

11. Torn by (un)certainty – can there be peace between rule of law and other Sustainable Development Goals?

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11.1 INTRODUCTION*

Within the system of Sustainable Development Goals (SDGs), SDG16 is the tag for the rule of law (SDG on Peace, Justice and Strong Institutions).¹ The rule of law encapsulates some of the most fundamental functions of the law.² We often accept formal conceptions of the rule of law without much consideration. Take Hayek's definition:

Stripped of all technicalities this means that government in all its actions is bound by rules fixed and announced beforehand – rules which make it possible to foresee with fair certainty how the authority will use its coercive powers in given circumstances, and to plan one's individual affairs on the basis of this knowledge.³

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¹ SDG 16 aims to '[p]romote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels', available at <<https://sustainabledevelopment.un.org/sdg16>> accessed 30 July 2017.

² J. Finnis, *Natural Law and Natural Rights* (2nd edn, Clarendon Press, 2011) 270 states that rule of law is '[t]he name commonly given to the state of affairs in which a legal system is legally in good shape ...'. See also, H.C. Bugge, 'Twelve Fundamental Challenges in Environmental Law. An Introduction to the Concept of Rule of Law for Nature' in C. Voigt (ed), *Rule of Law for Nature. New Dimensions and Idea in Environmental Law* (Cambridge University Press, 2013) 6.

³ F.A. Hayek, *The Road to Serfdom* (Routledge, 2006) 75.

Few in the international or domestic arenas would disagree with this definition. Discussions at the 71st session of the United Nations General Assembly (UNGA) are a good illustration. During the debate at the Sixth Committee (Legal) on the Rule of Law, the

General Assembly President Peter Thomson (Fiji) ... reminded the delegates that they were the guardians of the international legal system. ... Napoleon Beras (Dominican Republic), speaking for CELAC [Community of Latin American and Caribbean States], said that the rule of law at the national and international levels allowed for the acts of States to be foreseeable and legitimate. ... Ali Nasimfar (Iran), speaking for the Non-Aligned Movement stressed that the legal rights of States under international law should be respected. ... Thembile Elphus Joyini (South Africa), speaking for the African Group, said that multilateral treaties were an integral aspect of a comprehensive and robust international framework, ensuring that the rule of law governed inter-State relations. The principle processed universality, consolidated international consensus, provided certainty and accountability on rights and obligations of States, and facilitated peaceful settlement of disputes.⁴

To paint a colourful picture of the discussion, Hobbesian *bellum omnium* is only the distance of (formal) rule of law away. International order is seen to function through rules which set the playing field for inter- and intra-state actions alike. In other words, rule of law in the form of clarity, predictability and certainty is one of the few things that stands between liberty and tyranny.

In addition to the rule of law being an SDG in itself, the Sixth Committee (Legal) made an important observation stating that the rule of law was a means for achieving other SDGs, such as eradication of poverty and hunger (SDGs 1 and 2); clean water and sanitation (SDG 6); affordable and clean energy (SDG 7); climate action (SDG 13); and aquatic and terrestrial biodiversity (SDGs 14 and 15):⁵

Napoleon Beras (Dominican Republic) said that ... upholding the principle was essential in order to achieve sustained and inclusive economic growth, as well as sustainable development. ... Penelope Beckles, (Trinidad and Tobago), speaking for the Caribbean Community (CARICOM) [stated that] [e]qual access to justice for all was 'essential' for translating the principle into effective mechanisms to provide protection, redress and accountability for serious crimes and violations of human rights. ... Sophea Yaung Chan (Cambodia), speaking for the Association of Southeast Asian Nations

⁴ GA/L/3519 5 October 2016.

⁵ GA/L/3519 5 October 2016.

(ASEAN), said that organization's Charter embodies the fundamental principles and purposes of the rule of law, including, among others, the peaceful settlement of conflicts, good governance, and promotion and protection of human rights.⁶

Based on the discussions of the UNGA Sixth Committee (Legal), the rule of law seems to mean many, if not all, of the characteristics that could possibly be ascribed to a well-functioning system of governance, be it on the international or domestic plane. To borrow Waldron's words, a sceptic could conclude that "[t]he Rule of Law" sounded grand, certainly; but at the end of the day, many will have formed the impression that the utterance of those magic words meant little more than "Hooray for our side!"⁷

To keep scepticism at bay, the first task of this chapter is to give a short account of the three main camps in the rule of law literature: formal, procedural and substantive. My argument in section two is that although these camps are scattered, and may be pitted against each other, they all have a common undercurrent flowing towards an organized functioning and development of societies. Formal and procedural rule of law (SGD 16) are prerequisites for the effective implementation of substantive rule of law (i.e. all the other SDGs). Similarly, the formal criteria of rule of law, or its procedural rules, would not amount to much were they not guided and accompanied by certain minimum conditions for *good* functioning and development of societies.

In Sections 11.3 and 11.4 I discuss the unavoidable, yet uncomfortable relationship between the rule of law and the quest for achieving the other SDGs effectively. I argue that the rule of law in all its three meanings requires certainty from the external world at such a rate that the law risks becoming the single greatest obstacle for achieving the very same goals it seeks to protect. Substantive SDGs, such as the one relating to the right to water (SDG 6), require certainty from the law. In turn, law requires

⁶ GA/L/3519 5 October 2016.

⁷ J. Waldron, 'Is the Rule of Law an Essentially Contested Concept (in Florida)' (2002) *Law and Philosophy* 21, 139. He describes the sources for scepticism: '... the lead idea of the Rule of Law is that somehow respect for law can take the edge off human political power, making it less objectionable, less dangerous, more benign and more respectful. But we disagree on how this can be done, and whether it can ever be done completely. We also disagree on the precise nature of the danger posed by human power in its unmitigated form, and on the values that would be served by introducing law into the picture. We disagree about the ailment, the medicine, and the character of the cure' (*Ibid*, at 159).

certainty from the social ecological world in which the SDGs are realized. Environmental, economic, societal and cultural uncertainties are enslaved under legal certainty, to serve legal certainty. This is the mechanism whereby law, instead of being a servant, becomes a master. And it is exactly at this point that many SDGs risk a failure of delivery.

