LIMITS AND POSSIBILITIES OF INTERDISCIPLINARY RESEARCH INTO LAW

A Comparison of Pragmatist and Positivist Views

Abstract:

1 FACTS AND VALUES

To a growing extent, legal scholars seem to be dissatisfied with established disciplinary boundaries and turn to other disciplines, such as sociology (Cotterrell 2006), psychology (Wagenaar, Van Koppen & Crombag 1993), philosophy (Alexy 2003), economics (Posner 2007) and even literature studies (White 1985), for inspiration. In law faculties all over the world multidisciplinary and interdisciplinary research groups are operative, such as the Jurisprudence and Social Policy program at the University of California, Berkeley, or the Institute of Criminology at Cambridge University. In the hope of increasing their chances to acquire a grant, applicants nowadays try to cut a dash with promises of combining insights from many different sources (Vick 2004, 171). One may wonder who will undertake the important but time-consuming task of analyzing and classifying the existing body of legal norms in the future, when legal scholars are getting more and more reluctant to do so. However exciting these new research directions may appear, a fundamental question which deserves more attention is: What are the limits and possibilities of interdisciplinary research into law? Can concepts and methods from one discipline directly be transplanted into another discipline? What is lost and what is gained when insights from different origins are combined?

In this article, we want to explore what might make interdisciplinary research possible, on the one hand, and what makes it difficult or even impossible, on the other hand. Rather than pursuing these questions in the abstract, we investigate two theoretical positions that seem to offer radically different approaches to this question: pragmatism versus legal positivism. We have selected these approaches because they differ in particular on the issue whether facts and values can be separated or not, which seems to determine to a large extent – together with some other factors which will be mentioned below – their view on the limits and possibilities of interdisciplinary legal research. First, we will discuss the pragmatist theory, especially of John Dewey, which offers an optimistic view of combining different scientific disci-
2 Possibilities of Interdisciplinary Research According to Pragmatism

Pragmatist philosophy is a good starting point for exploring the possibilities of interdisciplinary research for at least two reasons. First, pragmatism is generally suspicious of dichotomies, which also applies to the boundaries between disciplines. Second, pragmatism proposes a general scientific method which is meant to apply to all knowledge.

The classical pragmatism of William James and John Dewey is a theory that addresses questions of scientific truth and inquiry in the context of problem-solving in everyday experience (James 1975, 34–35; Dewey 1984, 178). It sees science as a mundane practice that is continuous with other activities people engage in. This view of science, to which we will return shortly, comes with a specific view of scientific reasoning in which strict separations or dichotomies are rejected: distinctions should only be made insofar as they are useful. Especially in Dewey’s theory, the rejection of dichotomies is a central theme which is supported by a holistic view of the world as we experience it. Although it makes sense to distinguish categories such as for instance ‘thinking’ and ‘doing’ from each other, we should beware of turning such categories into separate entities: in reality they are connected in many ways and the categories are only relevant because and when they help us to reason more clearly. In the context of this paper, the most important separations to be rejected according to pragmatism are the separations between different types of science and the separation between fact and value.

In Dewey’s work the continuity between inquiry in the natural sciences and inquiry in social and moral subjects is a major theme (1984, 201; 1988, 178). His belief that both physical science and moral ‘science’ would benefit immensely from the realization that knowledge of physical goods and knowledge of moral goods are interrelated, is his main drive for developing a theory of experimental inquiry in the

1 We will focus mainly on Dewey’s theory because he has addressed the question of scientific disciplines more directly. In addition, we will present Putnam as a contemporary exponent of pragmatist thought.

normative realm. His theory can be described as an extension, a broadening, of the method of physical inquiry into a much wider field. This is true of law as well: what Dewey also calls “logical method” is equally applicable to mathematics, law, or even farming. Although Dewey acknowledges that there is a difference between science and practical reasoning in that scientific disciplines work in a narrowly delineated field and with specific methods and concepts, he believes that the same method can be applied in legal reasoning and judicial decision-making. He does not explicitly consider the differences between legal scholarship and the practice of law, but it is in the line of pragmatist thinking to see scholarship and practice on a continuum.

