Law and Knowledge
- remarks on a debate in German legal science

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〈Abstract〉

The relationship between law and knowledge is a new topic in the field of legal science, and it is dealt with in particular in public law as sub-discipline of law. The topic is definitely not new with regard to other scientific domains. Thus law might be seen as a late comer. This article intends to outline some aspects of the current discussion to provide the essential groundwork on the topic, initially by explaining why the interrelation between law and knowledge might be important. This article does not cover aspects of knowledge as an object of law, which is often discussed under this headline but focusses on more basic aspects of the relationship between knowledge and law that may summarized in the hypothesis that law shapes knowledge but also that knowledge shapes the law. Following an introduction on how ‘knowledge’ is to be defined as a term, the discourse moves on to examine law as a practice through which knowledge is constantly generated in multiple manners, while, immediately afterwards the different typologies of knowledge, from the most tangible

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(through experience and conventions) to the most articulate ones (through European administrative networks) are presented. It reveals an important requirement of creating a European Administrative space, which is a shared knowledge base where administrative actions are embedded in. Even if it may come as a surprise to some, ignorance, as the opposite of knowledge, can also be a process or element that plays a role in law generation, as the article further argues. Last but not least, an analysis of the preconditions necessary for observing the law and knowledge conundrum either under conditions of awareness or of ignorance is provided.

Key Words: Law and knowledge, law as a knowledge generating practice, ignorance

I. Why do we talk about law and knowledge?

Recently, there has been a debate in German legal discourse regarding the relationship between law and knowledge, in public law considerably more intensely than in other sub-disciplines of legal science1). This debate

1) Marion Albers, Umgang mit personenbezogenen Informationen und Daten, in: Wolfgang Hoffmann-Riem/Eberhard Schmidt-Abmann/Andreas Voßkuhle (Hrsg.), Grundlagen des Verwaltungsrechts (GvWR), Vol. II, 2008, § 22, pp. 107 ff.; id., Die Komplexität verfassungsrechtlicher Vorgaben für das Wissen der Verwaltung. Zugleich ein Beitrag zur Systembildung im Verwaltungsrecht, in: Indra Spieker genannt Döhmann/Peter Collin (Hrsg.), “Generierung und Transfer staatlichen Wissens im System des Verwaltungsrechts”, 2008, pp. 50 ff.; Ino Augsberg, “Informationsverwaltungsrecht”, 2014; Steffen Augsberg, “Der Staat als Informationsmittler – Robin Hood oder Parasit der Wissensgesellschaft”, DVBl 2007, pp. 733 ff.; Roland Broemel, Wissensdistribution im Zivilrecht – Vorvertragliche Aufklärungs- und Informationspflichten, in: H.C. Röhl (Hrsg.). Wissen - zur kognitiven Dimension des Rechts, DV Beihelft 9, 2010, pp. 89 ff.; id., Compliance durch Wissen, RW 2013, pp. 62 ff.; id., Wissensgenerierung im Regulierungsverfahren, in: Trute/Röhl, “Wissen und Nichtwissen in Organisation und Netzwerken”, i.e., Karl-Heinz Ladeur, “Das Umweltrecht der Wissensgesellschaft”, 1995; id., Die Kommunikationsinfrastruktur der Verwaltung, in: GVWR II § 21, pp.
is, however, no privilege of legal science which, in comparison, is a late
comer into the topic compared to other realms. In other disciplines, this
topic has been debated since long ago and in an exhaustive manner all the
way down to the theoretical framework of each discipline\textsuperscript{2)} and it is a
research topic in sociology of knowledge and philosophy from Karl
Mannheim, Max Scheler, Alfred Schütz, Peter L. Berger and Thomas
Luckmann, Niklas Luhmann to philosophers like Michel Foucault, to
mention just a few ones.

Nevertheless, this should come as no surprise in a society which partly
describes itself as “knowledge society”. Although it might be questionable
whether this term sufficiently describes modern societies, it is at least a

