From Sovereignty to International Cooperation: Lessons from Legal Logic and social Ontology

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Abstract. This paper connects State sovereignty to fragmentation and the potential for inconsistencies and conflicts, investigating whether exercises of sovereignty necessarily lead to inconsistencies that would hinder international cooperation. It argues that this is not the case, essentially because the logic of rules differs fundamentally from the logic of statements, and because this rule logic allows one to find a consistent and workable legal system in a pluralistic and fragmented collection of sources of international law. The paper begins by showing how sovereignty leads to the fragmentation of international law, and fragmentation to inconsistency, increasing the risk for rule conflicts. Thereafter, it pays attention to the traditional conception of consistency by considering the consistency of descriptive sentences. However, it holds that the consistency of descriptive sentences does not fit the nature of rules. While descriptions are true or false as far as they succeed at describing the world, rules are not truth-apt. Rules are valid or invalid to the extent that they succeed on influencing the world. This difference leads the paper to adopt a different definition for the consistency of rules. Following this, the paper considers how adding more rules can remove inconsistency and remove conflicts. It concludes that the addition of rules can help ensure the consistency of the set of rules of international law. Moreover, even if fragmentation as a result of 'unsupervised' exercises of sovereignty by States has occurred, further rule-creation can remove inconsistency or conflict by means of a framework of meta-rules.

Keywords: fragmentation of international law; logic of rules; rule conflicts; rule consistency; social ontology.

1. *Introduction*

Current global issues, such as the Covid-19 pandemic, international terrorism, environmental threats, or the refugee crisis, call for coordinated responses of States. The international cooperation required to tackle these issues demands some minimum regulatory framework: the creation and application of international rules. Any (potential) inconsistencies or conflicts between or within regulatory frameworks make international cooperation more difficult and challenge international law's role as a tool for facilitating cooperation. It has been argued that international law is inconsistent because it is fragmented; this fragmentation can be seen as a result of State sovereignty.

In this paper, we connect State sovereignty to fragmentation and the potential for inconsistencies and conflicts, and investigate whether exercises of sovereignty necessarily lead to inconsistencies that would hinder international cooperation. We argue that this is not the case, essentially because the logic of rules differs fundamentally from the logic of statements, and because this rule logic allows us to find a consistent and workable legal system in a pluralistic and fragmented collection of sources of international law.

We begin by showing how sovereignty leads to the fragmentation of international law, and fragmentation to inconsistency, which increases the risk for rule conflicts (section 2). Thereafter, we pay attention to the traditional conception of consistency by considering the consistency of descriptive sentences (section 3). In the next section, however, we will see that the consistency of descriptive sentences does not fit the nature of rules. While descriptions are true or false as far as they succeed at describing the world, rules are not truth-apt. Rules are valid or invalid to the extent that they succeed on influencing the world. This difference brings us to adopt a different definition for the consistency of rules (section 4). Following this, we consider how adding more rules can remove inconsistency (section 5) and remove conflicts (section 6). Gathering the conclusions arrived at in the previous sections, we determine that the addition of rules can help ensure the consistency of the set of rules of international law. Moreover, even if fragmentation as a result of 'unsupervised' exercises of sovereignty by States has occurred, further rule-creation can remove inconsistency or conflict by means of a framework of meta-rules (section 7).

A terminological caveat is in order before we start. Many of the terms that we will use throughout this paper (consistency, applicability, application, conflicts, exception, etc.)

are terms for which lawyers may have some pre-conceived meaning in mind. We ask the reader to approach these terms in light of the definitions provided by the paper.

2. *From sovereignty to fragmentation to inconsistency to conflicts*

It is commonly accepted in international law that it is an expression of State sovereignty if a State creates obligations for itself by means of a treaty.[1] Equally, sovereign equality has as a consequence that the international legal sphere is composed of a primarily horizontal set of rules without a central legislator. States are free to exercise their sovereignty, entering into treaties to create new rules. Competent to act, States are prone to sign diverse treaties with distinct groups. Such 'unmitigated' exercises of sovereignty (can) lead to a proliferation of regulatory instruments.

Given the lack of central supervision or coordination, it is not unusual for the themes of newly signed treaties to intersect with those of other international treaties, regional agreements, and even national law. With regard to the increasing number of free trade agreements (FTAs) signed between States, replacing the signature of centralised, multilateral World Trade Organisation (WTO) agreements, this has been termed the 'spaghetti bowl effect'.[2] The term is an analogy between the tangling of spaghetti with the overlapping FTAs signed between a group of States.

State sovereignty, it seems, leads international law to become 'fragmented', meaning that it is not clear if it is a single unified rule set or a loose collection of mutually interacting sets of rules.[3] As a consequence of such 'fragmentation', some scholars have diagnosed international law as inconsistent.[4] Inconsistencies between rules (of one or several regulatory regimes) are problematic because they increase the potential for conflicts. Conflicts, in turn, compromise international law's effectivity, hindering international cooperation.

