THE (ONTO)LOGICAL STRUCTURE OF LAW

A Conceptual Toolkit For Legislators

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Abstract

The work of a legislator is to contribute to the set of rules that gives structure to the 'world of law'. This world of law consists of all the facts, rules and other entities that exist through the application of legal rules. Logic may well be interpreted as a theory of the (logically) necessary relations between facts in the world. This article combines these two ways of looking at legislation and logic. It analyses a number of central legal notions such as right, duty, obligation, power and competence in order to provide insight into the structure of the world of law. The relevance of this insight for legislators is illustrated by means of an example about the transfer of a piece of land, which shows how facts in the world of law are glued together by different kind of rules. It is also illustrated at the hand of the question how law can affect the 'outside world' and how legislators can contribute to this impact by providing proper 'pathways through the world of law'.

Keywords: competence, direction of fit, duty, norm, obligation, pathway through the world of law, right, rule

1. Introduction

The link between logic and legislation is not the most obvious one. Logic provides a standard for the validity of arguments. And although legislators have to argue like other persons that perform intellectual jobs, there is no reason why the position of legislators is in this respect different from that of other mind workers. Yet, logic is particularly important for legislators, and to see why this is so we must take two steps. The first step is to adopt a particular perspective on the work of a legislator, the perspective according to which a legislator designs and constructs an abstract entity that will be described as the 'world of law'. The second step is to replace the interpretation of logic as a tool for the evaluation of arguments by the interpretation of logic as specification of the structure of the world. In case of legislation, the world of which the structure is specified is again the world of law. Both steps will be briefly elaborated.

1.1 Building the World of Law

The tasks of a legislator are manifold, because legislation can be used for many different purposes, such as founding an organisation, approving the wedding of an heir to the throne, ascribing sovereignty to the people, and validating the budget of a governmental department. The main use of legislation, however, is the creation of rules, and this use is the focus of the present article. However, even then many perspectives on legislation are possible. The creation of rules is a means to improve

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[1] This article is based upon, systematises, and adds to earlier publications of the author, in particular Hage and Verheij 1999, Brouwer and Hage 2007, and Hage 2005, 2007, 2011a and b, 2012, 2013a and b, and forthcoming.
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society, the outcome of a political process, and also an alternative for case law. Important as these perspectives may be, in this paper yet another perspective is adopted.To make the relevance of logic for legislation clear a rather abstract view of legislation is taken as starting point, namely the view of legislation as a means to (re)build the world of law. The basic idea is that law is a specialized, institutionalized part of social reality, the 'world of law', and that legislation is a means to modify this part of social reality. Using terminology that will be explained in the Sections 2 and 4, the world of law can be defined as the collection of all those facts and things (individuals) that obtain or exist as the result of the application of some legal rule. The specific perspective is that legislation can be compared to building and from this perspective I will sketch the main building blocks that are used in building the world of law.

These building blocks have traditionally been studied from the perspective of the general theory of law. Important studies in this connection are Bentham's *Of Laws in General* (Bentham 1970), Austin's *The Province of Jurisprudence Determined* (Austin 1954), Hohfeld's *Fundamental Legal Conceptions as Applied in Judicial Reasoning* (Hohfeld 1920), Ross' *Directives and Norms* (Ross 1968), Kelsen's *Reine Rechtslehre* (Kelsen 1960), and Hart's *Essays on Bentham* (Hart 1982). Perhaps less known to many lawyers is that much work on Law and Artificial Intelligence and on legal logic (many contributions to the *Artificial Intelligence and Law* journal; Von Wright 1963; Alchourrón and Bulygin 1971; Lindahl 1977; Prakken 1997; Prakken and Sartor 1997; Royakkers 1998; Lodder 1999; Sartor 2005; Lindahl and Odelstad 2013) is also highly relevant from this perspective.

1.2 Logic and Ontology

In the logical tradition of the last 150 years, logic has usually been conceived as the study of the validity of arguments.[2] The kind of validity at stake in this connection is deductive validity. An argument is considered deductively valid if and only if it is logically impossible that all the premises of the argument are true, while the argument's conclusion is false. A characteristic of this definition is that it relates the validity of arguments to what is (logically) possible. In this way the theory of what is possible and impossible plays a role in logic and it is quite plausible to reinterpret deductive logic as the study of logically necessary relations between the truth of descriptive sentences. Moreover, since the truth of sentences depends on the facts described by these sentences, logic is also a study of the necessary relations between facts. If it is a fact that all mathematicians are rational and also a fact that Willard is a mathematician, then necessarily it is also a fact that Willard is rational. Deductive logic is as much the study of such necessary relations between facts as a study of the validity of arguments.

In this article the relevance of logic for legislators will be shown by interpreting logic as the study of the necessary relations between facts, and in the present connection particularly the necessary relations between facts in the world of law. These necessary relations are in a sense the framework that must be stuffed by means of legislation. A thorough understanding of this framework is crucial for every competent legislator.

1.3 Overview of the Article

Basically, this article contain a study of the logical relations between a number of the most basic concepts of law, such as the concept of rule, norm, duty, obligation, ought, and competence. The foundations of the argument of this article will be laid in Section 2, which deals with language and its relation to facts and things (individuals). Section 3 continues that discussion by paying attention to the two directions of fit between on the one hand linguistic or language-dependent entities like sentences and rules and on the other hand the facts. These directions are the word-to-world direction of fit and the world-to-word direction of fit. Then the emphasis moves towards the content of the world, with discussions of three kinds of facts (Section 4), three kinds of legal rules (Section 5), facts and events in the world of law (Section 6), deontic facts and norms (Section 7), and rules and regulations (Section

[2] Anybody familiar with the mainstream literature about logic will recognise this characterisation. And yet, when I tried to find references to support this claim, I found many different circumscriptions of the nature of logic.

8). After these sections, the reader should have an impression of the framework that supports the world of law. The relevance of this framework will be illustrated in the Sections 9-11, which deal in some more detail with respectively the kinds of relations between facts in and outside the world of law, the structure of the world of law, and the interface between the world of law and the 'outside world'. The article is concluded in section 12, which points to the relevance of pathways through the world of law for proper legislation.

2 Language, Facts, and Individuals

As a starting point we can define the world as everything that exists. Part of this world is the 'world of law', the collection of everything that is based on legal rules. The only way to say something about the world, including the world of law, and about the facts and things that are in the world is by means of language. That is why the language that is used to describe the world strongly influences the kinds of entities that we recognise. Therefore, the discussion of the kinds of entities that exist, facts and things, starts with language.[3]

2.1 Sentences

For our present purposes the main distinction between linguistic entities is between descriptive sentences and terms. Properly speaking it is not sentences that are descriptive, but the uses of sentences. Sentences can be used for many different kinds of speech acts, including ordering, praising, asking, praying and describing (Austin 1954, Searle 1969). For the present purposes, the speech act of describing is the most important one, and in the following discussion sentences are assumed to be used for descriptive purposes.

Sentences are the bearers of truth values; they are either true or false. Examples of sentences, including some that are potentially controversial, are:

a. Jane is running.
b. Hohfeld is the owner of Blackacre.
c. It is forbidden to steal.
d. This is a beautiful landscape.

2.2 Facts and States of Affairs

As Strawson (1950) has pointed out, facts depend on language. A fact is always the fact that …, where the dots stand for a phrase expressed in some language. It is for instance a fact that 'I am in Lanaken'. However, facts also depend on the world, because it is the world, not language, which determines the facts that obtain. A language determines which facts can be expressed, the world determines which of the expressible facts actually obtain.

It is useful to distinguish between expressible facts and actual facts. An expressible fact will be called a *state of affairs*. States of affairs are by sentences. For instance, the sentence 'It's raining' expresses the state of affairs that it is raining. Which states of affairs there are depends only on the power of the language in which the states of affairs are expressed.

Some states of affairs *obtain* in the actual world; these are called *facts*. A sentence that expresses a fact is *true*. False sentences express *non-facts*, states of affairs that do not obtain. Whereas states of affairs depend on language only, facts depend both on language and the world, and – as we will see in Section 4 - sometimes also on rules and standards.

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[3] This article is written in English, and much literature on jurisprudence has been written in English or another Indo-European language. As a consequence, the ontological presuppositions of Indo-European languages may have exerted a considerable influence on jurisprudence in general and the following discussion in particular. Although this is unavoidable, it is something to keep in mind.

2.3 Terms and Individuals

Unlike sentences, terms do not have truth values, but they stand for (denote) 'things' in the world. Logicians call these 'things' that are denoted by terms 'individuals'. Examples of such individuals are President Poetin (a real individual), Mount Kilimanjaro, the house in which I live, the piece of music to which I am listening, the smallest prime number, a fleeting thought, and the moment at which the sun will rise in the year 3012 A.D.

Terms can have different grammatical shapes. *Proper names* are one such a shape, as in 'John walks'. Proper names can stand for persons, but also for buildings ('the Empire State Building'), cities ('Paris'), and events ('the Olympic Games').

Definite descriptions, like 'the earliest possible opportunity' are a second shape of terms, as in 'The form is to be completed at the earliest possible opportunity', which has two terms: 'The form' and 'the earliest possible opportunity'. Definite descriptions are combinations of predicators[4] (in the example 'earliest possible') in a construction which makes clear that one or at most a definite number of entities are denoted. Such a construction is often created by using the definite particle ('the'). A special kind of definite description that is particularly important for the present purposes denotes a rule, as in 'The rule that cars count as vehicles is valid in the Netherlands'.

Function expressions like 'the mayor of London' are a third shape of terms. A *function expression* is a term which is defined by means of one or more other terms. 'The mayor of London' is defined by means of the term 'London' which is itself a proper name. Another example would be 'the oldest child of the King and the Queen'. In this last example, 'the King' and 'the Queen' are both (elliptical) function expressions too, denoting the present King and Queen of a particular country. A function expression can be used as a definite description, as is illustrated by the example about the mayor of London.

Characterizations of *action types* are a fourth kind of terms. An example is 'to steal' as in 'It is forbidden to steal'.

Finally, sentence-like phrases such as 'Medusa is ugly' can also be terms, namely when they are used to refer to states of affairs, as in 'Jason believes that Medusa is ugly'. States of affairs are rather peculiar individuals because of their explicit dependence on language. That they are individuals becomes clear from the phenomenon that one state of affairs may be preferred over another. For instance, Henry, who loves to jog, may prefer the state of affairs that it is raining over the state of affairs that the temperature is over 30 degrees Celsius. Moreover, it is possible to quantify over states of affairs as in 'Everything that Jane believed turned out not to be the case'.

The terms that are most suitable to denote states of affairs involve the use of the descriptive sentence that expresses the state of affairs. One and the same sentence, for instance the sentence 'It's raining', may be used to describe a part of reality, in which case it is true or false, and to refer to an individual namely the state of affairs that it is raining, in which case it singles out that state of affairs to say something about it.

2.5 Rules and Factual Counterparts of Rules

Rules resemble states of affairs in the sense that they also depend for their existence on language. Just as a state of affairs is always the state of affairs that …., where the dots stand for a descriptive sentence in a particular interpretation, a rule is always the rule that … where the dots stand for the content of the rule, something that can be expressed in language. An example would be the rule that skate boards count as vehicles for the purpose of traffic rules.

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[4] Predicators are expressions which are typically used to say something about one or more individuals. They usually are verbs or contain a verb in combination with predicates and or nouns. Examples of predicators are 'bribes' as in 'If a person bribes an official …', and 'is defect', as in 'If the sold good is defect, the seller must replace it'.

Suppose that there exists a rule to the effect that skate boards count as vehicles in the sense of some traffic regulation. Because this rule exists, skate boards count as vehicles in the sense of this traffic regulation. To state it differently: because the rule exists, it is a fact that skate boards count as vehicles. This fact, that skate boards count as vehicles, is not the same fact as the fact that the rule 'Skate boards count as vehicles' exists. The former fact is about skate boards; the latter is about a rule.