Peace between SDGs, as it were, requires uncomfortable concessions from the (rule of) law. It requires formal and substantive uncertainty, but in a procedural setting engulfed in certainty. In Section 11.5, I will seek to reconcile the requirements of certainty and uncertainty within the rule of law, and will conclude the discussion in Section 6.

11.2 FORMAL, PROCEDURAL AND SUBSTANTIVE RULE OF LAW

Rule of law is often divided into three camps: formal, procedural and substantive. From the traditional, formal perspective, the rule of law (or the continental *Rechtsstaat*) imposes negative obligations on all state actors, restraining the use of legislative, administrative and judicial powers, and making legal actors accountable to the law.⁸ Law gives its wielders great powers which must be held in check.⁹ In its narrowest sense, the rule of law operates to control state actors (rule by law). This minimum condition is often complemented by further formal requirements. Fuller has stated that the rule of law requires (1) denial of *ad hoc* (purely contextual) decisions; (2) public promulgation of laws; (3) denial of retroactive legislation; (4) clarity of laws; (5) denial of contradictory rules; (6) that laws cannot require actions beyond the capabilities of the affected parties; (7) that changes to the legal system cannot be frequent; and that (8) legal norms must be implemented and enforced as they are announced.¹⁰ According to Waldron, these criteria

⁸ See on the early rule of law discussion A.V. Dicey, *Introduction to the Study of the Constitution* (10th edn with an introduction by E.C.S. Wade, Palgrave Macmillan, 1985) 188, 195–196 and 202 and on the continental *Rechtsstaat* discussion R. Thoma, ‘Rechtsstaatsidee und Verwaltungsrechtswissenschaft’ in M. Tohidipur (ed), *Der bürgerliche Rechtsstaat* (Suhrkamp, 1978) 177–194.

⁹ J. Raz, *The Authority of Law: Essays on Law and Morality* (Oxford University Press, 1979) 224.

¹⁰ L.L. Fuller, *The Morality of Law* (Rev edn, Yale University Press, 1969), 38–39.

can be summarized as requirements of generality, publicity, prospectivity, intelligibility, consistency, practicability, stability and congruence.¹¹

These formal criteria establish what legal rules must look like, but they do not set any concrete criteria for the substantive content of these rules. The underlying assumption in all the formal conceptions is that the law should be organized as a system of rules which would facilitate fairly predictable interactions between legal subjects, and between the subjects and the state. The formal rule of law camp often denies the conceptual and essential linkage between the rule of law and the substance of law.¹²

Waldron has emphasized that the formal criteria for the rule of law must be separated from the procedural criteria.¹³ The procedural criteria include at least the following: (1) right to a hearing by an impartial, independent and trained tribunal; (2) right to legal representation; (3) right to be present at proceedings; (4) right to confront witnesses in the process; (5) right to a fair collection of evidence by the state; (6) right to present evidence; (7) right to present arguments concerning the evidence and applicable law to the tribunal; (8) right to a reasoned decision; and (9) right of appeal.¹⁴ Waldron's main argument is that the rule of law is essentially built on legal institutions that apply the law and the procedural rules that characterize their actions.¹⁵ Despite the importance of procedure for the rule of law, the procedural aspects have been, according to Waldron, largely overlooked in the traditional, formal theories of the rule of law.¹⁶

¹¹ See J. Waldron, 'The Rule of Law and the Importance of Procedure' in J.E. Fleming (ed), *Getting to the Rule of Law* (Nomos, Yearbook of the American Society for Political and Legal Philosophy 2010) 5–6. In a similar vein Raz, above n 9, 214 has emphasized prospectivity, openness, clarity and stability of law. For F.A. Hayek, *The Constitution of Liberty* (The Definitive Edn, R. Hamowy (ed), University of Chicago Press, 2011) 312–318, the main criteria are prospectivity, predictability and equality.

¹² Raz, above n 9, 212–219. See also J. Waldron, 'The Concept and the Rule of Law' (2008) *Georgia Law Review* 43(1), 5; B.Z. Tamanaha, *A General Jurisprudence of Law and Society* (Oxford University Press, 2001) 96–106. For Hayek, above n 11, 318, injecting the rule of law with substantive requirements causes practical problems: 'But though there can be no doubt that, in order to be effective, it must be accepted as just by most people, it is doubtful whether we possess any other formal criteria of justice than generality and equality.'

¹³ Waldron, above n 11, 8 and 11.

¹⁴ These criteria are essentially based on Waldron, *ibid*, at 6.

¹⁵ *Ibid*, at 12–14.

¹⁶ *Ibid*, at 7–12.

In contrast, and in addition to the formal and the procedural rule of law theories, substantive theories have expanded the scope of the rule of law to include some or all of the SDGs.¹⁷ The move towards more substantive theories of the rule of law has made the concept more vague and controversial, but from a human rights and environmental perspective one may argue that this is a positive development.¹⁸ In this camp it is often emphasized that e.g. access to water, food and energy are of such importance that obedience to the law can hardly be safeguarded without paying attention to these fundamental requirements.¹⁹ Following this, ecological sustainability and the rule of law have been described as the *Grundnorms* of law.²⁰ In this conception, substantive (sustainable development) goals are upholding the (formal and procedural) rule of law.²¹

Interestingly, neither the substantive, nor the formal and the procedural camp seem to be able to ignore the presence of one another. The substantive camp emphasizes that the achievement of the SDGs requires formal control of legislative, administrative and judicial powers.²²

¹⁷ From a substantive perspective, SDGs contain values which are ascribed essentially to a *good* legal system. See L. Kotzé, 'Sustainable Development and Rule of Law for Nature' in C. Voigt (ed), *Rule of Law for Nature. New Dimensions and Ideas in Environmental Law* (Cambridge University Press, 2013) 135.

