

# Establishing the Individualistic Viewpoint within Instrumental Administrative Analysis

Laurence O'Hara

## A. Introduction

Behavioral law today assembles under its roof a great variety of research interests and approaches (there could be no better proof than the present volume) – and Christoph Engel has played a pivotal role in shaping many of them. One main task of the field is clearly the immediate production of empirical observations. But it also has the task to conceptualize behavior and digest empirical knowledge for the broader legal and regulatory discourses. My contribution focuses on this second task. It does so not just because the occasion of an influential mind's jubilee calls for review and reflection,<sup>1</sup> but also because the future influence of the approach rests on its ability to shape conceptual thinking in the legal and policy world beyond singular findings from individual experimental or observational studies. A central recent development in this regard has been the gradual consolidation of a literary canon of behavioral theory (both empirical and normative) and methodology: While the first overarching accounts around the year 2000 built largely on instructive examples (though ones paradigmatic to this day),<sup>2</sup> the last decade has increasingly brought about comprehensive conceptions, which – despite all necessary selectivity re-

---

1 You could say that this conceptual level of transfer and reconstruction was the starting point of Christoph Engel's journey as a Max Planck leader, if you compare first the book series at Nomos "Common Goods: Law, Politics and Economics", including influential volumes such as *Engel et al.* (eds.), *Wissen – Nichtwissen – Unsicheres Wissen*, 2002; and then meta-analytical accounts as for example in *Engel/Morlok* (eds.), *Öffentliches Recht als ein Gegenstand ökonomischer Forschung*, 1998; and *Engel/Schön* (eds.), *Das Proprium der Rechtswissenschaft*, 2007.

2 *Jolls/Sunstein/Thaler*, *A Behavioral Approach to Law and Economics*, *Stanford Law Rev.* 50 (1998), 1471; *Korobkin/Ulen*, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, *California Law Rev.* 88 (2000), 1051; *Sunstein* (ed.), *Behavioral Law and Economics*, 2003.

garding individual components – allow for an exhaustive overview over the field and its implications for legal practice and scholarship.<sup>3</sup>

A particularly promising setting for a discussion of this conceptual dimension is the administrative landscape, in which our research institution at Bonn was situated (and specifically tailored to which – again under Christoph Engel's leadership – the institute brought forth several of such overarching treatments of the field<sup>4</sup>). Not only does the German systematic tradition of legal thinking raise special demands for organizing knowledge according to practical needs,<sup>5</sup> which at the same time makes it conducive to such mappings, e.g. by providing connecting factors and points for comparison.<sup>6</sup> German administrative law over the past decades has also become home to a specifically juridical form of policy-thinking, namely the “regulatory” or “instrumental” perspective nowadays most prominently discussed as a core component of *Neue Verwaltungswissenschaft*.<sup>7</sup> The more legal concepts are construed as tools for prospective influence rather than posterior review, the more do they offer numerous *nexus* for behavioral concepts to connect.

Sure enough, gaps remain between the various disciplinary traditions and practical activities. Law and regulatory landscape do not simply raise

---

3 Especially noteworthy regarding this comprehensive perspective are the handbooks authored/edited by *Zamir/Teichmann*: Behavioral Law and Economics, 2018; and earlier The Oxford Handbook of Behavioral Economics and the Law, 2014, with a core methodological contribution by *Engel*, Behavioral Law and Economics: Empirical Methods, 125 et seqq.

4 *Engel et al.* (eds.), *Recht und Verhalten*, 2007; *Petersen/Towfigh*, *Economic Methods for Lawyers*, 2015; *Engel et al.*, *Öffentliches Recht als Verhaltensordnung*, 2025.

5 An exhaustive account of the different approaches is offered by *Hilbert*, *Systemdenken in Verwaltungsrecht und Verwaltungswissenschaft*, 2015. Closely connected is the debate on characteristics and functions of the German doctrinal method, to which, again, Christoph Engel's group has repeatedly contributed, cf. *Engel/Schön* (n. 1); and *Kirchhof/Magen/Schneider* (eds.), *Was weiß Dogmatik?*, 2012.