Apparently, a rule can lead to facts which can be described by re-using the formulation of the rule content. 'Skate boards count as vehicles' is both a descriptive sentence that expresses a state of affairs, and expresses the content of a rule. Moreover, the existence of this rule tends to go hand in hand with the state of affairs being a fact. Because it is convenient to have a term which denotes this phenomenon, I propose to use 'factual counterpart of a rule'. The factual counterpart of a rule is a fact which corresponds to the content of an existing rule and which obtains because of the existence of this rule.[5]

3 Directions of Fit

A main, or even – as will be argued in Section 8.1 – the main, function of rules is to connect facts with each other. A proper understanding of rules requires therefore an initial understanding of the different kinds of facts that exist. However, to complicate the account, a proper understanding of the different kinds of facts requires an initial understanding of rules. To break out of the hermeneutic circle the argument of this article starts with a brief account of different kinds of facts (Section 4), builds upon that account to give a first account of rules (Section 5), and then returns to facts (Sections 6 and 7.1-5) and then again to rules (Sections 7.6 and 8). However, as a preliminary step it is necessary to pay some attention to the phenomenon that two 'directions of fit' can be distinguished in the relation between on the one hand language dependent entities such as sentences, speech acts and rules and on the other hand the world. These directions of fit are the topic of the present section.

The distinction between the word-to-world and the world-to-word direction of fit in its modern form stems from Anscombe (Anscombe 1976, 56) and was made popular by Searle who used it, first to distinguish between kinds of speech acts (Searle 1979b), and later also to explain the phenomenon of constitutive or counts-as rules (Searle 1995, 43-51; 2010, 97).

The basic idea is that descriptive sentences, or rather utterances thereof, consist of words that aim to fit the world. These sentences are true and the speech acts in which they are used are successful in the sense of 'true', if and only if the facts in the world 'fit', presumably in the sense of 'correspond to', what these sentences express. This is the word-to-world direction of fit, because the facts are assumed to be there first, and the sentence (words) are adapted to fit the facts (the world).

For the world-to-word direction of fit we must distinguish between three kinds. For all three kinds holds that somehow the facts in the world are adapted, in order to 'fit' what is expressed by the words. One case is when the words function as a *directive*, as for example in 'Close the door!'. Such an order aims at having somebody close the door, and if the order is successful in the sense of 'efficacious', the door will be closed and the facts in the world fit the content of the order: the door is closed. In this case the relation between the utterance of the order (the performance of the speech act) and the facts in the world is causal by nature.

A second case concerns constitutive speech acts, such as 'I hereby baptise you the Herald of Free Enterprise'. If such an act of baptising is successful, the facts in the world come to match the content of the speech act and the ship bears the name 'Herald of Free Enterprise'. In this case the relation between the *performance* of the speech act and the facts in the world is rule-based by nature (see Section 4).

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[5] Often it is not easy to tell a factual counterpart of a rule from the rule itself, but if it is an appropriate reaction to say 'That is (not) true' then what was said should be interpreted as the expression of a factual counterpart, and otherwise not.

The third case concerns the effects of rules. If a rule exists, it affects the facts in the world. Take for instance the rule that mayors are competent to issue emergency regulations. If this rule exists, it makes the mayor of Sun City competent to issue emergency regulations. This world-to-word direction of fit will be discussed in more detail in Section 8.1. For the present purposes if suffices to note that some facts, as in this example the fact that the mayor of Sun City is competent to issue emergency regulations, obtain as the result of the application of a rule.

4 Kinds of Facts

When it comes to facts, we often take some form of ontological realism for granted. We assume that facts exist independent of what we believe about them or whether we accept them as being facts. This may be a good approach for facts such as that the Pacific Ocean is mostly filled with water, but for many facts this is not adequate. Think for instance of the facts that the United Nations have their seat in New York city, and that tortfeasors are liable to pay damages.

In this connection it is useful to distinguish between three kinds of facts.[6] This usefulness reflects the phenomenon that we tend to distinguish between different ways in which something can be a fact. This tendency is reflected in natural language, which allows constructions like 'It is a fact that Brussels is the capital of Belgium', 'It is a fact that Clarence chairs this meeting', 'It is a fact that John has the obligation to pay damages to Charlotte', and perhaps even 'It is a fact that chocolate tastes better than spinach'. However, the possibility to distinguish between categories of facts does not commit to the view that all of these categories have members.

The first category consists of facts of which it is assumed that they are mind-independent. These facts exist, if they exist, no matter whether anybody is aware of them, knows what they are, or believes in their existence. They include – at least, that is what most people assume - that the highest mountain on Earth is Mount Everest, that computers were invented after 1700 AD, that there are Higgs particles and that the amount of solar systems in the universe equals some as yet unknown number. We will call them *objective facts*. Notice that the issue whether a particular fact belongs to the type 'objective facts' may be disputed. Somebody may be sceptical about the 'objective' existence of particles the existence of which can only be inferred from other facts, and then it is questionable whether the existence of the Higgs particle would count as an objective fact for this person.[7]

The second category consists of facts that derive their existence from being recognised as facts. These *recognition-based facts* exist because they are recognised or accepted as facts by sufficiently many and sufficiently relevant members of some social group. The precise conditions of existence of these facts are still object of discussion[8], but typical examples from Belgium are that sunny weather is good weather, that there is nothing wrong with gay marriages, and that legislation is a source of law. The existence of facts in social reality depends on what the members of a social group believe or accept to be the case, but they do not depend on the beliefs or acceptance of single persons. For example, the seat of the United Nations is New York city, whether some particular person believes it or not. However, if nobody believes this anymore, New York city has stopped being the seat of the UN.

The third category consists of facts the existence of which is attached by rules or standards to the existence of other facts, or to the occurrence of events. Examples of such *rule-based facts* are that in chess the person who has check-mated his opponent's king has won the game, that nobody can chair the hockey club for more than two subsequent periods, that 3+5 equals 8, that in the EU, states are in general not allowed to subsidize local industries, and that a car that enables the driver to drive more

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6 This distinction was inspired by a distinction made by Leiter (2002, 969-989), between different kinds of objectivity.

7 Even more fundamentally, one may wonder whether adoption of the view that the world as set of all facts is language-dependent does not commit to the view that there are no objective facts at all. In the present article, that line of thought will not be explored any further.

8 See for instance Searle 2010 and Tuomela 2010.

than 500 miles without becoming tired is a good car. All facts in the world of law are by definition rule-based facts. More in particular they are based on *legal* rules.[9]

Seemingly there is a fourth category of facts, exemplified by the 'facts' that chocolate tastes better than spinach and that Peter Green is a better blues guitarist than Joe Bonamassa. However, many people consider 'facts' like these to be mere expressions of personal preference or taste, and for that reason not as 'real' facts. For the present purposes, this fourth category will be ignored.

5 Three Kinds of Legal Rules

This section discusses three kinds of legal of legal rules: counts-as rules (Section 5.1), fact-to-fact rules (Section 5.2), and dynamic rules (Section 5.3). It is neither claimed that these three kinds exhaust the space of legal rules, nor that rules that belong to one of these kinds are always legal rules. As a matter of fact a fourth kind, how-to rules, will be briefly mentioned in the discussion of counts-as rules. However, the possibility to distinguish between counts-as, fact-to-fact, and dynamic rules already increases our insight into the world of law considerably.

5.1 Counts-as Rules

Counts-as rules as they are used in law make that some kinds of individuals, including events, legally also count as individuals of some other kind.[10] For instance, under suitable circumstances, the delivery of a good counts as the transfer of the ownership of hits good, or a vote in parliament may count as the adoption of a Bill. Typically, the operation of a counts-as rule makes that one and the same 'individual' has two or more different statuses. Something is not only a vote, but also the adoption of a Bill; not only a delivery, but also a transfer.

Sometimes several individuals together count as one new individual. Moreover, counts-as rules can be applied in a chain, building one status on top of another. For instance, the individual votes of the members of parliament together count as a vote in parliament; this vote of parliament also counts as the adoption of a Bill, and the adoption of the Bill counts as the creation of legal rules.

An important function of counts-as rules is to include individuals into the world of law. In Section 10 we will consider an example about the transfer of a piece of land that includes the transformation of signing a piece of paper into engaging into a sales contract, and the transformation of an event at a notarial office into the delivery of the land to the new owner. The former events do not belong to the world of law, since they are not based on a legal rule; the latter events do.

Often it is necessary to follow a particular procedure to make one thing count as something else. A parliamentary vote is a case in point; drafting a sales contract for a house is another example. These procedures are specified by means of *how-to rules*, and only if these how-to rules are complied with the execution of the procedure counts as something else, for instance as adopting a Bill, or as engaging into a contract, or as undertaking contractual obligations.[11]

5.2 Fact-to-fact Rules

Fact-to-fact rules make that one kind of fact tends to go together with some other kind of fact, where the latter fact depends on the former. The relation between the kinds of facts is timeless, in the

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[9] Arguably, also acts based on legal values, legal standards, or legal principles belong to the world of law. This is a line of thought that will not be explored here, however.

[10] Counts-as rules can also bring about that some facts count as other facts, but most of the times this is derivative from some kinds of individuals also counting as individuals of another kind. For instance the fact that a book was delivered counts as the fact that the ownership of the book was transferred, because the delivery counts as a transfer. This theme is explored a little more in Hage 2005d.

[11] The relation between how-to rules and counts-as rules is the same as that between respectively rules of change and rules of recognition in Hart's theory of Law (Hart 2012, 94-96). As a matter of fact, rules of change are a kind of how-to rules, while rules of recognition are a kind of counts-as rules.

negative sense that the one kind of fact is not the occurrence of an event after which the second kind of fact comes into existence.[12]

Typical legal examples of fact-to-fact rules are the rules that

- the owner of a good is allowed to use this good;
- the mayor of a municipality has the competence to issue emergency regulations for that municipality;
- house owners must keep the pavement before their houses clean;
- the king of Belgium is the commander in chief of the Belgian army.[13]

Characteristically, all the example rules attach legal consequences to the possession of a certain legal status. Important legal examples of fact-to-fact rules are rules that impose legal duties and rules that confer competences on people with a particular status. We will return to this point in Section 11.3.

5.3 Dynamic Rules

Dynamic legal rules determine, in combination with the events that take place, how the world of law develops in time. They attach new facts, or modify or take away existing facts, as the consequence of an event. Examples of events to which a dynamic rule attaches consequences are that:

a. Jane formally promised Gerald to give him €500, which makes that Jane incurred the obligation towards Gerald to pay him €500;
b. Eloise was appointed as chair of the French parliament, which makes that from the new term on, Eloise chairs the French parliament;
c. a creditor informed his debtor that the latter will not have to repay the money before next year, which makes that the debtor only has to repay his debt next year;
d. the legislator derogated a legal rule, which makes that the derogated rule is not valid law anymore.

Important kinds of dynamic rules are the rules that lead to obligations (see Section 7.3) and the rules that make it possible to modify the law by means of legislation (see Section 8.3).

In opposition to dynamic rules, counts-as rules and fact-to-fact rules might be classified as status rules. This opposition between static and dynamic rules corresponds to respectively the *Rechtsstatik* and the *Rechtsdynamik* as described by Kelsen (1960, Ch. IV and V).

6 Facts and Events in the World of Law

The three mentioned kinds of rules fulfil an important role in connecting the facts in the world of law, both statically (counts-as and fact-to-fact rules) and dynamically. To obtain a better picture of how these rules fulfil their functions it is useful to take a closer look at some facts and events as they obtain, respectively take place, in the world of law.[14]

If somebody acted unlawfully and thereby caused damage to somebody else in a legally protected interest, the tortfeasor incurs the liability to compensate the damage. This connection between the damage causing event and the resulting liability is brought about by a dynamic legal rule. Before the event there was no liability, and after the event the tortfeasor has become liable. A new fact in the world of law, the fact that the tortfeasor is under an obligation to compensate the damage, has come about.