¹⁸ This view has been starkly criticized by the formal rule of law camp. Raz argues that the rule of law is not to be mistaken with equality or justice. Rule of law is only one of the virtues of the law, and can be sacrificed if other overriding virtues are at stake. This should not, however, be cloaked in the form of a rule of law argument. Raz, n 9, 225: 'Of course, conformity to the rule of law also enables the law to serve bad purposes.'

¹⁹ From this perspective, the rule of law is a means for reforming and transforming environmental law, see Kotzé, above n 17, 136.

²⁰ K. Bosselmann, 'Grounding the Rule of Law' in C. Voigt (ed), *Rule of Law for Nature. New Dimensions and Ideas in Environmental Law* (Cambridge University Press, 2013) 83–84; D. Fisher, *Legal Reasoning in Environmental Law. A Study of Structure, Form and Language* (Edward Elgar Publishing, 2013) 433.

²¹ Kotzé, above n 17, 143.

²² Formal and procedural rule of law are prerequisites for sustainability and the management of the environment, see Bugge, above n 2, 7. See also C. Voigt, 'The Principle of Sustainable Development. Integration and Ecological Integrity' in C. Voigt (ed), *Rule of Law for Nature. New Dimensions and Ideas in Environmental Law* (Cambridge University Press, 2013) 147: 'Sustainable development can only be achieved in the context of the rule of law, requiring fair, effective and transparent international and national governance arrangements and clear and implementable environmental laws.'

Similarly, the formal and the procedural camps cannot do away with the substantive aspects. This follows partly from the fact acknowledged by Hart: law cannot be a 'suicide club'.²³ Or, as Waldron puts it: 'I believe that there is a natural overlap between substantive and formal elements, not least because ... the formal elements are usually argued for on substantive grounds of dignity and liberty.'²⁴

At present, the linkage between the three rule of law camps is also strongly supported by the constitutionalization (and positivization) of many of the SDGs. For instance, the Finnish Constitution (731/1999) states that it shall guarantee the inviolability of human dignity and the freedom and rights of the individual and promote justice in society (section 1). With this development, substantive goals are brought within the framework of positive law, to function as the fundamental goals which Fuller's criteria for form, and Waldron's criteria for procedure, are meant to serve. For these two reasons, it is fair to say that the law (and the rule of law) is injected with substantive considerations as an empirical matter regardless of whether one considers there to be a *conceptual* or an *essential* linkage between the law and other social ecological realities. There is a functional and empirical linkage between the formal, procedural and substantive rule of law.²⁵

Based on the discussion of the UNGA Sixth Committee (Legal) on the rule of law, as well as theoretical discussions presented in this section, the formal, procedural and substantive camps link all the SDGs together. Substantive goals (SDGs 1–15) require form and procedure, which in turn require substantive goals to be meaningful. Bringing substantive aspects within the rule of law framework comes at a price, however. It forces the substantive SDGs into a framework of legal certainty that is common to all the three rule of law theories.

I will discuss next what kind of views on certainty the three rule of law camps within SDG 16 impose on the other SDGs. A useful introduction

²³ H.L.A. Hart, *The Concept of Law* (2nd edn, Oxford University Press, 1994) 192: 'for our concern is with social arrangements for continued existence, not with those of a suicide club'.

²⁴ Waldron, above n 11, 4.

²⁵ Fisher, above n 20, 227. Despite this linkage, there is a need to recognize inputs stemming from the different rule of law traditions. International projects promoting the rule of law, such as the UNEP Environmental Rule of Law project, run the risk of oversimplifying the relationships between the three theories, see UNEP, *Environmental Rule of Law*, available at <<http://www.unep.org/environmentalgovernance/erl/who-we-are/overview#>> accessed 30 June 2017; UNEP, *Advancing Justice, Governance and Law for Environmental Sustainability* (2012) 4.

to this discussion is Raz's statement that '[t]he rule of law is essentially a negative value. The law inevitably creates a great danger of arbitrary power – the rule of law is designed to minimize the danger created by the law itself.'²⁶ The mechanism with which the rule of law controls is 'certainty'. Stemming from the functional linkage between all the three rule of law theories this is so regardless of which rule of law theory (or theories) one subscribes to. Ironically, the rule of law, in seeking to control arbitrary use of state powers (which is a good thing) may at times be the single greatest obstacle to the effective implementation of the SDGs (which is not so good). The linkage between form, procedure and substance within the rule of law framework may compromise the very goals for which the linkage is established. The theoretical baggage of certainty may be too much for the substantive goals to handle.

11.3 IMPOSING CERTAINTY ON AN UNCERTAIN SOCIAL ECOLOGICAL WORLD WITH THE RULE OF LAW

The reason why the rule of law pops up everywhere in theory and practice, and why it is discussed with such intensity, is that one's conception of it locks down the fundamentals for the organization of government and governance. As Hayek observes, '[t]he rule of law is therefore not a rule of the law, but a rule concerning what the law ought to be, a meta-legal doctrine or a political ideal'.²⁷ Against this background, the requirement of certainty – to which all the three rule of law camps subscribe – becomes one of the most fundamental and influential doctrines in legal thinking. But is it the same kind of certainty in all the three camps?

Let us begin with the formal camp. For Hayek, the rule of law consists of (1) general and abstract rules that refer 'to yet unknown cases and containing no references to particular persons, places, or objects'.²⁸ In addition, (2) rules must be known to the legal subjects before they are enforced.²⁹ Closely connected to the requirement of generality, (3) rules 'must not make irrelevant distinctions', and must 'apply equally to all, including those who govern ...'.³⁰ Raz links the requirements of generality

²⁶ Raz, above n 9, 224.

²⁷ Hayek, above n 11, 311.

²⁸ *Ibid.*, at 315.

