ANALOGICAL REASONING AND EXTENSIVE INTERPRETATION[*]

Damiano Canale & Giovanni Tuzet
Bocconi University

logic does not prescribe interpretation of terms
(H.L.A. Hart)

1. *Introduction*

The present work focuses on the tension between analogical reasoning and extensive interpretation in law. These two techniques of judicial decision-making permit to rule a case that is not explicitly considered by a legal provision and still is worth being regulated on the basis of it.[1] In most legal systems, however, reasoning by analogy is prohibited in criminal law (unless it is in favor of the accused) whereas extensive interpretation is not.[2] Hence, it is a crucial point in criminal adjudication to distinguish the two arguments, although they seem to serve the same purpose.[3] Indeed, if a trial court justifies a criminal decision arguing by analogy, the decision will be reasonably quashed on appeal because it is contrary to the law. The same decision is justified, on the contrary, when it can be considered an extensive interpretation of a criminal provision, even when this is the same provision that the court could have used analogically. The problem is that in the legal practice one can hardly distinguish analogy from extensive interpretation. It is very unclear whether there is a real difference between the two and where it might be. On the one hand, some scholars claim that they differ from a theoretical point of view, since they do not have the same argumentative structure. On the other hand, analogical reasoning and extensive interpretation come to the same result starting from the same legal materials: they justify the extension of a regulation to a case that is not explicitly considered by the law.

As a consequence, one might have the suspicion that judges deploy these canons of argumentation strategically. When a judge intends for whatever reasons to punish a conduct that is not explicitly regulated by a criminal provision, then she justifies her decision as the compelling upshot of an extensive interpretation of the provision. On the contrary, when a judge is not willing to punish the same conduct, then she claims that the extension of criminal liability is not permitted, since this would be a case of analogical reasoning. As a result, these canons of decision-making would be susceptible of whatever manipulation for purposes of social protection and control: judges would make criminal law up as they go along on the basis of "what it seems to them a just society."[4]

---

[*] Forthcoming.

[1] Although "analogical reasoning" and "extensive interpretation" are often used in judicial discourse to denote two fungible techniques of decision-making, legal theory clearly differentiates the two classes of entities they refer to. As we shall point out in § 2, "extensive interpretation" makes reference either to the interpretive process that extends the standard meaning of an interpreted legal provision, or to the outcome of this process. On the contrary, "analogical reasoning" denotes an argumentative technique inferentially articulated. In this article we shall look at these subjects from the point of view of the theory of legal argumentation: those labels will single out two arguments that are used to justify a judicial decision.

[2] This is the case for instance of Spain, France, Germany and Italy: see e.g. Quintero Olivares (1989, pp. 136-139), Robert (2001, pp. 191-201), Hassemer (1992), and Caiani (1958) respectively. Common law countries face the same problem in the interpretation of statutes and precedents: see e.g. *McBoyle v. United States* (1931) and MacCormick (1978, Ch. 8). It is true that common law rules lack the canonical form of statutory ones: but even if they cannot be "interpreted extensively" in the same sense of statutory law, they can be construed extensively.

[3] See e.g. Ross (1958, § 29), Silving (1967), MacCormick (1978, p. 155ff.), Wróblewski (1992, pp. 223-227).

[4] MacCormick (1978, p. 107).

All this being true, it is worth looking at whether there are any constraints on the judicial application of these argumentative canons in legal practice. If it were to turn out that no constraint is put on the judge, and the divide between analogical reasoning and extensive interpretation is *just* a matter of strategic maneuvering in argumentation, then the conceptual distinction we are considering is not consistent with the principle of legality and the rule of law. When constraints are given and a straightforward line can be drawn between the two canons, then the legality of a criminal decision based upon them is not compromised.
To address these issues, we shall focus first on the theoretical distinction between analogical extension and interpretive extension, as it is traditionally conceived by legal scholars. Then we will concentrate on a recent Italian case (the "Vatican Radio Case") where the Italian Court of Cassation, in declaring that the accused could have been legally convicted of a criminal offence, claimed to argue from extensive interpretation and not from analogy. We shall assess, in this respect, whether the argumentation of the Court was sound. Finally, we will propose an original account of the distinction between analogical reasoning and interpretive extension, based upon the principle of semantic tolerance and its inferential structure in legal argumentation. In doing this, we will highlight the different constraints put on the interpreter who makes use of these arguments to underpin a judicial decision.

