

LEGAL RULES AND PRINCIPLES: A THEORY REVISITED

Bartosz Brożek*

Abstract. The overarching goal of the paper is to question the distinction between rules and principles. I analyze Robert Alexy's conception of rules and principles and argue that it may be handled formally with the use of defeasible logic rather than classical logic. I further claim that defeasible logic does not provide a sharp logical criterion for distinguishing between rules and principles, and argue that there exist no such non-logical criteria. In conclusion I posit that the distinction in question has only a didactic value.

Key words. Rules and principles, defeasible logic, legal reasoning, Robert Alexy, Ronald Dworkin

1. Rules and principles according to Alexy

Robert Alexy is one of the most famous proponents and defenders of the distinction between legal rules and principles. In what follows I would like to have a closer look at Alexy's account of the problem from a logical perspective. I will argue that Alexy's formal conception of rules and principles, based on the classical logic, may not be the best alternative at hand. What the so-called defeasible logics offer us can be used to construct an intuitively adequate and theoretically fruitful model of how legal norms function. In consequence, I argue that Alexy's distinction between rules and principles is rather of didactic than substantial importance. This conclusion applies also, *mutatis mutandis*, to other accounts of the distinction in question.

2. Rules and principles according to Alexy

The theory of rules and principles as advocated by Alexy looks roughly as follows. Among legal norms one can distinguish rules and principles. As Alexy puts it, "principles are norms which require that something be realized to the greatest extent possible given the legal and factual possibilities. Principles are

* Department for the Philosophy of Law and Legal Ethics, Jagiellonian University, Kraków, and Copernicus Center for Interdisciplinary Studies, Kraków. This paper was written during my research stay at the University of Freiburg, sponsored by Alexander von Humboldt-Stiftung.

optimization requirements, characterized by the fact that they can be satisfied to varying degrees, and that the appropriate degree of satisfaction depends not only on what is factually possible but also on what is legally possible" (Alexy 2002, 47). Rules, on the other hand, "are norms which are always either fulfilled or not. If a rule validly applies, then the requirement is to do exactly what it says, neither more nor less" (Alexy 2002, 48).

Let us try to formulate the distinction in question against the background of the notorious 'Vehicle in the park' example (cf. Hart 1961, Brożek 2004):

(Vehicle in the park) A local ordinance includes a norm that bans all vehicles from entering a public park. An ambulance carrying a seriously injured person has to go to the hospital. The shortest way to the hospital is through the park. The question arises of whether the ambulance can enter the park.

Let us formalize the norm of the ordinance in the following way:

$$(1) \quad \forall x (Vx \rightarrow \neg EPPx)$$

where V stands for "is a vehicle" and EPP for "can enter the public park".¹ With the obvious assumption that ambulance (A) is a vehicle:

$$(2) \quad \forall x (Ax \rightarrow Vx)$$

we can conclude on the basis of (1) that our ambulance cannot enter the park. Let a stand for a concrete ambulance. From (2) by the way of universal instantiation we get:

$$(3) \quad Aa \rightarrow Va$$

(3), together with the fact that a is an ambulance:

$$(4) \quad Aa$$

yields by *modus ponens*:

$$(5) \quad Va$$

Now, from (1) by universal instantiation we get:

$$(6) \quad Va \rightarrow \neg EPPa$$

what together with (5) and by *modus ponens* gives:

$$(7) \quad \neg EPPa$$

which says that our ambulance cannot enter the public park.

This conclusion seems unjustified. From the common sense perspective an ambulance carrying a seriously injured person should be allowed through the park. From the legal point of view one can say that a principle stating that human life and health should be protected is involved in the case:

¹ For the sake of simplicity I do not introduce deontic operators (permitted/forbidden/obligatory) into the formalization, as the problem I address does not pertain to deontic modalities, but rather concerns the question of what is the structure of rules and principles.

(P1) Human life and health should be protected by law.

(P1), the argument runs, dictates that under the described circumstances the ambulance is permitted to enter the park. Let us formulate this in the following way:

(8) $P1 \rightarrow (C_1 \rightarrow EPPa)$

where C_1 stands for the circumstances as described in (Vehicle in the park).

Let us pause for a moment here and try to illustrate the differences between rules and principles with what we have formalized. (1) is a legal rule, it can be fulfilled or not. What does it mean? When we have

(1) $\forall x (Vx \rightarrow \neg EPPx)$

and the condition (Vx) is fulfilled, then there is clearly an obligation that the subject under consideration should not enter the park. The character of legal rules is clearly visible when we consider a conflict of two legal rules. Let us assume, for the sake of argument, that in addition to (1) we have the following legal rule:

(9) $\forall x (Tx \rightarrow EPPx)$

where T stands for "is a truck". When we add an obvious fact that trucks are vehicles:

(10) $\forall x (Tx \rightarrow Vx)$

and name a certain truck t :

(11) Tt

we can conclude in straightforward manner that, on the basis of (1):

(12) $\neg EPPt$

and on the basis of (9):

(13) $EPPt$

obtaining a contradiction.

Such conflicts between legal rules can be resolved in two ways. First, one of the rules can be treated as stating exception to the other. In the case of our example, as the set of trucks constitutes a subset of the set of vehicles, one can reasonably argue that (9) is an exception to (1). In order to resolve the conflict we have to incorporate the exception into the formulation of (1) in the following way:

(1') $\forall x ((Vx \wedge \neg Tx) \rightarrow \neg EPPx)$

Now, the derivation of (12) is blocked because $\neg Tt$ does not obtain. The second way of resolving the conflict is to deem one of the conflicting rules invalid, according to such standards as, for instance, *lex superior derogat legi inferiori*.