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[1] *SS 'Wimbledon' (Britain v Germany)* (Judgment) [1923] PCIJ Series A No 1.

[2] Jagdish N Bhagwati, 'US Trade Policy: The Infatuation with FTAs' [1995] Columbia University, Discussion Paper Series <https://academiccommons.columbia.edu/doi/10.7916/D8CN7BFM> accessed 17 February 2021.

[3] Gerhard Hafner, 'Pros and Cons Ensuing from Fragmentation of International Law' (2004) 25 Michigan Journal of International Law 849.

[4] Martti Koskenniemi and Päivi Leino, 'Fragmentation of International Law? Postmodern Anxieties' (2002) 15 Leiden Journal of International Law 553, 556.

An illustration of the obstacles created by fragmentation is given by the set of international litigations commonly known as the *MOX Plant* cases.[5] The same background dispute between Ireland and the United Kingdom (UK) was regulated by three special sets of international legal rules, each with their own thematic focus, geographical range, and dispute settlement procedures. The disagreement gave rise to three parallel legal procedures: the first filed by Ireland against the UK under the Oslo Paris Convention for the Protection of the Marine Environment of the North-East Atlantic; the second, also by Ireland against the UK, but this time under the United Nations Convention on the Law of the Sea (UNCLOS); the third case was instituted by the European Commission against Ireland before the Court of Justice of the European Union (CJEU).

The example illustrates the coexistence in international law of legal rules addressing the same background facts. It makes it clear that such a situation may pose practical difficulties to international cooperation by obscuring which applicable rules should be determinative in case of a conflict. For instance, the CJEU found that Ireland violated European Union (EU) law by instituting a procedure before another international court, the International Tribunal for the Law of the Sea (ITLOS), without having previously consulted EU organs.[6] However, one can argue that Ireland filed that lawsuit in compliance with the rules contained in UNCLOS which allowed for such a procedure to take place. In any case, it is clear that the proliferation of conflicting rules can lead to complex challenges to international cooperation and that this proliferation can be seen as a result of exercises of State sovereignty and of the sovereign equality between States.

3. Consistency of statements

Intuitively, it seems that the more international rules States create, the more likely it is that there will be inconsistency between those rules. After all, the more details we add, the more likely it is that something, somewhere does not match up. This intuition, however, rests on a misconception of the logic of rules, which differs from the logic of statements.

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[5] Robin R Churchill, 'MOX Plant Arbitration and Cases' in Rüdiger Wolfrum (ed), *Max Planck Encyclopedia of Public International Law* (Oxford University Press 2018).
[6] Case C-459/03 *Commission v Ireland* EU:C:2006:345, [2006] ECR I-04635.

Traditionally, logic defines consistency and inconsistency for descriptive sentences, or statements. Statements are true or false, and consistency is defined for sets of statements. A set of statements is consistent if and only if it is logically possible that all sentences in the set are true.[7] If that is not possible, the set is inconsistent. For example, the set *{Portugal is a State; Portugal shares a border with Spain}* is consistent, while the set *{Portugal is a State; Portugal is not a State}* is inconsistent.[8]

Given this definition, the bigger the set of statements, the smaller the chance that they can all be true. Moreover, if a set is inconsistent, no addition of more statements can make it consistent again. For instance, the set *{Portugal is a State; Portugal shares a border with Spain; Portugal is not a State}* is inconsistent, as it contains an inconsistent subset. Adding more sentences to the set will not remove its inconsistency.

If we (incorrectly) try to see international legal rules as a large set of statements about international law, the chance that the set is inconsistent is substantial. To keep such a set of statements consistent in a process of continuous addition of more and more statements, the only viable solution seems to be incorporating some form of central control—a higher authority that decides what goes in and what must leave the set of statements of international law, thus keeping it consistent. However, in light of the sovereignty of States which allows them to freely enter into treaties to create new rules, such central control is lacking. It is also unlikely that there is going to be any centralisation of international law in the near future. For that reason, if we look at international legal rules as such statements, the set is bound to be or become inconsistent. As soon as it becomes inconsistent, it will remain so even if further statements are added. As mentioned before, this would be problematic in that inconsistency between rules increases the potential for conflicts, which are obstacles for international cooperation.

This understanding of international law as a set of statements is incorrect, however. Rules are not statements. When it comes to rules, it is possible to (1) make an inconsistent set of rules consistent and (2) deal with any conflicts arising out of an inconsistent set of rules

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[7] Wilfrid Hodges, *Logic* (Penguin 1977) 13.