\begin{itemize}
\item 37 ff.; \textit{id.}, Die Gesellschaft der Netzwerke und ihre Wissensordnung, in: Süssenguth
(Hrsg.), “Die Gesellschaft der Daten”, 2015, pp. 225 ff; \textit{Stefan Oeter}, The Openess
of International Organisations for Transnational Public Rule-Making, in: Dilling/Herberg/Winter,
“Transnational Administrative Rule-Making”, pp. 235 ff;
\textit{Arne Pilniok}, “Governance im europäischen Forschungsverbund”, 2011; \textit{Manuel
Pflug}, “Pandemievorsorge - informationelle und kognitive Regelungsstrukturen”,
2013; \textit{Katharina Reiling}, “Der Hybride. Administrative Wissensorganisation im
privaten Bereich”, 2016; \textit{Hans Christian Röhl}, Wissen - Zur kognitiven Dimension
des Rechts, DV Beihalt 9, 2010; \textit{Gunnar Folke Schuppert/Andreas Voßkuhle},
“Governance von und durch Wissen”, 2008; \textit{Indra Spieker genannt Döhmann/Peter
Collin}, “Generierung und Transfer staatlichen Wissens im System des
Verwaltungsrechts”, 2008; Peter Stegmaier, “Wissen, was Recht ist. Richterliche
Rechtspraxis aus wissenssoziologischer Sicht”, 2009; Hans-Heinrich Trute, Wissen -
Einleitende Bemerkungen, in : H.C. Röhl (Hrsg.). Wissen - zur kognitiven Dimension
des Rechts, DV Beihalt 9, 2010, pp. 11 ff; \textit{Andreas Voßkuhle}, Sachverständige
Beratung des Staates, in: Josef Isensee/Paul Kirchhof (Hrsg.), HStR III, pp. 425 ff;
\textit{id.}, Expertise und Verwaltung, in: Hans-Heinrich Trute/Thomas Groß/Hans Christian
Röhl/Christoph Möllers (Hrsg.), “Allgemeines Verwaltungsrecht – zur Tragfähigkeit
eines Konzepts”, 2008, pp. 637 ff; \textit{Burkard Wollenschläger}, “Wissensgenerierung im
Verfahren”, 2009
\item 2) Compare with the beginnings of a history of knowledge with numerous examples as
documented in Peter Burke, A Social History of Knowledge Volume II: From the
Encyclopedic to Wikipedia (2012); \textit{id.}, A Social History of Knowledge (2000); \textit{id.},
A Social History of the Media: From Gutenberg to the Internet (2002)
\end{itemize}
common notion for the importance of knowledge and the procedures to generate it – for society as a whole and for the economy in particular. Most research funding programmes of today seem to pay tribute to the knowledge perspective. One of the latest examples appears in the framework programme Horizon 2020 of the European Union, the main European funding scheme for research in Europe which describes one of its core objectives as building a society and an economy based on knowledge and innovation across the Union by leveraging additional research, development and innovation funding.3)

The lines of discourse are substantially different though. Partially, knowledge is discussed as the object of law, often without meaningfully distinguishing between knowledge, information and data. In this sense, the issue of data protection and all its variations expectedly comes into play. From a theoretical angle these aspects of data protection have little to do with knowledge. Similarly, questions from intellectual property law were also treated in this context4).

Nevertheless, it is not the intention of this paper to go into those areas. Predominantly, focus will be placed on more fundamental aspects; in particular, what is the importance of knowledge for the law, and on the other side, what importance the law has for knowledge generation. Our hypothesis will be the formulation: knowledge shapes law and law shapes knowledge.

3) Art. 5 para 1 Regulation (EU) 1291/2013, OJ (2013), L 347, 105 (110).
4) For an interesting approach see Brett M. Frischmann/Michael J. Madison/Katherine J. Strandburg, Knowledge Commons, PittLaw, Legal Studies Research Paper Series, Working Paper No. 2016-28 September 2016; Forthcoming, Research Handbook on the Economics of Intellectual Property Law (Vol. II – Analytical Methods), Peter Menell & David Schwartz, eds. (Edward Elgar Publishing, 2016)
Prima facie, this formulation seems to expose a questionable mix of cognitive and normative differences. One could argue that through this concept two visibly differentiating anticipation styles are mixed together. Whoever speaks about law, norms and duty, can stick to it and with good reason, even if he may be disappointed in the very end because people do not comply with it. The law simply ensures certain positions and guaranties the safety of expectations regardless of whether people always uphold them or not. The opposite applies for a cognitive anticipation style. If I am wrong, I have to learn and to correct myself. In the first case, I can stay loyal to my expectations even contrary to facts; in the second one, I have to change my cognitive expectations. Consequently, knowledge and the law appear to describe two profoundly distinct aspects of the world, as in the long standing tradition of differentiation between norms and facts. How it is and how it should be, law and facts, interpretation of texts and investigation of facts are possible candidates on the two sides of the distinction.

However, as it will be exposed, the world of norms and that of facts are intertwined, especially from a knowledge perspective. Neither the meaning of law is to be easily fixed and certainly not on the basis of a fixed methodology, nor is the world of facts so tangible. The evolution of the whole discussion could be described as an increasing uncertainty which easily relates to both sides of the distinction.

II. Knowledge: a clarification

The definition of knowledge is conceived in greatly varied manners
though. In epistemology, it is constructed by recourse to reality as true or, in any case, as justified opinion, or as a set of facts, rules and theories that claim to be valid. It can correspond to explicit or implicit knowledge, declaratory or procedural knowledge, exact or empirical one. It can be deduced from bare “beliefs” and “views” and be tied to reality as such in this perspective (Wehling, 2006: 21). This reference point has already been abandoned in the context of sociology of knowledge and has been replaced with the reference to society so that it can be deduced – as Berger/Luckmann argue in their seminal book – that “the sociology of knowledge must concern itself with everything that passes for ‘knowledge’ in society” (Berger/Luckmann, 1966: 26). This shifts the focus to the everyday construction of knowledge in society (Berger/Luckmann, 1966: 35 et seq.). And, of course, beyond the common sense knowledge of everyday live, knowledge is as fragmented as society is differentiated and fragmented. There is a kind of common knowledge, of overlapping perspectives which give everyday life and the knowledge it is based upon them the status of being taken for granted. Beyond that, there are other provinces of knowledge, meaning and reality. The province of law is such a finite one, crowded with people with professional expertise establishing their own world differently, but not independently, from the unquestioned reality and knowledge of everyday life.