(P1), in turn, is a legal principle. It means that it is an "optimization criterion", and "can be satisfied to varying degrees". It is easy to observe that the realization of the protection of human life and health can be realized in various forms. A specific feature distinguishing principles from rules, Alexy

argues, is the situation of a conflict between two principles. Let us assume that in addition to (P1) we also have:

(P2) The environment should be protected by the law.

Let us assume further, that (1) has not been enacted. Now, when the question arises whether our ambulance can enter the public park, one can argue for granting the entrance on the basis of (P1) and for banning it on the basis of (P2). When C_1 stands for the description of the circumstances of the case, from (P1) one can argue to the effect that $EPPa$ and from (P2) to the effect that $\neg EPPa$. In order to decide between those two outcomes, i.e. in order to play out the conflict between (P1) and (P2), one has to weigh the two principles in the *concrete case*. The weighing process is carried out according to what Alexy calls the Weight Formula:

$$(WF) \quad W_{i,j} = \frac{I_i \cdot W_i \cdot R_i}{I_j \cdot W_j \cdot R_j}$$

where $W_{i,j}$ stands for the concrete weight of the principle P_i relative to the principle P_j , i.e. relative to the case at hand; I_i stands for the intensity of interference of P_j with P_i ; W_i stands for the abstract weight of the principle P_i , i.e. irrespective of any circumstances. Finally, R_i stands for "the reliability of the empirical assumptions concerning what the measure in question means for the non-realization of P_i and the realization of P_j under the circumstances of the concrete case" (Alexy 2003a, 446). The principle that has a greater weight prevails in the concrete case over the other principle.

For the sake of simplicity, I will not try to illustrate this point with concrete numbers as it is not needed for our purposes. Let us assume, therefore, that in our case the concrete weight of (P1) is greater than the weight of (P2). Now, we have to make use of the Law of Competing Principles:

(LCP) The circumstances under which one principle takes precedence over another constitute the conditions of a rule which has the same legal consequences as the principle taking precedence (Alexy 2002, 54).

When the circumstances of our case are denoted by C_1 , and (P1) takes precedence over (P2) under C_1 , then (LCP) yields the following rule:

(14) $C_1 \rightarrow EPPa$

The above presentation shows exactly where, according to Alexy, the differences between rules and principles lie. Conflicts of rules can be resolved in an abstract way, irrespective, that is, of the given case. Conflicts between principles, on the other hand, are always resolved relative to a particular case, and "the outweighed principle may itself outweigh the other principle in certain circumstances". In other words, "conflicts of rules are played out at the level of validity; since only valid principles can compete, competitions between principles

are played out in the dimension of weight instead" (Alexy 2002, 50). Moreover, the mechanism of dealing with conflicts of rules is different from that of resolving conflicts between principles. In the former case one treats one of the rules as an exception to the other or deems one of the rules invalid. In the latter, the process of balancing is carried out.

The last thing that has to be addressed in this short presentation of Alexy's conception are conflicts between rules and principles. It is not difficult to imagine that a conclusion of a certain legal rule in the given case contradicts a conclusion of a principle. In fact, we have to do with such a situation in our (Vehicle in the park) example. On the one hand, there is the rule

$$(1) \quad \forall x (Vx \rightarrow \neg EPPx)$$

which serves as the basis for the conclusion

$$(7) \quad \neg EPPa$$

stating that the ambulance cannot enter the park. On the other hand, we have (P1) which backs the opposite conclusion:

$$(13) \quad EPPa$$

As Alexy observes, such situations are possible: "it is possible to incorporate an exception into a rule on the occasion of a particular case. (...) The incorporation of an exception can be based on some principle" (Alexy 2002, 57-58). The problem with this solution is that once we allow principles to 'produce' exceptions to rules, rules lose their 'strictly definite nature'. But, Alexy underlines, "the *prima facie* character which rules acquire on losing their strictly definite nature is of a fundamentally different type from that of principles" (Alexy 2002, 58).

The difference Alexy has in mind here is the following. As in the case of a conflict between two principles, when a rule is in conflict with a principle the process of weighing must be carried out. What is weighed, are, on the one hand, the conflicting principle, and on the other: the principles standing behind the formulation of the rule *together* with some additional principles which can be deemed *formal*. The formal principles are for instance: "rules passed by an authority acting within its jurisdiction are to be followed" (let us tag it (P3)) or "one should not depart from established practice without a good reason" (let us tag it (P4)) (Alexy 2002, 58). Thus, Alexy's claim is that although both principles *and* rules ultimately have a *prima facie* character, the former can be simply outweighed – under particular circumstances – by another principles, while the latter are additionally safeguarded from such a defeat by the value we attach to the stability of law.

Let us illustrate this with our example. We have a conflict between (1) which leads to $\neg EPPa$ and (P1) that leads to $EPPa$. Let us assume, for the sake of simplicity, that it is (P2) that stands behind (1). In order to resolve the conflict between (1) and (P1) one has to weigh (P1) against (P2), but taken together

with (P3) and (P4).² If we assume that (P1) outweighs (P2)+(P3)+(P4), then we are entitled to *revise* (1) in the following way:

$$(1'') \quad \forall x ((Vx \wedge \neg Ax) \rightarrow \neg EPPx)$$

where A stands for "an ambulance carrying a seriously injured person". Now, the derivation of $\neg EPPa$ from (1'') is blocked, for $\neg Aa$ does not obtain. Moreover, on the basis of (P1) taking precedence over (P2)+(P3)+(P4), and by utilizing the (LCE), we can formulate a new rule:

$$(14) \quad C_1 \rightarrow EPPa$$

This concludes the presentation of Alexy's version of the theory of rules and principles. I would like to address now the following question: what kind of logic is capable of handling the above described situations?

