Law and Interdisciplinarity

Edited By
PHILLIP HELLWEGE
and MARTA SONIEWICKA

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Phillip Hellwege, holds the Chair of Private Law, Commercial Law, and Legal History at the University of Augsburg.
orcid.org/0000-0001-9012-2682

Marta Soniewicka, is associate professor at the Department of Philosophy of Law and Legal Ethics, Faculty of Law and Administration, Jagiellonian University.
orcid.org/0000-0003-3409-7819

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Legislation as an Interdisciplinary Challenge

On the Relationship between Democracy and Expertise

Matthias Rossi

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I. Introduction

The relationship between law and extra-legal scholarship and extra-legal findings and, thus, the relationship between law and interdisciplinarity has been discussed a great many times. In the present volume, which collects papers given at the Kraków-Augsburg Symposium in 2021, a scholar from the Jagiel-

lonian University in Kraków may be quoted in order to provisionally frame the topic:[1]

> "The interdisciplinarity of law is of a specific nature and this is implied by certain features of the law. First, it is not the aim of law to describe reality, nor does law explain human behaviour. Rather, it states the norms which are ruling the behaviour of people […]. But if we accept a more inclusive way of defining interdisciplinarity, namely as an intellectual activity which concerns more than one discipline or harnessing results gained by different sciences, it transpires that law may be treated as interdisciplinary in many aspects."

The term "interdisciplinarity" itself is woolly. It is used in a variety of contexts and with varying content, indeed with varying precision.[2] The contributions in the present volume will also be based on different understandings of the term. From the perspective of a precise science, this is to be regretted. Yet a general definition could narrow the view from the outset and thereby hinder open-ended discussions of the concept. For this reason, the present contribution also refrains from giving a definition or even a paraphrasing of what is understood by interdisciplinarity. A brief discussion of the overall theme is nevertheless in order: It is possible to distinguish interdisciplinary approaches *to* law from interdisciplinary approaches *of* law. This small but subtle distinction is noteworthy because with the former approach the question is how other disciplines look at law, whereas with the latter the question is to what extent law takes other disciplines into account. The present contribution will be concerned only with the latter approach. Indeed, legal scholarship is open to the considerations of other disciplines. In particular, the empirical social sciences (above all political science) as well as economics are increasingly being included in legal treatises. Admittedly, an esteemed colleague has recently expressed skepticism about this form of "including refined morsels of bourgeois erudition" in legal scholarship, speaking of "Suhrkamp scholarship".[3] But it cannot be denied that legal scholarship is at any rate receptive and curious towards other disciplines, whereas the willingness of other disciplines to engage with legal scholars is rather low.[4]

In the following text, however, the focus is not on a perspective internal to legal scholarship that deals with the interdisciplinarity of the doctrinal study of

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[1] *M. Jakubiec*, Interdisciplinary jurisprudence, in: B. Brożek et al. (eds.), Perspectives on Interdisciplinarity (2021), 79–98.

[2] See the inventory in *C. Boulanger/J. Rosenstock/T. Singelnstein* (eds.), Interdisziplinäre Rechtsforschung (2019), 3 ff. In addition, see *P. Richli*, Interdisziplinäre Daumenregeln für eine faire Rechtsetzung (2000), 8.

[3] *K. F. Gärditz*, JuristenZeitung 2021, 461–463, 462, alluding to a renowned publishing house whose books are perceived as setting the standard especially in the field of humanities, at least by the respective authors.

[4] Criticizing, inter alia, what the author finds to be an insufficient consideration of constitutional jurisprudence in historical scholarship, *D. Grimm*, Die Historiker und die Verfassung (2022), passim.

law. Rather, the focus will be on the role that interdisciplinarity plays, or should play, in the creation of statutory law: Political decision-making is always dependent on specialist expertise, and the interplay between democratically legitimized lawmaking and factually based knowledge often reveals that legislation is an interdisciplinary challenge. Insofar as doctrinal scholars of law primarily focus on the application of law, they do not face the same challenges as those lawyers who are engaged in the drafting of legislation. The question of how existing law is to be interpreted and applied is, with its deductive method, fundamentally different from the inductive method which is to be applied in legislation. Legal scholarship is therefore not only a discipline of interpretation; it is also normative and conceptual in nature.[5]

II. The need for interdisciplinarity in legislation

It should be beyond question that interdisciplinarity is necessary in lawmaking: "Law cannot be developed as a pure normative system, separated from the knowledge about the world."[6] Therefore "the interdisciplinarity of law is not only an option – it is a necessity,"[7] "an imperative" ("ein Gebot").[8] Assuming that law wants to shape a given (social) reality in a certain way, both the grasping of reality and an appreciation of how reality is shaped by law require interdisciplinary expertise. It follows that only an interdisciplinary approach to lawmaking can improve the quality of laws.[9]

A. Grasping reality

The power of law to shape and steer reality requires that lawmakers have a sufficiently good grasp of the reality the law seeks to influence. Coping with climate change is not possible without knowledge of the respective scientific contexts, curbing crime is hopeless without knowledge of its causes, and regulating the housing market through private civil law requires information about supply and demand. Without a reliable database, "good laws" cannot be made.

