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Problematic Aspects of a Systems-Theoretical Approach to Fundamental Rights

Problematische Aspekte eines systemtheoretischen Ansatzes im Grundrechtsbereich

https://doi.org/10.1515/zfrs-2022-0203

Zusammenfassung: Der Artikel setzt sich unter Zuhilfenahme des Beispiels der Wissenschaftsfreiheit kritisch mit ausgewählten systemtheoretischen Grundannahmen und insbesondere mit dem systemtheoretischen Grundrechtsverständnis von Niklas Luhmann auseinander, wie es im Wesentlichen in seinem einschlägigen Werk aus dem Jahre 1965 dargelegt wurde. Dabei wird spezifisch mit Blick auf den Grundrechtsbereich argumentiert, dass die Anwendung entsprechender Perspektiven erhebliche Defizite mit sich bringt: Erstens werden die systemtheoretischen Kategorisierungen – namentlich die „Expansionstendenzen" und die „strukturellen Kopplungen" – als wenig überzeugend, verzerrend und im Grunde simplifizierend charakterisiert. Zweitens wird kritisiert, dass das Konzept der „Expansionstendenzen" die Verantwortung für Grundrechtsverletzungen de facto implizit einem System – statt konkreten Individuen – attestieren würde. Drittens wird ein der systemtheoretisch angeleiteten Interpretation inhärentes Problem im Zusammenhang mit dem denkbaren Szenario identifiziert, in welchem die Interessen des Systems von jenen der konkreten Individuen abweichen.

Abstract: The article – using the example of scientific freedom – critically examines selected systems-theoretical assumptions and, in particular, Niklas Luhmann's systems-theoretical understanding of fundamental rights, as essentially set out in his 1965 work. Specifically with regard to the field of fundamental rights, it is argued that the application of such perspectives entails considerable deficits: first, the systems-theoretical categorizations – namely "expansion tendencies" and "structural couplings" – are characterized as unconvincing, distorting, and simplistic. Secondly, it is criticized that the concept of "expansion tendencies"

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would de facto implicitly attribute responsibility for violations of fundamental rights to a system instead of to concrete individuals. Thirdly, a problem inherent in systems-theoretically guided interpretation is identified in connection with the conceivable scenario in which the interests of the system deviate from those of the concrete individuals.

Keywords: Fundamental Rights Theory, Systems Theory, Niklas Luhmann, Scientific Freedom

The aim of this article is to address some of the questions and problems that may arise in connection with the application of Niklas Luhmann's systems theory for the purpose of gaining an understanding of the function of fundamental rights that guides their interpretation. It is not intended to provide a comprehensive discussion of the issues that could potentially emerge when adopting this particular perspective in a different or broader, more general context of legal reflection – even though some of the points to be addressed are likely to be of relevance in these frameworks as well. The analysis will instead focus on a few selected, but central – and to this day influential – aspects of the systems-theoretical approach to this specific group of rights, as set out in particular in a work by Luhmann from 1965.

The example of scientific freedom will serve to illustrate the points of criticism to be formulated: in recent years, this fundamental right has come increasingly into focus again in many respects. From the events surrounding the CEU in Budapest, to the repression of scientists by the Turkish government in the aftermath of the coup attempt of 2016, to controversies over extensive sponsoring practices between universities and private enterprises: the potential fundamental rights issues that arise are in each case multifaceted and complex. Although guarantees for the protection of scientific freedom are currently considered a standard feature of democratic constitutional states as well as at the international and supranational level, almost throughout – perhaps with the sole exception of Germany – a deficient contouring of these very norms can be observed.[1] The need for theoretical guidelines is evident.

The analysis of the relevant case law at national, international and supranational level reveals that the protection of free science varies considerably. The

1 Cf. e. g. the joint concurring opinion by judges Sajó, Vučinič and Kūris in ECtHR, Mustafa Erdoğan and others v Turkey, App. nos. 346/04 and 39779/04, 27.5.2014: "The meaning, rationale and scope of academic freedom are not obvious, as the legal concept of that freedom is not settled."

implications derived from this right are in part widely divergent.[2] More consistent is the assumption that scientific activity is something that is highly dependent on the existence of an adequately structured, supportive system which provides an essential basis for autonomous scientific work and ensures its ability to fulfil definable functions in society. In the context of fundamental rights, the necessity of protecting science from excessive external influences (such as those from politics, the economic system or religion) is often mentioned. It is also a widespread opinion that scientific activity follows its own, unique rules, which must be respected and protected. These aspects reveal certain parallels to the assumptions regularly found in connection with the fundamental right to freedom of art. It is therefore not surprising that the mentioned common assumptions and characterisations have in some cases given rise to the analysis of issues related to these fundamental rights from a systems-theoretical perspective (cf. e. g., Schulte 2006; Graber 2004; Graber & Teubner 1998; Graber 1994), or at least on the basis of some of its assertions (cf. e. g., Augsberg 2012; Bora & Kaldewey 2012: 12). However, possible points of criticism of such approaches to fundamental rights have so far received little attention in the literature.