3. Classical logic with belief revision

Alexy seems to favor classical logic (see Alexy 2000). Let us look, therefore, how it deals with the three kinds of conflicts described above. In the case of the conflict between legal rules, two strategies are possible. The first leads to declaring one of the rules invalid. It is relatively easy to formulate a classical argument to the effect that one of the rules is not valid. The only problem is that one has to use some metalinguistic means, e.g. the names of the rules. The second strategy is to treat one of the rules as an exception to the other. Recall the two conflicting rules from our example:

$$(1) \quad \forall x (Vx \rightarrow \neg EPPx)$$

$$(9) \quad \forall x (Tx \rightarrow EPPx)$$

together with the semantic fact:

$$(10) \quad \forall x (Tx \rightarrow Vx)$$

In our case, when a certain object t is a truck (Tt), the derivations of both $\neg EPPt$ and $EPPt$ are possible. In order to avoid the contradiction one can treat (9) as an exception to (1). In order to do so, we have to incorporate the exception stated in (9) into (1), obtaining:

$$(1') \quad \forall x ((Vx \wedge \neg Tx) \rightarrow \neg EPPx)$$

The problem is that there is no formal mechanism leading to the formulation of (1'). However, once (1') is formulated, we can check formally what has to be abandoned from our previous theory in order to preserve consistency. This is achieved by formal theories of belief revision.

Let me present briefly one such theory, due to Carlos Alchourrón, Peter Gärdenfors and David Makinson, named AGM.³ A belief-state of a person could

² To simplify the presentation I will not go into the details of weighing more than two principles. See Alexy 2003b.

³ The presentation of AGM is based on Gärdenfors, Rott 1995.

be identified with a set of propositions closed under logical consequence. AGM tries to answer the question as to what are the rational constraints of a belief change. In other words, the theory investigates what has to change in our set of beliefs in order to accommodate a new piece of information. According to Gärdenfors and Rott 1995, the following are the criteria that should be met by any theory of belief revision:

- (a) where possible, epistemic states should remain consistent,
- (b) any proposition logically entailed by beliefs in an epistemic state should be included in the epistemic state,
- (c) when changing epistemic states, loss of information should be kept to a minimum,
- (d) beliefs held in higher regard should be retained in favor of those held in lower regard.

In AGM there are three types of belief change, and hence three types of belief change operators: belief expansion (+), belief contraction (-) and belief revision (*). Belief expansion is an incorporation of a new belief into the set of beliefs without retracting any beliefs. Contraction is a removal of beliefs without adding new ones. And, finally, revision is an addition of new beliefs with the possible removal of some others. Easiest is the case of belief expansion. If I acquire some new information which does not contradict what I know, I simply add it to my web of beliefs. Let K be the set of beliefs and P – the new information. Then:

$$K+P = \{Q \mid K \cup \{P\} \vdash Q\}$$

This definition of belief extension states the following: the extended set of beliefs $K+P$ is a set including all the elements of K , P , and closed under deduction (what is in accordance with the requirement referred to above as (b)).

Belief contraction is a more serious problem. It may seem that it is not difficult to remove a belief from K . This would be so if K was not closed under deduction. However, as it is deductively closed, the belief P we want to remove may be entailed by some other beliefs, so it does not suffice to remove P – some other beliefs have to be removed as well. The question is: which ones? The answer must go along the lines of conditions (a) – (d). $K-P$ has to be chosen from the sets K' belonging to the set $K \perp P$, where

$$K \perp P = \{K' \mid K' \subseteq K \wedge P \notin K' \wedge (\forall Q)[(Q \in K \wedge Q \notin K') \rightarrow K' \cup \{Q\} \vdash P]\}$$

Now, the belief revision, K^*P , may be defined with use of $K+P$ and $K-P$:

$$K^*P = (K - P) + P$$

K^*P satisfies the following postulates:

- A. If K is a belief-set, so is K^*P .
- B. $P \in K^*P$.
- C. $K^*P \subseteq K+P$
- D. If $P \notin K$ then $K+P \subseteq K^*P$.

- E. $K^*P = K_{\perp}$ iff $\vdash P$ (where K_{\perp} is the absurd set of all propositions and $\vdash \neg P$ means, of course, that $\neg P$ is a tautology).
- F. If $\models Q$ then $K^*P = K^*Q$.
- G. $K^*(P \wedge Q) \subseteq (K^*P) + Q$.
- H. If $\neg Q \notin (K^*P)$ then $(K^*P) + Q \subseteq K^*(P \wedge Q)$.

Let us see how this works. In our example we have two conflicting rules: (1) and (9). In order to save the wording of AGM let us assume our set of beliefs K contains (1), as well as the descriptions of facts (2), (4), (10) and (11), and we are willing to add (9). This leads to inconsistency:

$$(16) \quad K \cup \{(9)\} \vdash \perp$$

Therefore, in order to incorporate (9) into our set of beliefs we have to remove something from it, namely (1) and everything that implies it. It has to be stressed once more, however, that AGM cannot tell us that after the incorporation of (9) and the abandoning of (1) it is (1') that has to be introduced.