B. Shaping reality

The understanding of how reality is shaped by law also requires interdisciplinary insights. This applies above all to the (probable) future effects of law. Predictions about causal processes and probable behavioral patterns as well as

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[5] *Richli* (n. 2), 114.
[6] *Jakubiec* (n. 1), 81.
[7] *Jakubiec* (n. 1), 82.
[8] For *Richli* (n. 2), 11 and 91, it is even a constitutional requirement.
[9] *Richli* (n. 2), 4.

the anticipation of undesirable side effects require knowledge that goes beyond the expertise of a single unit of a ministry that is usually tasked with formulating a law. This applies, for example, to technical developments in general and to their impact on financial instruments in particular, to give another example: It is impossible to introduce standards for the operation of fintech enterprises without understanding their technical functioning.[10]

C. The climate and COVID-19 crises as current examples

The question of whether legislative processes are, or should be, interdisciplinary tasks has often been raised, although under other headings.[11] In particular, when it comes to the inclusion of expert knowledge, the question regularly arises as to whether and how extra-legal expertise can be incorporated into the process of legislation. This is an enduring and fundamental question, one which is not to be answered primarily in legal terms or from the perspective of legal scholarship but is to be addressed first and foremost by politics itself. And it follows that this question also calls to the scene the social and political sciences.

The functions potentially served by the involvement of extra-legal experts in legislative processes overlap in part with those that the involvement of stakeholders is intended to fulfil. First, such involvement has a neutral information function, and it serves to safeguard the quality of legislation. It can also improve the acceptance of decisions made by the legislature. However, this improvement in acceptance is based less on the participatory involvement of potential addressees of legislation, and it thus cannot be explained in terms of a democratic coloring of the legislative process. Instead, it is their know-how that provides the experts with a purely rationally mediated legitimacy. Extra-legal experts do not solely perform content-related tasks. They are often involved in decision-making for symbolic and tactical reasons. It has long been observed that highly complex and difficult political questions will be converted into seemingly soluble technical problems which can be presented in a dichotomous, right-wrong framework, thereby quickly establishing the desired solution and precluding alternate approaches.[12]

If extra-legal expertise is understood as scientific knowledge, the aforementioned question concerns nothing less than the relationship between science and politics. Both terms need to be defined in more detail, but in the present

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[10] *Jakubiec* (n. 1), 88.

[11] See, above all *U. Smeddinck*, Intgegrierte Gesetzesproduktion (2006), passim, with numerous further references; *M. Rossi*, Betroffenenbeteiligung im Gesetzgebungsverfahren, Jahrbuch des öffentlichen Rechts der Gegenwart 62 (2014), 159–178; *S. Ledermann*, Evidenz und Expertise im vorparlamentarischen Gesetzgebungsprozess: Die Rolle von Verwaltung und externen Experten, Swiss Political Science Review 20/3 (2014), 453–485.

[12] In detail, *D.B. Bobrow/J. Dryzek*, Policy Analysis by Design (1987).

context it is sufficient to understand science (in a clearly oversimplified fashion) as a synonym for (high-quality) extra-legal knowledge and politics (in a similarly oversimplified vein) as a representative of the system of state or sovereign rule-making. It is possible to illustrate the reciprocal relationship between the "systems" of science and politics in almost all fields that have recently been the object of legislation: In technology and environmental law, for example, it is primarily scientific knowledge that influences the political will. In general economic policy, it is economic insights – to put it in perspective, one should rather speak of economic convictions – that influence politics. In the field of criminal law, the policies to be followed by the legislature are not only based on political convictions but also on empirically and psychologically based knowledge. The same applies to almost all areas of law.

In the last two or three years, the difficult relationship between science and politics has come to the attention of the general public, mainly due to two crises: the climate crisis and the COVID-19 crisis. The COVID-19 crisis has brought two aspects to light as if under a magnifying glass: On the one hand, it has shown how much politics is dependent on extra-legal knowledge that promises security, certainty, and clarity. These promises are of special importance in times of crisis because such times are characterized not only by time pressure but also by the complete lack of security, certainty, and clarity. On the other hand, the COVID-19 crisis has made it clear how much politicians rely on the power of scientific insights in times of crisis, i.e., how much they tend to implement expert assessments and recommendations directly instead of making their own decisions – yet decision-making always means weighing up and prioritizing. In retrospect, it is fair to say, with all due differentiation, that at times policymakers simply reacted to a certain situation by referring to "science" and did not even make an effort to "get ahead of the situation," i.e., to take the rudder into their own hands or to set the course. In this respect, the COVID-19 crisis – at least at the beginning – presented itself as an epistemic problem,[13] i.e. as being almost exclusively a question of knowledge, expertise, and competence.

