the theories will lead to the desired result (Dewey, 1938). If they lead or can lead to desired results, lawyers will use them as analytical tools. If not, they will reject them in favor of more appropriate theories, more helpful in the given case. If it is necessary to resolve several intermediate problems before the final resolution of the case, the discussed process of shaping issues and applying appropriate regulations will proceed separately for each problem, as long as the case is sufficiently resolved.

Dewey began to discuss in detail the various aspects of experimental logic and its application in the sphere of legal reasoning, not because he considered it necessary to convince decision-makers to change their reasoning, but because he believed that they already act in this way. However, if he was right, then the question arises, why are law students in Europe not taught this process at universities? Why are we not talking about pragmatic reasoning as an integral part of the legal system? Dewey believed that legal decision makers maintain fiction to conceal the process actually used in legal decision making by the general public (Dewey, 1924). This fiction is expressed in the idea that legal decisions must be taken in accordance with strictly formal logic principles having a syllogistic character (Dewey, 1924). Dewey believed that the logic that has the greatest historical value and exerts the greatest influence on legal decisions is due to syllogism. In his opinion, however, this is the logic of established forms, but not of methods of making intelligent decisions in specific situations or methods used in contentious issues (Dewey, 1924). Dewey doubted that such logic could actually be the heart of a highly developed legal system (Bix, 2004; Holmes, 1991).

In his view, legal reasoning based on it leads to mechanical case-law, in which legal provisions are automatically applied to factual situations in such a way as to determine the correct decision with absolute logical certainty. According to Dewey, this kind of syllogistic reasoning in law is neither possible nor desirable. Dewey did not deny that the spirit of Aristotle's formal logic is related to his theory of experimental logic. However, he did not agree with the strict application of the syllogistic form, because in his opinion there is a disproportion between actual legal development and the strict

requirements of logical theory based on syllogism (Dewey, 1924). Dewey identified the desire for logical formality with the need to strive for consistency (Muyumb, 2014). The use of previously prepared and known concepts gives a sense of stability: a guarantee of protection against sudden and arbitrary changes in rules that determine the consequences of actions. Dewey believed, however, that it was an illusory sense of protection, which is reinforced by the habit adopted once (Dewey, 1938).

The obligation to demonstrate formal, syllogistic logical consistency in the process of making legal decisions results from the habit, driven by its own internal inertia. Dewey believed that there was another kind of logic in the lawyer's work: logic of consistency (MacCormick, 1983). In an attempt to explain his alternative view, Dewey defined logical theory as a procedure used to make decisions in cases where subsequent experience shows that these were the best decisions that could be made under given conditions (Dewey, 1924). This allows for the rationalization of previous decisions. According to Dewey, legal rules should primarily create coherent generalized logical

systems based on consistency in the application of law. He admitted that there are situations in which formal logic may be applied in legal reasoning, however, he maintained that formal logical consistency should not be the main goal of the legal system. Formal logic should be used insofar as it serves pragmatic decision making. He consistently argued that the most important thing is to make the right legal decision, regardless of consistency or formal logic.

Dewey denied that Aristotle's logic was the basis for understanding the law. For Dewey, logic is a means of intellectual survey, analysis and insight, and can be modified, like other tools, when used in new conditions to achieve new goals. A constant and universal understanding of logic would be unreasonably restrictive, because arguments or logically consistent principles in the Aristotelian understanding could not change over time. Logical principles – regardless of their form – are tools that are never meant to become absolutely static. They must first of all be useful in practice, so that their use is justified (MacCormick, 1983). To the extent they are not useful, they should be rejected in favor of more

appropriate rules. Treating legal principles as abstract "systems" is counterproductive and makes the law mechanical and detached from its social function.

The concept of experimental logic and process that Dewey identified as the heart of this logic includes ways to systematically engage in legal reasoning to achieve effective results. The attractiveness of this theory is due to its design to give useful results and to solve practical legal problems. Naturally, we reason to achieve practical results. However, the awareness of the possibility of recognizing and distinguishing parts of the reasoning process should help us to make a more systematic, more purposeful and precise legal analysis. We are talking not about linear reasoning, but about a repetitive process, requiring looping of initial conceptualization and additional research as it progresses. This reasoning process allows a lawyer to use all the tools, both learned in law studies and acquired during professional practice as solving further legal problems. The usefulness of this reasoning is due to its flexibility.