The belief revision theory cannot help us in dealing with conflicts of two principles. In our case, we had (P1) that under the circumstances C_1 led to the conclusion inconsistent with the conclusion established with the use of (P2). The principles were weighed in order to decide which of them prevails in the case. Only after establishing that, we were able to formulate – according to (LCP) – a legal rule:

$$(14) \quad C_1 \rightarrow EPPa$$

applicable to the case at hand. It must be stressed that when there are two conflicting principles, the classical logic plays its role only after a rule of the form of (14) is established. What we need then is the simple *modus ponens* schema serving as the inference rule for what may be called legal syllogism. According to Alexy, the main mechanism of dealing with conflicting principles is described by the Weight Formula and (LCP) (of course, the reasoning using the formula can be reconstructed formally with the use of classical logic, but the role of logic here is, in a way, inessential).

The third situation we encountered, of a conflict between a rule and a principle, is yet more complicated. First, the weighing of (P1) against (P2)+(P3)+(P4) led us to a revision of (1):

$$(1'') \quad \forall x ((\forall x \wedge \neg Ax) \rightarrow \neg EPPx)$$

This revision can be, naturally, handled with AGM or some other belief revision theory. Furthermore, the weighing process together with (LCP) produced the legal rule:

$$(14) \quad C_1 \rightarrow EPPa$$

Once again, the weighing process, although formal, is not logical and the logic plays its role only after (14) is established. In our example, (14) is applied while the application of (1'') is blocked, because $\neg Aa$ does not obtain.

Our considerations so far enable us to state the following. Rules and principles are handled with different formalisms. Principles are dealt with by utilizing the Weight Formula. Rules, on the other hand, are revised and the process of revision is described formally by a theory of belief revision. It means that – on Alexy’s account – legal rules are revisable. Let me formulate the following definition of revisability:

(REV) A rule of the form $A \supset B$ is revisable if and only if it can be substituted with a rule or a set of rules such that:

(a) 'capture' the deontically perfect world (the structure of obligations) more faithfully;

and

(b) together with the rule $A \supset B$ and the description of facts yield a contradiction.

As I stressed above, legal principles are not revisable in the sense of (REV).

I would like to add one observation to what has been said so far. Revisability of legal rules can serve two different purposes. First, rules can be revised only in the context of a concrete case. For instance, the rule (1) could be revised to (1'') only for the purpose of solving the case we described. In new cases, one would have to start the considerations with (1). Let me call this procedure task-oriented revisability. However, one can imagine that once a rule has been revised it is used in its novel form also in new cases. For instance, the conflict between (1) and (P2) led us to the revision of (1) which took the form:

(1'') $\forall x ((Vx \wedge \neg Ax) \rightarrow \neg EPPx)$

Then, let us consider the introduction of (9). It can lead to building-in an exception into (1). With the second understanding of revisability one would not revise:

(1) $\forall x (Vx \rightarrow \neg EPPx)$

but

(1'') $\forall x ((Vx \wedge \neg Ax) \rightarrow \neg EPPx)$

obtaining

(1''') $\forall x ((Vx \wedge \neg Ax \wedge \neg Tx) \rightarrow \neg EPPx)$

Let us call this abstract revisability.

It seems obvious that – as regards conflicts of rules – abstract revisability is suitable. However, when a conflict between a rule and a principle takes place resulting in a revision, it is task-oriented revisability that seems more appropriate. It has to do with the fact that revisions of rules caused by principles are always case-relative. It is not difficult to imagine that a principle that causes a revision of a rule in one case does not cause it in slightly modified circumstances. This is a troublesome theoretical consequence. Firstly, conflicts of legal norms are handled in three different ways (a conflict of two rules through abstract revision; a conflict of a rule and a principle, in which a principle

prevails, through task-oriented revision, and a conflict of two principles with no revision). Secondly, such a conception poses a real challenge to any attempt at accounting for the structure of legal knowledge (e.g., one can ask whether a case-relative legal rule which is a product of a task-oriented revision constitutes an element of legal knowledge; cf. Brožek 2004, 143-145).

4. Nonmonotonic logic and defeasibility

I would like to investigate now an alternative possibility of handling the interactions between rules and principles logically. The idea is to declare those rules and principles defeasible and use a kind of nonmonotonic logic.

Let us start with a definition of defeasibility:⁴

(DEF) A rule of the form $A \supset B$ is defeasible if and only if there are situations in which A is fulfilled but B does not follow.

It is easily observable that \supset cannot be read as the material implication \rightarrow , for in such case it is impossible that $A \rightarrow B$ and A are true and B is not.

Let me now present a sketch of a formal system in which there exists the so-called defeasible implication, \Rightarrow .⁵ Our defeasible logic (in short: DL) operates on two levels. On the first level from a given set of premises *arguments* are built; on the second level the arguments are compared in order to decide which of them prevails. The conclusion of the 'best' argument becomes the conclusion of the given set of premises.

The language of DL is the language of the first order predicate logic extended by addition of a new operator, the so-called defeasible implication, for which we will use the symbol \Rightarrow . For defeasible implication there exists the defeasible *modus ponens*, analogical to that of the material implication:

$$\begin{array}{l} A \Rightarrow B \\ A \\ \hline B \end{array}$$

The difference between material and defeasible implications is visible only on the second level of DL.

⁴ The notion of 'defeasibility' was introduced into legal philosophy by H.L.A. Hart in Hart 1949. Hart speaks there of defeasibility of legal concepts. Here, a widely accepted rephrasing of Harts idea is used: defeasibility is predicated of rules. For more details, see Sartor 1993, Brožek 2004, Hage 2005.

⁵ The fundamental ideas of the simple system I present here are those of the logic developed by Giovanni Sartor and Henry Prakken; see Prakken 1997. See also Hage 1997 and Brožek 2004.