6 Especially on connections with other subjects *Stark*, *Interdisziplinarität der Rechtsdogmatik*, 2020.

7 An account for an English-speaking audience can be found at *Eifert*, *Conceptualizing Administrative Law: Legal Protection versus Regulatory Approach*, in *Pünder/Waldhoff* (eds.), *Debates in German Public Law*, 2014, 203 et seqq. Otherwise cf. on the development of the perspective *Appel* and *Eifert*, *Verwaltungsrecht zwischen klassischem dogmatischen Verständnis und steuerungswissenschaftlichem Anspruch*, *VVDStRL 67* (2008), 226 et seqq., 286 et seqq.; and on its role in *Neue Verwaltungswissenschaft* *Voßkuhle*, *Neue Verwaltungswissenschaft*, in *Voßkuhle/Eifert/Möllers* (eds.), *GVwR I*, 3<sup>rd</sup> ed. 2022, § 1 para. 2 et seqq.

questions that social sciences could answer in straightforward manners. To enhance the instrumental perspective by behavioral insights is a conceptual task in itself. In what follows, I want to shed light on this task, its properties and preconditions of success. I do so largely by discussing three conceptual levels (2.–4.). They can be read as both: Broad idea-historical reconstructions of what had to be undertaken in the bridging of the gaps, and programmatic tasks or quality standards for such undertakings in the future.

## B. Stringent individualism as an enhancement of instrumental analysis

Behavioral analysis of administrative law and policy is first and foremost an expansion of the regulatory paradigm from an individualistic perspective – that is, of course, from a perspective of methodological, not of normative individualism.<sup>8</sup> Hence, the first step in its development had to consist in a focus shift towards effects of law in the first place, towards exploring its ability to make real differences in the real world, and also to establish the mentioned specific form of a regulatory theory for policy advise.

For jurisdictions where economic thinking was prevalent and the according methodology accessible, it is obvious why economic analysis of law quickly gained dominant influence within such regulatory perspectives:<sup>9</sup> it provides an analytical tool with which assumptions about behavior can be made for all possible life contexts – sometimes better, sometimes worse, but never not at all. Ultimately, people are more likely to do things that promise to lead to the outcomes they want to achieve. On this basis, particularly with different forms of expected utility analyses, it

---

8 In that sense, the root is first and foremost *Weber* as moderated by *Schumpeter*, see the helpful summary of the idea-development by *Heath*, Methodological Individualism, in Zalta/Nodelman (eds.), *Stanford Encyclopedia of Philosophy* (Summer 2024 ed.), <https://plato.stanford.edu/archives/sum2024/entries/methodological-individualism> (accessed 15.09.25). See also the quintessential elaboration put forward by *Elster*, *The Case for Methodological Individualism, Theory and Society* 11 (1982), 453.

9 Already in the first generation of law and economics literature, a regulatory orientation clearly surfaces in the quest to identify certain designs of legal institutions to bring about certain results, cf. *Calabresi*, *Some Thoughts on Risk Distribution and the Law of Torts*, *Yale Law J.* 70 (1961), 499; or even *Coase*, *The Problem of Social Cost*, *J. of Law & Economics* 3 (1960), 1.

became possible to theorize more and more regulatory contexts, including behaviors that are not *per se* market-based, such as crime<sup>10</sup> or the use of natural resources as collective goods<sup>11</sup>.

It is equally obvious that sooner or later a legal theory of regulation had to be developed for a jurisdiction like the Federal Republic of Germany. In the US, law is traditionally perhaps more understood as something static that is practiced by lawyers in the courts; that leaves the making of public policy, especially in government agencies (outside cleaved and donation-driven elected politics), as a naturally separated domain for the experts, above all from economics. In Germany, on the other hand, rule of law means *rule by law*. Parliamentary law is to great extents a form of administrative action. Its overarching purposes are certainly determined politically, but its design is the work of specialized civil servants in the executive – anything else would do a disservice to elected officials and the basic law's conception of the democratic will. There is no doubt that juridical science, which was increasingly becoming a vehicle for shaping policy, needed a theory of governance in order to do justice to the political advisory function of lawyers.<sup>12</sup>

Importantly in terms of disciplinary development, the German regulatory perspective, as compared to the Anglo-American policy scheme, remained more diffuse in methodological terms. This can be seen archetypically in the concept of actor-centered institutionalism according to *Mayntz* and *Scharpf*,<sup>13</sup> which has had perhaps the strongest influence on the tradition here in terms of social sciences. The concept is by no means “uneconomic”; on the contrary, the institutions set the framework and the actors act based on their best interests. But the line of analysis never amounted to a tradition of consummate utility or preference analyses, neither positive nor normative; the actors themselves mostly remain vaguely construed collective actors. Of course, a lot of the time, this is heuristically sound, not least in view of our corporatist political tradition and our industrial economy – our entire understanding of politics in the

---

10 *Becker*, Crime and Punishment: An Economic Approach, *J. of Political Economy* 76 (1968), 169.