Dynamic rules can be used by agents to bring about legal consequences. For example, a person may migrate from one municipality to another municipality to pay less real estate tax. Some dynamic legal rules are especially meant to empower agents to intentionally bring about legal consequences. In

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[12] Notice that this timeless relation between the conditions and the consequences of a fact-to-fact rule is compatible with the existence in time of the rule. Only as long as the rule exists, the condition facts and the conclusion facts go together in a timeless fashion.

[13] This last rule may also be interpreted as a counts-as rule.

[14] This section runs ahead of a more extensive discussion in the Sections 9 and 10.

private law there are rules that make it possible for fathers to legally recognize children born outside a marriage, and rules that empower agents to create legal obligations through contracting.

A particularly interesting case of rules that empower agents to bring about intentional changes in the world of law are the rules to govern legislation and that make it possible to create, modify or abrogate legal rules by means of it. Legislation is governed by how-to rules that specify how to create law by means of legislation and what counts as a valid statute or by-law, and by dynamic rules that attach changes in the set of valid legal rules to a valid legislative event. (See also Section 8.3)

Contracts, the recognition of children and legislation are all examples of 'juridical acts', acts to which the law by means of dynamic rules attaches legal consequences for the reasons that the agents intended to bring about these legal effects through their juridical acts (Hage 2011a and b). In order to bring about particular legal consequences by means of a juridical act, the agent must have the competence to do so. This competence is a legal status, assigned by a fact-to-fact rule.

Legal duties and competences are attached to the possession of a particular legal status. The minimal status to which these can be connected is the status of legal subject. This status tends to be assigned by law to human beings - 'natural persons' - and also to some organisations which are then called 'legal persons'.

The possession of a legal status may be the result of an event and then it is attached to this event by a dynamic rule. An example is the status of mother of a child, which is assigned to a woman as the consequence of giving birth to this child (or some earlier event). Another example is the status of president of a state which is the result of being appointed as president.

Legal status can not only pertain to persons but also to things. For example, The city of The Hague has the status of being the seat of the International Court of Justice.

Legal status is often attached to another legal status by means of a fact-to-fact rule or a counts-as rule. We have already seen the examples of a delivery that counts as a transfer, and the king of Belgium who is also the commander in chief of the Belgian army. The possession of a right is perhaps the most prominent example of a legal status to which other statuses are attached by means of fact-to-fact rules. For example, the right of ownership brings with it the competence to alienate the owned good, and also the permission to use this good. Arguably the function of many rights is to be a stepping stone for attaching other legal statuses (Ross 1957). See also Section 11.3.

7 Deontic Facts and Norms

Arguably, the ultimate function of law is to guide human behaviour (Fuller 1963, 46). Law uses different techniques to perform this function, but possibly the most important amongst these techniques is to prescribe behaviour and to attach sanctions to non-compliance. Therefore duties, obligations and the legal ought that follows from duties and obligations, as well as the norms by means of which law creates duties and obligations deserve special attention.

7.1 Preliminaries

Before going into details concerning obligations and duties, two preliminaries must first be dealt with. The first one is terminological. Law uses different ways to prescribe behaviour, and these different ways will be discussed in some detail in the following subsections. To that purpose a terminological distinction will be made between duties, obligations, what is legally obligated and what legally ought to be done. Although the ways these notions are distinguished has *some* basis in actual English usage, it must be conceded on beforehand that this basis is weak. The words 'duty', 'obligation', obligated', and 'ought' are often used interchangeably. When the present article makes terminological distinctions, these distinctions are therefore to a large extent stipulative where the word use is concerned. Nevertheless it is claimed that the different words denote real differences.

The second preliminary concerns the possibility of deontic facts. Many academics have been raised with the fundamental distinction, if not the gap, between is and ought. And it is true that for instance the fact that people do not lie is different from the fact that people ought not lie. However, as this

example already indicates, the gap between is and ought does not preclude us from speaking of the fact that people ought not lie. Of course, it is possible that argue that this 'fact' is not a real fact, and that the sentence is merely a means to emphasize that people ought not lie. However, it is also possible to take the opposite view and to admit that it can be a fact that people ought not lie. This fact would most likely not be an objective fact, but rather a rule-based fact, but rule-based facts are arguably also facts. In the present article this opposite view is adopted, and it is assumed that there can be rule-based deontic facts, which include the presence of legal duties and obligations, and the facts that, for example, somebody is legally obligated or legally ought to compensate somebody else's damage.[15]

7.2 Duties

Mandatory rules create either duties or obligations, and in that way obligate people to act in a particular way. Duties and obligations are not the same things.

WHAT IS A DUTY?

A *duty* to do something is what one is obligated to do as a consequence of a particular status, position or role (White 1984, 21-26). It is for instance, the duty of a judge to apply the law, and the duty of a house-inhabitant to clear away the snow from the pavement before the house. The most general duty is a duty that holds for 'everyone'; this duty (as are many other duties) is connected to the role of being human.

A duty can also be a duty to refrain from doing something, such as the duty not to disturb the peace in church. These duties are also connected to roles and positions, as in the duty for all traffic participants not to create dangerous situations.

Apart from duties to do something or to refrain from doing something, there can also be duties to do things in a particular way, or to refrain from doing things in a particular way. Let us call them 'how-to-duties'. How-to-duties are also connected to roles or positions. Examples are the duty to drive on the right hand side of the road, which holds for all drivers, and the duty not to score exams too strictly. Notice that these latter duties are compatible with permissions not to drive, respectively the duty to score exams. It is for example permitted not to drive a car, but also a duty to drive cars on the right hand side of the road.

THE ELEMENTS OF A DUTY

A duty contains three elements:

1. the addressee(s) of the duty;
2. the modality of the duty;
3. the object of the duty.

The addressee of a duty may be:

i. one or more specific agents (e.g. John, or Mary and Harold);
ii. all agents that belong to a particular category (e.g. car drivers, or – more specific- left handed burglars who were born on a Sunday);
iii. everybody (as in 'everybody must love his neighbour').

The modality of the duty is either that something is obligated or that something is forbidden. If the modality is that something is forbidden, the duty is also called a prohibition.

The object of the duty is:

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[15] For more extensive arguments why there can be deontic facts, see Hage 2013 and Draft..

a. either the action type to which the duty commits[16],
b. or the mode of performance on an action type.

The modality combines with the action type or action mode that is obligated, respectively forbidden, which leads to four possible combinations:

1. the performance of some action type is obligatory ('pay taxes', 'tell the truth' or 'pay Gerald €100');
2. the obligatory nature of performing some action in a particular way ('drive on the right');
2. refraining from some type of action is obligatory ('do not steal'); or
4. the obligatory nature refraining from doing something in a particular way ('do not score exams malevolently').

Figure 1: The structure of duties provides a graphical representation of the structure of duties.

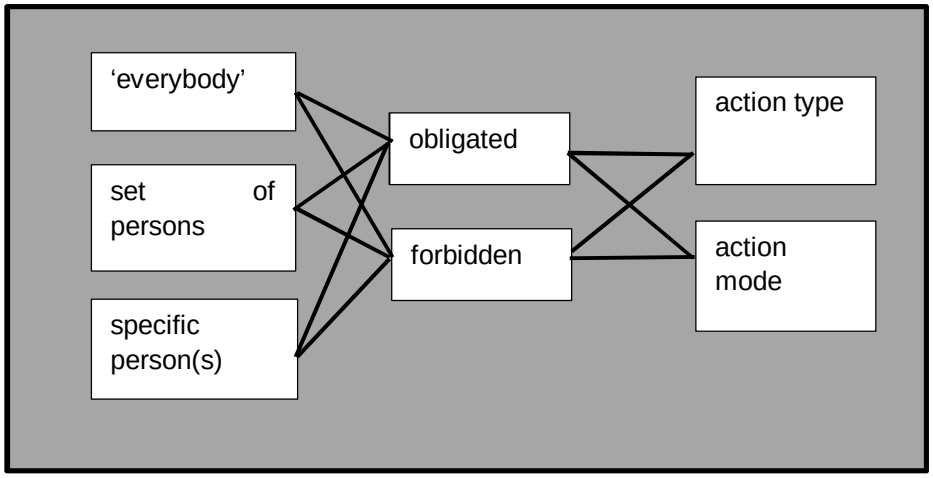

Fig. 1: The structure of duties

DUTY/3 AND DUTY/4

The structure of duties can also be made explicit by linguistic means. To this purpose we will introduce the predicators Duty/3 and Duty/4.[17] The former is used for duties to perform some kind of action or to refrain from doing so; the latter for duties to perform some kind of action in a particular way, or to refrain from doing so.

The predicator Duty/3 goes with parameters for the addressee(s) of the duty, for the duty modality (perform or refrain), and for the action type that should be performed or refrained from. The following three sentences express that respectively that John has the duty not to murder SuzyQ, that card drivers have the duty to carry a driver's license, and that everybody has the duty not to lie[18]:

- Duty(john, refrain, murder(SuzyQ));
- (*x*)Car_driver(*x*) ⊃ Duty(*x*, perform, carry_driver's_license);
- (*x*) Duty(*x*, refrain, lying).

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[16] This action type may be the realisation of some state of affairs, as in 'killing', or 'closing the door'. It may also be attempting to realise a state of affairs as in 'promoting optimal health care'.

[17] The 3 and the 4 stand for the number of parameters of the predicator Duty.

[18] The operator ⊃ stands for the material conditional.

The predicator Duty/4 goes with parameters for the addressee(s) of the duty, for the duty modality (perform or refrain), for the action type that should be performed in a particular way or not, and for the way (mode) in which the action type should (not) be performed.

1. The formalisation of the first three parameters is the same as for Duty/3.
2. The action mode is denoted by a term (e.g. 'carefully', or 'cruelly').[19]

The following example sentences express the presence of a duty to do something (not) in a particular way:

- Duty(john, refrain, murder(SuzyQ), cruelly);
- (*x*)Car_driver(*x*) ⊃ Duty(*x*, perform, drive, on_the_right).

DUTIES FOR CONDITIONAL ACTION

Some duties need only be complied with if certain conditions are fulfilled. An example is the duty for car driver's to turn on the car lights when it is dark. This duty exists always, also when it is not dark, but the situation for complying with it is not always present. Therefore the following formalisation will *not* do:

(*x*)(Dark & Car_driver(*x*) ⊃ Duty(*x*, perform, turn_on_car_lights))

Perhaps the best way to represent conditional duties is by including the condition as a modifier on the action type, analogous to the action mode. Since this is essentially a formalisation problem, the issue will not be explored here any further.

SOME LOGICAL CHARACTERISTICS OF DUTIES

It is possible to have two (or more) duties that conflict in the sense that it is (logically) impossible to comply with all of them. For example, it is possible that Caroline has the duty to vote in her hometown on Sunday. To fulfil that duty, she must travel home on Saturday evening. However, she must also stay with her mother who is seriously ill, and who lives at quite some distance from Caroline's hometown. Although it is not the case that Caroline both ought to stay with her mother and to go home (see Section 7.5), she does have two duties that she cannot both comply with.[20]

To allow for the possibility of conflicting duties, the following two sentences should be considered consistent:

Duty(agent, perform, action_type)
Duty(agent, refrain, action_type)

Since the sentences

Duty(agent, perform, action_type)
~Duty(agent, perform, action_type)

should still be considered inconsistent, it should be impossible to derive

~Duty(agent, perform, action_type)

from

Duty(agent, perform, action_type).

---

[19] As Michal Araszkiewicz pointed out to me, there may be a series of modes, as in murdering somebody particularly cruelly. As we will see later, there are reasons to treat conditional duties as duties with a modification of the action type.

[20] That is is possible to have such conflicting duties can be seen from the fact that the violation of one of these duties may be considered unlawful and lead to liability for damages. This is particularly the case if the presence of conflicting duties is to be blamed on the person who suffers the conflict (*culpa in causa*). Interestingly, the existence of a conflicting duty is sometimes regarded as a reason why non-compliance is *not* considered unlawful, because of *force majeure*.