The language of DL serves for building arguments. Let us come back to our (Vehicle in the park) example with two competing rules:

$$(1) \quad \forall x \Rightarrow \neg EPPx$$

and

$$(9) \quad Tx \Rightarrow EPPx$$

and the following fact:

$$(10) \quad \forall x (Tx \rightarrow Vx)$$

Observe that in (1) and (9) the material implication has been replaced by the defeasible implication. In the case of (10) it is unnecessary for (10) expresses a linguistic fact.

Let us consider two situations. In the first to (1), (9) and (10) the following fact is added:

$$(17) \quad Vt$$

which states that a specific object named t is a vehicle. The set of premises containing (1), (9), (10) and (17) enables us to construct only one argument:

$$\begin{array}{l} (ARG1) \quad \forall x \Rightarrow \neg EPPx \\ \quad \quad Vt \\ \quad \quad \text{-----} \\ \quad \quad \neg EPPt \end{array}$$

In the second situation a fifth premise is added:

$$(18) \quad Tt$$

which enables us to build the following argument:

$$\begin{array}{l} (ARG2) \quad \forall x (Tx \rightarrow Vx) \\ \quad \quad Tt \\ \quad \quad Vt \text{ (from the previous two premises by } \textit{modus ponens}) \\ \quad \quad Tx \Rightarrow EPPx \\ \quad \quad \text{-----} \\ \quad \quad EPPt \text{ (from the previous two premises by defeasible } \textit{modus ponens}) \end{array}$$

Having those two arguments we can move to the second level of DL, on which the arguments are compared in order to decide which is better and, in consequence, which of the sentences – $\neg EPPt$ or $EPPt$ – shall be regarded the conclusion of our set of five premises.

On the second level of DL two concepts play a crucial role: *attack* and *defeat*. We shall say that an argument A attacks an argument B if the conclusions of both arguments are logically inconsistent⁶. In our example it is the case since $\neg EPPt$ and $EPPt$ are contradictory: consequently, ARG1 attacks ARG2. If two arguments attack one another, one has to know how to decide which of the arguments prevails, i.e. which *defeats* the other. Various ways of

⁶ As our presentation is elementary, I apply here a simplified definition of attack. Cf. Prakken 1997.

comparing attacking arguments have been developed. The easiest and most flexible is the following. One checks what the defeasible implications that served to build the attacking arguments are. It is assumed that those implications are ordered. In a comparison an argument prevails which is built with the use of a defeasible implication that is higher in the ordering. In our example the first argument is based on the implication $\forall x \Rightarrow \neg EPPx$, while the second on $Tx \Rightarrow EPPx$. It is reasonable to assume that the second implication is higher in the ordering, since it is more specific. If $Tx \Rightarrow EPPx$ is higher in the ordering than $\forall x \Rightarrow \neg EPPx$, then the second argument defeats the first.

The conclusion of the argument that prevails in comparison of all attacking arguments built from the given set of premises is the logical conclusion of this set. In the first situation our set of premises contained only four sentences: (1), (9), (10) and (17), what enabled us to build only one argument, ARG1. The conclusion of ARG1, $\neg EPPt$, is the logical conclusion in the first situation. In the second situation another sentence is added to our premises: (18). It made it possible to construct the second argument, ARG2. Both arguments attack one another and the ARG2 wins. Therefore its conclusion, $EPPt$, and not the conclusion of the ARG1, follows logically in the second situation. It is clear from it that DL is nonmonotonic. In the first situation $\neg EPPt$ was the logical conclusion, while in the second, in which the set of premises is extended, $\neg EPPt$ does not follow anymore.

Let us have a look now, how DL deals with the three kinds of conflicts involving rules and principles. Conflicts between rules have already been described above, i.e. the situation in which one of the conflicting rules is treated as an exception to the other. The conflict is decided by weighing the arguments that are built with the use of conflicting rules. The rule prevails which is higher in the ordering of defeasible implications.

Two things have to be observed in connection with the described mechanism. First, unlike in the case of Alexy's solution, neither of the two rules is revised in order to 'include' the other as an exception. The formalizations of both stay intact. Second, the essential thing as regards the conflicts of rules is their ordering which decides the outcome. It is easy to observe that in case of legal rules the ordering can be constructed in an abstract way, irrespective, that is, of the given case.

This fact distinguishes rules from principles. Let us see, therefore, how a conflict of principles is handled by DL. Let us recall (P1) and (P2):

(P1) Human life and health should be protected by law.

(P2) The environment should be protected by law.

Within the framework of DL it is suitable to formalize both principles:

(P1') $Hx \Rightarrow PLHx$

where H stands for "is a human being" and PHL for "his/her life and health are protected by law". (P2) becomes:

(P2') $Ex \Rightarrow PLx$

where E stands for "is an element of environment" and PL for "is protected by law".

Let us state the following facts:

(19) Hc

stating that a specific c is a human being;

(20) Ep

saying that p , our public park, is an element of environment.

Let us assume, further, that the following facts hold:

(21) $PLp \rightarrow \neg EPPa$

(22) $PLHc \rightarrow EPPa$ ⁷

(21) says that if the park as an element of environment should be legally protected, then our ambulance cannot enter the park. (22) says in turn, that if the human life of the injured person should be legally protected, then the ambulance is allowed into the park.