The pragmatist rejection of the fact-value separation is most forcefully defended by Hilary Putnam. In his formulation, the general claim is that knowledge of facts presumes knowledge of values and, vice versa, knowledge of values presumes knowledge of facts (1995, 14). Putnam’s argument takes the form of a criticism of a non-cognitivist theory of ethics. According to non-cognitivists, we cannot know anything about values; values are a matter of commendation or preference which cannot be debated. According to Putnam, non-cognitivists are mistaken in their claim that evaluation of behavior as good or bad can be separated from factual judgments.

There is no neat division between the factual characterization of behavior ‘what you just did was rude’ and evaluation of that behavior ‘being rude is bad’ (Putnam 2002, 36). Factual and value judgments go together, which can be most clearly shown by looking at criticism of a judgment. The typical way someone denies that his behavior was rude, for example, is by appealing to facts which change the judgment of the situation: “My behavior may have seemed rude, but I could not stop and talk to you because I was late for a meeting.”

This thesis is based on the holist ontology of classical pragmatism: the idea that we find ourselves in the middle of our own experience, in the middle of a world in which fact and value, natural and social factors, humans and other beings are not distinct nor neatly categorized (Dewey 1989, 352). If this experience of the world is taken as the starting point for ontology, the world appears as a whole: distinctions are made for special purposes but do not reflect ontological truths. Although we can in principle distinguish factual judgments from evaluative judgments, many of those judgments are mixed and there is not a clear separating line between the two categories. The examples Putnam uses to illustrate this point are so-called ‘thick’ moral concepts, such as cruelty or bravery, which are concepts giving a factual and an evaluative judgment at the same time (Putnam 2002, 38–39). To say that someone is cruel combines factual and evaluative elements in such a way they are interdependent, or in Putnam’s terms, “entangled” (2002, 43).

The main underlying reason for making a sharp separation between facts and values is the common belief that values are merely subjective or emotive, and that therefore no true knowledge of values is possible. In the pragmatist view, this belief is false: there is no more a sharp separation between the subjective and the objective than there is between fact and value (or practice and theory for that matter). Although value judgments involve subjective appreciation by the individual, they are not merely that, and they may be subject to well-founded criticism. Such criticism is not simply another value judgment; most often, facts are invoked to underpin that criticism. Similarly, factual judgments can be accepted for reasons that are not factual themselves. This is most clear in the case of science: whether a fact is ac-
cepted as true is in part a matter of coherence and plausibility in the light of a theory and the clarity and simplicity of the explanation. These are all matters of evaluation.

The rejection of both solutions, the one between scientific disciplines and the one between fact and value, is closely connected to the pragmatist view of scientific method. For pragmatists, the core of the scientific method is experimental: by testing hypotheses in experiments, a scientist can determine whether the hypotheses work and therefore hold them to be true. Scientific inquiry is thus regarded as an active process in which proposed solutions to problems are tested; it is also open-ended, because the truth of propositions is provisional and can be refuted by later experiences. Dewey proposes to apply the scientific model of inquiry to all problems, including moral problems (1988, 173). This implies that legal reasoning should also follow the scientific method: a case is a problem for which hypothetical solutions should be formulated and then tested by tracing their foreseeable consequences (Dewey 1998, 365).

The same holds for legal scholarship generally, extending beyond particular practical legal problems. Wherever a problem is perceived, whether practical or theoretical, that problem should be approached by inquiring into its conditions, i.e., how did it come about, and by considering the consequences of possible solutions. One of the questions that arise is to what extent legal solutions can be tested experimentally: does legal scholarship allow for testing in the same way as the natural sciences? Of course, there are limits to what we can test. Social and legal situations cannot be manipulated by a researcher as fully as natural ones can in a laboratory situation. However, there are other ways: small-scale social experiments are possible (as Dewey proved with his Chicago laboratory school in which he tried his pedagogical idea), and more importantly, researchers can also go through this process imaginatively. By systematically thinking through the consequences of a solution, an experiment can be imitated in imagination. So, although there are small differences between natural and human sciences, they are nevertheless seen as capable of being investigated along the same lines.