²⁹ *Ibid.*

³⁰ *Ibid.*, at 317–318.

and prospectivity with (4) openness and clarity, as well as (5) stability.³¹ With these additions, Fuller's criteria for the formal rule of law are more or less satisfied as well.³²

All the five criteria are variations of certainty. The first (generality) requires that legal institutions must have an understanding of the past and the future in order to craft rules that are general enough to avoid discrimination, and specific enough to allow for the legal subjects to know their rights and obligations before their application. Legal institutions cannot say 'all that is wrong is banned, and all that is right is allowed'. Nor can they say, as a general rule, that the 'environmentally harmful operations of a specific shale gas company are banned'. The second requirement (prospectivity) denies legal institutions the benefit of hindsight and learning: they cannot frequently say 'we didn't see that coming, we'll change the rules now that we know better'. The third requirement (equality) is a variation of the first (generality). Similarly, the fourth criterion links to the second. It requires that legal institutions should not craft vague or ambiguous rules that – due to their interpretive nature – would withstand time better than clear rules. Finally, stability is a general requirement that seeks to cement legal relationships to a certain point in legal space-time with little leeway for future adjustment as new social ecological problems and answers arise. Stability is then, from a formal perspective, a desired consequence of the four previous criteria.

All the five criteria require certainty that our present knowledge of the environment, technology, societies, culture and so on will be enough, or sufficient for crafting rules that have the generality and accuracy to guide human actions. These formal criteria establish that societies boasting the rule of law must be organized with rules³³ and these rules must be able to anticipate and withstand changes and uncertainties that are presented to them. Although the formal criteria are mainly directed to the legislature, they are extended to adjudication through a formal theory of rules (adjudication is not argumentation but application of clear-cut rules),³⁴

³¹ Raz, above n 9, 219.

³² Fuller, above n 10.

³³ *Ibid*, at 46.

³⁴ Waldron, above n 11, 22: 'A fallacy of modern positivism, it seems to me, is its exclusive emphasis on the command-and-control aspect of law, or the norm-and-guidance aspect of law, without any reference to the culture of argument that a legal system frames, sponsors, and institutionalizes.'

and a conception that legal interpretation is only required when authoritative legal texts are unclear.³⁵ Rule of law is violated when ‘the norms that are applied by officials do not correspond to the norms that have been made public to the citizens or when officials act on the basis of their own discretion rather than according to norms laid down in advance’.³⁶

The procedural rule of law camp subscribes to a more modest notion of certainty. The gist of the argument is that the most important aspect of the rule of law is independent and educated executive and adjudicative institutions that adhere to general, abstract, prospective, equal, open, clear and stable *procedural* rules. Waldron argues that Dicey’s classical passage on the formal requirements of the rule of law³⁷ contains a crucial, procedural element:

The passage I have emphasized is important. Without it, we tend to read the contrast between the rule of law and arbitrary government in terms of the application of a rule versus purely individualized application of punishment (without guidance by a rule). With it, however, the contrast between law and discretion has to do with institutions and procedures: a person must not be made to suffer except pursuant to a decision of a court arrived at in the ordinary manner observing ordinary legal process.³⁸

I have illustrated Waldron’s procedural rule of law criteria in Section 2. Here it suffices to say that Waldron emphasizes the argumentative nature of the law which facilitates ‘living law’, meaning the learning and transformation of the law to facilitate new circumstances. Law’s ‘living’ must, however, be limited by predictable and certain procedural rules to avoid slippage towards an arbitrary system of governance.³⁹ Under this conception of the rule of law, certainty is not an attribute of substantive

³⁵ R.H. Fallon Jr, ‘The Meaning of Legal “Meaning” and its Implications for Theories of Legal Interpretation’ (2015) *University of Chicago Law Review* 82, 1299 writes: ‘On this view, interpretation occurs as a response to puzzlement or uncertainty. Typically, however, no puzzlement exists. We simply understand what the law requires.’

³⁶ Waldron, above n 11, 21.

³⁷ Dicey, above n 8, 110: ‘When we say that the supremacy or the rule of law is a characteristic of the English constitution, we ... mean, in the first place, that no man is punishable or can be lawfully made to suffer in body or goods except for a distinct breach of law established in the ordinary legal manner before the ordinary Courts of the land. In this sense the rule of law is contrasted with every system of government based on the exercise by persons in authority of wide, arbitrary, or discretionary powers of constraint.’

³⁸ Waldron, n 11, 10.

³⁹ *Ibid*, at 18–23.

rules, but of procedural rules. The rule of law is violated if procedural rules, such as the right of appeal, are not adhered to.

Finally, I turn to substantive rule of law theories. It bears reminding that the substantive theories presented in Section 2 often accept the formal criteria for the rule of law. Substantive theories argue that the formal criteria must be complemented with substantive criteria such as rights to water, food and energy. This may, however, at times require deviations from the formal and the procedural rule of law criteria. The substantive rule of law theories state that the rule of law cannot function, and it cannot be met, without the effective implementation of social goals, in this case the SDGs. In this conception, the rule of law sets not only formal characteristics for rules generally, or procedural rules specifically, but also a requirement to respect planetary boundaries and human rights as overall goals of the legal system.⁴⁰ As Bosselmann puts it:

If these ideas are placed in their broader jurisprudential context, it results in the assumption that the grounding of the rule of law in nature requires fundamental changes to the legal systems in international and national terms. Legal structures have to be modified so that they are constrained by ecological concerns in order, first, to prevent the further crossing of planetary boundaries and, second, to maintain environmental goods as a basis for a flourishing development of our posterity. ... This type of state differs considerably from a state solely committed ... to the rule of law.⁴¹

Under this conception, the substantive SDGs are not only obligations of best effort by the government, but also obligations of result.⁴²

The three rule of law theories illuminate different aspects, or layers of certainty, moving from less to more demanding. The formal theories set general criteria for the crafting of rules, mainly for the legislature and the courts in *creating* rules. In this conception, certainty is a recipe for what general ingredients legal rules must contain, but not a recipe for what the rules are about, or what they should regulate substantively. Formal

⁴⁰ Kotzé, above n 17, 135–136.