For adherents of a strictly "follow-the-science" approach in politics, the first governmental reactions to the COVID-19 crisis were thus a further wake-up call supporting their approach, which they want to make fruitful for climate policy in particular. In the area of climate policy, the epistemic character of political controversies is particularly evident and has been so for some time, but because the consequences – unlike in the case of the COVID-19 crisis – are not immediately noticeable and because, moreover, causal relationships are incomparably more complex, expert knowledge has not been reflected in political measures to the extent that some would have liked. *Wolfgang Schäuble*, the

[13] In detail, *L. Münkler*, Expertokratie (2020), passim. In addition, see *A. Bogner*, Die Epistemisierung des Politischen (2021), passim.

former President of the German *Bundestag*, addressed these concerns in his speech as *Alterspräsident* (Chairman by Seniority) at the constituent session of the twentieth *Bundestag* on 26 October 2021:

> "Das mitunter zähe Ringen um gesellschaftliche Mehrheiten sollten wir gerade auch denjenigen nahebringen, die mit Blick auf den Klimawandel von der Trägheit demokratischer Prozesse enttäuscht sind und sofortiges Handeln fordern. Ihre Motive sind nachvollziehbar, aber wissenschaftliche Erkenntnis allein ist noch keine Politik und schon gar nicht demokratische Mehrheit. Wer Ziele und Mittel absolut setzt, bringt sie gegen das demokratische Prinzip in Stellung. Übrigens kann die Wissenschaft genauso wenig letzte Gewissheit liefern, und in der Demokratie gibt es sowieso nicht die eine richtige Entscheidung. Genau damit müssen wir umgehen."[14]

> "The at times difficult struggle to gain democratic majorities in society should be brought to the attention of those who, with regard to climate change, are disappointed by the sluggishness of democratic processes and demand immediate action. Their motives are understandable, but scientific knowledge is not in itself politics, and it certainly does not represent a democratic majority. Those who make ends and means absolute set them against democratic principles. Moreover, science is incapable of providing final certainty, and in democracy there is in any event never a single correct decision. This is precisely what we have to deal with."

D. The relationship between science and politics

For the relationship between science and politics, two statements are noteworthy. First, the statement: "scientific knowledge is not in itself politics, and it certainly does not represent a democratic majority," is significant. It implies two things. It differentiates between knowledge on the one hand and decision-making on the other. And in view of the principle of democracy, it empowers the majority to make decisions that are inconsistent with scientific knowledge. This statement touches on the age-old and large question of whether and under what conditions a democracy can produce "best" decisions and whether, in the final analysis, procedurally legitimized majority decisions are better than factually legitimized expert opinions. No less relevant, on the other hand, is the proposition that "[t]hose who make ends and means absolute set them against democratic principles." This proposition is not surprising, as it was also *Schäuble* who, at the beginning of the heated discussions about COVID-19 measures, reminded us that no constitutional value, not even the protection of health, was entitled to claim absolute priority over other values,[15] and only following this reminder did the political as well as the scientific discussion take on a more objective dimension. Above all, *Schäuble* is proposing that no expert know-

[14] Available at https://www.bundestag.de/parlament/praesidium/reden/2021/20211026-866254 (last accessed on 31 August 2023).

[15] https://www.tagesspiegel.de/politik/schauble-will-dem-schutz-des-lebens-nicht-alles-unterordnen-7507174.html (last accessed on 31 August 2023).

ledge, no matter how correct, should be implemented without further political debate, and he rejects the ideas of absolute expert knowledge and of decisions being without alternatives. Or formulated differently: Existing complexity must not be ignored, and it must not be reduced to such an extent that other aspects and interests, which should be considered in political debates too, are completely disregarded.

III. Instruments for ensuring interdisciplinary lawmaking

The extra-legal knowledge required in the legislative process is only partly available to the legislature. Consequently, individual experts or entire expert committees are involved in lawmaking. Yet this involvement is institutionalized only to a relatively small extent.[16] A look at legislative practice shows that there are no detailed procedures and only a few official institutions that ensure interdisciplinary lawmaking.