But what constitutes knowledge in this sense? From the perspective of the development of sociology of knowledge a dominant strain might be the construction of knowledge by communication from different theoretical angles. Notwithstanding the differences, in detail knowledge is not seen as something concrete in the minds of people but as the result of a continuing process of generation, stabilization, and variation of signs and
meaning. It is an effect of participation in a practice of generating, generalizing, ascribing and making use of knowledge (Wehling, 2006: 21; Luhmann, 1992).

It thus exists independent of explicit consensuses; it decomposes into various plural forms of life and language games. By describing it as a result of distributed practices, the individual actually takes part in it, without it being in practice available as such to the individual beyond his participation in it (Ladeur, 2015: 225). In this respect, knowledge is smoothed out as a result of practice itself, while remaining as an essential structure at the same time, so that actions and meaning can be identified according to it.

III. Law as knowledge-generating practice

This admittedly somewhat abstract introduction allows for a slightly different view of the law. Let's begin with part of our initial hypothesis: Is it true then that laws shape knowledge? Or is it not so, at least when by knowledge one implies the world of facts, in which case we have two separate spheres before us? When someone, as outlined above, identifies the application of law as a practice, as a language game that can be set aside from the others, then the legal system can be described as a practice that generates knowledge at all times and, in fact, knowledge about the law itself as well as knowledge about the environment of the legal system. This, admittedly, still sounds abstract. What kind of knowledge is implied? In any case, this changes the image of law towards a production perspective.
1. The production perspective of law

For starters, we will deal with the shift of perspective to the practice of a legal system.

a. The production of legal knowledge: law shaping knowledge

Meaning is not inherent in words, it comes into existence in the “Sprachspiel” (language game) within the context of application of law (Wittgenstein, 2003 (1953)). But this context is more than a text, more than a seamless web of decisions, commentaries and contributions of legal scholars. It also comprises a material practice5) not so different from scientific production of knowledge.

From this starting point, one can reconstruct how the legal system of meanings, understood as the entirety of that knowledge, which are produced by individuals based on law in communicative procedures, is concretized and constantly confirmed and varied (similarly in Lee, 2010: 47). Every single legal communication is based on the body of knowledge and by the same act this knowledge is conformed with or varied – a kind of recursive structure with dynamic interrelations between social structures of meaning of law (i.e. the structural level) and the individual communications of it. This is embedded in a practice of legal work. This

5) Marianna Valverde, in Law’s Dream of a Common Knowledge, 2003, p. 6, identifies a part of this material practice: “Similarly, legal facts and legal judgments are only meaningful and effective within a network, one that connects legal decisions and statutes but also includes buildings (e.g., prisons), clothes (robes, uniforms), information codes, individuals, institutions such as legislatures, law schools, and courts, professional associations, and extralegally produced texts such as psychological reports, police notes, and scene- of- crime photographs.”
allows for an analysis of the professional legal work both in terms of the evolution and the differentiation of commonly shared knowledge of lawyers as well as the micropractice of reconstructing more concrete decision capability. This forms a shift from sole textual analysis to the analysis of the legal practice. It allows determining more precisely the function of legal dogmatic, of legal principles and precedents, of decision lines, of explicit as well as implicit knowledge every legal professional has to acquire and use (Lee, 2010: 152 et seq). It also permits to pick up the legal communication in its profoundly different facets. It allows analyzing the way legal knowledge is stabilized. This is promising and not only in view of the fact that, obviously, legal expectations play a major role for the entire society and their integration.

Due to this, every communication in relation to law influences precisely this collective system of meanings and it can verify or modify it. One could say that, somehow, “the parties to a legal case can be said to constitute knowledge in the very process of ‘using’ it, while courts and tribunals can be usefully regarded as further constituting knowledge in the process of evaluating evidence and drawing conclusions from it” (Valverde, 2003: 4 et seq).

However, the same is true not only for the parties of a case, or the legal professionals but for all those contributing to legal discourse. This discourse about the law is public and, therefore, a driver of legal knowledge as well; it has the capacity to shift the meaning of law and is even used by societal actors to strategically influence the law via public discourse. All these mechanisms form a kind of reflexive production of knowledge in using the knowledge as a starting point and confirming or varying it in the process of using it: the recursive logic of knowledge
production by and of the law.