Luhmann's work is as extensive as it is complex. It goes without saying that only a few of the – in more recent writings partially further developed, but in essence still identifiable – central assumptions can be critically assessed on the following pages. After a brief overview of the key points of his systems theory, some of Luhmann's considerations will be analysed in more detail in the light of the question posed.

Key Points of Luhmann's Systems Theory and Systems-Theoretical Understanding of Fundamental Rights

Luhmann's basic assumption is that modern society consists of numerous, functionally differentiated systems. These systems (e. g., the legal system, the science system, the economic system) all fulfil specific functions in society. The different systems are operationally closed, but cognitively open. A system is operationally closed when it depends on the network of its own operations to produce its own operations and thus constantly reproduces itself (Luhmann 1993: 44). Luhmann

2 For a comparative analysis of the different forms of fundamental rights protection of free science in the United Kingdom, Germany and the USA cf. Barendt 2010.

therefore identifies the autopoietic as a central feature of these systems. Autopoietic systems are thus self-generating, operatively closed but cognitively open units, which reproduce the elements of which they are composed in accordance with their own structure (cf. Luhmann 1990: 28 ff.). Cognitive openness means that a system can perceive certain facts or knowledge from its environment, but only as information generated within the system itself, i. e., exclusively in accordance with the system's own rationality, there is no process of information transfer (cf. e. g., Luhmann 1993: 84 f.).

The basic distinction in Luhmann's theory is that between system and environment: a system separates itself from its environment and thus from structures and processes that do not belong to it by means of processes and structures that are inherent to the system (Luhmann 2018: 68). The demarcation between system and environment results from the respective, system-inherent, system-specific communications (Luhmann 1993: 54 f.). According to Luhmann, this results in a significant reduction of complexity within the respective systems in relation to the environment.

The chosen perspective has far-reaching consequences: Luhmann does not place the individual person at the centre of his considerations. In his non-anthropocentric approach, he assumes that society basically only consists of communications. These communications are different in all subsystems and take place in their own symbolically generalized communication media. The communication medium of the science system, for example, is truth (cf. Luhmann 1990: 173, 181 ff.), that of the economic system is money (Luhmann 1988: 68 ff.).[3] The system-specific communications follow a respective, system-specific binary code, which Luhmann describes as a historically evolved achievement that has emerged in gradual social evolution (cf. Luhmann 1990: 272 f.). This code consists of a positive and a negative value. For example, the code of the science system is true/false (cf. ibid: 194), that of the legal system is lawful/unlawful (cf. Luhmann 1993: 60). All operations in the respective system are based on this distinction and the system observes its own operations (cf. Luhmann 1990: 170, 194). Whether something is true or false, lawful or unlawful is defined by system-specific programs (cf. ibid: 184 f.; Luhmann 1993: 93). For the science system, for example, Luhmann identifies the theories and methods as programs (Luhmann 1990: 197). Thus, they determine whether something is considered true or false in the science system (according to the code). In the legal system, laws primarily fulfil this function, they determine what is lawful and what is unlawful (cf. Luhmann 1993: 93).

3 For Luhmann's distinction between the truth of the science system and the "truth" outside the science system cf. Luhmann 1990: 274.

The differences in terms of function, communication medium, code and program in the respective social systems have considerable consequences for the relationship of the individual subsystems to each other: everything that does not belong to the own subsystem is perceived as environment. The subsystems cannot communicate with each other, they are autonomous entities which are not able to influence other subsystems. While the complexity of communications within a single subsystem is considerably reduced as a result of the orientation towards the respective system-specific code, communication beyond the system boundaries is in fact impossible. Thus, a subsystem cannot efficiently influence and certainly not control another subsystem.