[8] The set *{Portugal is a State; Portugal shares a border with Poland}* is also consistent in that it is logically *possible* for all statements in this set to be true. The second statement is false, but this does not detract from the logical possibility. This is different when it comes to the set *{Portugal is a State; Portugal is not a State}*. It is not logically possible for both of these statements to be true given the law of non-contradiction. So, the set is inconsistent. On the law of non-contradiction, see: Dave Barker-Plummer and others, *Language, Proof, and Logic* (2nd edn, Center for the Study of Language and Information 2011) 137.

by adding more rules. To understand how this is possible and how this works, we need to look more closely at the nature of rules and the logic that applies to them.

4. Rule (in)consistency and rule conflicts

Descriptive sentences seek to describe pre-existing facts. They are true when they succeed in doing so and false when they do not, and a set of statements is consistent if and only if it is logically possible that they are all true. Rules, by contrast, do not describe anything and are therefore true nor false. Instead, they are valid or invalid. If a rule exists – or is valid; that is the same thing - it influences the world.[9] If the rule *{torture is prohibited}* is valid, this makes it the case that in principle all cases of torture are unlawful. We will take a closer look at how this works in section 5.1.

Because rules are valid or invalid, instead of true or false, we cannot use the same definition of consistency for rules that is used for statements. Thus, we will define rule consistency as the impossibility that the rules in a set of rules cause a conflict.[10] A set of rules is consistent if no conflicts between the rules in the set are possible; it is inconsistent if such a possibility exists.

The definitions above distinguish between the applicability and the application of a rule to a case. Applicability is determined by three factors. First, an applicable rule must be valid, because validity of a rule is the same as the rule's existence and a non-existent rule can obviously not be applicable to a case. Second, the case must satisfy the conditions of the rule. And third, the case must fall within the scope of the rule (territorial, temporal, and personal). The scope conditions of a rule are typically not mentioned in the rule itself, but in meta-rules. Together with the conditions mentioned in the rule, the scope conditions determine to what cases the rule is applicable.

If a rule is applied, this means that the rule attaches its consequences to this case. Normally, rules are applied to the cases to which they are applicable, but (as we will see

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[9] In the terminology of John Searle, this is a *world-to-word* direction of fit: here we are no longer interested in describing the world but affecting it. The world is to be adapted to the linguistic entities and not the other way around. See: John R Searle, 'A Taxonomy of Illocutionary Acts' (1975) 7 Language, Mind, and Knowledge. Minnesota Studies in the Philosophy of Science 344 <http://conservancy.umn.edu/handle/11299/185220> accessed 16 February 2021; Jaap Hage, 'What Is a Norm?', *Studies in Legal Logic* (Springer 2005).

[10] Jaap Hage, 'Rule Consistency', *Studies in Legal Logic* (Springer 2005).

in section 6) exceptions are possible. Just as normally, rules are not applied when they are not applicable. The obvious reservation here occurs if a rule is applied by analogy.[11] Rule conflicts are the result of conflicting legal consequences, and can therefore only occur if these consequences are attached to a concrete case. Clearly, this presupposes the application, and not merely the applicability of the conflicting rules.

There are at least two kinds of conflicts that can occur. Conflicts of imposition occur when rules impose incompatible facts upon the world. Conflicts of compliance take place when rules demand incompatible behaviour from the same agent.[12]

An example of a conflict of imposition is found in the territorial dispute that gave rise to the *Island of Palmas* case.[13] A treaty signed between Spain and the United States indicated that the latter had the exclusive territorial claim to the island. At the same time, customary rules on continuous display of authority gave the territorial claim to the Netherlands. Given that no two States can have an exclusive territorial claim over the same territory at the same time, the rules conflict by attaching incompatible facts upon the world.

In turn, there is a conflict of compliance when a United Nations (UN) Charter rule prohibits the use of force in international relations,[14] whereas (according to some commentators) the 'responsibility to protect' (R2P) imposes on States the duty to use force in international relations to protect the human rights of the population of another State who is unable or unwilling to act.[15] This imposes the incompatible duties upon the State to use force and not to use force (since a prohibition is nothing but a duty not to). The actions prescribed by these duties are incompatible with one another.

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[11] Jaap Hage, *Reasoning with Rules: An Essay on Legal Reasoning and Its Underlying Logic* (Springer Science + Business 1997) 118–121.

[12] The distinction between "conflicts of imposition" and "conflict of compliance" is taken from: Jaap Hage and Antonia Waltermann, 'Logical Techniques for International Law' in Dieter Krimphove and Gabriel Lentner (eds), *Law and Logic: Contemporary Issues* (Duncker und Humblot 2017); Jaap Hage, Antonia Waltermann and Gustavo Arosemena Solorzano, 'Exceptions in International Law' in Lorand Bartels and Federica Paddeu (eds), *Exceptions and Defences in International Law* (Oxford University Press 2018)

[13] *Island of Palmas Case (Netherlands v United States of America)* [1928] 2 RIAA 829.

[14] Charter of the United Nations (adopted 26 June 1945, entered into force 24 October 1945) 1 UNTS XVI (UN Charter) Article 2.4.