From the above set of premises two arguments can be constructed that attack one another:

(ARG3) (P1') $Hx \Rightarrow PLHx$

(19) Hc

$PLHc$ (by defeasible *modus ponens* from (P1') and (19))

(22) $PLHc \rightarrow EPPa$

 $EPPa$ (by *modus ponens* from (22) and $PLHc$)

(ARG4) (P2') $Ex \Rightarrow PLx$

(20) Ep

PLp (by defeasible *modus ponens* from (P2') and (20))

(21) $PLp \rightarrow \neg EPPa$

 $\neg EPPa$ (by *modus ponens* from (21) and PLp)

As we have two competing arguments, we have to decide which one prevails in order to determine which of the conclusions, $EPPa$ or $\neg EPPa$, is the logical conclusion of our set of premises. In order to carry out the comparison we need an ordering of defeasible implications; the question is, which one, (P1') or (P2')

⁷ This formalization may seem a little more complicated than in the case of the classical logic solution. This observation is misleading, however. Such facts as (21) and (22) only express what is implicitly assumed in the process of weighing principles in the classical logic solution.

are higher in the ordering. It is natural to assume that the ordering in the case of comparing two principles is decided by the Weight Formula. If (P1') weighs more, then it is (ARG3) that prevails and hence it is $EPPa$ that is the logical conclusion of our set of premises. One thing has to be noted here: DL enables us to get rid of (LCP); in other words, after comparing principles we do not have to formulate a case-relative legal rule according to (LCP). The weighing process decides the ordering of defeasible implications and thus indicates the winning argument, whose conclusion is what we are looking for.

Finally, we have to address conflicts between rules and principles. Let us recall the situation. We have a legal rule:

$$(1) \quad \forall x \Rightarrow \neg EPPx$$

and a legal principle:

$$(P1') \quad Hx \Rightarrow PLHx$$

together with the following facts:

$$(19) \quad Hc$$

$$(22) \quad PLHc \rightarrow EPPa$$

$$(23) \quad Va$$

Once again, two arguments can be built:

$$(ARG5) \quad (1) \quad \forall x \Rightarrow \neg EPPx$$

$$(23) \quad Va$$

$\neg EPPa$ (by defeasible *modus ponens* from (1) and (23))

$$(ARG6) \quad (P1') \quad Hx \Rightarrow PLHx$$

$$(19) \quad Hc$$

$PLHc$ (by defeasible *modus ponens* from (P1') and (19))

$$(22) \quad PLHc \rightarrow EPPa$$

$EPPa$ (by *modus ponens* from (22) and $PLHc$)

ARG5 and ARG6 attack one another. It has to be decided, therefore, which one prevails. What we need is once again an ordering of implications; this time the question is which one, (P1') or (1), is higher. In order to answer this question one has to weigh (P1) against the principles standing behind (1), i.e. (P2)+(P3)+(P4). This time, if (P1) outweighs (P2)+(P3)+(P4), the legal rule (1) is not revised in order to include the exception caused by (P1). When the Weight Formula indicates (P1) as outweighing (P2)+(P3)+(P4), this results in placing (P1') higher in the ordering than (1). With this, ARG6 takes precedence over ARG5, and it is the conclusion of ARG6, $EPPa$, that is the logical conclusion of our set of premises.

The final observation I would like to add to these considerations is that when one handles rules and principles with the use of DL, rules are not revisable

(as is the case with the previous, classical logic solution). Instead, both legal rules and principles are defeasible in the sense of the definition given above.

5. Comparison of the solutions

Let us now try to compare the two 'logics of rules and principles' starting with the three kinds of conflicts that may arise between legal norms. In the case of a conflict between rules the classical logic solution offers two ways out. The first is a reasoning leading to declaration of invalidity of one of the conflicting rules. The second is to treat one of the rules as stating an exception to the other. This, in turn, leads to revising the other rule in order to incorporate the exception.

The defeasible logic solution is exactly the same as it comes to declaring one of the rules invalid. The second situation, however, is different. When in the classical logic solution one has to revise one of the rules, in defeasible logic the formalization of the rule stays intact. Instead, two arguments are built which are compared and the conclusion of the prevailing argument becomes the logical conclusion of the given set of premises.

In the case of a conflict between two principles, the classical logic solution boils down to using the Weight Formula and producing a case-relative legal rule according to (LCP). This may seem an unintuitive two-stage process (cf. Brożek 2007). The defeasible logic solution, on the other hand, leads, once again, to weighing two competing arguments – both based on conflicting principles. And once again we need the ordering of defeasible implications to decide which of the arguments takes precedence. The ordering is set by using the Weight Formula. Observe that no analogue of (LCP) has to be used here. Moreover, the procedure does not have two 'distinct' stages. One can say that in the case of the defeasible solution the Weight Formula can be easily built-in into the logical machinery.

As regards classical logic solution of a conflict between a rule and a principle, the situation is even more complicated. We not only have to revise the rule to which a principle caused an exception, but also to produce – *via* (LCP) – a case-relative legal rule that applies in the case. The defeasible solution is more straightforward and very similar to that of a conflict between two principles. The only difference is the fact that, as Alexy's theory dictates, the conflicting principle has to outweigh not only the principle backing the conflicting rule but also the so-called formal principles.

It seems, therefore, that the defeasible solution is a more natural than the classical one. But a serious objection can be raised against this claim. The objection consists in the following question: are rules distinguishable from principles within the defeasible solution? In the classical one, as advocated by Alexy, principles behave in an essentially different way than rules. Rules are

revisable and are used with the simple subsumption model. Principles are not revisable and are handled with the balancing model, taking advantage of the Weight Formula. In the defeasible solution, however, the difference between rules and principles seems to diminish. Both rules and principles are defeasible; both are modeled with the use of defeasible implication; both serve as elements of arguments; both arguments consisting of norms and arguments consisting of rules are weighed.