A. Preliminary phase

Looking at legislative processes in Germany, we find many ways in which extra-legal insights are introduced. These different ways may be categorized with reference to the involved actors, the degree of their independence, the reputation of their expertise, or the binding effect of their decisions. Moreover, it is possible to distinguish institutionalized instruments from informal ones. Without claiming to be exhaustive, the following account will mention some of the possible measures and institutions by first focusing on the different phases of lawmaking, starting with a preliminary phase. This phase is not regulated by constitutional law and only partly by the Rules of Procedure of the Federal Government (*Geschäftsordnung der Bundesregierung*). The fact that constitutional law entirely ignores and the Rules of Procedure mostly ignore the preliminary phase is noteworthy given its importance. It is this preliminary phase in which legislative ideas are born and formulated. At times, civil society is involved in this process: business associations, NGOs dedicated to certain aspects of the common good, and political parties. The importance of such informal and unofficial initiatives by such diverse actors from civil society should not be underestimated. These actors are much more than gateways for primarily politically motivated lobbying. Rather, from the perspective of those potentially affected by a law, they not only express wishes as to the paths to be taken but also contribute information that the legislature does not have at its immediate disposal – or that can be acquired only after extensive research – but which is nevertheless needed as part of the legislative process. In this respect,

[16] Critical of this fact and demanding further institutionalization, *Richli* (n. 2), 91, 409.

stakeholder participation is an important point of entry for interdisciplinarity in the process of lawmaking.

B. Internal governmental drafting phase

In the internal governmental drafting phase, which precedes the introduction of a draft bill in the legislative process, interdisciplinarity is achieved not only by consulting those affected, but above all by consulting other specialized ministries. Of course, these consultations are also – and in coalition governments perhaps primarily – used to gain political influence. But ideally, such consultations make available the expertise of other ministries and, where appropriate, subordinated governmental agencies. This applies, for example, to consultations between the Ministry for Economic Affairs and the Ministry for the Environment on classic disputes between economics and ecology. The exchange of information between these ministries relates not only to the political goals to be implemented but also to an understanding of the reality to be shaped.

C. Parliamentary consultation phase

The same applies to the involvement of committees during the parliamentary consultation phase. Various specialized parliamentary committees are involved, and they will often hold expert hearings. The importance of such hearings should not be overestimated. After all, the experts are proposed by the individual parliamentary groups, and they are not always soberly detached from the political goals of the party which has advanced their names. Nevertheless, their involvement should also not be underestimated. The hearings of experts take place in public and are observed and digested, accordingly, by the public – at least by the media. This often gives them special weight.

D. Federal consultation phase

Today, the *Bundesrat* refrains from having regular expert hearings of its own. However, this should not obscure the fact that the *Bundesrat*'s involvement in the legislative process is a further gateway to interdisciplinary insights since the individual members of the *Bundesrat* are briefed accordingly by their own specialist ministries.

E. Informal and institutionalized expertise

In a final step, I want to move beyond the different phases of the legislative process and focus on a different aspect: the distinction between informal and institutionalized external expertise. The COVID-19 crisis may again be used for the purpose of illustration. Even though COVID-19 measures were from a legal perspective largely decided by the German states, they were in fact in a first step regularly prepared at the federal level. The state governments, as well

as the federal government, drew in particular on the expertise of institutional actors, most importantly the Robert Koch Institute (an independent federal agency under the supervision of the Federal Ministry of Health), the Standing Commission on Vaccination (*Ständige Impfkommission*, a federal expert group appointed by the Federal Minister of Health), and the National Academy of Sciences (*Leopoldina – Nationale Akademie der Wissenschaften*). They competed with informal actors, associations, and other persons, such as individual scientists, in interpreting the current risk situation and recommending future policy. Regardless of the question of what role these actors should and may play in sovereign decision-making, the example illustrates that a state is well advised to maintain institutions that generate knowledge and to make it available when needed. This is another way of meeting the interdisciplinary challenges of lawmaking.

IV. Excursus: expert groups in EU lawmaking

Within the EU, a large part of national lawmaking is simply implementing European directives. The question of how expertise is held in reserve for, made available in, and incorporated into the European legislative process is thus of particular importance. Here the role of expert groups is central. This role has been excellently analyzed in a recent dissertation and may be summarized as follows.[17]

The focus needs to be on the European Commission: It has a monopoly-like right of legislative initiative and derived legislative powers. In practice, its power to shape legislation is countered by a particular need for information and networking with the regulatory environment due to a lack of personnel resources and political involvement. It has met this structural challenge primarily through a system of approximately 1,000 expert groups. These groups are not integrated into the institutional structure of the EU. Nevertheless, they have factually become an integral and essential part of the Commission's structures, and it is hard to imagine the process of European lawmaking without them.