[15] Henrique Jerônimo Bezerra Marcos and Gustavo Rabay Guerra, 'Foxes in the Henhouse: Legal Critique to the "Jus Bellum Justum" Doctrine for Humanitarian Intervention through the Responsibility to Protect' (2020) 2 Revista Jurídica Unicuritiba 47 <http://revista.unicuritiba.edu.br/index.php/RevJur/article/view/4103> accessed 19 June 2020.

To make our discussion of rule inconsistency less abstract, we will use a hypothetical case as an example that will follow us through the next sections. Say that there is general trade treaty between States X, Y, and Z with the rule:

R1: Parties of this treaty must share goods with the other parties before sharing these goods with non-parties.

Additionally, there is also an international medical aid treaty between States X and W with the following rule:

R2: X undertakes to provide ten million vaccines for W to deal with the 2019 coronavirus pandemic.

If a case arises where there is a shortage of medical supplies where X does not have enough vaccines to provide to Y, Z, and W, there will be a conflict of compliance. Notice that the set {*R1, R2*} is inconsistent because these two rules *can* cause a conflict of compliance if suitable circumstances arise (shortage of vaccines).[16]

This example demonstrates how inconsistencies between rules make rule conflicts possible and how inconsistency and rule conflicts can hinder international cooperation. One might be tempted to think that adding more rules to this set will only increase the likelihood of further conflicts and will not take away the inconsistency that has led to the problem. In the next two sections, we demonstrate that (and why) this is not the case.

5. *How adding rules can remove inconsistency*

First of all, there is a 'simple' way to avoid a conflict between the rules in the set {*R1, R2*}. As mentioned, the set is inconsistent because the rules *can* conflict if there is a shortage of vaccines. Specifically, there can be a conflict of compliance where it will be impossible for X to comply with both rules. One way to avoid the conflict is to change the factual background: deal with the shortage of vaccines. If X has enough vaccines to supply to Y, Z, and W, the conflict is avoided. Granted, that is easier said than done, but it goes to show a theoretically straightforward way to deal with such conflicts. However, taking away the conflict in a specific case by dealing with the shortage of vaccines does not remove the potential for conflict, that is, it does not remove the inconsistency. Setting

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[16] Hage, 'Rule Consistency' (n 10).

this pragmatic (but at the same time practically difficult) solution aside, it is possible to take away the inconsistency between *R1* and *R2* by means of an additional rule, *R3*. Let us suppose that X, Y, and Z signed another treaty with the following rule:

R3: Vaccines and other medical resources are excluded from what ought to be understood by 'goods' for the purposes of general trade treaties.

This new rule, *R3*, avoids conflicts that can arise between *R1* and *R2* because *R1* is no longer applicable when dealing with medical resources such as vaccines.

This deserves a closer look at what is happening here. By introducing *R3,* we have changed the *applicability* of *R1*. It is possible to do so because of the nature of rules. While statements, as we have seen, aim to describe pre-existing facts, rules attach new facts to old ones. In this way, rules are not only part of the (social) world, but they also shape and define it.

5.1. Social ontology and rules as constraints

What do we mean when we talk about the (social) world and that rules shape and define it and in what way is this relevant for our present purposes?

Some matters of fact have nothing to do with what human beings think about their existence.[17] This is the case for saying that mercury is denser than water, for example. Next to these so-called 'brute' facts, however, there are also social facts, which depend on what sufficiently many important members of some group recognise as being the case.[18]

When it comes to social facts, these can be divided into brute social facts and rule-based facts.[19] Brute social facts are those that are immediately based on collective recognition.

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[17] This claim is controversial. All facts are states of affairs, and all states of affairs are language-dependent. That also holds for brute facts. Therefore, in some level, even brute facts are somewhat dependent on human conceptualisation. We will ignore this complication since it has no consequence to the argument that social facts are dependent on collective recognition. See: Alice Crary, 'Objectivity' in James Conant and Sebastian Sunday (eds), *Wittgenstein on Philosophy, Objectivity, and Meaning* (1st edn, Cambridge University Press 2019)

[18] John R Searle, *The Construction of Social Reality* (Free Press 1995). In the law, these ideas are reminiscent of Hart and further research by MacCormick and Weinberger. See: Neil MacCormick and Ota Weinberger (eds), *Institutional Theory of Law: New Approaches to Legal Positivism* (Springer Netherlands 1986).

[19] Jaap Hage, *Foundations and Building Blocks of Law* (Eleven International Publishing 2018) 82 f.

That is the case for a new customary rule of international law arising out of the general practice of States and collective recognition in the form of its acceptance as law.[20] Rule-based facts, by contrast, do not *immediately* depend on collective recognition, although they are *in last instance* based on collective recognition.[21] If we look at a rule arising out of a UN Security Council Resolution, for example, the existence of this rule is a fact that is based not immediately on the recognition of States, but on the application of other rules: the UN Charter gives the Security Council the competence to create rules by means of resolutions.[22] The rules of the UN Charter attach the fact that a new rule exists to the fact that the Security Council has acted in a certain, specified way. The existence of the new rule is based on the application of existing rules, making it a rule-based fact.