A reply to this objection may be the following. Although all the mentioned facts are true, there still is a difference between rules and principles in the defeasible model. The difference has to do with the way the ordering of defeasible implications is constructed and the way it behaves. First, the order between two legal rules is not decided by the Weight Formula, what is in accordance with Alexy's conception. Furthermore, the ordering is not case-relative: which of the rules is higher can be decided in an abstract way. In the case of conflicts between two principles or a rule and a principle, the situation is different. The ordering is set by the Weight Formula and is case-relative. It means that when a principle is higher in the ordering than some other principle in one case, it does not have to be higher in some other case. This captures the essential feature of the way principles function in a legal system.

Moreover, there are some serious problems as regards Alexy's original, classical logic solution. First, as regards conflicts of principles, it uses (LCP) which 'produces' legal rules that are only valid within the given case. Second, there is a problem with the revisability of legal rules. In the case of conflicts between rules, rules are revised in an abstract way. However, in the context of conflicts between a rule and a principle, only task-relative revisability is suitable. It leads to the question what, according to Alexy, a legal norm is. On the most general level, two answers are possible. According to the first, a legal norm is an 'all things consider' expression that prohibits, permits or obliges someone to do something. An 'all things considered' norm is a norm that includes all the possible exceptions. The other possibility is to say that legal norms are '*prima facie*' norms, i.e., they are expressions prohibiting, permitting or obliging someone to do something, but in order to decide in a case one has to take into account and balance – possibly – many norms.

The defeasible solution evidently favors the second conception. Legal norms – both rules and principles – are *prima facie* (although there is a difference between them, on which Alexy insists, namely that the *prima facie* character of rules is limited by the so-called formal principles). Observe that the above statements are justified because according to the defeasible solution both legal rules and principles are defeasible, what enables one not to revise legal rules when a conflict is at hand. The classical solution is in a worse position here. First, it is difficult to use within this conception the notion of an 'all things

considered' legal norm because of the task-oriented revisions in the case of conflicts between rules and principles. Second, it is difficult to use the notion of *prima facie* norms, because the revision process does take place. It seems therefore, that the classical solution leaves us with no acceptable conception of legal norms.

The last thing that must be addressed is the following problem: according to the classical solution the formalism that handles rules is essentially different than the formalism handling principles. In the former case it is classical logic with revision. In the latter: the Weight Formula. Despite this fact Alexy does not hesitate to state that the answer to the question of whether there exists a formal structure of balancing which is in some way similar to the general scheme of subsumption is positive. He says that "in both cases a set of premises can be identified from which the result can be inferred. (...) The relation between those premises and the result is, however, different. The Subsumption Formula represents a scheme which works according to the rules of logic; the Weight Formula represents a scheme which works according to the rules of arithmetic. But this difference must not be overestimated" (Alexy 2003, 448).

I believe it would not be wise to play down the difference in question. The fact that one scheme "works according to the rules of logic" and the other "according to the rules of arithmetic" is devastating for any attempt of developing a formal theory of legal reasoning. The problem consists in it that it is logic and not arithmetic that sets the standards for any reasoning. Therefore, a 'model of reasoning' based on an arithmetic formula is not, at the end of the day, a 'real' model of reasoning. It is not to say that the Weight Formula is an inadequate account of reasoning with principles. But it can serve its purpose only when built-in into a logical system. This is exactly what the defeasible solution provides us with.

I do not want to say that the defeasible solution does not experience problems of its own. To the contrary: there are serious doubts, for instance, as regards the metalogic or semantics of nonmonotonic systems (cf. Brożek 2007, 100-102). However, with a very intuitive idea of comparing arguments encoded in it, defeasible logic has to be regarded as superior to the classical solution favored by Alexy.

6. Beyond rules and principles

In this final section of the paper I would like to pose a more general question: given the fact that there is no substantial logical difference between rules and principles, is the distinction itself tenable? Let us summarize our findings so far. Alexy believes that one can distinguish between legal rules and legal principles, and that the difference between them is of formal character: the

former are applied *via* the subsumption scheme, and so according to the laws of logic, while the latter are handled with the Weight Formula, and hence according to the laws of arithmetic. This is a strange view. No algebraic formula – and the Weight Formula is algebraic – cannot serve as a model of reasoning; only logic provides us with inference schemes, i.e. such forms of arguments which guarantee the transmission of truth (or justification) from premises to the conclusion (cf. Brožek 2012).

It is possible, however, to reformulate Alexy's theory so that it avoids this critique. The Weight Formula is not a scheme of reasoning, but a criterion for *balancing* arguments. These arguments are deductively valid: they simply constitute instances of the subsumption scheme. I argue, however, that this requires to switch from the classical logic to the defeasible one, a formal system that enables constructing and comparing deductively valid arguments. Such a maneuver helps also to deal with some of the theoretical problems of Alexy's original solution. In particular, it does not require the Law of Competing Principles: in the process of balancing there is no need to formulate a case-relative legal rule that constitutes the basis for the final decision in the case at hand. Moreover, one does not have to make recourse to the mechanism of revision – any legal rule or principle remains structurally intact in the process of adjudication, no exceptions are incorporated into the formulation of relevant legal norms.

On this account, both legal rules and principles become *prima facie* norms, and so must be reconstructed formally with the use of defeasible implications. The only difference between the two genres of norms is *extra-logical*: when balancing a legal rule, but not a principle, one needs to take into account also the so-called formal principles which additionally support the rule. The problem is that this difference cannot constitute the *criterion* for distinguishing rules and principles: one needs prior knowledge of what are rules in order to include additional formal principles in the process of balancing them.