11 *Ostrom*, *Governing the Commons: The Evolution of Institutions for Collective Action*, 1991.

12 That is the background of the developments summarized in sources in n. 7.

13 *Mayntz/Scharpf*, *Der Ansatz des akteurzentrierten Institutionalismus*, in *Mayntz/Scharpf* (eds.), *Steuerung und Selbstorganisation in staatsnahen Sektoren*, 1995, 39; *Scharpf*, *Games Real Actors Play*, 1997.

Federal Republic and our political language presuppose that collectives act: not just the Bundestag, the SPD, the Federal Ministry of Finance, also the car industry or its component suppliers. Simplification by personalization of vague groups with vague interests/preferences is often efficient given the need to grasp the issue cognitively. When analyzing effects of administrative law, we regularly encounter excessive complexity even when we ignore the individual level, or parts of it. If I assess, for example, an emissions standard for diesel cars or a speed limit for certain roads as a regulatory output, I am sometimes better off assuming that my impact<sup>14</sup> is perfectly successful, i.e., that everyone affected complies with my regulations. Even then, whether I can expect to achieve my desired outcome – that particulate matter or carbon emissions fall below a certain threshold – may depend on highly complex considerations. From physical-meteorological conditions to possible avoidance behavior, this can depend on countless factors.

None of this changes the fundamental insight, though: if the law aims at real world effects, it usually has to persuade individuals to decide and act in certain ways. Even in highly institutionalized, legally-driven processes such as adapting a company's organization or business practices to regulatory requirements, ultimately individuals need to do certain things. The moment when the decision is made to behave in a certain way is the point at which instrumental effects actually take place – it is the key moment of regulation. Without such moments, administration cannot function, including when managing its own activities. Regulation based on individual motivation and cognition is therefore not a specific field of government activity, but a level of operation whose influence cannot be avoided anywhere.

The fact that – despite this unavoidably crucial rule of the behavioral level – German legal administrative thinking has traditionally not made greater efforts towards additions from economic analysis is – apart from divergent educational backgrounds and faculty constitutions – primarily due to three factors: First, legal-economic literature often has a norma-

---

14 On the many different facets and potential behavioral channels cf. the summarizing effort under a joint concept of impact studies *Friedman, Impact: How Law Affects Behavior*, 2017.

tive-individualistic tendency;<sup>15</sup> if an argument rests on welfare analysis,<sup>16</sup> it easily loses its validity in discourse surroundings that take normative rationality seriously, in particular under the “value order” of the Basic Law. Second, expected utility theory and, as a result, the neoclassical model with each further theoretical development became increasingly detached from reality; what every economist is used to as daily business is easily rejected by any lawyer as unrealistic.<sup>17</sup> Thirdly – and most importantly – the ability of economic models to accurately represent decision-making problems, which are actually prevalent in political practice, remains limited because they have to process all aspects that are important to individual actors as value-relevant aspects of consequences. They therefore fail at the latest when individuals are intrinsically motivated by normative obligations. Put simply, if I steal my colleague’s cell phone, *Gary Becker* can process all the material advantages and disadvantages of my crime, including the fact that I have to deal with her anger and contempt, and possibly even that I feel a little ashamed of my actions. But my breach of norms itself plays no role in his scheme. Or, to put it in technical terms: to date, no method has been found that could directly process cardinal preferences about norms (ultimately, not even an internally meaningful one with ordinal preferences about norms).<sup>18</sup> However, empirical research provides very clear evidence that norms do play an important, even decisive role for many people in many situations.<sup>19</sup>

---

15 It is all over the standard material, cf. e.g. the influential accounts by *Cooter/Ulen*, *Law and Economics*, 6<sup>th</sup> ed. 2016; *Cooter/Gilbert*, *Public Law and Economics*, 2022.