Expert groups are involved in the stage of preparing legislation, specifically in the phases of legislative planning and drafting. They are part of the Commission's "internal" procedure, which is hardly regulated and which precedes actual decisions, with the formal decision-making power remaining exclusively with the Commission. The core of the regulatory regime, last reformed in 2016, establishes so-called horizontal provisions for the establishment and operation of expert groups. With this regulatory structure, regulation has left the realm of soft law. In the legal form of a resolution, it is now generally

[17] *A. Dankowski*, Expertengruppen in der europäischen Rechtsetzung (2019), 428.

binding but can be classified as an internal measure of self-organization, which in principle has no external effect.

Expert groups are characterized by great diversity and heterogeneity in composition, organization, tasks, and working methods. In general, they are composed of scientists, stakeholders, and officials from Member State authorities. Information on the individual groups and relevant documents are available via a publicly accessible register on the Commission's website. Moreover, it is at the Commission's discretion whether to use an expert group and whether and to what extent to take the recommendations and opinions of an expert group into account. In the area of risk regulation, there are, however, special features at issue and the European courts have: (1) indicated that the discretion to employ expert groups can be reduced to zero in individual cases; (2) granted the scientific opinions of expert groups a kind of binding force in the sense of a rule; and (3) formulated requirements for the opinions of the groups.

The task of the expert groups is to provide the Commission with the necessary expertise that the Commission requires to fulfil its duties. It is noteworthy, that the Commission's understanding of expertise is broad and encompasses not only scientific but also practical and interest-driven expertise. It follows that the Commission pursues a "democratization of expertise" and instrumentalizes expert groups as part of its governance strategy. The practical functions and modes of action of expert groups are complex and extend well beyond knowledge-generating advice. For example, expert groups also serve as a control mechanism of the Member States and the European Parliament vis-à-vis the Commission and assume a depoliticizing function in implementing legislation. There are no empirically verified findings on the actual influence of expert group advice on the Commission's activities. However, it can be assumed that it has a strong influence and also a de facto binding effect.

From a functional perspective, the involvement of expert groups is significant for European lawmaking in three respects: (1) It gives the Commission the expertise it needs in its legislative activities; (2) the Union's decision-making system gains in overall effectiveness and efficiency; and (3) the quality of legal acts is increased by improving the basis for decision-making.

Phenomenologically, expert group consultations can be classified as cooperative decision-making in the form of increasingly legalized participation in sovereign processes. In practice, expert groups are the most important direct consultation and participation mechanism of European institutions. As such, they also allow for lobbying at the European level with direct, permanent, and partially formalized access to sovereign decision-making. First and foremost, expert groups are functional bodies of the Commission. They form part of the European committee system, they network with European administrations, and they can thus be seen as an element of European governance.

V. Fundamental problems of interdisciplinary lawmaking

What has proved successful at the European level is at the same time evidence of the numerous fundamental problems associated with the inclusion of external knowledge in legislation. Three such problems are to be named here.

A. Reception and evaluation of external knowledge

The first problem concerns the problem of how external knowledge is translated into the legal sphere. So far, we have only sketched out the possibilities for bringing external knowledge into the political decision-making process. The quintessence of this brief description is that knowledge input is characterized by plurality. But this knowledge must also be comprehended and evaluated. This raises the question of whether the state decision-making organs have a sufficient and appropriate receptor system as interdisciplinary work naturally requires interdisciplinary competence.[18] However, the plurality of informants and information inevitably entails the danger of being overwhelmed. This is because the information provided to government institutions must be evaluated not only as it impacts their own areas of expertise but also in respect of their interactions with other disciplines and fields of knowledge. This is precisely the interdisciplinary challenge.

B. Relationship between knowledge and decision-making

The second problem is more concrete and can ultimately be solved in terms of procedural or organizational law. It lies in the ambivalence between knowledge and decision-making in a democracy: When there exists a need for expert advice, politicians and, above all, the general public will rate the reliability of an expert opinion higher, the more independent an expert is. Ideally, their involvement will be legitimized solely by their expertise. Yet, in order to strengthen their democratic legitimacy, they must be linked to the state's legislative bodies. This in turn often raises the suspicion of manipulative knowledge processing.

This tension cannot be completely eliminated, but it can certainly be reduced.[19] From the perspective of constitutional law, and thus also from the perspective of legitimacy, it is ultimately decisive that the democratically legitimized sovereign authority is both enabled to make decisions based on external expertise but at the same time retains the final right of decision. Contrary to the call to "follow the science" often heard in connection with climate change, it must not be overlooked – especially in a democracy – that every decision is only a prioritization and as such falls within the realm of politics. As true as it

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[18] *Richli* (n. 2), 11.

[19] *Münkler* (n. 13), 648.

is that expertise is a basic requirement of politics, this expertise must be limited to the provision of provable facts. However, the evaluation of the facts is no longer the sole responsibility of science; it shares this task with politics. What consequences are ultimately to be drawn from the facts and their evaluation is the sole task of politics, and insofar as this policy is to be cast in legally binding forms, this task falls to parliaments.