b. Slurring of norms and facts in evidence law

The slurring of norms and facts is most noticeable in evidence law, which constitutes the facts upon which law in its subsequent application will be based. It will not be just about determining facts, but rather about constructing normatively more relevant ones over diverse layers and through diverse interpretations and selection processes. This process involves actors in different roles (lawyers, witnesses, experts, and judges), text collections such as files, reports, logs etc. and self-evident norms, which normalize the consideration and evaluation of aspects, and in turn require interpretation themselves. There is no way around in which facts could be treated as such by the legal system and later, when applied to the judgement, be normatively constructed.6)

c. Knowledge shapes the law

On a more general level, legal science, as well as legal practice, produces descriptions of the reality which should be regulated by norms. Basic norms like the warranty of freedom of science or freedom of arts, to mention only some examples, always require knowledge of what science and art “is”. This refers either to a shared ground of common knowledge or needs more specific knowledge about the reality to be ordered. Due to the complexity of the relevant parts of reality (what is the meaning of modern science in law, does it comprise conduct or only expression and if

6) For a detailed reconstruction of different theories refer to Arne Urpmeier, Fakten im Recht, 2010.
so why?) it is all but not trivial to determine the relevant aspects, and of course the reality of what constitutes arts or science may shift over time therefore altering the meaning of legal warranties. One can resort to others definitions from science, be them from science theory or sociology of science respectively, to colloquial conventions or to self-depictions of activities in this context and to comprehend, in this way, what art or science or expression or religion “is”. It is, of course, a normative construction of reality, no matter what kind and what source of knowledge is used.

In the field of constitutional norms this has been dealt with primarily in the methodology of Friedrich Müller with his concept order models which are constituted in a recursive process of analysis between the text of norms and the reality to be regulated (Müller / Christensen, 2004). These already require for their concretization to bear in mind structural elements of the subject matter that is meant to be defined and its normatively guided transformation into a normative description of “reality”. Examples are human dignity, right to life, right to personality, freedom of science or art, which are characterized by the fact that knowledge from very different subsystems and disciplines must be utilized to build normative constructions about them. Likewise the elementary legal order of market regulation, environmental and even planning law, require knowledge from other sciences about the reality, which they then need to integrate according to their own criteria. The normative construction of reality acts here above all as an interface between norm and reality, without, however, changing its character as a normative construction (Hoffmann-Riem, 1999: 84 et seq.). One could also think about the concept of material and geographical definition of market from competition law, which by
reference to the very reality of market operations provides both of them with normative meaning at the same time. In this very simple sense it is true that knowledge shapes the law.

d. Alienation through normative descriptions of reality

The practice of the legal system produces inevitably a kind of normative construction of reality by using e.g. scientific descriptions for its own purpose of creating normativity. In this way, it produces a kind of alienation from the everyday understanding of reality by those confronted with the law. This is a kind of transformation (Harenburg/Seeliger, 1979: 56 et seq.) of the everyday understanding of reality, not covered by social conventions. These transformations and their effects can often be observed as lack of understanding, as unworldly, unreasonable or even totally false. However, they are simply a consequence of creating normativity. But they may also be a reason for concern if the gap between everyday understanding of reality and the normative construction becomes so big that it may threaten the legitimacy of law and jurisprudence.

2. Differentiation of orders of knowledge

As seen before, law can be embedded in knowledge shaped by daily conventions and experiences. It can also be based on different knowledge types and modes of knowledge generation.

a. Knowledge from experience and conventions

In many cases a certain part of commonly accessible knowledge can be
developed within a legal system through commonly available facts, enriched through a wide variety of cases or through common knowledge based on experience. If changes occur, the change is slow and, therefore, gives the impression of a more or less self-evident reality or unquestionable knowledge. In the German legal system an example might be the notion of ‘danger’, which is the central notion of the so called police law, aiming at regulating everyday social order to avoid damages to citizens, institutions and the environment and in cases of a manifest disruption. The Prussian Higher administrative Court once said that the notion of danger is based on the experiences of everyday life (PrOVG RVBl 1931, 330). Therefore it appears easy to handle although it is constantly applied to a wide range of different situations. As long as this term can be reviewed more or less against commonly accessible, stemming from daily experience knowledge the application of law runs smoothly. This allows then legal simplifications, which methodically evolve into simple constructions of subsumption of facts with regard to their significance as generally respected norms. The latter change at the moment when new real problems appear shuttering old conventions and certainties. Similarly, when situations are complex and dynamic and one cannot just rely on a seemingly safe inventory as knowledge based on everyday experience.

b. Beyond knowledge gained through experience: the knowledge-generating process guided by law

Usually this process boils down to open standards which form standard administrative action but also to unique procedures for generating
necessary practical knowledge. It is, of course, not easy to portray it just in the form of a clear-cut differentiation between norms and facts. Rather, on the one hand, open rules and undetermined notions are concretized, thus preparing knowledge and an enriched understanding of the situational aspects of open legal norms. Knowledge creation is therefore an issue beyond mere clarification of facts in every case when the required general knowledge, i.e. the knowledge of rules, must be produced either only in one or in more procedures. In this sense, one may speak of knowledge generating processes (Wollenschläger, 2009: 24 et seq.). In essence, it is possible to speak of it every time abstract, content-determined decision programs but also content-open decision programs are concretized, which just as in laws dealing with risks - are also characterized by a high dynamic range of the subject matter. What precisely distinguishes the ‘environment in its interactive structure’ (§ 1 Nr. 1 GenTG), e.g. which markets are defined through it, whether to them “substantial and persistent structural or law-related barriers to entry” exist (§ 10 Abs. 2 TKG) - just to mention two examples - are to be viewed as open questions in relation to which neither the regulatory authorities in GenTG nor the Federal Network Agency, although the latter is considered to be an expertise agency, possess the necessary knowledge about the markets supposedly regulated by them but rather they have to make assumptions about them. One could also argue that the more dynamic the environment and the more decentralized the generation or distribution of knowledge and the more open the normative standards, the less likely it is for necessary standards to be independent from knowledge generation processes and to centrally produce the general rules of assessment (Röhl, H. C., 2010).