A duty to perform an act in a particular way does not imply the duty to perform that kind of act. Therefore it should not possible to derive

Duty(john, refrain, murder(suzyq))

from

Duty(john, refrain, murder(suzyq), cruelly).

In fact, the two sentences

Duty(john, perform, murder(suzyq), gently)

and

Duty(john, refrain, murder(suzyq))

should be considered consistent.[21]

7.3 Obligations

WHAT IS AN OBLIGATION?

Where a duty is connected to a position or role, *obligations* are the consequences of events. Some obligations are undertaken voluntarily, most notably by contracting or promising. For example the event that Peter promised Quintus to do A leads to the fact that Peter is under an obligation towards Quintus to do A.

Other obligations are not undertaken voluntarily. An example would be that Brad by accident caused damage to Cecile. This event results in the obligation to compensate the damage.

As these two examples illustrate, obligations are always *directed*. A person P is under an obligation towards person Q to do A. Normally this goes together with a *claim* of Q against P that the obligation is performed.[22]

THE ELEMENTS OF AN OBLIGATION

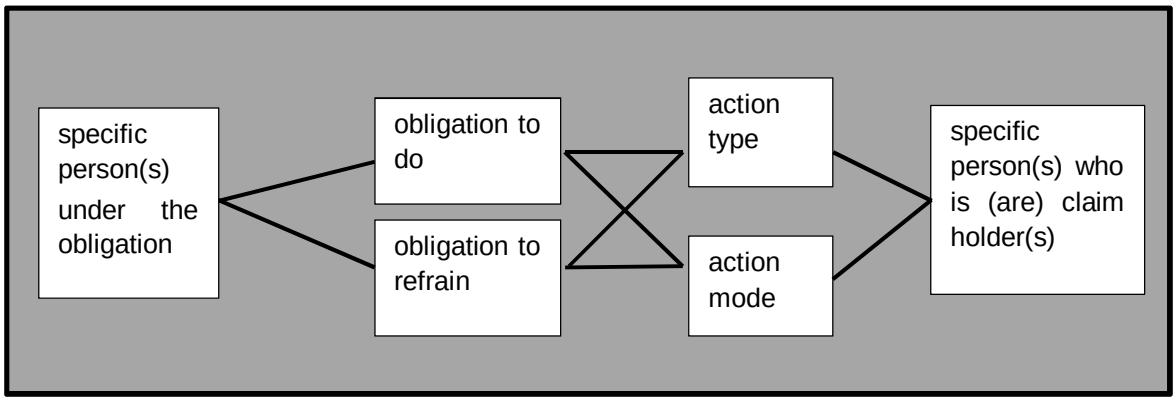

Fig. 2 The structure of obligations

Because obligations are by definition the results of concrete events, they are deontic relations between specific persons.[23] The distinction between specific persons, categories of persons and

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[21] Here and in the following subsections I write that some sentences 'should be' (in)consistent. The reason why I chose this vague terminology is that I do not want to limit the value of the analysis to a particular formal system. My point is that logical systems adequate for modelling the deontic relations analysed here should *represent* the sentences as (in)consistent.

[22] The law knows some exceptional circumstances where such a claim is lacking, for instance in the case of *obligationes naturales* and *stipulationes alteri*. Cf. Zimmerman 1996, 7-10 and 34-45.

everybody as the addressees of duties does not apply to obligations. However, obligations can both be obligations to do something and to refrain from doing something, and this something may both be an action type or an action mode. This is graphically represented in Figure 2: The structure of obligations.

OBLIGATION/3 AND OBLIGATION/4

The logical structure of obligations can also be represented by linguistic means. To this purpose we will introduce the predicators Obligation/4 and Obligation/5. The former is used for duties to perform some kind of action or to refrain from doing so; the latter for duties to perform some kind of action in a particular way, or to refrain from doing so.

The predicator Obligation/4 goes with parameters for the addressee(s) of the obligation, also called the 'debtors', for the beneficiaries of the obligation, also called the 'claim holders', for the obligation modality (perform or refrain), and for the action type that should be performed or refrained from. The following two sentences express respectively that John is under an obligation (contractual, we shall assume) toward SuzyQ's husband not to flirt with SuzyQ, and that Eric is under an obligation toward Jack to play guitar on his new album:

- Obligation(john, husband(suzyq), refrain, flirt_with(suzyq));
- Obligation(eric, jack, perform, play_guitar)

The predicator Obligation/5 goes with parameters for the addressee(s) of the obligation, for the beneficiaries of the obligation, for the obligation modality, for the action type that should be performed in a particular way or not, and for the way (mode) in which the action type should (not) be performed.

1. The formalisation of the first four parameters is the same as for Obligation/4.
2. The action mode is denoted by a term (e.g. 'carefully', or 'cruelly').

The following example sentences express respectively that John is under an obligation towards SuzyQ not to murder her cruelly and that the president of France is under an obligation to Van Rompuy to support him timely:

- Obligation(john, suzyq, refrain, murder(suzyq), cruelly)
- Obligation(president_of(france), van_rompuy, perform, support, timely)

SOME LOGICAL CHARACTERISTICS OF OBLIGATIONS

Having an obligation is not the last word concerning what one ought to do (see Section 7.5) and it is possible to have conflicting obligations. An example would be the case that Jane promised her new friend that she would spend the evening with him and promised her old friend to collect her clothes that same evening. Therefore the following two sentences should be considered consistent:

Obligation(agent, claim_holder, perform, action_type)

Obligation(agent, claim_holder, refrain, action_type)

An obligation to perform an act in a particular way does not imply an obligation to perform that kind of act. So it should not possible to derive

Obligation(john, suzyq, refrain, murder(suzyq))

from

Obligation(john, suzyq, refrain, murder(suzyq), cruelly).

---

[23] Michal Araszkiewicz pointed out that one can promise a reward to, for instance, whoever brings back my lost dog. This would lead to an 'undirected obligation'. I am not completely sure that this is correct. Possibly the obligation only comes into existence as soon as somebody brought the dog back, and then the claimant is individualised.

In fact, the two sentences

Obligation(john, suzyq, perform, murder(suzyq), gently)

and

Obligation(john, suzyq, refrain, murder(suzyq))

should be considered consistent.

7.4 Being Obligated

Although being under an obligation and having a duty are different things, they have in common that they both provide a reason why something ought to be done. This common element in obligations and duties will be expressed by the word 'obligated'. This is an artificial term, since it seems that the English language does not have a word to denote the common element of duties and obligations.[24]

To facilitate the following discussion of being obligated, we will ignore duties and obligations to do something in a particular way. For the same reason it is also assumed that duties and obligations address a single individual called 'Agent' and concern the performance of an action type 'Action'.

HAVING A DUTY AND BEING OBLIGATED

Being under an obligation and having a duty both involve that the addressee of the duty or the obligation is obligated to do what she is under the obligation or has the duty to do.

The operator Obligated/3 is used to express that an agent is obligated to perform (or refrain from) some action type.

Logically, the relation between being under a duty and being obligated can then be expressed by the following axiom:

(*agent*)(*action*) Duty(*agent*, perform, *action*) ⊃ Obligated(*agent*, perform, *action*)

BEING UNDER AN OBLIGATION AND BEING OBLIGATED

The relation between being under an obligation and being obligated is expressed by the following axiom:

(*agent*)(*action*)(*claimant*) Obligation(*agent*, *claimant*, perform, *action*) ⊃
Obligated(*agent*, perform, *action*)

As becomes clear from this example, the Claimant drops out in the step from having an obligation to being obligated. The reason is that being obligated is not directed towards a claimant.

BEING OBLIGATED AND DEONTIC INHERITANCE

Deontic inheritance is the phenomenon that if performing some kind of action involves or otherwise necessitates performing some other kind of action, being obligated to perform the first kind of action implies being obligated to perform the second kind. Deontic inheritance occurs between cases of being obligated, but not between duties or between obligations. Let us consider some examples.

Joan contracted to deliver her house to Gerald. As a consequence she is under an obligation and also obligated to deliver her house to Gerald. Delivery of real estate takes place by signing a notarial deed. Joan did not contract to sign the deed, and therefore she is not under an obligation to sign it. But she is obligated to do so, because signing the deed is the only way to perform what she was obligated to do, namely to deliver the house.

A man is chased by members of the Mafia who want to kill him. He fleas into Tom's house and begs Tom to hide him. Let us assume that Tom is under a duty to save human lives where possible, and

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[24] We will see in Section 7.5 that 'ought' does not represent this common element.

therefore obligated to protect this man. When the Mafia gang asks Tom whether he has seen anybody, Tom is obligated because of this duty to lie and tell the Mafia that he did not see anybody. But Tom is not under a duty to do so; he has no duty to lie, because there is no deontic inheritance between duties. In fact, Tom is under a duty not to lie, and therefore also obligated not to lie.

Let us introduce the relation Involves/2 which has two action types as its parameters.

Involves(actiontype1, actiontype2)

means that performing an act that belongs to ActionType1 necessitates performing an act that belongs to ActionType2[25]:

N(*x*)Performs(*x*, actiontype1) ⊃ Performs(*x*, actiontype2)

This involvement may be based on conventions, as in the example of the notarial deed. It may also be based on causal relations, as in the example of the Mafia. With the help of this relation, deontic inheritance can be characterised as follows:

N(x)(Obligated(*x*, perform/refrain, *y*) & Involves(*y*, *z*) ⊃ Obligated(*x*, perform/refrain, *z*))

CONFLICTS IN BEING OBLIGATED

Since the logical step from a duty or an obligation to being obligated is without exceptions, and since duties and obligations can conflict amongst each other, there can be conflicts in being obligated without inconsistency. So the sentences

Obligated(agent, perform, action)

and

Obligated(agent, refrain, action)

can be true simultaneously. A case in which such a dilemma occurs is for instance when an agent has made a promise to do something, which leads to an obligation to do what was promised, while the circumstances of the situation involve a duty to do something else. Then there is a conflict between an obligation and a duty, and the agent who faces this conflict is both obligated to do what she promised and obligated to refrain from doing it. This is a practical conflict, but not an inconsistency. Regrettably, practical conflicts sometimes occur.

7.5 Ought to do

It is not possible that somebody morally or legally both ought to do something and ought or even is permitted to refrain from doing it. But it is possible that somebody legally ought to do something while he is morally permitted to do it, or even morally ought to refrain from doing it.

Judgments of the ought-to-do type are summaries of the reasons why an agent has to do something or has to refrain from doing it. In that sense, ought-to-do judgements are always relative to sets of reasons. If these reasons coincide with the set of all reasons from a particular point of view, such as the legal or the moral point of view, the ought judgment expresses what legally or morally ought to be done.

For the purpose of the present discussion we will confine ourselves to the legal ought only.

The following equivalences, where ‘Od’ stands for ‘ought to do’, ‘Pd’ stands for ‘permitted to do’ and ‘Fd’ for ‘forbidden to do’, are true by definition:

Od(*agent*, perform, *action*) ≡ ~Pd(*agent*, refrain, *action*)

Od(*agent*, refrain, *action*) ≡ ~Pd(*agent*, perform, *action*)

---

[25] The N at the beginning of the formula stands for the necessity operator. The precise characteristics of this modal operator are left unspecified on purpose.

Fd(*agent*, perform, *action*) ≡ Od(*agent*, refrain, *action*)

Fd(*agent*, refrain, *action*) ≡ Od(*agent*, perform, *action*)

Ought-to-do judgments are true on the balance of reasons. A reason why somebody is under an obligation or has a duty to do something is also a reason why this person is obligated to do it and also a reason why this person ought to do it and a reason against the state of affairs that this person ought not to do it. A reason why somebody is under an obligation or has a duty not to do something is a reason why this person is obligated not to do it and also a reason why this person ought not do it and a reason against the state of affairs that this person ought to do it.[26]

Since it is impossible that both the reasons for an ought-to-do judgement outweigh the reasons against it and the reasons against an ought-to-do judgment outweigh the reasons for it, it is logically impossible that an agent both ought to perform and to refrain from performing an action type. So the following two sentences should be inconsistent:

Od(*Agent*, perform, *Action*)

and

Od(*Agent*, refrain, *Action*).