2. *The Traditional Standpoint*

In legal argumentation and practice, "restrictive" and "extensive" interpretations are often described as techniques that are used when the literal meaning of a legal provision (hereafter *standard* meaning) does not correspond to the intended meaning of the legislature. It may be the case that the legislature, by enacting a statute, says one thing but means another.[5] In the legal jargon, it is commonly claimed in these circumstances either that *lex magis dixit quam voluit* (the law said more than it wanted to say) or that *legis minus dixit quam voluit* (the law said less than it wanted to say). Now, when the standard meaning[6] of a legal provision differs from the intended meaning, a court that decides a case according to the former will fail to enforce the law that the legislature intended to make. Restrictive and extensive interpretation serve to address this issue. These interpretive techniques give the judge the opportunity to set aside the standard meaning of the statute in order to bridge the gap between what is said and what is intended. And they do this either narrowing the set of cases that the statute would have ruled if the judge had interpreted it literally, or expanding this set. In the latter circumstance, one or more cases that do not fall under the standard meaning of the statute will be ruled according to it nevertheless.
As a consequence, what does it happen when a legal provision is interpreted extensively? A case is not regulated by the law according to the standard interpretation of a legal text, but it becomes such on the basis of a second way of interpreting the same text.

> C does not fall under N_1 obtained via I_1 of P.
> But, C falls under N_2 obtained via I_2 of P.

I_2 is the extensive interpretation of provision P, according to which the content of norm N_1 is extended to N_2. For example, this happens when a provision about "vehicles" is about motor-

[5] The distinction between what is said and what is intended has been pointed out by Grice (1989). Here we make abstraction from the ontological and epistemological worries about legislatures, namely whether there are such entities and how it is possible to know their intentions.
[6] We shall use the expression "standard meaning" to refer to the meaning that an expression assumes most times according to the rules governing the use of this expression in a given language.

vehicles according to I_1 and extends to devices that perform the same function even if they lack a motor (e.g. skateboards) according to I_2.
Given this explanation, it is clear that an interpretation is not "extensive" *per se* but with respect to some standard interpretation.[7] How does it work? N_2 is a justified interpretive extension of N_1 when an interpretive canon permits to extend the standard interpretation of P. If I_1 is the standard (literal) interpretation, I_2 might be an extensive interpretation argued from the intention of the legislature, from the purpose of the regulation, from a legal principle, etc.[8] Therefore, strictly speaking, "extensive interpretation" and "restrictive interpretation" do not denote argumentative canons. These expressions simply qualify the upshot of interpretation: in particular, they mark the fact that the scope of the norm so stated is larger or narrower than it would have been had the provision been interpreted literally. In this sense, such interpretive techniques do not justify a judicial decision, although they are sometimes employed in legal argumentation as if they could. Extensive interpretation is in need of justification: it is not itself an argumentative tool. In fact, it simply brings into operation those argumentative canons that justify giving up literal interpretation, and thus leads the judge to defeat the principle of strict construction in criminal law. By making reference to the intended meaning of the legislature, that can be determined using different argumentative tools, the range of criminal liability may be both expanded and cut down.
What happens instead in analogical reasoning? A gap in the law is filled by arguing analogically from a source case to a target case[9], and thereby a new norm is created. To put it differently, a first norm regulates a source case which is relevantly[10] similar to a target case that lacks a legal regulation. On the basis of this relevant similarity and the lack of relevant dissimilarities, the regulation of the source case is extended to the target one. In this way, the gap is filled by the judge by generating a second norm that goes beyond the first, and hence can be seen as created by the judge.