A way for the environment to exert a very limited amount of influence on a specific, operationally closed system is made possible by "structural coupling": By this, Luhmann means that a system permanently presupposes certain conditions or elements of its environment and thus structurally relies on them (cf. ibid: 441). However, structural couplings can also only trigger "irritations, surprises, disappointments, disturbances" in a subsystem (cf. Luhmann 1990: 165; Luhmann 1993: 442). This underlines again that, in Luhmann's view, there are hardly any effective possibilities of influence or even control of one system over another available.

Luhmann ascribes great importance to fundamental rights. His sociological analysis starts from what he considers to be the most important structural feature of the modern social order, namely social differentiation (cf. Luhmann 1965: 186.). In a work from 1965 relevant in this context, he describes fundamental rights as a central institution to prevent dedifferentiation (ibid: 23 f.). In his view, fundamental rights have the primary task of preserving a differentiated order of communication, although they should not be seen as motors for the creation of differentiation (ibid: 24 f., 71 f.). According to Luhmann, a fundamental rights catalogue is nothing more than a guarantee of communication opportunities which prevents the alignment of all communications with the special purposes of the state bureaucracy and protects against dangers arising from the separation of different subsystems (ibid: 23, 71 f.). The function of fundamental rights thus derives exclusively from the problems of system formation and social differentiation, and not from the interests of the "idealized" individual or those of the state (cf. ibid: 197.). In his view, values in particular cannot provide a viable justification for fundamental rights.[4] In the following, some of the described assumptions of Luhmann will be critically evaluated using the example of the fundamental right to scientific freedom.

4 According to Luhmann, this conclusion can already be derived from the fact that values are not accessible to objective cognition anyway, cf. ibid: 198.

Two Extremes and Nothing in Between?

According to Luhmann's conception, the fundamental right to scientific freedom would have the function of ensuring the functionality of the autopoietic science system and of preserving the differentiation of said system. The interpretation of that right must therefore be guided by this basic purpose. In order to better understand the implications of this theoretical basis, we will now briefly touch on a topic that has been repeatedly discussed in recent years in the context of scientific freedom. The example of the fiercely debated science-sponsoring by private enterprises provides a good opportunity to illustrate and discuss some of Luhmann's central assumptions.[5]

From the perspective of systems theory, one could argue – very banally – that this financing model poses a threat to the differentiation of the science system in its relationship to the economic system perceived as environment. Communication in the science system follows the true/false code, whereas communication in the economic system follows the code to pay/not to pay (cf. Luhmann 1988: 224). The communication medium of science is truth, that of the economic system is money (cf. Luhmann 1990: 173, 181 ff.; Luhmann 1988: 68 ff.). The systems-theoretically conveyed fear is now that, as a result of this sponsoring-contract, communication in the science system could in future orient itself towards the special purposes of economic communication. In other words: scientific communication would then (in extreme cases) no longer consistently follow the true/false code, which would have the consequence that the science system as such could no longer reliably fulfil its function in society.

In principle, systems theory seems to offer two ways to categorize a specific relationship between a company acting as sponsor and a sponsored research institution. The first option is to interpret said funding model as a system-endangering expansion tendency of the economic system. The second option is to view the sponsorship relationship not as a potentially dedifferentiating cooperation, but as an autonomy-promoting structural coupling between the science system and the economic system (made possible by the cognitive openness of the systems). In other words, one could argue that this phenomenon is simply a sign that the science system permanently presupposes certain conditions or elements of its

5 It must be pointed out that in his 1965 work Luhmann primarily focused on the relationship between the individual subsystems and the state or politics and thus primarily referred to the danger of a possible politicisation of the social order (cf. Luhmann 1965: 187). However, other authors, such as Gunther Teubner, later also addressed the possible effects of fundamental rights between other subsystems in the light of systems theory, i. e. no longer just the concrete relationship between subsystem x and the state.

environment (in this case: of the economic system) and thus structurally relies on them, but without being directly influenced (and certainly not controlled) by this same environment in a significant way. According to the logic of systems theory, this structural coupling (as the result of a sponsoring contract) would therefore now only trigger irritations, surprises, and disturbances, but without affecting the autonomy of the science system or its strict, exclusive orientation to the science system's own code. Luhmann himself seems to be leaning in this direction, but without referring to the specific phenomenon of science-sponsoring. In his view, the financing of science by other subsystems only constitutes an operative coupling (based on a structural coupling) (cf. Luhmann 1990: 638 f.). The irritation generated by this is therefore hardly a problem or even a danger for the differentiation of the system. On the contrary: the science system would be strengthened in its autonomy by such structural couplings.