Legal rules exist in (an institutionalised part of) social reality and as such, we can say *it is a fact that such-and-such rule exists*—but they also shape and define this social reality in important ways. Legal rules shape social reality by attaching new facts to old ones: if State X does something that counts as an internationally wrongful act, the rule that States are responsible for internationally wrongful acts attaches the consequence of international responsibility: it is now a fact that X is internationally responsible.[23] The rule has attached the fact that X is internationally responsible to the already existing fact that X performed an internationally wrongful act. In this way, the rule has adapted the facts in the world according to its content. Instead of describing the world, the rule has changed it.

Some legal rules have an impact on other legal rules and their applicability. That conduct consisting of an action or omission that is attributable to a State under international law and constitutes a breach of an international obligation to the State counts as an internationally wrongful act is also the consequence of a rule.[24] The effect of this legal rule is that another rule is applicable to a certain type of cases: the rule that attaches international responsibility to internationally wrongful acts is now applicable to these types of cases. The rule attaching the fact that *{this is (counts as) an internationally wrongful act}* to conduct that fulfils certain conditions thus determines what is the case

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[20] For the sake of simplicity, this example ignores some complications pertaining to the way that international customary law arises out of the behaviour of State officials whose competences to act are often based on rules.

[21] For an argument on how international law bottoms out in collective recognition, see: Antonia Waltermann, *Reconstructing Sovereignty* (Springer 2019).

[22] UN Charter, Chapter V.

[23] We call such rules *dynamic* rules: new facts are attached to the fact that an event has occurred. Hage, *Foundations and Building Blocks of Law* (n 19) 94 f.

[24] We call such rules *counts as* rules: 'thing of type 1' counts as 'things of type 2'. ibid 102 f.

in legal reality, rather than describing it. The existence of rules stemming from UN Security Council Resolutions described above is another example of rules determining what is the case in legal reality.

5.2. Removing inconsistency

So, legal rules determine what is the case in (part of) social reality. Sometimes, this means that rules create what we call *background constraints* relative to which states of affairs exist. Constraints can be logical (it is logically impossible that Portugal is a State and that Portugal is not a State at the same time),[25] physical (a person cannot be in two non-adjacent countries at the same time), and more. Most interestingly for us, legal rules can also act as constraints, for example by making it impossible that an object is considered both as 'a good' and 'a vaccine'. Because rules are applicable, *inter alia*, when a case falls within the scope of the rule, by changing the background against which the rule operates, we can change its applicability.[26]

This is what *R3* has done in our prior example. By excluding vaccines from 'goods', this rule has made it so that *R1* (with the consequence that X has a duty to share goods with Y and Z first) is not applicable to a situation in which X has to decide what to do with the limited supply of vaccines it has. The introduction of this rule changes the background against which *R1* and *R2* operate.

We have defined rule consistency as the impossibility of conflict. A rule conflict occurs if two or more rules are applied to a case and attach their legal consequences to this case and where their legal consequences are incompatible. As such, it suffices for rule inconsistency that a conflict is possible, that is, that the rules that *would* lead to incompatible consequences if applied. Because applicability of a rule to a case normally goes hand in hand with application, changing the applicability of *R1*, *R3* makes it that the conflict normally—namely if only applicable rules are applied—becomes impossible. As a result, the set *{R1, R2}*, operating under the constraint imposed by *R3*, becomes consistent.

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[25] Given the law of non-contradiction. Barker-Plummer and others (n 8) 137.
[26] Hage, 'Rule Consistency' (n 10).

In short: the creation of *R3* has taken away the inconsistency. Unlike with descriptive sentences, where adding more sentences to an inconsistent set can never remove the inconsistency, we can remove the inconsistency of a rule set by creating additional rules. However, these additional rules need to be the right kind of rules. We will return to this in section 7.

6. How adding rules can remove conflicts

It is possible that there are cases in which a set of rules remains inconsistent, that is, in which rule conflicts are *not* impossible. Returning to our previous example, let us focus solely on the initial set {*R1, R2*}, supposing that *R3* does not exist. In such a scenario, the set {*R1, R2*} is inconsistent and there does not seem to be a way to avoid the conflict of compliance from taking place. This, however, would be problematic for the State faced with the conflict of compliance, but also for the State that will not receive the vaccines it has a claim to (on the basis of *R1* or *R2*), and more generally for international cooperation. Then, there are several reasons to want to keep the facts imposed on the States involved compatible. However, we are faced with the problem that

> *R1* is applicable. If *R1* is applied to the case, it attaches to this case the fact that X has an obligation to deliver vaccines to Y and Z.

> *R2* is applicable. If *R2* is applied to the case, it attaches to the case the fact that X has an obligation to deliver vaccines to W.