It is only where one believes that political action should be determined in every respect and without exception by figures, data, and facts that one can argue for orienting politics exclusively on the question of who has the "better" data. However, even this basic assumption is wrong,[20] at least for liberal democracies. Rather, as argued by *Joseph Alois Schumpeter*, it must always be remembered that liberal democracy does not follow an explicit normative goal but only provides a method for establishing social order.[21] This method is dependent on knowledge but must always act on its own and with ultimate responsibility, both in cases of certain knowledge and in cases of ignorance.

Incidentally, but this should only be hinted at here, the problem can also be defused by ensuring, as far as possible, an expert consensus: Expert consensus indicates that the knowledge conveyed is not based on politically driven evaluations. If the expert consensus is also ensured on an interdisciplinary basis, there is a very high probability that it is correct.

C. Epistemization of politics

The third problem is of a more abstract nature. It consists in the danger of an increasing epistemization of politics, in other words, in the fact that a primarily political dispute is waged as a knowledge conflict. If, for example, theoretically grounded knowledge (expertise) and empirically acquired knowledge (experience) are irreconcilably opposed to each other, the concept of knowledge is understood as rational as well as emotional. This makes political debate difficult. As an example, one can refer to the discussion on penal policy. Today's crime statistics testify to increasing security (expertise), while the subjective perception of a majority of people indicates decreasing security (experience). Refugee policy and climate change are also examples of areas in which different types of "knowledge" are at odds with each other. Such an epistemocracy threatens to destroy democracy. For knowledge alone does not make decisions, nor does it eliminate the need for decisions. Rather, specialized knowledge from different disciplines must be transparently available to all participants in democratic discourse. *Alexander Bogner* provides a good summary of this idea's development:[22]

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[20] *Bogner* (n. 13), 39.

[21] *A. Schumpeter*, Kapitalismus, Sozialismus und Demokratie (8th edn., 2005), 427.

[22] *Bogner* (n. 13), 13 ff.

For a long time, the belief in the rationality of the social order seemed so dominant that the limits of such a rational order were virtually ignored. And the limits lie primarily in the particular complexity of the actual foundations and their interrelationships of effects. The world is precisely not a closed, logical causal connection, and therefore the "belief that one could, if one only wanted to, master all things – in principle – by calculation," as *Max Weber* put it in his 1919 paper "Science as a Vocation," cannot suffice from the outset. In more recent times, emotionality seems to have replaced rationality as the decisive criterion for social and governmental order, and even, presumptuously, for a world order. Corresponding movements refer to philosophical guarantors who early on criticized and questioned the faith in knowledge of modernity. *Werner Heisenberg*'s uncertainty principle, according to which the very attempt to understand something changes the object of understanding, and *Erwin Schrödinger*'s thought experiment on a cat that is simultaneously alive and dead are only two striking examples of the questioning of secure knowledge.

VI. The imperative to obtain external expertise

Despite these basic problems, interdisciplinarity appears not only as a challenge. It is imperative to obtain external expertise if the aim is good legislation. Yet what constitutes good legislation? When is it better than good? What constitutes optimal legislation? Is the quality of legislation measured by compliance with its constitutional limits? By its comprehensibility? By its effectiveness? By the modalities of its enactment? And if there are several yardsticks that make up good legislation, which is the most relevant?

A. Countless criteria and systematizations

These questions cannot be answered conclusively here, if only because there are countless criteria and almost as many systematizations for quality standards, depending on the horizon of expectations and the specialist discipline. The much-cited *Mandelkern* Report from 2001,[23] for example, names necessity, proportionality, subsidiarity, transparency, accountability, accessibility, and simplicity as "general principles" on the way to better laws. In 2002, *Gunnar Folke Schuppert* was commissioned by the German Federal Ministry of Justice to draw up an expert report on "Good Legislation", which identified further – and different – standards.[24] The same applies to the results of the *Deutsche Juristentag* (Association of German Jurists), which dealt with "Ways

[23] The expert group, chaired by D. Mandelkern, had been convened by the European Ministers of Public Administration to prepare recommendations on the implementation of the Lisbon process.

[24] *G.F. Schuppert*, Gute Gesetzgebung, Zeitschrift für Gesetzgebung Vierteljahresschrift für staatliche und kommunale Rechtsetzung (special issue, 2003).

to Better Legislation" in September 2004.[25] In contrast, a study by *McKinsey*, commissioned by the German *Nationaler Normenkontrollrat* (an independent advisory body to the federal government) in 2019, highlighted only effectiveness, addressee-friendliness, and enforceability as key characteristics of good legislation, in addition to the required constitutional conformity.[26] From a normative perspective, it should be emphasized that – against the background of the large number and the sometimes seemingly arbitrary selection of different criteria – there is no legally binding standard that conclusively and bindingly defines criteria for good legislation. This applies to both the national and the European level.[27]

B. Constitutional requirements and standards of legislative prudence

Of course, there are several binding requirements that can be derived from constitutional law or primary Union law. It is thus possible to divide the manifold criteria according to their degree of bindingness into "hard" constitutional requirements and "soft" standards of legislative prudence.