The same applies with regard to what is referred to simply as facts. Is
must not be overseen that in many sectors of legal practice we do not rely on facts, which are produced as such out of a certain normal context of science and which then are transformed into a legal decision via rules of evidence and by experts. As far as a fairly complex system of legal decision making is concerned it could hardly rely on a kind of randomized knowledge production of the scientific system. Therefore knowledge generating procedures are set in place by law. What do we mean by that? First of all, knowledge is partially normatively (co-)constructed – when it comes to regulatory as well as risk decisions – while the legal order poses detailed topics, questions and, to a certain degree, also methodological requirements. The intensity of this coupling can be observed in the market regulation of telecommunications law, which in its sequence of market definition, market analysis and regulatory decisions transforms through several steps into legal acts different economic facts and, through which, also via further scientific development, when timely appropriate, they are partially detached. The same applies in the laws of genetically modified products as well as long as pieces of knowledge are normatively influenced already in their conception and thus pre-prepared for them. To put this more illustratively, it is enough to take a look at the REACH Regulation of the European Union as well as the

7) Further compare with R. Wahl, Herausforderungen und Antworten: Das Öffentliche Recht der letzten fünf Jahrzehnte, 2006, p. 71; H. Schulze-Fielitz, Responses of the Legal Order to the Loss of Trust in Science, in: Nowotny /Pestre /Schmidt-Aßmann / Schulze-Fielitz / Trute, The Public Nature of Science under Assault, 2005, pp. 63 (65 ff.); H.-H. Trute, Democratizing Science Expertise and Participation in Administrative Decision-Making, pp. 87 (91 f., 104 f.).

8) Regulation (EC) Nr. 1907/2006 of the European Parliament and the Council of 18.12.2006 on Registration, evaluation, allowance and control of chemical substances (REACH), on the establishment of a European agency on Chemical Substances, amending Directive 1999/45/EC and nullifying Regulation (EEC) Nr. 793/93 of the
complimentary Regulation on test methods,\textsuperscript{9}) in which test methods, test arrangements, contextual conditions etc. are articulated through hundreds of pages. Through that it becomes clear that an entire series of aspects that one would typically attribute to a specific part of science on unprejudiced consideration are converted into legal elements. The same could be observed related to pharmaceutical issues. And often those fretting the risk have to perform this kind of normative guided knowledge generation. Once more, this time in an even more complex form, we observe that law shapes knowledge.

c. European networks as infrastructure of knowledge

The currently emerging European networks are of high importance, especially in light of the increasing trend to intensive regulation of different fields. In the core of these networks are usually to be found European agencies, particularly specialized ones. A couple of commonly cited but not thoroughly researched examples are the European Food Safety Agency, EFSA,\textsuperscript{10}) and the network of the European statistics Council, and of Regulation (EC) Nr. 1488/94 of the Commission, the Directive 76/769/EEC of the Council as well as Directives 91/155/EEC, 93/67/EEC, 93105/EC and 2000/21/EC of of the Commission, ABl L 396 v. 30.12.2006, p. 1 (http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2006R1907:20121009:DE:PDF).

\textsuperscript{9}) Regulation (EC) Nr. 440/2008 of the Commission of 30.05.2008 on the Establishment of proof methods according to Regulation (EC) Nr. 1907/2006 of the European Parliament and the Council on Registration, evaluation, allowance and control of chemical substances (REACH), ABl L v. 31.5.2008, pp. 1 ff.

\textsuperscript{10}) It is a task of the competent authorities, according to § 22 II Reg. (EC) 178/2002, to offer scientific advice as well as scientific and technical support for the adoption of laws and policies of the Community in all areas, which directly or indirectly have consequences on the security of foods and nutritional substances. It is, precisely, supposed to make available at all times independent information in relation to all.
authorities, ESS, which is less integrated than the EFSA network. Equally
worth-mentioning in the field of prevention and surveillance about
epidemics would also be the European Centre for Disease Prevention and
Control (ECDC), one more European specialized agency itself.\(^{11}\) In the
case of the foods agency, for instance, EFSA is the focal point of a
network of national expert institutions. The knots of the EFSA-Network
are not just responsible for determining and assessing risk in one specific
case, with the consequence that they generate factual knowledge not just
for a concrete case only but they observe the field of risk to health and
generate knowledge in a more generic way which also allows the national
agencies to draw upon. In fact, they act in a much more continuous
scientific, consulting manner for the European Commission, the Member
States, the European Parliament and the general public and generate, in
this way, knowledge extending beyond one specific case, which becomes
at the same time commonly available on a European level. Member States
designate functions/positions (on a national level), which support EFSA\(^{12}\)
and coordinate respectively their own network on national level. Thanks to
these the EFSA-Network has at its disposal a net of mutual peer reviews