With regard to actions that ought to be performed or refrained from deontic inheritance is also possible. This is because an ought, just as being obligated, is not strictly tied to the duties or obligations from which it stems. Therefore the following holds:

N(Od(*x*, perform/refrain, *y*) & Involves(*y*, *z*) ⊃ Od(*x*, perform/refrain, *z*))

7.6 Norms

In the legal theoretical literature, the terms 'rule' and 'norm' are often used interchangeably. For instance, Kelsen (1979, 82-84) writes about power conferring norms, which suggest that some norms do not tell agents what to do; they do not have to be 'deontic'. On the other hand, Kelsen (1979, 15) also writes about individual norms, which suggests that not all norms are rules.

More in general, the terminology around norms leaves much to be desired, and the best way to continue here may therefore be to propose precise terminology.

My proposal is to use the word 'norm' only for rules that lead to deontic facts. There are two main categories of such rules. There are dynamic rules that lead to obligations, such as the rule of tort law that imposes on tortfeasors the obligation to pay damages. And there are duty-imposing fact-to-fact rules, such as the rule that nobody is allowed to kill human beings, and the rule that car drivers must carry a driver's license. Since rules are general and do not mention individuals as bearers of duties or obligations, there cannot be individual norms under the proposed word usage. Neither can there be power conferring norms, since a power is not a duty or obligation.

Notice that rules impose duties or obligations, and only bring about in an indirect fashion, via a duty or an obligation, that somebody is obligated to do something or ought to do something. Let us have a look at a simple example how the fact that Basil ought to pay €100 damages to Cedric follows from the fact that Basil unlawfully caused €100 damage to Cedric.[27]

1. Valid(*unlawfuly_caused(*tortfeasor*, *victim*, *damage*) ⇒
   *duty(*tortfeasor*, *victim, perform, pay(victim, damage*)))
2. Unlawfully_caused(basil, cedric, €100)

---

3. Duty(basil, cedric, perform, pay(cedric, €100))

---

[26] Readers who are interested in a formal elaboration of these ideas are referred to Chapter 3 of Hage 2005a.

[27] Strictly speaking, the operation of obligation creating rules involves an element of time. This is discussed, in the context of juridical acts, in Hage 2011a and b. For the present purposes this temporal element is not important and to keep the example relatively simple, it has been ignored in the formalisation.

4. $(x)(y)(z)$Duty(x, *perform*, z) $\supset$ Obligated(x, perform, z)

---

5. Obligated(basil, cedric, perform, pay(cedric, €100))
6. Reason(Obligated(x, perform, z), Od(x, perform, z))

---

7. Reason(*obligated(basil, cedric, perform, pay(cedric, €100)),
   *od(basil, cedric, perform, pay(cedric, €100)))
8. ~$\exists r$(Reason(r, *~od(basil, perform, pay(cedric, €100))))

---

9. Od(basil, cedric, perform, pay(cedric, €100)))

Line 1 of this argument states that the basic rule of tort law is valid.

Line 2 states that Basil satisfied the conditions for being liable for damages.

Line 3 formulates the conclusion from 1 and 2 that Basil has the duty to pay €100.

Line 4 expresses that having a duty implies being obligated.

Line 5 formulates the conclusion from 3 and 4 that Basil is obligated to pay €100.

Line 6 expresses that being obligated is a reason why the obligated person ought to do what (s)he is obligated to do.

Line 7 formulates the conclusion from 5 and 6 that the fact that Basil is obligated to pay €100 is a reason why Basil ought to pay €100.

Line 8 formulates that there is no reason why Basil ought not to pay the €100. (This would be a default conclusion, based on the fact that the information about the case does not provide any clue suggesting that there would be such a reason.)

Line 9 formulates the final conclusion that Basil ought to pay €100. (This conclusion can be drawn on the assumption, which was not formulated explicitly, that if there is a reason pleading for a conclusion and no reason against this conclusion, the conclusion follows.)

7.7 Some Implications for Legislation

As the last example illustrated, the road from an obligation creating rule to what an agent legally ought to do is not as simple as a subsumption argument, but nevertheless quite straightforward. It becomes slightly more complicated if there are not only reasons why an agent ought to do something, but also reasons why he ought to refrain from doing this. Then the reasons need to be balanced against each other, and additional information about the relative weight of the reasons is required (Hage 1997, Section III.13).

A legislator who can make rules can create duty imposing rules and obligation creating rules, and also rules that deal with the conflicts that result if an agent is both obligated to perform and to refrain from some action. A legislator cannot make a rule that tells legal subjects what they legally ought to do, since such an ought is by definition the result of interacting reasons. This has two implications:

1. In formulating duty imposing or obligation creating rules, a legislator should not worry about possible conflicts. It is desirable to avoid unsolved conflicts of norms, but conflicts should not be prevented on the level of duty imposing or obligation creating rules, but solved on a higher level.
2. Legislators should pay serious attention to the possibility that the duties and obligations they (indirectly) create, conflict and they should do that by adding rules for conflict resolution to the duty imposing or obligation creating rules they create. The best strategy for handling conflicts of norms is a topic that falls outside the scope of the present article, but the traditional principles for handling rule conflicts such as *Lex Specialis* and *Lex Superior* give an indication of the direction in which a solution might go.

8 Rules and Regulations

In the previous sections, rules were frequently mentioned, but mostly to say something about the structure of the world of law. This section is devoted to a more detailed discussion of rules, their operation, and their mode of existence.

8.1 Legal Rules as Constraints on Legally Possible Worlds

The idea of a rule is traditionally associated with the guidance of behaviour. Rules prescribe behaviour, they can be followed, obeyed and disobeyed, and after the behaviour has taken place, rules can be used to evaluate behaviour as correct or incorrect. This association between rules and the guidance of behaviour is reflected in philosophical discussions about rule following (Wittgenstein 1953; Kripke 1982; Brożek 2013), and in jurisprudential accounts of the nature of law (Aquinas S. Th. I, II, qu. 90 sect. 4; D'Entrèves 1959, 57; Kelsen 1960; Hart 2012, 94). And yet many rules seem not to guide behaviour at all, or only in the marginal sense that they allow the evaluation of behaviour as correct (in agreement with the rule) or incorrect. Examples of rules that seem not to aim at guidance at all are the rules that confer competences, or define the institutions of the European Union. Apparently the nature of rules cannot be found in the fact that rules prescribe behaviour.

Legal rules are often analysed as a kind of conditionals that attach facts, the legal consequences, to other facts, the operative facts of the rule. The operative facts are mentioned in the condition part of the rule, while the legal consequences are mentioned in the conclusion part. This structure can also be found back in counts-as, fact-to-fact, and dynamic rules. The condition for the application of a counts-as rule is that some individual belongs to a particular kind (e.g. a delivery), and the conclusion that follows is that this individual also belongs to some other kind (a transfer). The condition for the application of a fact-to-fact rule is that some fact obtains (e.g. that somebody is the mayor of a city), and the conclusion that some other fact obtains (that this person is competent to issue emergency regulations for this city). The condition for application of a dynamic rule is that some event occurred (e.g. a Bill was adopted), and the conclusion is that some fact obtains (some new legal rules exist).

The talk of conditions and conclusion is a bit deceptive, though, because they suggest arguments. As a matter of fact, rules can be used in arguments and that justifies this terminology, but rules are also constitutive. They *make it the case* that the facts of the rule conclusion enter into existence if the facts of the rule conclusion obtain. If an event is the delivery of a good, the counts-as rule makes that it is also a transfer of ownership. If somebody is the King of Belgium, the fact-to-fact rules makes that he is also the commander in chief of the Belgian army. And if a person contracted to deliver a car, a dynamic rule makes that he is under an obligation to deliver the car. This is the world-to-word direction of fit of rules, that was mentioned in Section 3.

Even this 'make it the case that' talk is somewhat deceptive, as it suggests that the rule undertakes some active action. Perhaps it is even better to talk about legal rules as constraints on legally possible worlds. Take again the rule that the mayor of a city is competent to issue emergency regulations for this city. If we ignore the possibility of exceptions to rules, the existence of this rule makes that facts of two types, being the mayor and being competent to issue emergency regulations, go together. Moreover, this relation is not contingent; it has a ring of necessity in the sense that it supports conditionals, including counterfactual conditionals: it is not only that the actual mayor of a city is competent to issue emergency regulations, but also that if P were to be the mayor, P would have the competence to issue emergency regulations.

To state it in the terminology of logicians: in all legally possible worlds, mayors are competent to issue emergency regulations. Which worlds count as legally possible is defined by the existing legal rules. These rules function as constraints on legally possible worlds.[28] A world in which the mayor of Sun City has the competence to issue emergency regulations is to that extent legally possible. A world in

[28] A possible world is in this connection defined as a maximal set of states of affairs (possible facts), where being maximal means that it is not possible to add new states of affairs to the world that are compatible with the states of affairs that already exist in this world.

which the mayor would not have had this competence would not have been legally possible. Another example would be the following. Purely logically, the states of affairs that P is a thief and the state of affairs that P is not punishable are compatible. Formulated in the technical jargon of logicians: there exist logically possible worlds in which both P is a thief and at the same time not punishable. If the rule that thieves are punishable is added, a legal constraint on what is possible is introduced. In legally (as opposed to merely logically) possible worlds being a thief and not being punishable have become incompatible. It is in this sense that the rule functions as a constraint on legally possible worlds.[29] Not all logically possible worlds are also legally possible ones. Only those worlds which (also) satisfy the constraints imposed by the existing legal rules count as legally possible. The rule that mayors are competent to issue emergency regulations also functions as a constraint on legally possible worlds, because if this rule is valid a world does not count as legally possible if it contains a mayor who is not competent to issue emergency regulations.[30]

For legislators this means that they influence which worlds are legally possible - and that is not the same as legally permitted – by making, modifying, and derogating legal rules.

8.2 Regulations, Rules, and Rule Content

There are basically two different ways in which a legal rule can exist. A legal rule can exist because it is accepted as a legal rule. This mode of existence characterises customary law, and also judge-made law in the civil law tradition, where the rule of *stare decisis* does not exist.

A legal rule can also exist because another rule attaches its existence to an event. Typical events to which the existence of a legal rule is attached are judicial decisions (in legal systems where *stare decisis* holds), and all forms of legislation, including statutes, by-laws, treaties and general decisions of international organisations. Many legal rules are created by means of legislation. In this connection it is possible to distinguish between the text of the regulation by means of which a rule was created, the rule itself, and the content of the rule.

REGULATIONS

A *regulation* may be defined as a (part of a) legislative product by means of which a single legal rule is made. An example of such a regulation is Article 29 Section 1 of the Common European Sales Law (CESL), which reads:

'A party which has failed to comply with any duty imposed by this Chapter is liable for any loss caused to the other party by such failure.'

Regulations may be divided over more than one article in a statute. This is for instance the case in the Dutch Penal Code which contains a number of articles that define several variations of theft. The more complex variations, such as theft by means of burglary or theft during the time meant for sleeping, are defined in terms of simple theft which is defined in a separate article. It is also possible that one article or even one section of an article is used to make more than one rule.[31]

Regulations are linguistic entities and are therefore by definition phrased in a particular language, such as English or Portuguese. The regulations are not the legal rules themselves. To the extent that statutes consist of regulations, statutes therefore do not contain law. They are means to create (or modify or derogate) law, but that is not the same thing.