⁴¹ K. Bosselmann, 'A Normative Approach to Environmental Governance: Sustainability at the Apex of Environmental Law' in D. Fisher (ed), *Research Handbook on Fundamental Concepts of Environmental Law* (Edward Elgar Publishing, 2016) 42.

⁴² See on the distinction, J. van Kempen, 'Obligations of Result or Best Efforts: Dealing with Problems of Interpretation' in M. Peeters and R. Uylenburg (eds), *EU Environmental Legislation. Legal Perspectives on Regulatory Strategies* (Edward Elgar Publishing, 2014) 149–151.

theories do not require democracy, separation of powers, or any other criteria that are presently ascribed to good governance. Singer's rule would easily meet the formal requirements for the rule of law:

It is easy to create completely determinate legal rules and arguments. For example, an absolutely determinate private law system could be based on the rule that no one is liable to anyone else for anything and that everyone is free to do whatever she wants without government interference. Relentless application of this rule would produce a state-of-nature legal system that would be fully determinate: The plaintiff would always lose. The problem is that this or any other determinate system bears no relation to anything anyone would consider to be just or legitimate.⁴³

In contrast, the procedural conception of certainty requires independent and trained courts that apply the law equally to all, and that carefully follow the recipe of the adjudicative due process presented in Section 2. The procedural camp can live with any adjudicative outcome as long as it is the outcome of a due process. In further contrast, the substantive conception is the most demanding of the three. In addition to, and sometimes conflicting with, the formal and the procedural requirements, the most important characteristic for the substantive rule of law is to achieve goals that are fundamental to functioning societies, such as the rights to water, food and energy (SDGs 6, 2 and 7).

One of the main problems shared by all the three rule of law theories is that they all build on variations of certainty that may be at odds with the uncertainty of the social ecological world.⁴⁴ The main problem caused by formal certainty is that it places fundamental weight on the insight and knowledge of the law-creating institutions, even though they can never fully predict the future when issuing a rule. As Hart puts it, the relative ignorance of fact introduces and imposes the relative indeterminacy of (legal) goals.⁴⁵ The procedural certainty camp faces problems with, for

⁴³ J. Singer, 'The Player and the Cards: Nihilism and Legal Theory' (1984) *Yale Law Journal* 94(1), 11.

⁴⁴ This point is echoed by Justice Benjamin in his call for the increased role of science in legal reasoning: 'Environmental law, however, calls for a new ethic that takes science into account and goes beyond traditional boundaries and local contexts to encompass the needs of all living organisms and the Earth as a whole.' UNEP, above n 25, 9.

⁴⁵ See Hart, above n 23, 128: 'If the world in which we live were characterized only by a finite number of features, and these together with all the modes in which they could combine were known to us, then provision could be made in advance for every possibility. We could make rules, the application of which to particular cases never called for a further choice. Everything could be

example, overtly rigid rules on the evaluation of evidence, or too high a standard for legal justification banning consequentialist evaluations, which may in turn prevent the evolution of the law to new social ecological realities. Finally, the main problem of the substantive camp is that the law-creating institutions must know *ex ante* what is in the public good now and in the future, and how the public good develops and can be achieved. Substantive rule of law locks in the goals, requires certainty in their realization, and presupposes that it is politically possible to set a coherent set of substantive goals or prioritize those that have the most social ecological merit when they are applied.

Despite the criticism, certainty under the rule of law has much merit to it. Many of the SDGs call for preventive action, or abstaining from the use of certain geographical areas, environmental media and natural resources. Clean water (SDG 6) and aquatic biodiversity (SDG 14), and the broader water security require that water resources are used sustainably, and that point-source and non-point-source pollution is controlled to the effect that water resources maintain their utility for households, irrigation, industry and ecosystems.⁴⁶ Climate change mitigation (SDG 13) requires minimizing the use of hydrocarbons, increasing the role of renewables in the energy mix (SDG 7), and changes in global consumption patterns (SDG 12).⁴⁷ Many of the social ecological drivers and consequences behind the lack of water, loss of aquatic biodiversity and harmful human-induced climate change are known. The certainty that the law provides undeniably plays an important part in achieving these SDGs.

Notwithstanding this, there is also considerable uncertainty as to the social ecological drivers and consequences of environmental changes and harm that neither yesterday's nor today's environmental laws can predict. Uncertainty of the social ecological world is caused mainly by the lack of scientific data and understanding of biological systems, economic and

known, and for everything, since it could be known, something could be done and specified in advance by rule. This would be a world fit for "mechanical" jurisprudence. Plainly this world is not our world; human legislators can have no such knowledge of all the possible combinations of circumstances which the future may bring. This inability to anticipate brings with it a relative indeterminacy of aim.'

⁴⁶ UN Water, *Water Security & the Global Water Agenda* (A UN-Water Analytical Brief. Revised version 2013) 1–5, available at <http://www.unwater.org/fileadmin/user_upload/unwater_new/docs/analytical_brief_oct2013_web.pdf> accessed 24 April 2017.

⁴⁷ IPCC, *Climate Change 2014: Synthesis Report* (2014) 4–6.

social risks, and the dynamic and complex nature of social ecological systems.⁴⁸ First, uncertainty results from data gaps that are due to new technology that is yet to be studied (such as new waste water treatment technologies or new energy technologies). Second, uncertainty may result from lack of historical data, which makes it difficult to establish reference points against which to measure present environmental changes. The third source of uncertainty is complexity.⁴⁹ Single drivers of climate change, declining biodiversity and changes in biogeochemical cycles may be scientifically predictable. ‘Wicked’ uncertainty is not, however, visible until one observes all the interlinked phenomena at all the ecosystem scales. Different local phenomena interacting together can lead to unpredictable consequences at the global level. For this reason, one of the most pressing problems in ecology is to understand how changes in local or regional ecosystems will alter emergent patterns or mechanisms at other levels of biological organization.⁵⁰ Scientific models and quantifications involve considerable uncertainty in predicting the future of ecological and social systems, and their interactions. Both gradual changes and external perturbations may cause radical and random shifts in social material relations and interaction patterns.⁵¹ Complex adaptive systems are fundamentally characterized by this non-linearity.⁵² Hence, obtaining scientific certainty of the effects that human actions have had or will have on ecosystems, the biosphere, the economy, and social and cultural systems is at present impossible. If science cannot be (reasonably) certain of how the social ecological world operates or will