1. Binding constitutional requirements

"Hard" constitutional requirements are quality requirements that not only have a binding effect but that ultimately decide on the constitutionality of laws. Nevertheless, they are not prerequisites for the validity of laws because all legal acts promulgated in conformity with the constitution are initially valid. They do, however, provide constitutional courts with standards on the basis of which legal norms can be declared invalid. They include (1) requirements relating in particular to the legislative procedure and (2) substantive limits that arise from fundamental rights, which, moreover, are based on the rule of law: The requirement of certainty, the principle of the protection of legitimate expectations, and the principle of proportionality formulate minimum requirements for the quality of laws, even though their enforcement still depends on how the court responsible in each case interprets them.

2. Non-binding standards of legislative wisdom

Beyond these "hard" minimum requirements, there are "soft" criteria flowing from non-binding standards of legislative wisdom. Non-compliance with these ultimately remains without (legal) consequences. Necessity, practicability,

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[25] See especially, *P. Blum*, Wege zu besserer Gesetzgebung – sachverständige Beratung, Begründung, Folgeabschätzung und Wirkungskontrolle, in: Gutachten I zum 65. Deutschen Juristentag (2004), I 121.

[26] *Nationaler Normenkontrollrat* (ed.), Erst der Inhalt, dann die Paragrafen. Gesetze wirksam und praxistauglich gestalten (2019), 14.

[27] See the comparative comments by *Richli* (n. 2), 92.

acceptance, flexibility, learning ability, coherence, and efficiency are examples of such quality criteria on whose usefulness there is broad agreement, but whose assessment is nevertheless mostly in the eye of the beholder and whose disregard cannot, therefore, be established without further ado. This is particularly true with regard to the standard prescribing that only "just" laws can be good laws.

3. State policy objectives and maxims

Finally, these hard requirements and soft quality standards are interspersed with state policy objectives and maxims that the legislator is obliged to take into account but which regularly leave it such a broad scope for assessment that they are ultimately not legally binding. These requirements include, for example, state objectives relating to environmental protection and animal welfare (Art. 20a of the German Basic Law [*Grundgesetz* – GG]), as well as compliance with the overall economic balance (Art. 109(2) GG), the principle of economic efficiency (Art. 114(2) GG), or, on European level, the various cross-cutting clauses aimed, for example, at a high level of environmental protection (Art. 11 TFEU) or a high level of data protection (Art. 16 TFEU).

C. Requirements in terms of content and in terms of the legislative process

As has already been mentioned, a distinction can be made between requirements in terms of content and in terms of the legislative process. The procedural aspect can certainly be understood in an instrumental sense, as is also known from the administrative procedure. However, it serves more than mere functionality. The corresponding prerequisites create their own added value with regard to a wide range of quality requirements. Examples include the creation of transparency through hearings and the effect of acceptance through deliberative procedures. But is the inclusion of external expertise a prerequisite for good legislation? Good legislation is indeed characterized by the fact that it takes, in addition to the knowledge available internally, external expertise into account. Ideally, external expertise will only confirm internal knowledge, in which case its additional inclusion will do no harm. Yet at times external expertise will present itself as additional and diverging knowledge, in which case the relevant policy decisions may need to be reconsidered. And if internal assumptions and external expertise conflict, it must be transparently disclosed why a certain assumption is being followed.

From a legal and even constitutional perspective, there is much to be said for a principle according to which the legislature has to make use of external expertise. Ultimately, it is the requirements of the constitutional principle of proportionality – in particular the first, often neglected component of suitability – that demand from the legislature a reliable grasp of reality, which can often only be achieved with external expertise. And the constitutional necessity

principle, with its prioritization of the mildest means, requires a comprehensive impact assessment, which is nowadays firmly anchored in the legislative process, at least for laws drafted at the national as well as at the European level. Such impact assessment again requires external expertise. Following a proven instrument in environmental law, legislators can be required to obtain the relevant information for legislation using the "best available technique", and such an optimization requirement would be violated if legislators failed to make use of existing external expertise.