RULE CONTENT

Every rule has a *content.* This content is determined by the rule conditions and the rule consequence in the sense that if two rules have the same conditions and the same consequence, these two rules have the same content. Both conditions and consequence are defined in terms of states of affairs; the

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[29] Rules would be 'weak' constraints in the sense that although they necessitate connections between facts of particular types, their existence and therefore also the presence of this necessity is contingent. See for more details Hage 2005b and forthcoming.

[30] This idea is elaborated philosophically in Hage forthcoming and formally in Hage 2005b.

[31] The individuation of legal rules ('laws') is discussed extensively in Raz 1980, Chapter IV.

rule has as content that it connects the condition state(s) of affairs to the consequence state of affairs. States of affairs are language-dependent, but they are not linguistic entities themselves. As a consequence the rule content is not a linguistic entity either. This means that a regulation may determine the contents of rules, but that regulations do not contain the rule contents. For example, the regulation of Article 29 Section 1 CESL determines under which conditions the rule that was made by this regulation is applicable, and what the consequences are if the rule is applied. However, this regulation is not identical to these conditions and consequences because the conditions and consequences do not depend on a particular language, while the regulation does.

Moreover, the relation between a regulation and the content of the rule made by means of that regulation is not straightforward. Usually the content of the rule is determined by the text of the regulation, but it may happen that in legal practice it is assumed that a rule has more, or fewer, or slightly different, conditions than those mentioned in the regulation. Then we can still say that the rule was created by means of the regulation, even though the content of the rule is not completely determined by the text of the regulation.

RULES

The precise nature of rules is hard to nail down. One the one hand there is a strong temptation to identify rules to the regulations by means of which they were created. It is for instance very well possible to speak of the rule of Article 29 Section 1 CESL, and if this Article would be modified, it makes sense to say that its rule has changed too. And yet, there are several reasons not to identify a rule with either its underlying regulation, or with its content. If a rule would coincide with its regulation it would be a linguistic entity. However, contrary to linguistic entities such as sentences, rules exist in time, can be created, modified and derogated, have a scope of application, and they can bring about facts such as the punishability of criminals, and the existence of obligations.

On the other hand is also tempting to identify a rule with its content. We have no problems in saying that two different countries have the same rule governing the side of the road on which car drivers must drive. Most likely we mean by that that the rules of the countries have the same content, and not that they were made by the same regulation. The relation between a rule and its content is a bit like the relation between a book and its content. We need to know the content in order to know with which book we are dealing, but it is possible to talk about a book with a particular content, even if this book does not actually exist ('If this book were ever to be written, it would become a bestseller.'). Similarly it is possible to talk about rules as defined by a particular content, even if these rules do not actually exist. ('It would not be wise to introduce a rule that makes visiting pornographic websites punishable.') However, if a rule is identified with its content, it is not possible to modify the content of a rule, because such a modification would lead to a new rule. Modification of a rule would boil down then to the replacement of one rule by another rule.

Most likely the best solution to this problem of identifying the nature of a rule is to treat the concept of a rule as a stereotype (Putnam 1975a). A typical rule is made by a particular regulation (or a judicial decision) and has a particular content. A change in either one of them does not necessarily lead to a different rule, for instance if the 'same' rule is moved from one statute to a more recent statute, or if a minor condition is added to the rule. However, if the changes are too 'big', however 'big' may be defined in this connection, the rule has been replaced by a different rule. If this analysis is by and large correct, it suggests that a rule is neither to be identified by its underlying regulation nor by its content, but is nevertheless dependent of both of them in the sense that major changes in either regulation or content may lead to a different rule.

8.3 Modifying the World of Law by Means of Legislation

If legal rules function as constraints on legally possible worlds, this implies that legislation leads to new facts in the world of law in perhaps even four different ways. First, legislation is a juridical act to which existing dynamic rules attach changes in the set of valid legal rules: new rules are added, existing ones derogated or modified.

Second, the modification in the set of valid legal rules affects other facts and individuals in the world of law. Suppose for instance that adultery used to be punishable, and that Xaviera is an adulteress. Then the rule that makes adultery punishable adds the fact to the world of law that Xaviera is punishable. If new legislation derogates this rule, the fact that Xaviera is punishable also is removed from the world of law.

Third, is also possible that legislation modifies priority relations between existing rules. Suppose that a rule made by the municipality council for a particular municipality conflicts with national law. Under present law, national law has priority over municipal law. If this priority relation is modified by new legislation, the new priority makes that the already existing municipal law enters into force, which has again implications for still other facts in the world of law.

And fourth, it is possible that legislation leads to the recognition of a new source of law. Suppose that the national legislator of an EU member state creates the rule that recommendations by the EU also count as valid law. If that happens, suddenly a lot of new law is introduced into the legal system of that member state, new law which itself may also have impact on other facts and individuals in the world of law.

9. Interrelations[32]

In the previous sections a rather abstract view of law was sketched. Moreover, in the introduction it was claimed that this abstract picture constituted the framework of law that was to be stuffed by means of legislation and that therefore it is important for legislators to grasp this framework. The time has arrived to substantiate this claim. The Sections 9-12 will illustrate how insight into the structure of the world of law can assist legislators in building that part of the world of law with which they have to deal. To that purpose, it will sketch a picture of what legislators can and cannot do and what they should keep in mind when they try to do what they can do as well as possible. The key issue in this connection that law, and legislators as persons who want to make law, strive to influence actual, physical, human behaviour, but can do little more than make, modify and abrogate rules. Legislators can influence the world of law, but their objective is to influence the 'real' world. Somehow, the facts in this real world and the facts in the world of law should be interrelated. What should be the impact of this condition on the work of a legislator?

To facilitate the following discussion some conventions will be recapitulated and introduced. The world of law is defined as the set of all facts and things (individuals) whose existence is the result of the application of some legal rule. Examples are that the fact that the Euro is the currency of many European countries, the fact that the Bundesverfassungsgericht is a German court of law, and the fact that Jane is under an obligation to pay her landlord the rent as facts in the world of law, and the Bundesverfassungsgericht. and the rent contract between Jane and her landlord as individuals in the world of law. All entities in the world of law are rule-based in the sense of Section 4, and more in particular based on legal rules.

The world of law is part of the world that consists of all facts and individuals. The part of the world that does not belong to the world of law will be referred to as the 'outside world'.

The facts in the world are often interrelated. These relations are either based on causal laws, or on rules. The former will be called 'causal relations', and the latter 'rule-based relations'.

Causal relations exist first and foremost between objective facts. For instance, there can be a causal relation between the fact that a piece of metal is heated, and the fact that it expands, or there can be a causal connection between the fact that a car is hit by a stone and the fact that it is dented.

The question may be raised whether there can also be a causal relation from objective facts to recognition-based facts. A seeming example of such a relation is that there is an event which makes that most people start to accept a particular rule. But this example is complicated, because there are two steps involved. First the purely causal one between the event and the acceptance of the rule, and

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[32] The sections 9-12 have been adapted from Hage 2013b.

second the conceptual step between this acceptance and the existence of the rule. Arguably this conceptual step is based on the convention (rule) that social rules exist by being accepted and then the social fact is not brought about by the objective fact alone.

No matter how the step from objective facts to social facts is seen, the causal direction goes at most one way only; the existence of a social fact cannot directly cause an objective fact to exist. This impossibility deserves some attention, because it has direct implications for the interface between the world of law and the outside world. It may seem possible that a recognition-based fact causes an objective one. A seeming example would be that the fact that somebody is the Secretary-General of the United Nations causes her to be proud. This appearance is deceptive, however, because it is not being the Secretary-General that makes her proud, but believing (knowing) to be the Secretary-General which has this effect.

Since rule-based facts are by definition brought about by rules, there cannot be a direct causal relation from objective facts to rule-based facts. An indirect connection is possible if the last step in the chain is rule-based. For instance, a car accident causes damage to a car, and a rule attaches an obligation to compensate damages to the presence of this damage. But then the rule-based fact is directly based on the operation of a rule, and only indirectly on a causal relation. Moreover, this causal relation holds between two objective facts. Because rule-based facts are immaterial, they cannot causally influence facts in the outside world, so there exist no causal relations from rule-based facts to the outside world either.

Only rule-based facts can be brought about by rules. Actually, rule-based must be brought about by rules, because that is how they were defined. Most kinds of facts can trigger rules to make them generate rule-based facts. For instance, the fact that it rains may obligate taxi drivers to take along passengers for free (if there is a rule to that effect). Recognition-based facts can also trigger rules, such as the fact that somebody chairs a charitable society can give her the right to open the annual ball of the society. And the law contains an endless list of illustrations of the phenomenon that rule-based facts can trigger rules and in that way lead to new rule-based facts. It is this very possibility which makes the idea of a world of law interesting.

10 The Structure of the World of Law

The world of law consists of rule-based facts (and individuals), and most of these facts derive their relevance from legal rules which attach consequences to them. For instance, the fact that somebody can be classified as a thief derives its legal relevance from a rule that attaches the legal consequence that this person is liable to be punished. The fact that somebody has received a building permit has as consequence that this person now has the permission to build, which would otherwise not have been allowed.

Often the legal consequences of some legal status are (parts of) the conditions for other rule-based facts. The transfer of ownership in a piece of land, which makes amongst many other things that the original owner loses the permission to cultivate the land while the new owner obtains this permission, illustrates this well. Let us have a closer look at an example case in which Alice sells her land to Charles. We assume that the sale takes place in the Netherlands, a jurisdiction that works with a tradition system, where a notarial deed is required to transfer the ownership of real estate.[33] Then the following will occur.

Alice and Charles draw up a document which they both undersign. Under some assumptions concerning the content of this document, the document counts as a sales contract and the event of signing the document counts as entering into a sales contract. Both the facts that the document counts as a sales contract and that the signing counts as entering into a contract are rule-based facts. The rules which make that the document counts as a contract and that the signing counts as entering into a contract are counts-as rules, rules which make that something legally also counts as something else. The facts that result as consequence of the application of a counts-as rule are rule-based facts.

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[33] For an exposition of the difference between consensual and tradition systems, see Van Vliet 2012.

The event that Alice and Charles entered into a sales contract leads to two new facts. One is that Alice is from that moment on under an obligation to transfer the ownership of the land to Charles, and the other is that Charles is under an obligation to pay Alice the price of the land. Both legal consequences are the result of a dynamic rule which attaches new facts to the occurrence of an event, in this case the sales contract. The existence of both obligations is a rule-based fact.

In order to fulfil Alice's obligation to transfer the ownership of the land to Charles, Alice and Charles visit a notary who makes up a deed according to which Alice declares to transfer the ownership and Charles declares to accept the ownership. This event counts, on the basis of a counts-as rule, as the delivery of the ownership.

Moreover, this delivery in its turn counts as the transfer of the ownership. The delivery can, according to Dutch law, only count as a valid transfer of ownership because of Alice's obligation to make the transfer, which counts as the title for the transfer.

There is another precondition for the delivery to count as a valid transfer and that is that Alice had the competence to transfer ownership of the land. This competence is attached to Alice's ownership of the land by a fact-to-fact rule.