⁴⁸ J.B. Ruhl, ‘Thinking of Environmental Law as a Complex Adaptive System: How to Clean Up the Environment by Making a Mess of Environmental Law’ (1997) *Houston Law Review* 34, 132; L. Rist, A. Felton, L. Samuels, C. Sandström and O. Rosvall, ‘A New Paradigm for Adaptive Management’ (2013) *Ecology and Society* 18(4), 63–71.

⁴⁹ A. Wiersema, ‘The Precautionary Principle in Environmental Governance’ in D. Fisher (ed), *Research Handbook on Fundamental Concepts of Environmental Law* (Edward Elgar Publishing, 2016) 451.

⁵⁰ See G. Hartvigsen, A. Kinzig and G. Peterson, ‘Use and Analysis of Complex Adaptive Systems in Ecosystem Science: Overview of Special Section’ (1998) *Ecosystems* 1, 429.

⁵¹ J. Nordberg and G.S. Cumming, ‘Complexity Theory for a Sustainable Future’ in J. Nordberg and G.S. Cumming (eds), *Complexity Theory for a Sustainable Future* (Columbia University Press, 2008) 277–293.

⁵² P. Perez and D. Batten, ‘Complex Science for a Complex World: An Introduction’ in P. Perez and D. Batten (eds), *Complex Science for a Complex World: Exploring Human Ecosystems with Agents* (ANU E Press, 2006) 8.

operate, neither can the (rule of) law that seeks to regulate the human–environment interface.

The uncertainties of the social ecological world in which the SDGs – such as those dealing with clean water, food and energy, maintenance of biodiversity, and mitigation of climate change – are implemented demerit any effort of imposing legal certainty onto an otherwise uncertain world. There is genuine uncertainty concerning some of the drivers, consequences, and equitable and effective responses to these environmental problems. The (rule of) law needs to acknowledge this uncertainty to stay relevant for addressing these sustainability challenges. In the next section, I will discuss briefly some familiar regulatory and adjudicative strategies for reconciling the fundamental (societal) need for certainty with the uncertainty of the social ecological world.

11.4 ADJUDICATIVE AND REGULATORY STRATEGIES FOR NAVIGATING UNCERTAINTY IN SCIENCE AND LAW

The Wind and the Sun were disputing which was the stronger. Suddenly they saw a traveller coming down the road, and the Sun said: ‘I see a way to decide our dispute. Whichever of us can cause that traveller to take off his cloak shall be regarded as the stronger[.] You begin.’ So the Sun retired behind a cloud, and the Wind began to blow as hard as it could upon the traveller. But the harder he blew the more closely did the traveller wrap his cloak round him, till at last the Wind had to give up in despair. Then the Sun came out and shone in all his glory upon the traveller, who soon found it too hot to walk with his cloak on.⁵³

Much like the Wind in the classic story above, the rule of law cannot force absolute certainty upon itself, nor upon the scientific and social practices in which legal debates unfold. There are two main strategies for navigating the uncertainty of the social ecological world, and reconciling it with the (rule of) law: (1) crafting regulation along the lines of adaptive law theories, and/or (2) interpreting existing laws considering the precautionary principle and the golden rule (teleology).

In addressing the social ecological uncertainty and effectively achieving the SDGs, the more salient of these strategies is to craft legislation that acknowledges the permanent and chronic outdatedness of the law as

⁵³ J. Jacobs, ‘Æ. Fables’ (1909–1914) *The Harvard Classics XVII*(1) (P.F. Collier and Son).

soon as it is passed, and seeks to bridge the gap between science and governance. Such approaches have been extensively discussed under the banner of adaptive management and law, as well as resilience theories.⁵⁴ The guiding paradigm of these theories is that there are always significant gaps in the understanding of the legislature, which hinders the achievement of even the most plausible of environmental or other goals. For this reason, legislation generally, and environmental legislation specifically, should contain procedural mechanisms that would allow constant monitoring of the environment and human actions influencing it, as well as a periodical re-evaluation of the legality of human actions. Law should be connected to the best scientific knowledge available, and directly linked to the goals (hopefully good ones) set in legislation.

In practice, adaptive law builds upon an adaptive management cycle, which consists of assessing the condition of environmental media and pressures affecting them, designing mechanisms (e.g. licence conditions) for achieving legislative targets, implementing these mechanisms, monitoring their effectiveness, evaluation of the mechanisms, and never-ending adjustment of environmental management. The adaptive management cycle is based on learning, iteration and sensitivity to new scientific knowledge.⁵⁵ Much of the European Union's environmental legislation – such as the Water Framework Directive (2000/60/EC) and the Marine Strategy Framework Directive (2008/56/EC) – is based on this approach.⁵⁶

As adaptive law leaves many substantive issues unregulated (uncertain), and places significant societal power in the hands of scientists and

⁵⁴ See for example, Ruhl, above n 48, 101–164; C.A. Arnold and L.H. Gunderson, 'Adaptive Law and Resilience' (2013) *Environmental Law Reporter* 43, 10428; A.E. Camacho and R.L. Glicksman, 'Legal Adaptive Capacity: How Program Goals and Processes Shape Federal Land Adaptation to Climate Change' (2016) *University of Colorado Law Review* 87(3), 722.

⁵⁵ C.S. Holling, *Adaptive Environmental Assessment and Management* (John Wiley and Sons, 1978); C.J. Walters, *Adaptive Management of Renewable Resources* (Macmillan, 1986); M.H. Benson, 'Integrating Adaptive Management and Oil and Gas Development: Existing Obstacles and Opportunities for Reform' (2009) 39 *Environmental Law Reporter* 10962; Rist et al, above n 48.