16 On the positive-normative divide also *Towfigh/Petersen* (n. 4), 2 et seqq.

17 As said, that usually requires lawyers to resort to more coarse levels of analysis in the first place and explains how they digest basic economic concepts such as incentives differently, cf. *Sacksofski*, *Anreize*, in *Voßkuhle/Eifert/Möllers* (eds.), *GVwR II*, 3<sup>rd</sup> ed. 2022, § 39, para. 19 et seqq., 27 et seqq.

18 Cf. first the incommensurability-related line of argument in the balancing-literature as summarized by *Petersen*, *How to Compare the Length of Lines to the Weight of Stones: Balancing and the Resolution of Value Conflicts in Constitutional Law*, *German Law J.* 14 (2013), 1387. Cf. further the impressive efforts undertaken by *Spohn*, *Defeasible normative reasoning*, *Synthese* 197 (2020), 1391, where the developed “ranks” do amount to a preference order, but none gradually-numerically driven.

19 Cf. here the summary by *Hoefl*, *The Force of Norms? The Internal Point of View in Light of Experimental Economics*, *Ratio Juris* 32 (2019), 339.

### C. Disciplinary expansions and canonical consolidations

With that, we are already deep into the second step, namely the revision of individualistic theory formation. The basic idea behind this is generally familiar these days, namely that the picture of individual behavior is gradually being sharpened by the inclusion of empirical findings. It can also be assumed that everyone is familiar with prominent examples of such findings: the framing dependence of judgments and decisions, tendencies of behavior under risk and uncertainty, loss aversion, the fact that sources of dangers are systematically perceived differently than according to the extents and probabilities of possible damages, or even that we react to descriptive and injunctive norms, real or merely perceived.<sup>20</sup> An important facet of this revision process is – despite all the remaining uncertainty – the consolidation of a common set of terms within the canon, which can also be used for interdisciplinary communication. This is something that can now be clearly seen in retrospect, precisely because of developments over the past twenty years.

It is worthwhile in this context to linger for a moment on the idea of norms, because it allows to grasp another facet of the revision process, namely differentiation and diversification of analytical approaches. It concerns especially the difference between a behavioral economic approach and a behavioral approach in the broader sense. Contrary to what one could assume from what I just said, there absolutely are situations where norm-complying behavior can be captured in economic theory. If we play a dictator game with cake, and I, as the dictator, give you a piece because that corresponds to my sense of justice, then my choice is immediately reflected in the consequences. The game is designed in such a way that it only depends on my sense of justice with regard to the cake, and my only way to comply with the justice-norm is by sharing some part of the cake. So it is not meaningless to say: The norm to me is worth so much, 100g for you, for example, as compared to 1kg for me. And it goes on: If the designer of the game gives us money instead of cake as the object of moral obligation, she can suddenly make the game much more complex. For example, she can specify that under certain circumstances, an entire group of players wins or loses money, or that players can punish each other. Now my social preference – or rather, my perceived attachment

---

<sup>20</sup> Most have been around since the early accounts in n. 2.

to the norm of justice – can suddenly be traded off against many other aspects of the game and, in their comparative currency, quantified in the result. So preferences over norms actually do work? Anyone sensitized to the underlying analytical dimension will, of course, have noticed that our designer has created a very strange world. In fact, she has – at least approximately – defined the problem of incommensurability out of this world. She has simply decreed that all behaviors in the game can possibly cause changes only on the same scale. And that's not how the world out there works, which is why many subjects of behavioral analysis cannot be satisfactorily captured in an economic theory scheme, not even in a behavioral economic one.<sup>21</sup> Of course, incentives remain a central factor, and it is often realistic to assume that individuals also develop elaborate concepts of expected utility; think of a team of bankers considering complex rules for their investment behavior. But very often today, analytical concepts must be applied in isolation from genuine theory in the sense of utility functions. Take *Tyler's* concept of legitimacy based on procedural justice.<sup>22</sup> In this theory, deterrence-incentives naturally remain a decision-making criterion – but they have irrevocably transcended the notion of an actual trade-off, of gradual validity as weighed against each other.<sup>23</sup> In this context, also the influential concept of heuristic thinking becomes relevant. Heuristics,<sup>24</sup> as far as I can see, are like norms necessarily coded in a binary-conditional manner; otherwise, the idea of a rule-of-thumb would not work: to simply choose a product according to price as the subjectively most important factor (instead of conducting a comprehensive trade-off given all value-relevant factors) exactly means to think in a non-maximizing way.<sup>25</sup>

Against the backdrop of these considerations, it is easy to see how the field of behavioral analysis could diversify also in terms of other disciplinary and methodological perspectives. After its economics-oriented beginnings, it was initially expanded to include cognitive and social

---

21 This point is particularly stressed by *Berg/Gigerenzer*, *As-if behavioral economics: Neoclassical economics in disguise?*, *History of Economic Ideas* 18 (2010), 133 (142 et seqq. and throughout).