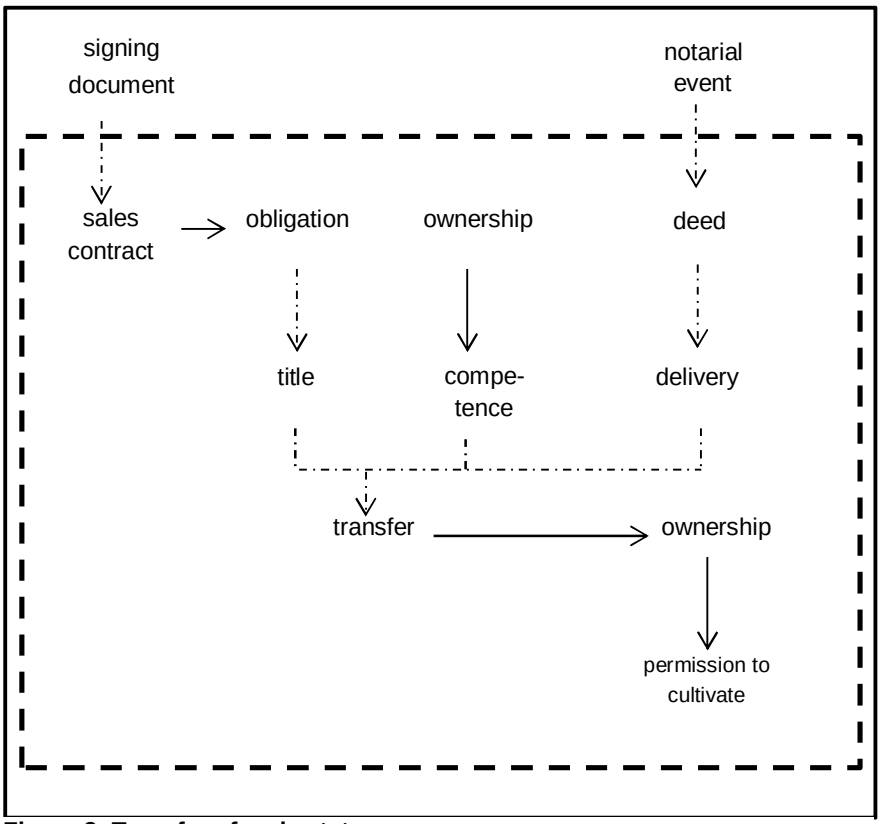

Figure 3: Transfer of real estate

If the transfer of ownership is valid, a dynamic rule attaches to this event the consequences that Alice has lost the ownership of the land and that Charles has become the new owner. A fact-to-fact rule attaches to this latter fact that Charles has permission to cultivate the land if he wants to.

Figure 3 above pictures the described events and their consequences. Horizontal arrows represent the operation of dynamic rules. Solid vertical arrows represent fact-to-fact rules, and dotted vertical arrows represent counts-as rules. The facts within the dotted box are rule-based and since all the relevant rules belong to the law, the facts are also part of the world of law.

11 Interfacing the World of Law and the Outside World

11.1 The World of Law and the Outside World

The world of law is not a goal in itself; it is meant to have impact on the 'outside world', the world that consists of facts which are not the result of the operation of legal rules. In very broad lines, the operation of the world of law can be sketched as follows[34]:

Some facts in the outside world count, on the basis of legal rules, as facts in the world of law. See Figure 4: Interfaces with the world of law. In that quality, these facts play a role in the world of law, usually by leading to other facts in the world of law. For example, signing a letter may, under certain circumstances, count as granting a building permit, and lead to the permission for a legal subject to raise a building. At the end of the chain the facts in the world of law should affect the outside world again.

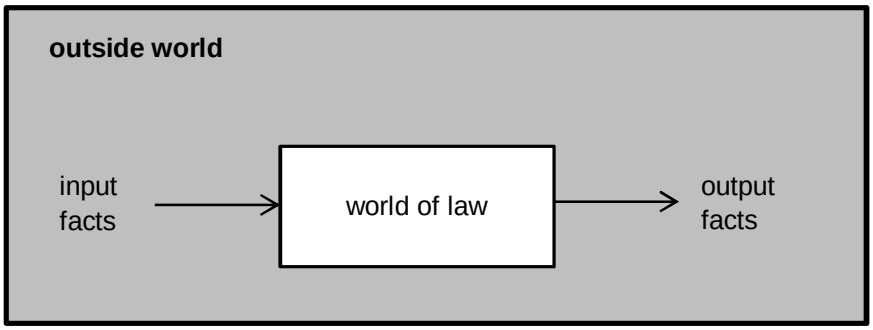

Figure 4: Interfaces with the world of law

11.2 Input, Intermediate, and Output Facts

The facts inside the world of law are interconnected by rules. Together the facts and the rules in the world of law form a network of interrelated rules and facts. To answer the question how elements of this network can affect the outside world it is useful to have a closer look at the facts in the world of law and more in particular to distinguish between input facts, intermediate facts and output facts.

Input facts are facts in the world of law which also exist in the outside world, be it under a different name such as 'signing a letter' rather than 'contracting'. In the world of law they have a special status that is specified by fact-to-fact and dynamic rules. In our example about the sale of a property right in real estate, the signing of a document is a fact in the outside world. This same fact counts in the world of law as entering into a sales contract. What happened at the notarial office counts as the delivery of the sold land. The facts that Alice and Charles entered into a sales contract and that Alice delivered the land to Charles are entry points into the network of the world of law.[35]

Output facts are those facts in the world of law which affect the outside world. One example is the duty – or is it a permission? – of the public prosecution to take away the money that constitutes a fine, or to imprison a criminal convict. Another example is the permission for the owner of a good to use it. In the following subsections we will take a closer look at these output facts and then it will become clear that there are only a few kinds of them.

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[34] To make the picture easier to understand, the input facts and the output facts have been positioned outside the world of law. Since both categories of facts are defined in the next subsection as parts of the world of law, be it on the border with the outside world, the picture is not fully accurate. Figure 5 will be more precise in this respect.

[35] The idea that facts in the outside world are interpreted as facts in the world of law can already been found in the first (1934) edition of the *Reine Rechtslehre* (Kelsen 1934/1992, 10). Basically the same idea can also be found in the work of John Searle (1995, 43-51).

Every fact in the world of law that is not an input or an output fact is an intermediate fact.[36] Most of the world of law consists of intermediate facts. Examples from private law are the facts that somebody has a claim on somebody else, is liable for damages, is married, has a particular name, is the chief executive officer of a company, is competent to transfer a particular property right, has the capacity to make a last will, and many other facts. Examples from public law are that some entity is a state, that a political party got so many votes in the elections, that a judge is competent to review laws against the constitution, that a public officer has the competence to grant building permits, that individuals have the right to freedom of expression, and that some particular intergovernmental organisation exists.

The intermediate facts can be subdivided into facts which lead to new facts through the application of dynamic rules and facts which only fulfil a role in argument chains concerning facts which are connected in an a-temporal fashion. Examples of the former are the facts that somebody was granted a subsidy, caused a car accident, or that a Bill was adopted. Examples of the latter are the facts that somebody is the mayor of a city, is under a contractual obligation, or has a particular name.

Some facts are on the borderline. An example is the fact that somebody has a competence to perform some juridical act such as to enter into a contract, to pass a Bill, or to pronounce a verdict. The fact that someone has a competence does not lead to anything new, but it is a kind of fact which is a necessary precondition for some other events to lead to new legal consequences. For instance, having the competence to transfer ownership in some good is a necessary precondition for a delivery to lead to a transfer of ownership. The competence to legislate is a necessary precondition for a vote to lead to new legislation and therefore to new rules.

Figure 5: Input, intermediate and output facts, depicts the relation between input, intermediate and output facts in the world of law. For reasons that will become clear later, there are no arrows from the output facts to the outside word.

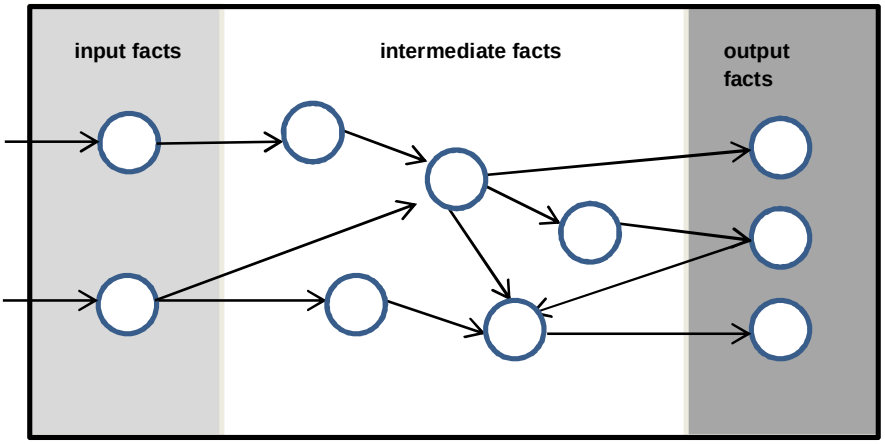

Figure 5: Input, intermediate and output facts

11.3 The Transition from the World of Law to the Outside World

Legal consequences are brought about by legal rules and legal rules can only have effect in the world of law. Counts-as rules can bridge the gap from the outside world to the world of law, but only in the direction of the world of law, because the facts in the world of law are, in contrast to those in the outside world, rule-based. Legal rules cannot bring about that facts or events in the world of law count as facts or events in the outside world. In a sense, therefore, the world of law has no exit; it cannot directly influence the outside world.

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[36] An output fact may at the same time function as an intermediate fact. For instance, a legal duty may lead to behaviour of the person under this duty, but it may also be a precondition for the existence of another intermediate fact, such as the unlawfulness of the behaviour which violates this duty. This possibility is also indicated in Figure 5: Input, intermediate and output facts.

Does this mean that the world of law does not affect the outside world at all? Clearly not, but the impact can only be indirect, namely by motivating people to act by changing their legal status. There are at first sight four kinds of status which are candidates for bringing about changes in the outside world, that is legal duties, prohibitions, permissions and powers. We will discuss these four in turn and will then consider the possibility of other legal positions being similarly connected to the outside world.

LEGAL POWERS

Legal powers can be taken in a broad and in a narrow sense. Somebody has a legal power in a broad sense if he can perform some kind of act to which a dynamic legal rule attaches a legal consequence. An example would be that somebody can bring about that she has to pay less municipality taxes by moving to another municipality. Another example is that somebody can make himself liable for damages by defaulting on a contract.

Although legal powers in a broad sense include the power to bring about legal consequences by means of so-called juridical acts (e.g. entering into a contract), juridical acts are not necessarily involved in the exercise legal powers in this broad sense. This is different for legal powers in the narrow sense: they can by definition only be exercised by means of juridical acts. In this connection juridical acts may be defined as acts performed with the intention to bring about legal consequences, to which the law attaches these consequences for the reasons that they were intended.[37] Both legal powers in the broad and in the narrow sense require the existence of dynamic rules which are triggered by the behaviour of the power exercising person. For the exercise of legal powers in the narrow sense an additional requirement exists, namely that the acting person has the *competence* to perform the juridical act by means of which he intends to bring about the legal consequences. This may be the competence to make a last will, to found a company with limited liability, to create legislation, or to pronounce a judicial verdict.[38]

Although the existence of a legal power may be a precondition for the performance of some acts, these acts will by definition not be acts which directly affect the outside world. The reason is that legal powers are powers to create legal consequences with the help of dynamic legal rules. These legal consequences are by definition consequences in the world of law, rule-based facts. Therefore legal powers do not provide the bridge from the world of law to the outside world that we are looking for.

LEGAL DUTIES AND OBLIGATIONS

The point of legal duties and obligations is that the persons who have these duties or are under such obligations comply with them. A legal system can only exist if its participants by and large voluntarily comply with the duties and obligations they are under.[39] So, if the world of law contains a duty or obligation for somebody to do something, this embodies at least the beginnings of a bridge to the outside world. The connection is not necessarily strong, though, because there is no guarantee that the obligated person will transform this requirement into actual behaviour. For instance, if somebody acted unlawfully and caused damage, he will normally be under an obligation to pay damages. If she violates this obligation by doing nothing, there is still no change in the outside world.

Of course there is the threat of the sanction in case of non-compliance, but this sanction only affects the outside world if some legal official applies it. The bridge to the outside world should then be looked for in the rule that obligates or permits the official to apply this sanction, rather than in the duty or obligation which is backed up by the sanction.

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37 More elaborate on the nature of juridical acts is Sartor 2005, Chapters 23 and 24 and Hage 2011 a and b.

38 Here I distinguish between powers and competences, which are seen as different phenomena which exist next to each other. This follows the discussion of this subject in Hage 2013c. The terms 'power' and 'competence' are sometimes seen as alternative ways of designating the same phenomenon. See for instance Spaak1994, 1.