> It is not possible for X to deliver vaccines to Y, Z, and W.

In the previous section, we considered that rules can act as constraints, thereby changing the applicability of one of the rules. If both rules are applicable, however, one way to solve the problem is by making an exception. We can say that an exception to a rule is made when an applicable rule is, for some reason, not applied. Given that the rule is not applied, the rule then does not attach its legal consequences to the case and the conflict is avoided.

The applicability of a rule is a reason to apply that rule. This reason for applying the applicable rule can be weighed against other reasons. Suppose, for example, that a general international treaty signed by W, X, Y, and Z contains the following rule:

R4: Rules in international medical aid treaties have prevalence over rules set by general trade treaties.

Remember that *R1* comes out of a general trade treaty between States X, Y, and Z. Meanwhile, *R2* is a rule laid down in an international medical aid treaty. In our new set *{R1, R2, R4}*, we can solve the conflict between *R1* and *R2* by means of *R4—R4* gives reason for making an exception to *R1*. The prevalence of *R2* over *R1* means that an exception can be made to the latter rule. While *R1's* conditions are satisfied, it is not applied, and its legal consequences do not set in.

The output of this reasoning should be all too familiar to lawyers. Yet, from a logical point of view, something interesting occurred: by taking a new rule *(R4)* into consideration, the threatening conflict was removed. Although our set *{R1, R2, R4}* is still inconsistent[27], the problem that X was faced with is solved. This is another way in which creating additional rules does not increase the potential for inconsistencies and conflicts, hindering international cooperation, but rather facilitates cooperation.

7. *Adding the right kinds of rules: from consistency back to sovereignty*

On the basis of the sections above, we can identify (at least) two categories of rules that can play a role in removing, or dealing with, inconsistencies:[28] rules that remove inconsistencies, and rules that remove conflicts.

7.1. *Rules that remove inconsistencies*

When it comes to rules that remove inconsistencies, we can think of those rules that change the applicability of the inconsistent rules. Applicability is determined by validity, the scope of the rule, and its conditions. Let us try to see one example of rule that removes inconsistency for each of the determinants of applicability.

Rule-conditions can be personal, territorial (spatial) or temporal. By delimiting the conditions, we may be able to avoid conflicts between rules from ever arising when the

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[27] Given that we have not removed the *possibility* of conflict in general, only removed a conflict in a concrete case.

[28] There are many more ways to avoid rule conflicts. The interested reader is directed to Hage and Waltermann (n 12); Hage, Waltermann and Arosemena Solorzano (n 12).

potentially conflicting rules have different scopes. For instance, in states of emergency, human rights might conflict with the exceptional measures needed to deal with a crisis. One way to remove inconsistencies is by introducing a rule of derogation that changes the temporal scope of the human rights rule for the duration of the state of emergency. Derogation works by suspending the applicability of a potentially conflicting rule thereby removing the inconsistency.[29]

Additionally, similar to *R3*, some rules function by changing the scope or background against which other rules operate (with regard to the meaning of terms contained in those rules, for example). They do so by influencing when the conditions of a rule are fulfilled. Such a situation would occur if a rule were introduced that excludes actions taken under R2P from the definition of the use of force in the UN Charter. In that case, there would no longer be an inconsistency between the duty imposed by R2P and the prohibition imposed by the Charter.

Another example within the first category are rules that remove the validity of a rule by means of another rule. Given that one of the potentially conflicting rules are no longer valid, they are not applicable, thus, consistency is restored. An example is given by the Olivos Protocol for Dispute Settlement in the Southern Common Market (MERCOSUR), which explicitly repeal the pre-existing rules concerning that subject matter between the signatory States.[30]

7.2. Rules that remove conflicts

A second category consists of rules that remove conflicts. These are rules that do not eliminate inconsistency in a rule-set but instead remove conflicts by giving reasons for making an exception to (at least) one of the conflicting rules. What counts as a good reason for an exception is not a matter of rule logic. To find out what are good reasons for international law (or any other legal order) we need to study substantive aspects of the

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[29] The possibility to derogate some human rights rules is laid down by the American and European Convention on Human Rights. See: American Convention on Human Rights ("Pact of San José, Costa Rica") (adopted 22 November 1969, entered into force 18 July 1978) 1144 UNTS 123 (ACHR) Article 27; European Convention for the Protection of Human Rights and Fundamental Freedoms, as amended by Protocols Nos 11 and 14 [1950] ETS 5 (ECHR) Article 15.

[30] Olivos Protocol for the Settlement of Disputes in MERCOSUR (adopted 18 February 2002, entered into force 1 January 2004) 2251 UNTS 243, Article 55.1

field. Still, there are some reasons for exceptions that are generally accepted and that we can mention here.