In general, therefore, it seems we may conclude that pragmatist theory does not see the difference between disciplines as profound and sees interdisciplinary research as a perfectly normal way of approaching inquiry (without calling it 'interdisciplinary', a phrase which already draws attention to the difference between disciplines). This is slightly too quick, however. Although the experimental method of inquiry is to be applied generally, its starting point in problem-solving has a particularistic side to it as well. Dewey stresses that every problem has its own specific context, but that the relevance of this context is not clear automatically: it is a matter of selective interest (Dewey 1960, 101). Every researcher, consciously but more often unconsciously, makes choices by selecting some contextual elements as relevant and by ignoring others. This need for selection brings in the background of the researcher, including his disciplinary background, as an important determinant of what is seen as relevant and interesting. A person's disciplinary perspective is for numerous reasons, such as the theoretical and cultural traditions on which it draws (Dewey 1960, 99–100), the lens through which a problem is analyzed.

This attention to context and the selective interest of a researcher in connection to his disciplinary perspective are starting points for an argument that pragmatist theory can make room for disciplines as a relevant category. On the general level of pragmatist philosophy, there is therefore no principled judgment for or against recognizing disciplines. On the one hand, they are a key factor in determining the perspective of a researcher; on the other hand, within all disciplines the general method of scientific inquiry is advocated. This means that pragmatism sees no real obstacles to practicing interdisciplinary research: although the traditions of a scientific discipline provide a specific focus and approach, researchers can overcome the boundaries of their discipline with a creative and critical attitude.2 The differences between disciplines account for the different starting points of researchers, but as long as they are willing to apply the pragmatic method, they can distinguish between the relevant and the irrelevant aspects of the context of their inquiry and can combine the insights from different disciplines. Applying this to law, Dewey puts forward the idea that "law is through and through a social phenomenon; social in origin, in purpose or end, and in application" (1941, 76). Law should therefore be studied as a social activity in relation to other social activities.

We may conclude that pragmatism sees interdisciplinary research as desirable and is optimistic about the possibilities of doing research that crosses traditional boundaries. There are, however, a number of critical remarks that can be put to pragmatist theory, two of which we will mention briefly. First, there is the matter of the general application of one, logical, method of inquiry to all fields of scholarship. Dewean pragmatism assumes that all disciplines should work with a consequentialist, problem-oriented method. However, this method of inquiry is not necessarily the right method for legal scholarship in all its forms. From Dewey's perspective, seeing law as primarily a social phenomenon, it makes perfect sense, but there are other views of law which are equally legitimate that call for different methods. If we look at law as a field that is based on texts and arguments revolving around those texts, law has more in common with the methods of the humanities. Textual analysis, interpretation and argumentation instead of experimental testing of hypotheses are then the central methodology. Secondly, established practices of interdisciplinarity research show that it is not so easy to be critical of your own perspective and to step outside the discourse of your discipline. In our view, the specific language and presuppositions of a discipline exert a larger influence than someone like Dewey acknowledges. As a researcher, you are educated and socialized in a particular practice, consciously and unconsciously internalizing its norms. Awareness of disciplinary differences does not automatically mean that you can also overcome those differences. Truly appreciating the work done in another discipline might require unlearning your own disciplinary perspective.

These are some critical remarks specifically addressed to pragmatism. For a more general critical view of interdisciplinary research, we now turn to positivism.

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2. On the importance of the individual as a critical and creative interpreter of (legal) traditions in pragmatist theory, see Tackema (2006, 220ff.).