⁵⁶ See L. Squintani and H. Van Rijswijk, 'Improving Legal Certainty and Adaptability in the Programmatic Approach' (2016) *Journal of Environmental Law* 28, 443–445; N. Soininen and F.M. Platjouw, 'Resilience and Adaptive Capacity of Aquatic Environmental Law in the EU – An Evaluation and Comparison of the WFD, MSFD, and MSPD' in D. Langlet and R. Rayfuse (eds), *The Ecosystem Approach in Ocean Planning and Governance* (Brill, 2018, forthcoming).

environmental managers, there is a fundamental need to hold these powers in check with procedural mechanisms contained in due process generally, e.g. access to justice and the obligation to give reasons for decisions that may impact the environment.⁵⁷ But considering the un-avoidability of environmental management,⁵⁸ and the uncertainties contained in it, it would be a mistake to abandon adaptive law for the threats it poses for the rule of law. These threats can be largely compensated for by a rigorous application of procedural rules. Moreover, it is unlikely that any other regulatory strategy could respond to the uncertainties of the social ecological world more effectively. And if environmental law cannot effectively facilitate the achievement of environmental targets, such as the SDGs, then what is it for? Certainty for the sake of certainty does not sound very promising, or legitimate.

The second strategy is much more traditional, and less effective in reducing certainty and adapting law to changing circumstances within the rule of law. This strategy employs the precautionary principle in reversing the burden of proof in evaluating the legality of activities with major potential for environmental harm. This strategy seeks to counter the scientific uncertainty present in environmental management, and counter the deficiency that the legal framework does not contain adaptive mechanisms for minimizing scientific uncertainty.⁵⁹

The precautionary principle is often coupled with an interpretive or argumentative attitude towards the law. Legal provisions are interpreted as leaving discretion for the executive branch and the courts for (re)evaluating environmentally harmful projects. It is constantly observed in the adaptive law literature that globally many of the environmental regulations targeting pollution control, extraction of natural resources, and

⁵⁷ See on the discretionary problems B. Pardy, 'The Pardy-Ruhl Dialogue on Ecosystem Management Part V: Discretion, Complex-Adaptive Problem Solving and the Rule of Law' (2008) *Pace Environmental Law Review* 25, 354; and the requirement to control environmental managers, B. Pardy, 'Towards an Environmental Rule of Law' (2014) *Asia Pacific Journal of Environmental Law* 17, 174–175.

⁵⁸ This is a somewhat contested claim as the Pardy–Ruhl debate demonstrates, see B. Pardy, 'Changing Nature: The Myth of the Inevitability of Ecosystem Management' (2003) *Pace Environmental Law Review* 20, 675–692; J.B. Ruhl, 'The Myth of What Is Inevitable Under Ecosystem Management: A Response to Pardy' (2004) *Pace Environmental Law Review* 21, 315–323; Pardy, 'The Pardy-Ruhl Dialogue' above n 57, 341–354.

⁵⁹ P. Sands and J. Peel, *Principles of International Environmental Law* (3rd edn, Cambridge University Press, 2012) 222; Wiersema, above n 49, 450–461.

nature conservation have been drafted with a fairly stable social ecological environment in mind.⁶⁰ As this premise is increasingly criticized, existing and often scientifically outdated environmental regulations merit a more teleological interpretation, which facilitates the achievement of environmental goals contained in old laws, or the goals of more recent legal instruments that may be located at the domestic, regional or international levels.⁶¹ Here, the interpretive and argumentative nature of the law is a mechanism which allows the law to breathe and adjust to new social ecological circumstances, and stay relevant for societies in achieving desirable goals contained within existing domestic legislation, or international agreements.⁶² Waldron argues that the argumentative nature of law is often ignored and marginalized in traditional legal positivistic theories, which often go hand in hand with the formal rule of law theories:

When positivists in the tradition of H. L. A. Hart pay attention to this aspect of interpretation and argument, they tend to treat it as an occasional and problematic sideline. The impression given is that, in most cases, the authoritative identification of legal norms using a rule of recognition is sufficient; once it is recognized, a legal norm can become a straightforward guide to official action. But, it is said, occasionally the language is unclear –

⁶⁰ Ruhl, above n 48, 107: ‘Complex adaptive systems, because of their highly collectivized, nonlinear, dynamic behavior, defy prediction through classical reductionist method, or any other known method for that matter. Yet we have not designed our environmental law system with this underlying property in mind. Rather, it is mired in a reductionist, linear, predictivist mentality ignorant of underlying complex system behaviors. We find ourselves as a result constantly befuddled when the intended benefits of environmental regulation fail to materialize or, worse, when consequences contrary to the intended effects materialize.’

⁶¹ See on the international plane the *Danube Dam* case: 25 September 1997 (*Hungary v. Slovakia*) ICJ Rep., 37 *International Legal Materials* (1998), and its analysis in N. Soininen, ‘The Structure, Form and Language of International Environmental Norms – from Absolute to Relative Normativity’ in D. Fisher (ed), *Research Handbook on Fundamental Concepts of Environmental Law* (Edward Elgar Publishing, 2016) 257; and on the plane of the European Union C-525/12 *Commission v. Germany* para 43: ‘It should be borne in mind, as a preliminary point, that in accordance with the Court’s settled case-law, the interpretation of a provision of EU law requires that account be taken not only of its wording and the objectives it pursues, but also its context and the provisions of EU law as a whole.’ See also generally, Fisher, above n 20, 277–278.