It is only fair to emphasise at this point that Luhmann could scarcely have foreseen the current extent of this form of funding at the time. The example of sponsoring can nevertheless be used to illustrate how narrow the line mediated by systems theory can be between autonomy-promoting structural couplings and de-differentiating expansion tendencies of other subsystems, despite the fact that these two terms refer to a fundamentally different form of relationship between two systems. Questions can be formulated which can be derived from the connection of this distinction with basic assumptions of systems theory. First and foremost, the question arises whether all phenomena of this kind can be qualified either as autonomy-promoting irritations or as expansion tendencies that have a dedifferentiating effect. Intuitively, one would perhaps want to answer that every external influence of another subsystem on the science system, which could possibly threaten the latter in its autonomous functioning, would have to be qualified as a potentially dangerous expansion tendency. The other phenomena of a less dramatic nature could then be described as irritations that arise as a result of structural couplings. With regard to the science system, Luhmann himself drew the line at the point where direct influence is exerted on the assessment of a research result as true or false (cf. ibid: 639, fn. 36). Anything that cannot be considered as such an attempt to influence the interpretation of said results is viewed at most as a structural coupling. It is therefore necessary to analyse the concrete form of the specific relationship in question between the two systems in order to be able to evaluate whether the communication of one system directly influences the interpretation of the research results in the science system.

But is it really that simple? Let's take another look at our sponsorship example: against the assumed background of a financially strained situation, the classification of this phenomenon as a structural coupling seems questionable, regardless of the concrete form of the relationship. It can hardly be denied that the science

system sometimes orients itself in its activities on the given funding structures, or rather: must orient itself. Legal literature has recognized the potential problems associated with these developments and has called in part for legislative action to prevent excessive influence by private sponsors (cf. e. g., Müller 2014: 396 ff.). The key observation for us now is that the sponsor may not even need to take any additional steps at all (for example, threatening to unilaterally terminate the sponsoring agreement) in order to be able to significantly influence the sponsored research and maybe even the interpretation of its results. The scarcity of financial resources entails the danger of scientists becoming de facto dependent on the sponsor, which may in some cases lead to sponsored individuals imposing certain autonomy barriers on themselves in order to meet the conceivable expectations of their sponsors. A purely passive behaviour on the part of the private company could therefore already suffice in the light of said sometimes extreme dependency relationships. A structural coupling in the sense of Luhmann would therefore probably not be given in this case, even if the sponsor had not tried in any direct way to influence the research and the interpretation of the results. Science-sponsoring could perhaps be described as a structural coupling if several donors were available as alternatives, which would remove the need to accept the first available financing offer. However, due to the often-given factual predicament, this form of funding loses its character as a source of merely harmless irritation without any relevant possibility of influence.

In summary, it can be said that this financing model at least contains the possibility of real and far-reaching influence on the part of private companies, which would clearly go beyond the content associated with structural couplings, but, according to Luhmann's distinction, could probably not yet be qualified as a dangerous expansion tendency resulting in dedifferentiation, because in most cases it would be unlikely that the communication of the economic system would attempt in an obvious way to pre-determine the assessment of possible research results as true or false.

Some first insights can be derived from this: the idea of barely impactful structural couplings as de facto only possible forms of mutual influence in a functionally differentiated society clings in a too extreme way to the basic assumptions of autopoiesis, operational closure and the uncoordinatability of the communications of the respective systems. The available systems-theoretical explanations leave too little room for an appropriate categorisation of observable phenomena. The multiple interactions between (not only) science, politics and the economic system often exceed the possibility of limited mutual influence implied by the concept of structural coupling. To see in said transgression of mutual influence a threat to the possibility of a subsystem to autonomously fulfil definable functions for society would undoubtedly not be appropriate in every case. Luhmann

probably wouldn't doubt that either. As a result, however, this overly strict distinction could tempt (or rather: force) a systems theorist to associate too many phenomena with the concept of structural coupling, because otherwise, said theorist would have to admit that there may be forms of intersystemic interaction that do not directly threaten the autonomy of science, but which (in contrast to structural couplings) can nevertheless exert a very significant influence on said system. Thus, too strict adherence to the systems-theoretical view may in some cases lead to a trivialisation of observable, real influence.