3 LIMITS OF INTERDISCIPLINARY RESEARCH ACCORDING TO POSITIVISM

Whereas pragmatism highlights the possibilities of interdisciplinary research, positivist theories point to its limitations or even to its sheer impossibility. We will start with Kelsen's pure theory of law, because it offers one of the most radical and principled defenses of a monodisciplinary approach to law, and turn later to Luftmann's system theory that may provide a middle ground between the two extremes. Inspired by neo-Kantianism, Hans Kelsen intends to construct a solid scientific foundation for the science of law in order to secure its position among other sciences, in particular the natural sciences. For that purpose, the question has to be answered what is typical or unique about the way the science of law understands its object and how it differs from other understandings. In his discussion with Eugen Ehrlich, Kelsen (2003) argues that the phenomenon of law can be studied from two different perspectives. On the one hand, the law can be conceived as a norm, that is, a rule that articulates a specific kind of 'ought' (Sollen): something has to be done or not be done. On the other hand, the law may be taken as a part of social reality, as a fact or an occurrence that takes place regularly. Here, the law takes the form of an 'is' (Sind) proposition with respect to human behavior: some action is done or not done on a regular basis. These two perspectives correspond with two different disciplines from which law can be studied: respectively, a normative science of law that determines deductively which rules are valid (geltend), and an explanatory sociology of law that establish inductively a certain regularity for which it tries to find a causal explanation. Thus, the science of law is a normative and deductive science of value, like ethics and logics, whereas the sociology of law, like other branches of sociology, is a science of reality, and conforms more generally to the methodological principles of the natural sciences. It is equally possible and legitimate to study law from both perspectives, but not at the same time. No action can be construed as something that is done or happens regularly and that ought to be done or happen simultaneously. Biology, as an explanatory science, may establish a causal link between two factual occurrences (e.g., between firing a gun and somebody's death), but it is not capable of evaluating this link in terms of good/bad or legal/illegal. Conversely, ethics and the science of law, as normative sciences, may dismiss a certain action (e.g., killing someone by firing a gun) as bad, if it violates an ethical norm, or illegal, if it violates a legal norm; however, they are not able to explain this action.

According to Kelsen (2003, 5), combining perspectives from different disciplines would lead to a "methodological simplification" and is, therefore, "inadmissible". Moreover, if a certain phenomenon is approached from different disciplines it cannot, in his view, constitute one and the same object of knowledge (Kelsen 1962, 106-110). Because object and method of inquiry are correlated, different methods of inquiry necessarily generate different objects. Law can be studied either from a normative (e.g., legal) perspective or from an empirical (e.g., sociological) perspective, but these perspectives cannot be integrated into one single conception of the

5 On the Ehrlich-Kelsen debate, see Van Rink (2008).
6 All of the quotes from the works of Kelsen and Luftmann in this article are translated by us. For the sake of clarity, we have sometimes added the original German phrasing in italics.
to reduce complexity. Generally speaking, the court has to take the legal norms promulgated by the legislature for granted and has to apply them to individual cases.  

In Luhmann's view, sociology may assist the legislature in the process of norm creation and complexity reduction by providing a functional analysis of system problems. Because it is not restricted to the norms already issued, sociology has more freedom than the existing legal system, to explore alternatives within or outside of such legal systems. The functional method is a heuristic device or a method of clarification that does not result in a decision but may facilitate the decision process. As Luhmann (1981, 302–304) for instance shows, it follows from a functional analysis that fundamental compensation for erroneous administrative decisions can only be granted if there are no legal means for those concerned to prevent the damage. Without engaging itself in moral value judgments, sociology traces functional deficiencies in existing social systems and suggests possible solutions to overcome them. Whether this suggestion is turned into positive law, is up to the legislature to decide.

Given the complexity of today's world and the demand for information, sociology is a "necessary preparatory science for the science of law" that paves the way for juristic decisions (Luhmann 1981, 294–295). Although both disciplines are connected, they do not coincide. According to Luhmann (1981, 306), a clear distinction between system theories and decision theories still appears to be "unavoidable". System theories offer a functional analysis of problem constellations within systems, whereas juristic decision theories design and deploy hermeneutical-exegetical methods for the creation and application of legal norms. The relationship between both disciplines can best be described in terms of "separation and co-operation": functional analysis results in identifying problems that provide the input for "juristic decision programmes" which, subsequently, "concretizes" them in rightful decisions (Luhmann 1981, 307). As said earlier, legal theory is the locus in which these interdisciplinary contacts are established. By implication, it becomes a branch of general sociology.