The German *Bundesverfassungsgericht* (Federal Constitutional Court) has referred to such obligations of the legislature in various decisions, always placing greater emphasis on the procedural dimension when clear substantive standards were not tangible. The Court assumed a duty to ascertain the facts, which was not limited to general findings but also had to cover complex interrelationships regarding the overall economic situation.[28] In another decision, the Court obliged the legislature to deal with, and compare, the "state of the methodological discussion" of empirical social research and official statistics.[29] In quite general terms, it will be possible to assume that the legislature has a constitutional duty to forecast and observe the effects of legislation. This does not say anything about whether and to what extent the legislature must draw on external knowledge. But in general terms, the constitution certainly contains a prohibition against denying reality, and from this, conversely, follows the imperative to take notice of scientific knowledge.

However, in view of the basic problems regarding the relationship between science and politics in constitutional democracies, the imperative to obtain external expertise should not be understood as a constitutional requirement, the violation of which can result in the nullity of laws or call the constitutional courts into action. Rather, it is a standard of prudence that should be applied in a differentiated manner according to various criteria: the intensity of the intervention, its scope, and above all the revisability of the standards to be enacted. Particularly with regard to revisability, we should be warned against turning the imperative to obtain external expertise into a "hard" constitutional requirement: It is easier to correct a statutory provision than the case law of constitutional courts.

Incidentally, we would like to warn once again against the absolutization of expertise, both internal and external. The plural and liberal society lives from the parallelism of standards and discourse in multiple fields (medical, psychological, scientific, ethical, legal, and political), and it lives from the competition between such discourse. Freedom of opinion and freedom of science are both protected by fundamental rights, but while freedom of opinion has no qualitative minimum requirements, freedom of science imposes qualified

[28] BVerfG, judgment of 1 March 1979, BVerfGE 50, 290, 333.

[29] BVerfG, judgment of 15 December 1983, BVerfGE 65, 1 55.

rationality and thus quality requirements. This is what makes scientific knowledge so credible – at least for the vast majority of people. This credibility presupposes trust, and in this respect, Germany's *Bundespräsident* (Federal President) *Frank-Walter Steinmeier* may be quoted with a statement he made at the opening of a conference on the "Future of Democracy" on 15 November 2021:[30]

> "Wo Politik sich hinter Wissenschaft versteckt, oder umgekehrt, wo Politik sich an die Stelle der Wissenschaft setzt, ich könnte auch umgekehrt sagen, wo Politiker und Wissenschaftler sich gegenseitig benutzen, um Ziele durchzusetzen, da schwächen wir das Vertrauen sowohl in Wissenschaft wie in Demokratie."

> "When politics hides behind science or, alternatively, when politics takes the place of science – and, by further contrast, when politicians and scientists use each other to push through goals – that is when we weaken trust in both science and democracy."

VII. Conclusion

Legislation is an interdisciplinary challenge. The German legislature meets this challenge sometimes better, sometimes worse, but this observation does not in itself call for any immediate response. Rather, the legislative process as defined by the constitution already offers numerous possibilities for meeting interdisciplinary demands placed on legislation. It is pluralistic to a degree that there are sufficient opportunities for interdisciplinary findings to be taken into consideration. Thus, there is no need for introducing any formalized or institutional safeguard, for example in the form of a commission of experts that serves the function of implementing interdisciplinary insights in legislation. On the contrary, the fact that the many means of taking interdisciplinary insights into account are neither formalized nor institutionalized proves to be an advantage from both practical and theoretical perspectives: Any formal or institutional safeguard to integrate interdisciplinary insights into the legislative process could be in conflict with the principles of democracy and democratic legitimacy. Nevertheless, there is an overall need for greater sensitivity to the interdisciplinary challenges in legislation. Appropriately trained actors for the collection, reception, evaluation, processing, and implementation of interdisciplinary insights are needed, especially in the ministries which continue to play a key role in lawmaking. Above all, however, a broad public discussion appears necessary, a discourse that has to go beyond the discussions led by political parties and that is free from any ideological framing. Moreover, irrespective of

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[30] *F.-W. Steinmeier*, Opening of the 12th Forum Bellevue "Was kann der Staat? Lektionen aus der Pandemie", 15 November 2021, 7, https://www.bundespraesident.de/SharedDocs/Downloads/DE/Reden/2021/11/211115-Forum-Bellevue-XII.pdf?__blob=publicationFile (last accessed 7 September 2023).

the question of how interdisciplinary insights can be introduced into legislation, time plays a central role in this respect: The legislative process must be decelerated so that it is possible to collect, receive, evaluate, process, and implement the relevant extra-legal knowledge. Finally, it needs to be remembered that legislation in democracies is, and has to be, open to making "wrong" decisions contrary to better knowledge. If such incorrect decisions are made, legislation can nevertheless, with the passage of time, successfully overcome its interdisciplinary challenges, namely by correcting laws. The fact that the legislature in a democracy always has the right to reform the law proves to be the most effective instrument for meeting the interdisciplinary challenges of lawmaking.