The underlying understanding of science as an autopoietic system, which in principle can only be influenced in a barely significant way by other subsystems in the form of a structural coupling, thus brings with it a certain compulsion to distort. It leaves no room for types of interaction that cannot be forced into the tight corset of the very limited form of mutual influence implied by said idea of structural coupling. As a result, observable interactions between the respective systems must either be degraded to mere irritations or directly branded as attempts to dedifferentiate the entire communication system. This allows Luhmann to hold on to his idea of the uncoordinatability of subsystems. Admitting the existence of a kind of intermediate form between structural couplings and expansion phenomena would break with a pillar of his theory. Accordingly, it is not surprising that Luhmann tries to subsume all possible clearly significant interactions between the state and science under the concept of structural coupling (cf. Luhmann 1990: 639).[6] Contrary to this view, however, it seems more accurate to assume that the science system does not simply presuppose the conditions or elements of, for example, the political system while structurally relying on them, but is often (to a certain extent) actively co-determined by the respective system and communicating with it, without, however, immediately becoming a victim of dedifferentiation.

The System as a Violator of Fundamental Rights?

Notwithstanding these difficulties that come along with the systems-theoretical categorization of the phenomena addressed, we may move on to another question that builds on this. Let us recall once again that structural couplings represent the only possibility to exert direct, very limited influence between subsystems.

6 As one of the many conceivable examples that speak against this overly strict distinction, one could mention the strong connection between science and politics in the respective university councils.

Luhmann's concept, however, suggests through the term of "expansion tendency" that there can be phenomena that can endanger the affected subsystems much more than harmless structural couplings. Wouldn't this imply that there is a real possibility for one subsystem to be influenced by another in a deliberate, direct, dedifferentiating way? It seems that Luhmann also denies this with regard to expansion tendencies. He describes those tendencies precisely not as conscious and targeted attempts of one subsystem to influence another. According to Luhmann, expansion tendencies of politics are a direct consequence of the differentiation process of the political system itself. In other words, he argues that it is a normal effect of the system-specific differentiation process that the political system shows expansion tendencies (cf. Luhmann 1965: 24, 98, 197). Systems theorists generally consider this to be a common self-dynamic of subsystems. According to this, systems expand until they have reached a point at which they have to be reminded that they cannot expand in all directions forever without causing dedifferentiation.

According to Luhmann, the political system is in a certain sense a special case. It tends to draw social processes into itself and integrate them under systemic aspects (ibid: 97). This, however, exceeds the actual function of politics, which consists of making binding decisions for problems of the social order (ibid: 97). The problem is aggravated by the fact that it is not always entirely clear what counts as a problem requiring political decision-making or what can be interpreted as such a problem (ibid: 24). Therein, Luhmann argues, lies a specific danger of the political system for the other subsystems, which must be countered with the help of fundamental rights in order to protect differentiation. Was the expulsion of the CEU from Hungary therefore possibly based on a fatal uncertainty as to whether the decision to expel said university was a political one or not? Was it perhaps merely an apparently inevitable consequence of the self-dynamic driven expansion tendency of the political system, which unfolded without any intention of exerting excessive influence by particular politicians against a specific scientific institution? Was the Hungarian government a victim of the overwhelming self-dynamic of the political system? Defenceless against the inherent rationality of a system trimmed for expansion?

Identifying the expansion tendencies of subsystems, described as given and inevitable, as the central threat to the functional differentiation of society (which is praised as a great achievement) is questionable in several respects. The certainly debatable question of whether a functionally differentiated society should indeed be regarded as a desirable ideal will not be addressed here. What is irritating about Luhmann's conception is that it de facto entails a massive relativisation (to the point of insignificance) of the actions of the individual human being, who is seemingly blindly exposed to the dynamics of the respective subsystem. In this sense,

the violation of fundamental rights is an almost inevitable consequence of a system-immanent rationality that can hardly be influenced by humans and which drives the continuously differentiating subsystems further and further towards dedifferentiating expansion. The concrete actions of the individual are relativised and, in a way, even excused by this idea of a human being who is controlled by the logic of the system. The concept of the danger of politicisation, at least in the sense in which Luhmann uses it, is therefore too imprecise or even wrong, because – if applied strictly – it would de facto ascribe responsibility for fundamental rights violations to the system and its inherent dynamic, rather than to intentions of identifiable individuals. Politics, however, is based on the concrete actions, conscious decisions, and sometimes widely divergent motivations of people. The implied attribution of sole responsibility to a system and its predetermined tendencies, which can hardly be influenced by people, is therefore unlikely to be considered a convincing result in the context of an assessment of fundamental rights violations. Thus, the explanatory value of systems-theoretical analyses underlying and implying such conclusions appears to be limited in this context.