Luhmann’s system theory seems to offer an attractive middle position between two extremes: Dewey's integrative vision in which disciplines are mixed and mixed up in one unified whole on the one hand and Kelsen's rigorous separation of disciplines on the other. Against Dewey, Luhmann argues that there are limits to interdisciplinary research: every discipline has its own methods and theoretical presumptions, without which it would not be able to investigate anything. Therefore, a full integration of disciplines is never possible. Against Kelsen, he brings forward that meaningful connections between scientific disciplines are possible if one is willing to give up the categorical is/ought or fact/norm distinction. The key notion here is 'meaning' (Sinn; Luhmann 1981, 292) that functions as a hinge, both connecting and separating disciplines: system theories as well as decision theories seek to find a specific access to the world in order to understand and to come to grips with its complexity and contingency, but each has its own way of doing so, by functional analysis of problem complexes within social systems and by hermeneutical exegesis of previous understandings in authoritative texts respectively.

By presenting his sociological findings as likely candidates for adoption by the existing legal system and by prioritizing them over other candidates from other normative (religious, moral, or other) sources, Luhmann deliberately transgresses the boundaries of an empirical sociology and enters the realm of politics. His attempt to de-moralise sociology in fact constitutes a re-moralization of the discipline. The good/bad opposition of traditional morality is replaced by the only seemingly neutral, technological dichotomy between functional/non-functional. From a Kelsenian perspective, this position raises several questions. Firstly, how can normative claims be founded by means of sociology? How does one assess the functionality of social systems? Secondly, how can sociological findings be translated into normative-legal claims? In short: why should the law bother about a system’s functionality? Thirdly, why are normative claims based on sociological research superior to claims from other normative sources? Why should functional considerations have to trump arguments based on, e.g., religion, morality or law?  

One way to save Luhmann’s project and, at the same time, the potential for crossdisciplinary research it contains, is (i) to reject his reduction of legal theory to sociology and (ii) to recognize the autonomy legal science and legal practice have in addressing conflicting normative claims. That means that legal theory should offer a platform, without conflating disciplinary boundaries Dewey-wise, to many different disciplines that provide different descriptions and evaluations of law and legal practice, such as psychology, political philosophy, economics, rhetoric and ethics. Sociology has no monopoly on the production of both facts and norms. Moreover, it should be acknowledged that legal science and legal practice assess these concurring descriptions and evaluations according to their own, intersystemic standards, such as legal security and legality. As Luhmann (1981, 323) argues, "only insertable norms can become law." However, that limits the possibility of transplanting sociological findings into the law to a far greater extent than he seems willing to accept when he presents sociology as the preparatory science for the science of law. From a legal perspective, all non-legal norms are on an equal footing in their struggle for official recognition by legal authorities.

In his later work, in particular in Recht der Gesellschaft (1995), Luhmann abandons the privileged status he granted earlier to the sociology of law in the production of legal norms all together. Generally speaking, he develops a far more detached and skeptical view on the possibilities of interaction between the legal system and its environment (Umwelt). He acknowledges that "structural couplings" between systems may occur, when "a system presupposes characteristics of its environment for a longer time and relies on them structurally" (Luhmann 1995, 441). However, structural couplings can only cause "irritations, surprises, disturbances" within a system (442). How a system deals with "irritations" caused by structural couplings, is determined by its own structures and the operations that are part of these structures. As a consequence, norms from outside the legal system (such as efficiency norms derived from the economic system) can never be transplanted into the exist-

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7 Only if the legal norm is not sufficiently clear, the court is allowed to take the aim or the function of the norm into account (Luhmann 1981, pp. 277–278).

8 According to Luhmann (1981, pp. 304–306), a sociological analysis is of limited use for the court's task, since it has to apply existing legal norms (see also previous footnote).

9 An extended criticism of Luhmann's early position can be found in our paper mentioned in fn. 3.
ing body of legal norms directly. Like any other system, a legal system can only be “irritated in its own values” (494). Norms – or any other input – from outside have a chance to enter the legal system, only if they can be connected to norms that are already included in that system; that is, if these ‘foreign’ norms are somehow familiar. Therefore, the possibilities of interdisciplinary exchange of ideas will be, by necessity, limited.