> C_1 falls under N_1.
> C_2 does not fall under any actual norm of the system (there is a gap in the law).
> There is a relevant similarity between C_1 and C_2.
> C_2 falls under N_2 obtained by analogical reasoning (filling the gap).

In this scheme, C_1 is the source case, whose regulation is extended analogically to the target case C_2. N_2 is a new norm created by analogy from N_1. For example, to use the famous American decision *Adams v. New Jersey Steamboat Co.* (1896), the issue of the liability of steamboat companies for the loss of money or other personal effects of their passengers (target case) is treated by analogy with the liability of innkeepers for such losses of their guests (source case), considering that a steamboat is a "floating inn" in the light of such

[7] "Extensive interpretation (interpretation by analogy) is the term used when pragmatic considerations result in the application of the rule to situations which, regarded in the light of 'natural linguistic reading', clearly fall outside its flied of reference" (Ross 1958, p. 149; note that Ross does not distinguish between analogy and extensive interpretation).
[8] Ross (1958, p. 150) claims that extensive interpretation has two presuppositions: 1) that a legal evaluation is in favor of applying a rule not only to sphere (a) but also to sphere (b); 2) that there is no difference between (a) and (b) that could justify a different treatment of the two cases. See also Silving (1967, p. 313): "though words have outer limits of social meaning, beyond which their extension might appear absurd, their meaning in a statute is very often sufficiently flexible to include or to exclude certain items, depending on purpose."
[9] See Holyoak & Thagard (1995). On analogy in the law cf. Golding (1980, part III), Sunstein (1993), Brewer (1996), Kloosterhuis (2005), Kaptein (2005). It might also happen that the inference is drawn from multiple sources: see Guarini (2010).
[10] Relevance is determined by legal purpose (*ratio legis* in civil law systems), as we tried to show in Canale & Tuzet (2009). Cf. Cardozo (1921, pp. 28-30) and (1924, pp. 79-80) on analogy and *radio decidendi* in case law.

purpose as the protection of guests or passengers from "fraud or plunder" from the proprietor.[11]

3. *Different Traits, and Common Ones*

What are the distinguishing traits of extensive interpretation and analogical reasoning? According to the theoretical demarcation we just outlined, they have at least four different features.[12] First, analogical reasoning presupposes a given interpretation of the relevant provisions, which is at stake in extensive interpretation. Interpretation comes first. That is, one argues analogically after having interpreted the relevant provisions and having established that the case is not regulated, despite the interpretive method the judge could call on. On the contrary, extensive interpretation is precisely about the way in which such provisions ought to be interpreted, or have been construed as a matter of fact.

Secondly, analogical reasoning presupposes a gap, which is absent in extensive interpretation. This gap actually depends on the interpretive process itself: the case at hand in not regulated by the law in the sense that no available interpretation of a valid legal provision has been able to set up a norm covering it.

Thirdly, analogical reasoning creates a new norm to fill the gap, whereas extensive interpretation extends the content of the standard reading of the relevant provision. Let's say that N_1 regulates cases of type A and B: with extensive interpretation N_2 regulates cases A, B and C. With analogical reasoning, on the contrary, N_1 regulates cases A and B, while N_2 regulates cases C. The scope of N_2 with extensive interpretation is necessarily greater than that of N_1, which is not the case with analogical reasoning.[13]

Fourthly, as it is the case in almost every contemporary legal system, analogical reasoning is prohibited in criminal law while, as we already pointed out, extensive interpretation is not. A basic legal principle lays behind this: it is the "rule of law" principle in common law countries and the "legality" principle in civil law ones. It is the shared idea that judges shall not create new law in criminal matters, but just decide on the basis of already established and cognizable norms. As the slogan has it, they have to apply the law. This idea is commonly represented by the maxim *nullum crimen sine lege, nulla poena sine lege.* But this is not meant to exclude all margins of judicial appreciation and discretion; flexibility is a felt need of law in general and also, with more caution, of criminal law. So both laxity of construction and vagueness of criminal statutes may sometimes be useful or even necessary.[14] As a consequence, legal scholars in general think that extensive interpretation is admissible in criminal matters, provided that judges do not create new law but confine themselves to the admissible interpretations of given provisions.[15] This view is reasonable if the two techniques at stake are different indeed. The different traits we outlined above seem to support the view that they are