⁶² Waldron, above n 11, 20–21: ‘So we cannot just brush the argumentative aspect of law’s procedures aside so far as the Rule of Law is concerned. I believe this tension in the Rule of Law ideal is largely unavoidable, and we should own up to the fact that the Rule of Law points, as it were, in both directions.’

because words have open texture or because our aims are indeterminate or because for some other reasons there is a hiccup in the interface between words and the facts that they apply to – and then, unfortunately, we have no choice but to argue the matter through. ... But this account radically underestimates the point that argumentation (about what this or that provision means or about the effect of this array of precedents) is business as usual in law. We would be uneasy about counting a system that did not exhibit it and make routine provision for it as a legal system.⁶³

Furthermore, a strict textual interpretation of (environmental) regulation that is based on discredited scientific knowledge does not allow for the effective achievement of regulatory goals (often prevention of environmental harm in one way or another).⁶⁴ Justice Benjamin argues for instance that property laws ‘must be reinterpreted to incorporate concepts of environmental stewardship and sustainability’. In other words, certainty of property law must sometimes be sacrificed for adapting it to new scientific knowledge on the functioning of social ecological systems.⁶⁵ Turning a blind eye to consequentialist evaluations in adjudication, and overemphasizing the legal certainty and adjudicative mechanisms that deliver it (e.g. strict textual interpretation of an outdated statute), risk turning law from a servant to master, and marginalizing law in the instrument mix of environmental governance.⁶⁶

By way of conclusion, it is clear that environmental laws need to be effective to achieve the SDGs. This in turn requires certainty from the law, but it also requires adaptivity to adjust to new social ecological realities, and to new scientific knowledge. Law must at times operate like the Sun, leaving substantive freedom for the environmental managers to adjust the legality of environmentally harmful projects in light of the

⁶³ *Ibid*, at 22.

⁶⁴ This is a standard criticism of the formal rule of law theories, see T.R.S. Allan, ‘Freedom, Equality, Legality’ in J.R. Silkenat, J.E. Hickey Jr and P.D. Barenboim (eds), *The Legal Doctrines of the Rule of Law and the Legal State (Rechtstaat)* (Springer, 2014) 160.

⁶⁵ See UNEP, above n 25, 9.

⁶⁶ This is also acknowledged by the formal rule of law theorists, see Raz, above n 9, 228: ‘It [the rule of law] has always to be balanced against competing claims of other values ... Conformity to the rule of law is a matter of degree, and though, other things being equal, the greater the conformity the better – other things are rarely equal. A lesser degree of conformity is often to be preferred precisely because it helps realization of other goals.’ Raz would, however, claim that these ‘other goals’ do not belong to the realm of the rule of law at all. As I discussed in Section 2, the separation of form and substance is difficult in practice, although it may be discussed in theory.

most recent science. Wind is, in turn, required to hold the managers and the adjudicative procedure in check.

11.5 CONCLUSIONS

I began this chapter by dividing the rule of law into formal, procedural and substantive camps. In a nutshell, the formal camp emphasizes controlling arbitrary public powers. This is done by setting formal criteria for what legal rules and their application must look like. These theories rest on certainty and predictability in all legal relations. The procedural rule of law theories make a more modest claim. They emphasize the role of law-applying institutions such as the courts. At the core of procedural rule of law is adherence to due process, which means, among other things, access to justice and limits to the evaluation of evidence, legal reasoning, and statement of reasons. Finally, the substantive rule of law camp requires that goals, such as the SDGs, should guide both the legislature and the courts in all their actions.

I then argued that the formal rule of law requires substance because otherwise law would risk transforming into a ‘suicide club’. The procedural rule of law theories would, in turn, be meaningless if they had no substantive goals to serve. Similarly, the substantive rule of law theories require the formal and the procedural theories as substantive goals cannot be realized without institutional structures or any formal criteria for what the legal rules should look like. There is accordingly a functional and empirical linkage between the rule of law theories.

One of the main problems with all the rule of law theories is that they impose certainty on an uncertain social ecological world. The formal camp requires the legislature to craft rules that can withstand unforeseen environmental, social, economic and cultural changes. The procedural camp requires adherence to strict procedural rules in evaluating evidence and dealing with the burden of proof, as well as strict criteria for legal argumentation. The substantive camp claims to know the goals that should be subscribed to in legislation and adjudication, and in which order of priority the often conflicting goals should be placed. All these three rule of law theories require different kinds of certainty that is at odds with the uncertainty of the social ecological ‘real’ world discussed in Section 4. The uncertainty, in turn, is a result of, among other things, ever-developing technology, and gaps in scientific knowledge. The clash between (legal) certainty and social ecological uncertainty may at times be the single greatest obstacle to effectively achieving environmental goals such as the SDGs.

Finally, I turned to two categories of legal mechanisms that may be used to reconcile the (rule of law's) need for certainty, and the uncertainty of the social ecological world. The first mechanism is regulatory, and aimed at the legislature. The second is adjudicative, and aimed at the law-applying institutions. In the first line of inquiry, environmental regulations should be designed to alleviate scientific uncertainty. Law can facilitate this by establishing iterative and adaptive management processes that facilitate a functioning science/policy interface. A recent example includes the European Union's water and marine legislation. In the second line of inquiry, courts are required to exercise their discretion in evaluating the factual effects of environmentally harmful projects considering the precautionary principle. Statutory and agreement-based legal requirements must be interpreted and evaluated considering the golden rule, i.e. the aims of the provisions under application, rather than looking categorically at the textual formulations of applicable provisions. The golden rule facilitates consequentialist inquiries, which, if done right, should be based on the best available science that informs of the effects of environmentally harmful projects. Recent decisions incorporating climate change considerations are early testimony of courts' ability to undertake this.

Overall, the required substantive freedom of environmental managers to adjust human activities having a significant individual or cumulative effect on the SDGs is a significant concession from the rule of law. But it need not be a disaster for the rule of law. This, however, requires that the procedural mechanisms and safeguards that the legal system provides take centre stage. Control of administrative and judicial powers under the rule of law trickles down to questions like how well (a sound factual and legal basis) and openly the decisions are reasoned. Placing less emphasis on the substantive and the formal, and more on the procedural, is the best combination of all the rule of law worlds for the SDGs.