22 *Tyler*, *Why people obey the law*, 2006.

23 Cf. *Tyler* (n. 22), 22 et seqq., 42 et seqq., 64 et seqq.

24 *Gigerenzer/Hertwig/Pachur* (eds.), *Heuristics, The foundations of adaptive behavior*, 2011.

25 *Berg/Gigerenzer* (n. 21), especially at 137 et seqq.

psychological perspectives. Then further empirical approaches were incorporated, particularly from sociology and administrative sciences, but increasingly also from philosophy. Last but not least, approaches from the independent field of empirical legal research, especially experimental legal research, have also been incorporated. It brought with it a methodological opening away from the purity of the incentivized economic lab experiment towards more practice-aligned ways of data collection, for example vignette studies, and recently machine learning/large language models.

#### D. Re-conceptualizations of the legal material and regulatory practice

The third step concerns the canon in the second order; it primarily relates to the legal system and our concepts of it, where the aim is to incorporate the canon. The concept of nudging, understood as an intended (and essentially exclusively) behavioral intervention, is now well established; we can consider it a distinctive form of instrument.<sup>26</sup> Remaining within the realm of the universal concepts of administrative law (in German: Allgemeines Verwaltungsrecht), however, the greater part of the task still lies ahead. It consists of realizing behavioral effects as a natural part of the regulatory analysis for any part of the instrumentarium.<sup>27</sup> Exactly that is the flip side of the ubiquity of behavioral effects: almost every government measure produces them. Even where the main debate on the surface is about legal or real-world consequences, it may be that the psychological effects are what actually make the difference. Take for example a financial disincentive a government agency imposes in order to coerce an individual into a certain behavior. From a behavioral perspective, it can make a big difference on several levels whether we have a penalty payment to enforce an environmental ban or a reduction in welfare payments to make the receiver look for work. Not only does money also have a diminishing marginal utility; those affected are likely to depend on the money

---

26 German public law has seen numerous dissertations in the past years, e.g. *Gerg*, Nudging, 2019; *Kronenberger*, Nudging als Steuerungsinstrument des Rechts, 2019; *Kunzendorf*, Gelenkter Wille, 2021; *Gebhardi*, Verhaltensökonomisch informierte Steuerungsinstrumente, 2022; *Baer*, Staatliche Steuerung durch Nudging im Lichte der Grundrechte, 2023.

27 Cf. as first steps along this path the various conceptualizations in *Engel et al.*, Öffentliches Recht als Verhaltensordnung (n 4).

to varying degrees, and therefore we will tailor the levels of sanctions very differently in the first step: a reduction in citizen's income of a few hundred euros, an environmental violation by a corporate actor of many thousands. Also, due to inertia tendencies and omission bias, it may depend on whether obligations to act or refrain from acting are enforced. It may depend on whether they are presented as taking away or reducing what is given (i.e., income reduction), because of loss aversion and greater risk aversion in the profit frame (tendency toward sure gain). It may depend on whether the specific treatment and practice of the authority as a whole are perceived as fair, and on the language used by the law and administrative practice.

And it not just applies to money as an "economic" variable. We can see this form of parallel effects in all kinds of state legal and communication acts. Compliance with norms, especially compliance with the law, is a set of behaviors that individuals often engage in intuitively and habitually. In this case, an administrative order in the form of a binding command – which initially imposes an additional legal obligation – is not only a primary measure but also a secondary, i.e. an enforcement-measure.<sup>28</sup> The same applies – in normal regulatory operations – to a hearing letter, which, depending on its wording, can easily be perceived by the recipient as a warning threatening formal legal or physical coercive action.