questions in this topic and advice on risks.
11) Decision No 1082/2013/EU of the European Parliament and of the Council of 22
October 2013 on serious cross-border threats to health and repealing Decision No
2119/98/EC, OJ L 293, 5.11.2013; for an overview on the matter refer to Trute,
How to deal with pandemics, in: Eger/Oeter/Voigt (Hrsg), International Law and the
Rule of Law under Extreme Conditions - An Economic Perspective, 2015, under
publication and temporarily available under http://minervaextremelaw.haifa.ac.il/
images/Trute-2014-How_to_deal_with_pandemics.pdf (20.09.16).
12) Refer also to EFSA, Decision concerning the establishment and operation of
European Networks of scientific organisations operating in the fields within the
Authority’s mission, http://www.efsa.europa.eu/de/scdocs/doc/panelnetworksrop.pdf
(20.09.16).
(between the different member states agencies and their experts), which would be quite hard to institutionalize in a national context in light of lacking sufficient number of knowledgeable peers. These may overcome cultural differences in different member states by constituting a forum for discussion about the way to solve problems. As a result, this European network achieves a united European knowledge basis as foundation for the administrative handling of affairs also of Member State authorities.

3. Setting a Frame: Europeanized administration

Therein appears one more crucial aspect, which brings forward the plurality of embedded national administrations in Europe due to various cultures and the knowledge basis that is associated to them. For European administrative law integration in a united European administration area is as much necessary as it is characteristic. However, it has to deal with particular administrative cultures and the knowledge bases they are embedded in. If a more or less unified administration of the European internal market is to be achieved, then administrative cultures need to alter in relevant internal-market-associated issues, so that mutual trust in the handling of affairs from each side can be expected. This shifts the issue of knowledge to a new level.

In that regard, it is obvious that an administration founded on European cooperation in varying degrees of intensity can do no more than, first and foremost, build up informational relationships – and conceive them in a way as to make sure that the more substantial the cooperation is the more extensive recognition the respective decisions will have in different national contexts. This applies not only in the sense of making accessible
to others already existing stocks of knowledge in the interest of administrative efficiency. Rather analysis can run considerably deeper precisely on these points. And this because those information relationships do not aim just at efficiency, but rather at the construction of a shared perspective on issues, that is to say, at the construction of a shared reality about administration and solutions to problems.\textsuperscript{13)} For this to be achieved, however, much more than just the publication of information about a case is necessary; it is essential to make available access to the actual administrative practice, to spread it out and work on it, so that a common reference on a newly constructed common practice can follow suit. As knowledge of the administration is constructed through law but also through the way it is applied across time and through various instruments, so less can it be placed in international contexts. And through that it can already \textit{ex negativo} be inferred what is already implicit with application of law: certain but only partially explicit and in part only through actual practice communicable knowledge about the law and its application (Augsberg, 2014: 27; Trute, 2010: 19). This can still be observed in several hidden places across a federal state, and it makes reference to an important element, that the cognitive preconditions of an explicit as well as an implicit nature for application of law are purely constitutive. The role of law is therefore so the more complex as it does not just depend in its core on these preconditions but it also contributes itself to the establishment of this cognitive structure. A not negligible part of regulations of the Europeanized as well as International law is dedicated to the building of these cognitive structures. And this process refers, as it has

\textsuperscript{13)} With regard to the example of the European Research Association see more in A. Pilniok, Governance im europäischen Forschungsförderverbundes, 2011.
already been demonstrated, not just to information relationships. Rather it refers to what one would describe in research about governance with the term *framing*: the formation of a common perspective that is also founded on a common knowledge basis.

**IV. And what about ignorance?**

When one is talking about knowledge and law in this constructivist sense, then the other side is not far away either, i.e. the ignorance and the law. We have already previously seen that uncertainty is an elementary feature of the newer developments of legal methods. And uncertainty may be just another word for ignorance or non-knowledge. However, observing ignorance is no new phenomenon (Simmel, 1992 (1908); Merton, 1936: 894 et seq.; id., 1987: 787 et seq.; Popitz, 1968). Although priority is often given to the generation of new knowledge one could even argue that ignorance is also a basic category of modernity. And a productive category too (Wehling, 2016). If this is accurate, that in every communication blurredness is inherent, both within ‘transmitted’ information and with understanding patterns of the recipients, i.e. with the non-deceivable non-transparency of others that interact with us, then ignorance about the outcome of the communication comes hand in hand with it and is always a possibility even for the productive components of communication (Nassehi, 2014: 9 et seq.). Thus, even the basic form of communication might be called an ignorance-machine (Nassehi). This could also be related with the communication over law and with the methods of interpretation, as a perspective of this kind would be totally appropriate.
Of course there have been similar approaches on the processing of ignorance in the sociological theory of knowledge, though usually under the prism of a perspective of still-not-knowledge or of the unintentional consequences of a specific handling. A perspective oriented towards the objectivity of knowledge normally already includes ignorance as a residual category. At times ignorance becomes knowledge; this is how this thesis could be described.