39 This is the seemingly obvious point that Kelsen made by his demand that legal systems must be effective because otherwise the presupposition of the basic norm would not make much sense. See Kelsen 1960, 204. Hart made a similar point by claiming that participants in a legal system should by and large take the internal point of view towards the rules of the system. See Hart 2012, 103/4.

The bridge from a duty to behaviour in the outside world may become stronger if it is the duty of a legal official. Judges are, we may take it, under a duty to apply the law. Moreover, as a matter of fact, they normally comply with this duty and actually apply the law. If they do not, the reason is most likely that they are mistaken about what the law demands from them. Downright refusal to apply the law is highly exceptional. So if a judge must decide a case, the probability is high that her verdict will be in agreement with the law. However, a judicial verdict is a juridical act, and has consequences attached to it by a dynamic rule. These consequences are still facts in the world of law.

If duties and obligations are to bridge the world of law to the outside world, it is better to look at the duties of sanction applying public officers. Bailiffs provide a good example. They may be assumed to comply with the legal rules that impose the duty upon them to apply legal sanctions. So if a judge has convicted a tortfeasor to pay damages and the person entitled to the compensation hires a bailiff to enforce this legal requirement, the bailiff is under a duty to take the money away from the convicted person. Most likely he will comply with this duty and this compliance bridges the gap between the world of law and the outside world. However, in the end, the question whether duties of officials are more effective than duties and obligations of 'ordinary' legal subjects is an empirical one.

Legal Prohibitions

A prohibition is nothing else than a duty not to do something. Compliance with a prohibition means that nothing happens. It may therefore seem unlikely that legal prohibitions constitute bridges to the outside world. And yet it is possible, namely in case something was likely to happen if the prohibition were lacking. For instance, if people normally, that is if there were no prohibition, would walk on the lawn, the existence of the prohibition might affect the outside world by making that fewer people tread on the lawn.

Legal Permissions

Legal permissions are only likely to affect the outside world in case the permitted behaviour would otherwise be prohibited and if this prohibition would mostly be efficacious in the sense that it is complied with for the reason that the behaviour was prohibited. The lawn example can also illustrate this point: if people would not set foot on the lawn for the reason that it is prohibited, then a permission to walk on the lawn may lead more people to tread on the lawn.

Legal Status

Legal rules, whether they be dynamic or static, often attach the presence of some legal status to an event or a fact in the world of law. Examples of such statuses are being the president of the US, being the mayor of a city, being a criminal suspect, being the head of police, being a vehicle in the sense of the Traffic Law, being the owner of Blackacre, having the capacity to make last wills, land, and so on … Arguable, even such deontic facts as being under a duty or not being allowed to do something are examples of legal statuses.

It is not doable to run through the list of all kinds of legal status, but a superficial inspection of the examples mentioned above already indicates that the possession of most of these statuses by itself does not lead to any changes in the outside world. That does not mean that the possession of the status of, for instance, criminal suspect has no impact at all, but the impact is indirect. For instance, if P is suspected of having committed a serious crime, police officers may have the permission to search the body of P on weapons. It is not unlikely that the officers will perform such a search when P has incurred the status of suspect, where they would not have done so if P would not have incurred this status. However, it is not the status of criminal suspect in itself that changes the behaviour of the police officers, but the permission attached to this status, or – perhaps even more precise – the knowledge of this status or this permission.

In general, the presence of most legal statuses is either an entry or an intermediate fact in the world of law. Legal status may be important for the impact of the world of law on the outside world, but if so, only in an indirect fashion.

CLAIMS

Having a legal right, such as the claim to be paid €100, the title to some real estate such as Blackacre, the copyright to a song text, the right to vote, the right not to be wounded, and the right to education, is a special case of possessing a legal status. For these statuses holds what holds for most legal statuses: they function as intermediate facts in the world of law, and do not have immediate impact on the outside world. Since rights take a special place in law and legal thinking this general point will be elaborated in a short discussion of the nature of different kinds of rights.

Claims are rights in private law which one person holds against another person.[40] If A holds a claim against B, then B is under an obligation towards A to do something, or to refrain from doing something. Typical examples are that somebody has a claim to the payment of some amount of money, to the delivery of some good, or to the performance of some service. The use of the term 'obligation' in connection with claims is telling, because claims are the result of an event which brought about the relation between two parties according to which the one party has a claim against the other and the other is under an obligation towards the one. Typical examples of such events are contracts and torts.

Claims as defined here differ in several aspects from claim rights as defined by Hohfeld (1920). A Hohfeldian claim right is the counterpart of a duty, and nothing else. If A has a claim right against B that B will do X, this means the same as that B is under a Hohfeldian duty towards A to do X.

The first difference to be noticed is that Hohfeld does not use the word 'duty' to express a way of being obligated because of some status, but rather for (more or less) the same purpose as the word 'obligation' is used in the present article. That is merely a terminological difference and does not have to have any practical implications.

A more important difference is that a Hohfeldian claim right is exhausted by the Hohfeldian duty of the person against whom the claim is held. A claim in tort law or in contract law involves more than merely the mirror side of a Hohfeldian duty. Normally the holder of the claim has the power (in the narrow sense) to enforce the performance of the corresponding obligation, the power to waive the obligation and thereby end the existence of the claim, and the power to transfer and pledge the claim and thereby change the content of the corresponding obligation. (If A transfers her claim on B for the payment of €100 to P, then B is from then on under an obligation *towards P* to pay him €100.)

A person who holds a claim against somebody else has a set of powers which allow him to bring about intentional changes in the world of law. If these powers are exercised, the only changes that are brought about involve the world of law. To this extent, claims have no direct impact on the outside world.

This is different for the obligations that necessarily go together with claims. If the law is by and large efficacious in the sense that legal obligations and duties tend to motivate people to act in accordance with them, the obligation of a person B, or rather the awareness thereof, will normally motivate this person to fulfil this obligation. Moreover, obligations tend to be enforceable, which means that if the appropriate steps have been taken, legal officials have the duty the apply sanctions. Obligations are on the interface between the world of law and the outside world. But these obligations are not identical to the claims, although they necessarily go together with them.

PROPERTY RIGHTS

Claims are rights against some other person. The other main category of rights in private law consists of right on some 'good'. The good can be material, such as land or something movable. It can also be immaterial such as a claim, an invention, or the result of artistic creativity. Since these rights are not directed towards one or more concrete persons, they are called 'absolute rights', where 'absolute' does not mean 'unlimited', but 'non-directed'. To keep the discussion relatively straightforward, it will

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[40] To keep the exposition relatively simple, the possibilities that claims are held by more than one person or organisation, or against two or more persons or organisations, are ignored. For the main argument line these possibilities hardly make a difference.

be confined to property rights on material goods, with the right of ownership to a movable good as the prime example.[41]

Suppose that Andrew owns a book. This implies that Andrew is permitted to damage the book and even to destroy it. Other persons, who do not own the book, are not permitted to damage or destroy the book. In other words, they have the legal duty not to damage or destroy the book. This duty rests on non-owners because of their quality of being a non-owner. Andrew can make an exception to this duty by giving permission to damage or destroy the book. Moreover, Andrew has the powers to forbid any non-owner to use the book and to transfer the ownership of the book to somebody else.

More in general, if A has the ownership of a material good G, amongst others the following legal consequences hold:

- all other persons have *ceteris paribus* the legal duty not to damage or destroy G, or to interfere with A's use and enjoyment of G;
- A is permitted to damage or destroy G;
- A has the competence to grant other persons the permission to damage or destroy G and to forbid them to use G;
- A has the competence to transfer the ownership of G to somebody else.

A person who holds a property right on some good has a set of competences which empower him to bring about intentional changes in the world of law. In the case of ownership of movables, these include the power to alienate the good, to forbid others to use the good, and to grant them permission to damage or even destroy the good. If these powers are exercised, the only changes that are brought about involve the world of law. To this extent, property rights have no direct impact on the outside world. However, if permissions are granted, the existence of these permissions may lead to behaviour which would not have taken place otherwise. For instance, if somebody was given permission to take away the bell of a bicycle owned by somebody else, the person may exercise this permission by taking away the bell.

Property rights do not lead to obligations or duties, but the existence of property rights as a legal institution presupposes a background of general legal duties not to damage or destroy an owned good and not to interfere with the owner's use and enjoyment of the good. If somebody becomes the holder of a property right, this does not create the legal duties, but it gives the pre-existing duties a focus which they did not have before. For example, an arbitrary person P is under the general duty not to destroy goods that have a different person as owner. If a particular car belongs to Sheryl, this duty becomes more focused because it now includes the duty not to destroy Sheryl's car. By giving pre-existing duties focus, the existence of property rights may indirectly affect the outside world. If somebody catches a bird that was previously free, other persons may be withheld from catching the bird themselves, because that would now amount to interference with the existing ownership of the bird.

GENERAL OBSERVATIONS

For purely logical reasons, there cannot be direct bridges from the world of law to the outside world on the basis of causal laws or legal rules. What is possible is that the awareness of a fact in the world of law influences (on the basis of a causal law) the behaviour of human beings. Legal rules attach legal consequences to facts, and human reasoners can mentally reconstruct this constitution of new facts, and if they do so they will know which new facts are present in the world of law. This knowledge can stand in causal relations to other objective facts. The 'bridge' from the world of law to the outside world is made if such a causal relation exists. As argued above, this is most likely with regard to 'deontic' facts such as duties, obligations, prohibitions and permissions, in particular but not exclusively if these deontic facts address legal officials. Where there is no knowledge of facts in the world of law, the world of law cannot affect the outside world.

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[41] The following analysis is based on Brouwer and Hage 2007, but deviates from it in a number of details.

12 Conclusion

Arguably it is the main function of law to guide human conduct by providing mandatory rules. And yet, by far most of the law does not consist of mandatory rules, and most legal rules have not as their primary function to guide conduct. Legal rules are the cement of the world of law, just like causal laws may be seen as the cement of the physical universe.[42] Legislators should not see it as their primary task to guide human conduct by means of mandatory rules, but rather to build the world of law and to provide this world with structure by means of rules. And yet, this world of law has a purpose outside itself, and this purpose is to affect the outside world by influencing human behaviour.

To make the world of law fulfil its purpose, legislators should not only pay attention to the internal structure of the world of law; they should also have eye for the interface of the world of law with the outside world. Neither self-defined legal statuses, such as that of legal suspect, or of mayor, nor legal rights, powers or competences will normally provide the necessary direct interface from the world of law to the outside world. This interface is mainly given by deontic facts such as the facts that somebody is under a duty or obligation to do something, or to refrain from doing something. Permissions which make exceptions to duties or obligations can also fulfil this function of interface. It is these deontic facts that are the main 'output facts' of the world of law.

The world of law can itself be treated as a kind of black box, which takes in facts from the outside world, transforms them by means of counts-as rules into 'input facts', processes them, and provides them with legal consequences in the form of 'output facts'. In order to do so, there must be 'pathways' through the world of law, consisting of facts which are linked by means of rules, either cotemporary, or through a development in time, which connect the input facts to the output facts. The example about the transfer of a piece of land from Alice to Charles in Section 10 illustrates not only the structure of the world of law, but also such a pathway from the signing of a document and a transaction at the office of the notary to the permission for Charles to cultivate the land of which he became the owner.

If the world of law is to fulfil its function, there must be pathways through the world of law from every input fact to some output fact. Input that does not lead to any output could just as well be disregarded by the world of law. Output which cannot be reached by any input makes little sense. To speak of the world of law and of pathways through it is only a metaphor. But it is a metaphor which provides the legislator with a useful perspective on his tasks: he must create a well-structured world, and one aspect of a good structure is that there are rule-defined pathways through the world of law from every input fact and to every output fact. Insight into the structure of the world of law as provided by the logical tools discussed in this article is crucially important in this connection.

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[42] Cf. the title of Mackie 1980.

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