Systemic Interests and Systemic Relevance as Central Criteria?

So far, we have argued on the abstract level of systems and communications and – quite in the spirit of Luhmann – have avoided including the concrete holder of the specific right serving as an example in our considerations. In the following, it will be outlined how the application of the described understanding of fundamental rights could affect the individual human being.

As noted, in Luhmann's view, fundamental rights ultimately serve the goal of preventing dedifferentiation and ensuring the functionality of the system. According to this logic, the individual can indeed enforce his fundamental rights, but the interpretation of these rights must be guided *primarily* by this purpose of maintaining the differentiation and functionality of the system. According to Luhmann's logic, it must therefore be evaluated whether or not an infringement of the scientific freedom of a specific individual could endanger the differentiation and functionality of the science system. If fundamental rights are now to be interpreted on this basis, then the legitimate interests of the individual concerned become a secondary matter to a large extent. The interpreter is asked to turn his gaze away from the fates of individual people to those supra-individual interests whose protection must enjoy absolute priority in a theory committed to the ideal of differentiation and its mantra of preserving system-specific functionality

needed to guarantee the fulfilment of definable functions. The freedom of the individual thus only has significance in the larger context of functional differentiation; it does not have a value in itself. The individual is thereby indirectly put at the service of system functionality.

The systems-theoretical perspective could now put forward as an at least partially relativising counter-argument that through the protection of the functional differentiation of society, the individual would also be indirectly protected in his or her freedom. However, this argument presupposes that the interests of the system and the interests of the individual are in principle in harmony with each other. The plausibility and generalisability of this assumption shall now be tested using a not too far-fetched example: let's say a scientist employed at a public university publishes a controversial paper on a politically relevant topic that causes a lot of outrage in society. Internet trolls formulate threats in the comment columns of newspapers, politicians demand cuts in the research budget, private donors to the university concerned about their reputation threaten to jump ship. After a long internal debate, the university decides to abandon its neutral stance, distances itself from the author of the paper and finally dismisses the scientist. As a result of this decision, the damaged reputation of the renowned university improves again. The dismissal leads to the university being perceived again by that loudly outraged part of the public as an institution that fulfils its function in society in the way it is expected to. Internet trolls and politicians calm down again, private donors keep paying. Sometime later, the scientist goes to court to appeal against her dismissal, invoking scientific freedom.

How should this fundamental right be interpreted with regard to the case described? First, one could argue that the dismissal of the scientist seriously and lastingly called into question the differentiation of the system because it reacted or "had to" react to an outraged environment. To a certain extent, however, this would again call into question Luhmann's assertion that the irritations emanating from the environment cannot force the science system to react and certainly cannot cause dedifferentiation tendencies. So, was the attempt to put pressure on the university only of a harmless nature? Did the environment's irritations possibly even have an autonomy-promoting effect? Has the science system, as a result of the perceived irritation from the environment, perhaps even undergone a system-internal "learning process" in which communication in the future would still be based on the true/false code, but the selected research subjects would now be chosen more carefully?[7] Would this not have the consequence that the func-

7 Luhmann himself describes possible external influences on researchers' choice of topics as conceivable consequences of an irritation resulting from a structural coupling (cf. Luhmann 1990: 639).

tion, communication medium, code and program of the science system would then still be the same and could be distinguished from the environment? If so, wouldn't everything be fine from a systems-theoretical point of view? In summary, one could therefore possibly conclude that the violation of the scientific freedom of the scientist concerned was ultimately not "systemically relevant", i. e., the science system consolidated itself again in a slightly modified form.

Let us go one step further for the sake of argumentation, despite all the reservations: let's assume that from a systems theory perspective one had actually come to the conclusion that the differentiation of the science system had been endangered. Seen through Luhmann's lens, wouldn't it be smarter to support the universities' decision? Would it be completely irrational to think that this would stabilise the system? Wouldn't a judgement in favour of the scientist bring with it the danger of renewed dedifferentiation attempts? Clearly, a judgement in favour of the scientist could have a preventive effect and help to avoid future events of this kind. However, it would be possible that such a judgement would again trigger strong reactions that could accelerate and intensify the possible attempts do dedifferentiate the science system. Why then protect the individual? Its protection would at best be a means to an end, but not a primary end. Ultimately, it cannot be claimed with absolute certainty that the interest of protecting the science system can also do justice to the interests of an affected individual in every case. Are the threats of cuts in research budgets and the withdrawal of funds from private donors and the resulting dangers for the system not an excellent argument against the protection of the individual?