What becomes apparent here, is the strong influence of context – which shows us that behavioral analyses must increasingly be carried out against the backdrop of specialized administrative law: behavior in social welfare law, behavior in trade supervision, behavior in civil service law, and so on. The analysis has the great advantage that it can draw on the respective area-specific rationalities and knowledge bases that are preserved everywhere in concepts of specialized law. This enables it to counteract, to a certain extent, the structural deficits of empirical social research, particularly limitations of internal or external validity, respectively.

A substantial influence on this third conceptual step is the fact that specialist subjects have begun to incorporate the behavioral level in their own foundations. In some cases, regulators themselves have made behav-

---

28 See in greater detail O'Hara, *Ordnungsrecht und staatlicher Rechtsgüterschutz*, in Engel et al., *Öffentliches Recht als Verhaltensordnung* (n 4), 206 et seqq.

ioral assumptions,<sup>29</sup> while in others, there is extensive specialist discourse examining regulatory approaches based on behavior. Food and beverage law is certainly particularly prominent in this area, because its labeling requirements (including shock images on cigarettes) raise specific questions of salience, and also because Europe has a tradition of an information model.<sup>30</sup> We find explicit examples for behaviorally based regulatory approaches by the legislative in the law on digitalization.<sup>31</sup> Interestingly, as far as cookie notices are concerned, we can now observe a tendency toward re-revision on a behavioral basis. Initially, a mandatory choice design had been introduced, and now the “cookie pledge”<sup>32</sup> is moving toward a more substantive regulatory approach – precisely because of the behavioral phenomenon that consent behavior has become automated and users – in line with the heuristic approach – have not made any significant efforts to obtain information. A third recent example is the development of the electricity market design.<sup>33</sup> Already because an energy supply system that relies heavily on renewables requires considerably more fine-tuning at considerably more individual points than a system with conventional energy sources, the design must take more complex behavioral effects into account from the outset.

---

29 Of course, already classic fields of EU law like competition depend on behavior influence including discussions of instrumental effects such as deterrence effects even by the court rulings themselves, cf. Case T-210/01 General Electric v. Commission, ECLI:EU:T:2005:456 paras 58, 64 et seqq., 75.

30 Most prominently in the regulation on food information, Regulation (EU) No 1169/2011, which naturally has to deal with the conditions of cognitive digestions by consumers, cf. e.g. Rec. 9, 26.

31 Apart from the old example of data protection, also newer levels of legislation rest on assumptions about individual behavior, cf. e.g. Rec. 67, Art. 25 DSA.

32 Summary of the process by the Commission including the opinion of the European Data Protection Board (13.12.23, OUT2023-0098) at [https://commission.europa.eu/live-work-travel-eu/consumer-rights-and-complaints/enforcement-consumer-protection/cookie-pledge\\_en](https://commission.europa.eu/live-work-travel-eu/consumer-rights-and-complaints/enforcement-consumer-protection/cookie-pledge_en) (accessed 15.09.25).

33 Cf. the summary by the Federal Ministry for Economic Affairs <https://www.bundeswirtschaftsministerium.de/Redaktion/DE/Publikationen/Energie/20240801-strommarkt-design-der-zukunft.pdf> (accessed 15.09.25).

E. Outlook: Transforming administrative reasoning in transformative times

These last thoughts provide hints as to what we should expect for the future. Social science has potential to (further) transform the administrative world; at the same time, the regulatory body driven by the respective practical needs shapes the meaning any such literature might have. The most major recent shifts in administrative law throughout Europe circled around transformations, with climate law transformation and digital transformation at the center. This remains the case even as a phase of questioning has begun. Obviously, these megatrends hinge on the behavioral level in numerous ways, be it the introduction and enforcement or the repeal of according policies that is being discussed: Transformations cause massive cognitive effort. They require far-reaching decentralized behavior adjustments, often through measures, which have to be actively designed and implemented. Throughout there are prominent concepts from the behavioral literature at place: from defaults, inertia and omission bias to risk perception. Moreover, such shifts involve a large-scale change in norms. Previously established patterns of behavior must be changed; and – as in the digital transformation – the structure of more general norms, such as how we communicate and, not least, how we engage in politics, may change. No matter what one's stand on a need to regulate versus to deregulate: Whether any such measure is worthwhile, is only assessable against behavioral assumptions. Over the last twenty years we have seen significant shifts in what could be called state action paradigms. Given the grown awareness for individual behavior, any further paradigm shift will have to be developed cognizant of the micromechanisms at play.