In legal debate ignorance plays a prominent role above all when it comes to ecological or technological risks (Wehling, 2007: 83 et seq.) and has led to the formation of the principle of precaution also as a form of reaction to the crises of scientific knowledge (Wahl/Appel, 1995: 1 et seq.; Harremoes/Gee/MacGarvin/Stirling/Keys/Wynne/Guedes Vaz, 2002). As the functionality of ignorance was at the forefront of the sociological debate, so the risk debate on ignorance was further differentiated. It is no

14) For deeper analysis refer to Wehling, Im Schatten des Wissens? 2006, pp. 35 et seq.; compare also with: Nach Feierabend. Zürcher Jahrbuch für Wissensgeschichte Bd. 5, Nichtwissen, 2009
15) For further details refer to Simmel, 1992 (1908); of prime significance in the field of juridical studies Popitz, Über die Präventivwirkung des Nichtwissens, 1968. Approaches based on this tradition include maintaining privileged social positions, stabilizing traditional values, securing a functioning competition framework, maintaining stereotypical patterns of perception, system adequate incentives for role conformity; compare these also to Moore/Tumin, Some social functions of ignorance, American Sociological Review 14 (1949), pp. 787 et seq.
16) Further analysis on the topic in Karl-Heinz Ladeur, Risikobewältigung durch Flexibilisierung und Prozeduralisierung des Rechts – Rechtliche Bindung von Ungewissheit oder Selbstverunsicherung des Rechts?, in: Alfons Bora (Hrsg.), Rechtliches Risikomanagement, 1999, pp. 41 et seq.; Hans-Heinrich Trute, From Past to Future Risk – From Public to Private Law, European Review of Public Law 15 (2003), pp. 73 et seq.; Arno Scherzberg, Wissen, Nichtwissen und Ungewissheit im Recht, in: Christoph Engel/Jost Halfmann/Martin Schulte (Hrsg.), Wissen – Nichtwissen – Unsicheres Wissen, 2002, pp. 133 et seq.; id. Risikosteuerung durch Verwaltungsrecht: Ermöglichung oder Begrenzung von Innovationen?, in: VVdStRL
longer just the non-determinable opposite of knowledge, its dark side so to speak, but also due to many other differentiations that do not deliberately constitute qualities of ignorance but rather a social construction of the system, which makes use of the difference between knowledge and ignorance (Luhmann, 2000: 184). This differentiation is already visible in the famous distinction, introduced by the American sociologist Robert K. Merton, between specified and non-specified ignorance. The former can be in terms of knowledge further specified, the latter not. This is significant, given that specified ignorance constitutes one important factor of knowledge generation. With reference to it certain important problems that need to be determined, if not urgently resolved, are described. In contrast, unspecified ignorance has other consequences or, at least, it can have. The fact that these problems are not more precisely describable, nor do other solutions exist, is evident in the risk debate slightly in consequence with absolute prevention efforts (Japp, 1996: 61 et seq.).

Besides, one more point could be brought up here. When one does perceive knowledge or ignorance as a state of awareness or a state of knowledgeability of individual or collective actors, but rather refers to knowledge as a practical theoretical approach, then things are different. When knowledge is no non-preconditioned or concrete possession, but rather an effect of the participation to the practices of generation, generalization, attribution and use, then we need to look for ignorance in the same ways. In this sense, as Wehling correctly notes, ignorance indicates material and emerging effects of the functions or generation of

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63 (2004), pp. 214 (238 et seq.); Ivo Appel, Methodik des Umgangs mit Ungewissheit, in: Eberhard Schmidt-Äßmann/Wolfgang Hoffmann-Riem (Hrsg.), Methoden der Verwaltungsrechtswissenschaft, 2004, pp. 327 et seq.
knowledge and its technical application, which during the execution of these functions as well as during the anticipation and observation of their consequences remain non-recognized (Wehling, 2006: 121).

In that regard there are additional differentiations, such as Wehling’s proposal to distinguish along the dimensions of ignorance, the intentionality and timely stability and durability of ignorance (Wehling, 2006: 121), each of which can refer to different consequences. Despite the first impression, they all have substantial meaning in law, even though the various aspects are not systematically differentiated. It obviously makes a difference, if one has to do with known ignorance or with the prominently infamous unknown unknowns.17) Obviously, when attribution results in a normative border, for instance in the field of precautions, not unlimited measures should be taken. This formation of temporary concepts, of monitoring mechanisms, the temporary nature of permits in risky areas, the necessity of learning loops, all these are dependent on intentionality and it becomes clear that in the field of more or less conscious differentiations of ignorance can vary depending on the degree of persuasion. Normatively, the different forms of fault are to be understood as formations of this intentionality. Forms of attribution can be built thereto. Again normatively, consciously set barriers can be categorized as forms of voluntary (but mostly relational) ignorance (privacy, informational self-determination, ban