In view of the historical genesis of the fundamental right to scientific freedom used as an example here, such a conclusion would hardly be tenable. This right arose primarily as a result of a long history of continuously suffered experiences of injustice by concrete individuals in connection with their search for truth, and not out of concern for the preservation of the differentiation of an autopoietic functional system. The latter implies that the scientific freedom of the specific individual must be protected even if the "science system" (depending on the perspective) has to reckon with further, intensified "irritations" on the part of other subsystems as a consequence. Secondly, the systems-theoretical approach fails to recognise that this fundamental right is also and in particular intended to protect the individual's freedom of cognition for its own sake, and with good reason. This intrinsic value of freedom is of no importance in Luhmann's one-sided approach. Systems theory encourages one to make judgements that focus solely on the predefined functions of a system and the need to preserve its differentiation and functionality, aspects such as the just mentioned value of freedom for its own sake are therefore considered to be irrelevant. The exclusive focus on possible instrumental functions for society does not do justice to the normative substance

of this fundamental right, even if those functions – which can undoubtedly also be identified independently of systems-theoretical considerations – are, without question, of enormous relevance.

The importance of meta-level reflection on how to deal with potentially autonomy-threatening influences on science, for example from politics, should in no way be decimated, on the contrary. Such considerations are of great significance, as intact institutional framework conditions are essential for scientific work. However, the importance of protecting free science in a more general sense cannot be abstracted from the need to ensure the freedom of the individual scientist. A conception in which said freedom of the concrete individual is not seen as a constitutive element for free science as such, but at most as an occasionally restrictable means to an end, can hardly be justified.

Consequently, in the context of interpreting fundamental rights, there is a danger of being misled by systems theory into drawing unconvincing conclusions, because it elevates an abstract concept of system functionality to the central point of reference, possibly even at the expense of the individual, if necessary. Ultimately, it cannot be ruled out that the interest in preserving the functionality of the system may partly conflict with the legitimate claims of affected individuals. Such thinking implicitly includes the possibility of the partial subjugation of the individual to the functions and interests associated with the system.

Conclusion

In summary, it can be said – at least with regard to the aspects examined – that both the systems-theoretically guided interpretation and, in particular, the underlying, basic understanding of the function of fundamental rights raise numerous questions. The issues identified are closely linked to discernible analytical deficits that seem to accompany a strict adoption of this theoretical approach. The discussed, very debatable categorisations – "expansion tendencies" and "structural couplings" – can lead to unconvincing and simplistic descriptions of observable phenomena. The extremely strict separation of a respective system from other subsystems of society also seems questionable. Furthermore, the idea of structural coupling as the only conceivable possibility to exert limited influence conveys a distorted picture of reality. The de facto attestation of a sole responsibility of a system for violations of fundamental rights – as implied by the concept of "expansion tendencies" – is not convincing. In addition to the questions that arise in connection with the underlying observations, it must be noted that Luhmann's systems-theoretical descriptions – at least in the context of his general remarks

on the function and interpretation of fundamental rights – partly culminate in the formulation of clearly identifiable normative implications (cf. Fuchs 2019: 55, fn. 29). This finding – given the theory's emphatic commitment to purely descriptive work – seems surprising to say the least. At the same time, it also points to the ever-present – and, from a logical point of view, very serious – danger of an unnoticed slippage from purely descriptive remarks to normative statements within the framework of systems-theoretically guided reflections. Along with this, it must be emphasized that Luhmann's assumptions on the general function of fundamental rights are precisely an invitation to deliberately avoid a thorough discussion of the normative substance of a respective right, thus running the risk of conveying the actual point and purpose of a specific norm in a severely incomplete manner or even overlooking it altogether. The interpretation of fundamental rights from a perspective that remains primarily committed to preserving the differentiation and functionality of the system can hardly be sustained. Luhmann's intentional exclusion of the individual in favour of a non-anthropocentric approach focussing on system functionality carries with it the danger of an objectification of said individuals. Apart from the potential benefits that some authors appear to associate with it, the application of a systems-theoretical perspective in the field of fundamental rights thus also seems to entail some serious problems.

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