Practical Application of Experimental Logic

Pragmatic logic was designed precisely to take into account the flexibility of reasoning, which can be traced by analyzing the lawyer's work on a legal problem. Solving the legal problem requires three stages of reasoning: diagnosis, forecasting and strategy preparation Lawyers diagnose what is happening now or has happened in the past, forecast what will happen in the future and develop and implement strategies that affect future events. The lawyer diagnoses, wondering why certain events occurred (Why is the client more nervous about a small problem than a large one? Why was the service not carried out on time? Why is the other party in the negotiations unable to understand that the offer is good for both parties?). The lawyer predicts how others will respond to events (If the client files a lawsuit, who will win? How will the other party respond to the negotiation offer?) The lawyer defines the strategy by developing a plan to solve the problem.

When advising a client, he offers several options from which the client can choose the one that suits him best. In preparation for negotiations, he

develops a strategy that will allow the other party to agree as far as possible on the solutions proposed by his client (Amabile, 1996). Depending on the needs, he uses two types of reasoning: convergent or divergent (Gladwell, 2008). Convergent reasoning tends to narrow down the problem, to find the only right answer. It assumes the existence of a closed catalog of answers to a given question. Divergent reasoning is its opposite: it involves expanding inquiry by thinking in several directions at the same time to find more answers (or hypotheses or strategies). It assumes the existence of many answers to a given question (Elkins, 1996; Payton, 1985). The creative process of a lawyer's work can be conventionally divided into six stages, including diagnosis, prognosis and strategy (Krieger and Neumann, 2015):

1. Diagnosis of the problem and its definition.

This stage begins with the perception that things are not going well and corresponds to the perception of the "unclear situation" according to Dewey's concept. The lawyer sees the problem and his job is to focus on it before it starts to cause trouble. At this stage, it is appropriate to actively look for problems instead of avoiding them.

2. Preparation: gathering and assessing information.

This stage involves identifying relevant legal regulations and facts in an open manner. An active approach to the problem and even aggressive curiosity are recommended.

3. Generating options: hypotheses or potential solutions.

When making a diagnosis, a lawyer should imagine potential explanations for the occurrences. When making a prognosis, a lawyer should imagine potential visions of the future. Potential diagnoses and forecasts are hypotheses about solutions to a legal problem. The more hypotheses or solutions a lawyer can generate, the greater the range of options he can use at later stages. At this stage, one only need to make a list, but do not verify or evaluate hypotheses or solutions – this will be the next step. Divergent reasoning is especially productive and useful when generating options.

4. Assessment of options: hypotheses or potential solutions.

If the lawyer made a diagnosis at the previous stage, he should now test every possible explanation to see if it

accurately results. If he was prognosing, he should now test each potential prognosis to estimate its probability. If he was creating strategies, his job was to test each plan for effectiveness: how best to achieve the client's goals, what is the cost and risk? In all three of these activities, one should look for specific facts and explanations for them, as well as evidence and laws. The question should be answered, what specifically confirms that the explanation is accurate (in the case of a diagnosis), that the prognosis is accurate (in the case of a prognosis) or that the plan will affect events (in the case of a strategy)? The lawyer should also look for negative evidence that could eliminate the options selected due to the inaccuracy of the diagnosis or the inaccuracy of the prognosis or the low probability of success of the strategy. It is reasonable to ask oneself the following questions: "If my hypothesis is true, what else must be true (or false)?", "If my strategy works, what facts, evidence or law have already existed (or not)?". The assessment of options is based on convergent reasoning, aimed at eliminating impractical options not supported by law or facts.

5. Deciding.

At this stage, the lawyer chooses the most accurate diagnosis, most likely prognosis or most effective strategy.

6. Operation.

If the decision is based on a diagnosis or prognosis, it should be communicated to the right recipients (for example, the client) or applied. If the decision is about choosing a strategy, the lawyer should implement it.

In practice, these six stages can only be segmented using a flexible approach. In accordance with the assumptions of experimental logic, the thinking process can circulate. For example, when assessing the hypothesis, the lawyer may need additional information. The lawyer then returns to preparation (stage 2) to obtain this information and then proceeds to the evaluation (stage 4). Along the way, it is possible to generate other potential solutions (stage 3). Action on solutions (stage 6) can, however, inspire he lawyer to generate options for other solutions (stage 3). Preparation (stage 2) and generation of options (stage 3) often take place at the same time, as do the option evaluation (stage 4) and the decision to choose one of them (stage 5).