17) The former American secretary of defense D. Rumsfeld, Press Conference 12.02.2002: “[T]here are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns – there are things we do not know we don’t know.” (https://de.wikipedia.org/wiki/There_are_known_knowns, in light of which, precisely because of the absence of any knowledge, all measures that may contribute to discerning among unknown unknowns, known unknowns or known knowns can be justified.
of insider trading, secrecy). The timely stabilization can, consequently, greatly vary and becomes of importance with regard to the question how much unknown future can be the subject of current regulation. These few examples aim to make clear that ignorance is thoroughly structured as the opposite of knowledge and that legal order makes use of it in various, although not always explicit, ways – and not just in the commonly cited law about ignorance, as this can be found in the European Biomedicine Convention.18)

V. Regime of knowledge and ignorance

With every scientific breakthrough our level of ignorance only increases. This widely shared view among scientists makes all the more clear that knowledge just as ignorance are equally anchored to social practice. They are equally the product of persuasion, generalization, attribution and use. Legal regimes are obviously just regimes of knowledge as they are of ignorance. One can clearly observe this in the rules of evidence, which have shaped the law. There is always a regime of ignorance which, in the absence of further clarification, assimilates the deliberate acceptance of ignorance, for instance in the case of rules on burden of proof or the principle of proportionality as a limit to further investigations scrutiny by courts or administrations.

Knowledge regimes are to be understood here as collections of

18) Art. 10 para 2 Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine: Convention on Human Rights and Biomedicine.
principles, norms, organisations and processes of generation, distribution and modification of knowledge, which affect the behavior of actors in a specific state of affairs (Wehling, 2007: 704 et seq.). This definition appears parallel to that of regulatory structures or that of governance (Trute, Denkhaus, Kühlers, 2004), yet it focuses not so much on general regulation problems but rather on their cognitive aspects. In this respect, on the one side preconditions in the sense of a cognitive dimension are formulated; on the other side, though, the institutional arrangements of knowledge generation, distribution and modification which are a reference problem of regulation are analyzed from this perspective.

With the relation between regimes of knowledge and ignorance we arrive at the issue of knowledge production and its blind spots in the context of legal decision making. What can be observed when one uses the distinction between knowledge and ignorance in order to analyze legal problems and legally structured arrangements? This question is not so much about concrete facts but mostly about how knowledge and, in parallel, also ignorance is produced and how that could be of importance for normative arrangements. In this respect, the question is about structural prerequisites of normatively relevant knowledge production and, simultaneously, about the correction towards closer, individually attributable acts of acknowledgement or productions of knowledge and thereby aligned theory formation.

When and because legal descriptions usually orientate themselves to an individual form of knowledge production, in view of the specific case and the thereto relevant methods, the description of knowledge generation follows, based on the knowledge of law and the environment of law, within normative contexts often in reconstruction of a methodological
approach, that is rather oriented to individual acts of law concretization than to the knowledge production of an institution. However, such a description misses the point about what knowledge generation, and actually what the knowledge of law and its environment is all about. It is always embedded in a more or less complex arrangement with different institutional elements to the records, roles of stakeholders, confrontation with preceding decisions of which belong to the horizon of future cases and decisions, routines and conventions, the embedding in an institutional context and the background of a more or less common ‘language’ of stakeholders. Normativity is, in that sense, a certain social practice, which includes different institutional elements.

It is thus made clear how many cognitive aspects are prerequisites of a social practice in the process of construction of normativity. This particularly applies to the adoption of a rotating practice, which to a large extent, one could say, depends on a common framing of problems, a commonly shared language, which is reflected in conventions and routines, as curdled practice, as sedimentary experience. As an example one can take the institutional arrangement of courts which might be seen to produce specific practices and stabilize a body of knowledge of law.

Against this background other elements become clear as well, in particular the question what happens when these arrangements do not work, when factual knowledge does not apply or make sense. This is already evident with regard to the administration, which is situated in a different functional context. Think about the actions of the administration in fields with high dynamics of change, with high complexity, or about the actions of administrations with different administrative cultures, as it is quite typical, for instance, in the European administrative area or when the
administration carries out tasks together with private parties. All this poses the question which knowledge base is used and what the legal consequences of each choice might be. And if this is an adequate description, other approaches might be needed to cope with inevitable ignorance, such as a kind of learning approach enshrined in the law, monitoring the consequences of a decision, reducing the trust in the stability of the decision, a mechanism of retraction etc. If law operates under conditions of uncertainty, inevitably an approximation to changing knowledge bases comes to the forefront and stresses the fact that, in a kind of re-entry, normativity is infected with cognitive elements. As law shapes knowledge so knowledge shapes the law.

VI. Conclusion

Herewith only some aspects of the considerably far reaching field of law and knowledge were outlined. This short outline was only meant to demonstrate that with knowledge/ignorance as point of reference one can profit from a different view on the operations of law, the methods of its application, the processes in which justice is done. This is naturally only an initial outline which, undoubtedly, necessitates further theoretical elaboration.
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