In his classification of scientific approaches to law, Luhmann reiterates the fact/norm opposition that he rejected earlier. He distinguishes between “self-descriptions” of the legal system on the one hand and “foreign descriptions” on the other (497). Self-descriptions of the legal system offered by the science of law and by legal theory have to understand law – predominantly or entirely – as a normative phenomenon: “it is not acceptable for the system to conceive of norms as something purely factual (like factual behavioral expectations)” (502). On the other hand, Luhmann states: “The external description can afford to restrict itself to the observation that is the way it is” [so ist es] (529). Thus, the sociology of law and the science of law seem to inhabit different intellectual worlds: the ought-world versus the is-world respectively. By reinstating the fact/norm distinction, Luhmann is able to avoid most of the methodological questions that his earlier position encountered from a Kelsenian perspective. However, his detached view on interdisciplinary research makes it difficult to see how a meaningful exchange of concepts and methods between different scientific disciplines can ever take place. He does not deny that external and internal descriptions can influence each other: “the structure of social differentiation … enables external descriptions to influence internal ones, and vice versa, because overarching communication remains possible as execution of society [Vollzug der Gesellschaft], even if boundaries between systems are drawn within society” (497). Though Luhmann in his later work10 does not exclude the possibility of interdisciplinary research altogether, he mainly focuses on the problems of meaningful interactions between different systems caused by their relative closedness. The question remains under what conditions interdisciplinary research may be desirable or even unavoidable and how to deal with the methodological challenges it offers.

4 A Dynamic Model of Interdisciplinarity

Between the two extremes of Kelsen and Dewey, there is quite a broad range of middle ground. Luhmann (the earlier more than the latter) is one of the theorists occupying this middle ground, but to his position a number of more and less extreme views may be added. On the basis of our assessment of Dewey, Kelsen and Luhmann we see a number of legitimate possibilities for viewing interdisciplinary research. The most important conclusion to draw from the different theories of these authors is that one’s view of interdisciplinarity is determined first and foremost by one’s general view of science. With an emphasis on scientific clarity and rigor, like Kelsen, disciplinary boundaries have a value in their own right, which is threatened by interdisciplinary research. With an emphasis on continuity between concepts and prob-

10 See also Luhmann (1991, in particular pp. 437-438).

11 A more detailed description of our model can be found in our paper mentioned in Fn. 3.
interested in producing the most creative or original interpretation of authoritative texts but in representing them in the most precise and accurate way. On the contrary, in order to protect the value of legal security, it is important that the legal system is presented as much as possible as a unified and univocal whole. A monodisciplinary approach to law, restricting itself to a representation and evaluation of the existing body of law on the basis of pre-established concepts and methods, from a scientific point of view may not seem very interesting or exciting - despite all its craftsmanship. It does not (and does not intend to) contribute in any significant way to the innovation of scientific thought.

(ii) More room for innovation is created when a legal scholar turns to another discipline in order to get inspiration. In this case, the source discipline is used as a heuristic device for generating new insights from which the target domain - the legal science - may profit. These new insights will be evaluated according to values and truth criteria internal to the science of law. For instance, philosophical theory may indicate that interpretation of legal texts is never a matter of sheer subsumption but always a creative process. In order to make this insight acceptable to legal science, it has to justified in terms of its internal values, such as reasonableness or fairness. However, legal scholars who prioritize legal security over the fore-mentioned values will be inclined to reject this insight. Because external input is controlled by and mediated through internal standards, the heuristic approach has the same advantage as the monodisciplinary approach that it protects the unity of the concepts and methods used. An important weakness of the heuristic approach is, exactly because the external input has to be justified exclusively in internal terms, that the new insights are generated in a non-systematic, accidental and arbitrary way. Anything can be a source of inspiration to the science of law, not only other scientific disciplines but also novels, movies or long strolls along the sea. From the viewpoint of legal science it does not make a difference where the insights are taken from or how they are discovered, as long as they can be justified in legal terms; they have no argumentative force on their own.