One popular option is the introduction of a rule that gives reason for the prevalence of the rule that better 'fits' the legal order (prevalence as a matter of 'coherence' or 'systemic integration'). Another option is to introduce a rule positing that the rule emanating from a higher or more fundamental source prevails over the lower rule (*lex superior*), a more specific rule may prevail over the general rule (*lex specialis*), or the rule that came after prevails over the rule that came before (*lex posterior*).

This is far from an exhaustive list. Competent officials can introduce reasons of any kind for removing conflicts by means of prevalence between rules. Such is the case of the hypothetical *R4* seen above. It gave reasons to make an exception to *R1* because it stems from a general trade treaty while *R2* is introduced by an international medical aid treaty. Similarly, while some rules of international humanitarian law (IHL) might seem to conflict with rules of general international law, we may ensure consistency by considering that IHL rules have prevalence from the commencement of hostilities to the point when military operations cease.[31] This goes to show that reasons for making an exception are not a limited catalogue—rules can introduce different kinds of reasons for exceptions to be made.

7.3. Back to consistency and sovereignty

Given what we have seen above, we can conclude that the addition of more rules to an inconsistent rule set can make the set consistent again.[32] Moreover, even if we are faced with an inconsistent rule-set, the problem can be solved by the introduction of a framework of rules that deal with the conflicts that might occur. This allows us to say that, at least in theory, while the fragmentation of international law can lead to rules that might lead to conflicts and inconsistency, this is not necessarily an issue. The addition of the right kinds of rules can help ensure the consistency of the set of rules of international law. This is good news for international cooperation: it leads to the conclusion that even

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[31] Emily Crawford, 'The Temporal and Geographic Reach of International Humanitarian Law' in Ben Saul and Dapo Akande (eds), *The Oxford Guide to International Humanitarian Law* (1st edn, Oxford University Press 2020).
[32] Given that the right kinds of rules are added.

if fragmentation—as a result of 'unsupervised' exercises of sovereignty by States—has occurred, further exercises of sovereignty in the form of further rule-creation can remove any resulting inconsistency or conflict.

It bears mentioning, however, that this finding is not, in itself, the solution. Insights from the logic of rules and from legal theory can identify what sorts of rules are useful in this connection as well as indicate what possibilities exist for removing inconsistencies and conflicts. Logic alone cannot (and should not) dictate a particular way of dealing with conflicts. It can only help by providing clarity and structure in the complexity. The concrete development of such a framework of rules is a task for international lawyers and, ultimately, for States as the main actors of international law.

In that connection, we can look at the International Law Commission's (ILC) 2006 Report[33] on the fragmentation of international law as an initial effort to lay practical guidance for lawyers in the field. The Report has been widely used by scholars and practitioners. However, it has also received criticism for failing to address certain kinds of conflicts.[34] There have been initiatives to complete the Report as well as to present alternative techniques to those given by it.[35] This seems like a valuable effort in the quest of ensuring international cooperation and the effectivity of the international legal system.

It follows from this that States who wish to foster international cooperation should make use of their sovereignty to develop of such a framework of rules. This way, they can ensure that international law remains a workable system despite the continued addition of more rules to its rule-set.

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[33] ILC, 'Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law' (1 May-9 June and 3 July-11 August 2006) UN Doc A/CN.4/L.682.

[34] Sean D Murphy, 'Deconstructing Fragmentation: Koskenniemi's 2006 ILC Project' (2013) 27 Temple International & Comparative Law Journal 293.

[35] Pierre-Marie Dupuy, '2000–2020: Twenty Years Later, Where Are We in Terms of the Unity of International Law?*' (2020) 9 Cambridge International Law Journal 6 <https://www.elgaronline.com/view/journals/cilj/9-1/cilj.2020.01.01.xml?pdfVersion=true> accessed 13 April 2021; Wagner Menezes, *Tribunais Internacionais: Jurisdição e Competência* (Saraiva 2013); Anne Peters, 'The Refinement of International Law: From Fragmentation to Regime Interaction and Politicization' (2017) 15 International Journal of Constitutional Law 671 <http://academic.oup.com/icon/article/15/3/671/4582635> accessed 23 January 2020; Eyal Benvenisti, 'The Conception of International Law as a Legal System' (2008) 50 German Yearbook of International Law 393 <https://papers.ssrn.com/abstract=1124882> accessed 19 March 2020.

8. *Final Remarks*

In this paper, we outlined how sovereign equality and exercises of sovereignty lead to a proliferation of international rules and the fragmentation of international law. It makes intuitive sense to think that fragmentation leads to an increased potential for rule conflicts and inconsistencies. If this is the case, that is problematic for international cooperation. However, we argue that this intuitive view rests on a misconception of the nature and logic of (international) legal rules. Unlike descriptive sentences, where inconsistency cannot be removed by adding to an inconsistent set, rules do not describe reality, but attach new facts to existing ones and thereby determine what is and is not the case in the world. This has the effect that by adding more rules, inconsistencies between rules can be removed. Moreover, rules can determine when and in what way exceptions to conflicting rules should be made. In this way, adding more rules can remove conflicts where these occur.