What is, then, Alexy's criterion for identifying legal rules and principles? Let us recall his definitions of both:

Principles are norms which require that something be realized to the greatest extent possible given the legal and factual possibilities. Principles are optimization requirements, characterized by the fact that they can be satisfied to varying degrees, and that the appropriate degree of satisfaction depends not only on what is factually possible but also on what is legally possible. (...) [Rules] are norms which are always either fulfilled or not. If a rule validly applies, then the requirement is to do exactly what it says, neither more nor less. (Alexy 2002, 47-48).

These definitions may be understood as saying that principles can be realized in various ways and (hence) to varying degrees, while there is always only one

way to realize a rule. It is not clear what would it mean in the context of a concrete case. In our example, the rule banning vehicles from entering a public park determines one obligatory course of action (i.e., do not enter the park); however, the relevant principle, "Human life and health should be protected by law", also determines one obligatory course of action (drive through the park) – it is difficult to see, how, *in a concrete case*, a principle may be fulfilled to a degree.

The only way to account for the fulfillment-to-a-degree characteristic of legal principles is to hold that rules are applied in a uniform way in any relevant case, while principles may be applied in different ways to different cases; thus, we reach beyond the level of a single, concrete case, where the difference between rules and principles cannot be spelled out, and consider the entire class of cases relevant for a rule or a principle. The principle "Human life and health should be protected by law" may be realized through various concrete norms: one that requires for an ambulance to use the shortest way to the hospital, disregarding other regulations, as well as one permitting only to use a loud signal, but otherwise observe all the driving regulations; one that requires of the state to finance debts of all hospitals, or one that merely gives hospitals some tax relief. Of course, Alexy is right, when he insists that the choice of a concrete course of action realizing any principle in a particular case hangs together with both its factual and legal limitations. However, the same line of argument can be applied to rules. Consider again the norm "Vehicles are banned from entering the park". In some normative contexts this rule may be realized by banning bicycles from entering the park; under different circumstances bicycle riders may be allowed to drive through the park. There seems to be no substantial difference between the rule and the principles here, apart from the fact that the principle is much more general than the rule, as it potentially applies to a much larger class of cases. Hence, it is no surprise that the principle may be realized in many more ways than the rule. To put it differently: when Alexy says that principles are "norms which require that something be realized to the greatest extent possible given the legal and factual possibilities", the same definition may be applied to rules. The rule "Vehicles are banned from entering the park" should strictly be followed provided that there are no factual obstacles (*anyway, impossibillum nulla obligation est*) and normative limitations (e.g., there is no legal argument supporting the claim that an ambulance can enter the park). That we tend to speak of rules as "norms which are always either fulfilled or not" results from the fact that what we usually call rules are quite specific norms, designed by the legislator in such a way that there *normally* – but not always – are no factual nor legal limitations interfering with their realization.

Still, Alexy may reply that a crucial element of his conception has not been addressed above: it is only principles, and not rules, that may serve as

'variables' in the process of balancing. But this counterargument also seems to miss the point. On the one hand, in order to know what can be balanced, and what cannot, one needs a prior criterion for distinguishing rules and principles; on the other, there seems to be no reason not to balance rules. For example, our rule "Vehicles are banned from entering the park" has light abstract weight and is (in our case) seriously interfered with, as well as there is strong empirical support for our estimation of the level of interference. Moreover, the more general the rule (e.g. "Whoever intentionally causes damage to someone is obliged to repair it" as opposed to "Vehicles are banned from entering the park"), the more nuanced and more principle-like its balancing process may become.

I believe that the above analysis shows that there is no sharp criterion for distinguishing legal rules and principles. This conclusion is confirmed once one considers other attempts at providing such a criterion. It is ironic that Ronald Dworkin, who introduced the distinction (cf. Dworkin 1977), provided an example (*Riggs vs. Palmer*) which – in a way – falsified his theory. Dworkin claimed that legal rules are applied in an "all-or-nothing fashion", while principles have "the dimension of weight". This may be interpreted in two ways: either as saying that legal rules are conclusive (when the rule's antecedent obtains, the conclusion always follows) and principles are not; or that principles, in contrast with rules, can be fulfilled to a degree. However, the principle in *Riggs vs. Palmer* ("No one shall profit from his own wrongdoing") cannot be fulfilled to a degree; and the rule involved in the case proved inconclusive.

Recently, Humberto Avila provided the following definition of legal rules and principles:

Rules are immediately descriptive, primarily past regarding norms which intend to decide and overinclude, whose application requires assessing correspondence, always centered on the purpose supporting it or on the principles axiologically overlying it, between the conceptual construction of the normative description and the conceptual construction of the facts. Principles are immediately finalistic, primarily future regarding norms which intend to be complementary and partial, whose application requires assessing the correlation between the state of affairs to be promoted and the effects of the conduct seen as necessary to its advancement (Avila 2007, 40).

There is no need to analyze all the concepts utilized in this definition to realize that it provides no simple, operationalizable criterion for distinguishing rules and principles; it is also doubtful whether the resulting distinction is a sharp one.

In conclusion, I would suggest that the distinction between legal rules and principles is only a didactic one, although its role in the critique of legal positivism is undoubtedly very important. From the theoretical perspective,

however, it seems more reasonable to develop a finer-grained typology of legal norms, or concentrate on the different modes of applying them to concrete cases, rather than on a dubious, non-operationalizable and vague distinction.

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