(iii) If a legal scholar treats the source discipline not merely as inspiration but as a necessary contribution to the science of law, the transfer of insights may acquire a more systematic and less arbitrary character. That is only possible if one considers - against Kelsen - the task of legal science to be more than just the representation of the legal system and an assessment of its internal consistency; it should include also the development and improvement of the existing legal system. Otherwise, if legal scholars are seen solely as the bookkeepers of the law, there would be no need for external input. Suggestions for developing and improving the law may be taken from different sources. According to the early Luhmann, sociology constitutes a "necessary preparatory science for the science of law" that has to pave the way for juristic decisions. However, that raises the question, as discussed above, why one source discipline - in this case: sociology - is favored. Moreover, the problem is how to assess the quality of the external input. One has to be trained in two disciplines to be able to take a stand in debates that take place within these disciplines. If not, one has to rely on authoritative sources, but these may be contradictory. A final risk connected to the transfer of insights from one domain to the other is that the unity of concepts and methods used in the target domain is disturbed. For instance, what will happen when Luhmann's distinction between functional and non-functional or the economic distinction between efficient and inefficient is inserted into the legal discourse?

(iv) In multidisciplinary research all these risks are duplicated, because the transfer of insights is not one-way, as in the previous approach, but two-way: the disciplines involved are source and target domain at the same time. To be capable of doing this, a scholar has to be at home in both disciplines. If so, he does not have to rely on authorities but can assess himself the quality of the imported knowledge. The transplantation of foreign terminology into a scientific discourse may lead, as the later Luhmann (1991, 457) argued, to "understandable misunderstandings". Moreover, problems may arise when disciplines produce contradictory insights. From a sociological point of view a legal norm may seem invalid because it is not applied anymore, whereas from a legal perspective the act may still be considered valid because it was created on the basis of a higher legal norm. In other words, how to secure coherence in knowledge claims in a multidisciplinary approach? At the same time, multidisciplinary research offers good opportunities of innovation in the target as well as in the source domain, if a fruitful interaction between the two can be established.

(v) Finally, an integrative approach offers the best opportunity for exchanging knowledge. Science is freed from artificial and arbitrary disciplinary boundaries. However, by transgressing boundaries, disciplines lose their distinct character and may become more and more identical. Moreover, in its effort to see everything from all sorts of perspectives at the same time, an integrative approach may end up in seeing nothing at all. Paradoxically, the more successful an integration of disciplines is, the more it resembles a monodisciplinary approach, with all its advantages and disadvantages.

Initially, we started from a dichotomy between an interdisciplinarity or integrative approach to law, inspired by Dewey's pragmatist philosophy, and a monodisciplinary approach, advocated by Kelsen and other legal positivists. By distinguishing different types of legal research in our dynamic model of interdisciplinarity, we are in a position to make this opposition less rigid. On the one hand, a monodisciplinary approach to law does not by necessity exclude the possibility that legal science profits from insights from other disciplines, if only in a heuristic way. On the other hand, an interdisciplinary approach that is successful in integrating knowledge from different sources (like Luhmann's system theory) may at some point become a discipline in its own right. With Luhmann, we believe that a direct and full access to reality is impossible. Our knowledge of the world is always mediated through some disciplinary perspective or other. 12 Whether one wants to stick to one perspective, that is still the dominant legal perspective as defined by positivism, or tries to transcend this perspective by confronting it with other (sociological, ethical, historical, economical, rhetorical etc.) perspectives is a matter of personal choice - a choice that will depend on a legal scholar's convictions on fundamental epistemological and ontological issues.

At the two extremes of our model of interdisciplinarity, there are two pitfalls that in our view need to be avoided: at the one end, the rigidity and closedness of a

12 For an elaborated description and defense of this constructivist position, see Abbas & Heese (1986).
strict monodisciplinary approach and, at the other end, too much flexibility and openness that may result in an undifferentiated and undifferentiated fusion and confusion of perspectives. Between these extremes, meaningful exchanges between different disciplines are possible. However, these exchanges will not always be peaceful, since different disciplines will use concepts and methods differently, or may at first not recognize each other’s methods, and so on. From these clashes, new insights may spring.

LITERATURE