From the lessons from the ontology of legal rules and their logic, we can conclude that the proliferation of international rules and the fragmentation of international law, as brought about by exercises of sovereignty, do not necessarily lead to rule conflicts or inconsistencies. What is needed is a framework of rules, logic for rules, and information about the relations between rules that turns the unsupervised set of international rules into a consistent and workable set.

References

Barker-Plummer D and others, *Language, Proof, and Logic* (2nd edn, Center for the Study of Language and Information 2011)

Benvenisti E, 'The Conception of International Law as a Legal System' (2008) 50 German Yearbook of International Law 393 <https://papers.ssrn.com/abstract=1124882> accessed 19 March 2020

Bhagwati JN, 'US Trade Policy: The Infatuation with FTAs' [1995] Columbia University, Discussion Paper Series <https://academiccommons.columbia.edu/doi/10.7916/D8CN7BFM> accessed 17 February 2021

Churchill RR, 'MOX Plant Arbitration and Cases' in Rüdiger Wolfrum (ed), *Max Planck Encyclopedia of Public International Law* (Oxford University Press 2018) <https://opil.ouplaw.com/view/10.1093/law:epil/9780199231690/law-9780199231690-e176?prd=EPIL> accessed 3 August 2020

Crary A, 'Objectivity' in James Conant and Sebastian Sunday (eds), *Wittgenstein on Philosophy, Objectivity, and Meaning* (1st edn, Cambridge University Press 2019) <https://www.cambridge.org/core/product/identifier/9781108151764%23CN-bp-3/type/book_part> accessed 13 March 2021

Crawford E, 'The Temporal and Geographic Reach of International Humanitarian Law' in Ben Saul and Dapo Akande (eds), *The Oxford Guide to International Humanitarian Law* (1st edn, Oxford University Press 2020)

Dupuy P-M, '2000–2020: Twenty Years Later, Where Are We in Terms of the Unity of International Law?*' (2020) 9 Cambridge International Law Journal 6 <https://www.elgaronline.com/view/journals/cilj/9-1/cilj.2020.01.01.xml?pdfVersion=true> accessed 13 April 2021

Hafner G, 'Pros and Cons Ensuing from Fragmentation of International Law' (2004) 25 Michigan Journal of International Law 849

Hage J, *Reasoning with Rules: An Essay on Legal Reasoning and Its Underlying Logic* (Springer Science + Business 1997)

——, 'Rule Consistency', *Studies in Legal Logic* (Springer 2005)

——, 'What Is a Norm?', *Studies in Legal Logic* (Springer 2005)

——, *Foundations and Building Blocks of Law* (Eleven International Publishing 2018)

Hage J and Waltermann A, 'Logical Techniques for International Law' in Dieter Krimphove and Gabriel Lentner (eds), *Law and Logic: Contemporary Issues* (Duncker und Humblot 2017)

Hage J, Waltermann A and Arosemena Solorzano G, 'Exceptions in International Law' in Lorand Bartels and Federica Paddeu (eds), *Exceptions and Defences in International Law* (Oxford University Press 2018)

Hodges W, *Logic* (Penguin 1977)

Koskenniemi M and Leino P, 'Fragmentation of International Law? Postmodern Anxieties' (2002) 15 Leiden Journal of International Law 553

MacCormick N and Weinberger O (eds), *Institutional Theory of Law: New Approaches to Legal Positivism* (Springer Netherlands 1986)

Marcos HJB and Guerra GR, 'Foxes in the Henhouse: Legal Critique to the "Jus Bellum Justum" Doctrine for Humanitarian Intervention through the Responsibility to Protect' (2020) 2 Revista Jurídica Unicuritiba 47 <http://revista.unicuritiba.edu.br/index.php/RevJur/article/view/4103> accessed 19 June 2020

Menezes W, *Tribunais Internacionais: Jurisdição e Competência* (Saraiva 2013)

Murphy SD, 'Deconstructing Fragmentation: Koskenniemi's 2006 ILC Project' (2013) 27 Temple International & Comparative Law Journal 293

Peters A, 'The Refinement of International Law: From Fragmentation to Regime Interaction and Politicization' (2017) 15 International Journal of Constitutional Law 671 <http://academic.oup.com/icon/article/15/3/671/4582635> accessed 23 January 2020

Searle JR, 'A Taxonomy of Illocutionary Acts' (1975) 7 Language, Mind, and Knowledge. Minnesota Studies in the Philosophy of Science 344 <http://conservancy.umn.edu/handle/11299/185220> accessed 16 February 2021

——, *The Construction of Social Reality* (Free Press 1995)

Waltermann A, *Reconstructing Sovereignty* (Springer 2019) <https://doi.org/10.1007/978-3-030-30004-3> accessed 19 June 2020