The biggest challenge is generating and assessing options – partly because they require opposite skills. To generate as many solutions or hypotheses as possible, the lawyer needs to get rid of inhibitions and deactivate skepticism. At this stage, good ideas appear simultaneously with faulty ideas. However, premature criticism can block the flow of ideas – all good and bad – before their potential reaches the generator (Gilligan, 1993). Skepticism is valued by legal practice. However, a lawyer who is more adept at criticizing ideas than at creating them will be a less effective problem-solving tool. The opposition to generating options is their evaluation. It requires features that could weaken the generation of options: rigorous skepticism, a pragmatic sense of realism, the ability to accurately estimate risk and to deal with the fear that the idea may be radically missed. The same features that should be turned off by generating hypotheses and solutions must then be turned back on after submitting the full range of options and starting to evaluate them. When generating options, the lawyer should think freely and tolerate some intellectual chaos. However, during the assessment, he should change his approach and look at the solutions with the cold realism of who must take responsibility for success or failure.

Pragmatic experimental logic favors the search for inclusive solutions to legal problems, taking into account a wide spectrum of various factors (Gilligan, 1993). Carol Gilligan has put such a multi-faceted moral problem in her research, distinguishing between ethics of justice and ethics of care (Gilligan, 2014). The problem was based on the following facts: 1) Heinz's wife is sick and her life can be saved only with the help of a medicine whose cost exceeds the financial capacity of Heinz and his wife; 2) the local pharmacist refuses to lower the price of the medicine. Two eleven-year-old children, Jake and Amy, were asked to solve the problem, by answering the hypothetical question of whether Heinz should steal this too expensive drug to save his wife's life.

Jake replied that Heinz should steal the medicine. In his opinion, human life is worth more than money. He believed that the pharmacist could compensate himself for the amount he demanded later from wealthy clients, while Heinz could not recover his wife later if she died of lack of medicine.

According to Jake, if Heinz is caught, the court will probably acquit him. Jake said the Heinz dilemma was a "mathematical problem with people." He justified the theft through a hierarchy of goods: he saw the legal need to justify the theft, weighed the goods and decided on the superiority of one good over another.

Amy replied that Heinz should not steal the medicine. She recognized that besides theft, there could be other ways to get a medicine, such as borrowing money. According to Amy, neither Heinz should have stolen medicine, nor should his wife die. If Heinz had stolen the medicine, he might have saved his wife, but if he did, he would have to go to jail, and then his wife would become ill even more, and he would not be able to look after her and get more doses of the medicine. Heinz should therefore find another way to get money.

Jake's answer clearly stems from syllogistic considerations. In contrast, Amy focused on the relationship between Heinz and his wife and between Heinz and the pharmacist. She saw that his wife needed Heinz and that Heinz was caring for his wife. She tried to respond to the needs of the pharmacist in such a way as to maintain and not break the bond between the spouses. Amy based her moral judgment on the belief that if someone has a thing that will keep someone alive, it's not right not to give it to him. In her opinion, the problem is not that the pharmacist asserts his rights, but the lack of his reaction. Jake appealed to equality, reciprocity, justice and rights, while Amy pointed to relationship, non-harm, protection and reaction. Amy was looking for different options using divergent reasoning: Are Heinz and the pharmacist looking for other options such as credit transactions? Why can't Heinz and the pharmacist sit down and talk about the problem so that the pharmacist understands the importance of his wife's life to Heinz?

Amy's reasoning may seem naive, but in the light of experimental logic it should be considered more effective in solving the problem. Jake used convergent, hierarchical logic to determine which good has priority over which. Amy was intensively seeking a solution to the problem, not a way to assess who was right. The children were asked one and the same question, but each of them heard something different: Jake heard it as a question about hierarchical evaluation of results, while

Amy as a question about how to solve the problem. Amy saw that the problem did not necessarily require a resolution whose rights were more important. She resisted the restrictions imposed by the questioner. It generated a richer solution because it did not succumb to the prejudices arising from the way the question was formulated. Amy used an inclusive solution – she solved the problem by meeting the needs of everyone involved. Focusing on relationships helped her understand that Heinz would not free himself from his dilemma until the pharmacist was free from his own. Finding such a solution is possible based on the assumptions of experimental logic, while escaping the limitations resulting from the formal logic.

Conclusion

The results of a lawyer's work depend not only on his knowledge of the law, but also on skills that cannot be learned in law studies: a sense of how the client will react to the problem and proposals for its solution, predicting what decision the judge will make and assessing how clients, judges, witnesses and opponents as well as their lawyers will respond to actions taken. Reasoning based on the assumptions of formal logic is undoubtedly necessary in the work of a lawyer.

No less valuable and needed, however, is emotional intelligence and competences based on it, especially an empathic understanding of human nature. The solution of the problem must take into account all its aspects, not only its formal part. In legal reasoning, there should be a place for elements of experimental logic with its flexible and strictly utilitarian approach, completely negating the dichotomy between theory and practice.

Acknowledgements

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