[11] As scholars know, a disputed question was whether the relevant similarity of steamboats was with inns or with railroads; in the former case companies were liable for such losses, in the latter they were not. See e.g. Weinreb (2005) and Posner (2006). For a similar problem see Sunstein (1993, p. 772): is hate speech analogous to physical assault or to political dissent?

[12] See e.g. Bobbio (1994, Ch. 1). Cf. Carcaterra (1988, pp. 16-18), Gianformaggio (1997) and Peczenik (2005, pp. 20-24).

[13] But analogical reasoning presupposes a principle or a value related to the *ratio* and covering all those cases.

[14] "Overly precise *statutes* invite the criminally inclined to frustrate the intent of legislation by skirting the inflexibly precise language. As a result fairness only requires that a statute put law-abiding non-lawyers on reasonable notice that their intended conduct runs a reasonable risk of violating the statute" (Dressler 1987, p. 28).

[15] In Italy, for instance, the positive law explicitly prohibits analogy in criminal matters (art. 14 of the "Preleggi"), but is silent on extensive interpretation; scholars in general claim that the latter is admissible.

not the same, and rule out as a theoretical confusion the label "analogical interpretation".[16]
But extensive interpretation and analogy have common traits too. First, they share the need of settling, one way or another, the case in hand. A decision must be made and an argument must be given in favor of it. In particular, they deal with a case that is not explicitly regulated by a legal provision, i.e., that does not fall under its standard meaning, but needs to be regulated for reasons of social protection and control.
Secondly, and more importantly, extensive interpretation and analogy have the same practical outcome. For N_2 (either obtained by extensive interpretation or by analogy) extends the regulation to the case in hand. The practical outcome for the parties involved is the same, either if you argue from extensive interpretation or from analogy. Let us consider our previous examples. A skateboard might be qualified as a vehicle according to an extensive interpretation of the provision "No vehicles in the park" whose standard meaning covers motor-vehicles, to the effect that skateboards are not allowed in the park (N_2). But one might also argue in the following way: "vehicles" is to be read as referring to motor-vehicles (because of some interpretive argument to be specified, like the argument from literal meaning or from legislative intent); so the norm does not cover the case of skateboards entering the park; so there is a gap in the law; but there is also a relevant similarity between motor-vehicles and skateboards (both represent a threat to the safety of pedestrians in the park); therefore the gap is to be filled by analogy extending to skateboards the regulation on motor-vehicles, to the effect that skateboards are not allowed in the park (N_2). The same outcome that was arrived at by interpreting extensively the given provision could be reached by arguing analogically after having interpreted non-extensively the same provision. Or, the other way round, one could turn an analogical argument into a form of extensive interpretation. The Court of *Adams* argued there was a gap in the law and, because of the relevant similarity between steamboats and inns (a steamboat is a "floating inn") the gap was filled by analogy. Now, assuming there is a provision about "inns", one might also argue that the word "inns" is to be interpreted extensively (because a steamboat is a "floating inn") to the effect that the regulation about inns extends to steamboats and steamboat companies are liable as innkeepers are. It is perhaps for this common traits that some scholars, in the context of systemic interpretation and with reference to the issue of legal gaps, use the labels "analogy *extra legem*" (analogical reasoning) and "analogy *intra legem*" (extensive interpretation).[17]
All of this might not be a problem for thinkers who love theoretical distinctions as such. It is indeed a problem for pragmatist thinkers who are more interested in outcomes than in the ways they are arrived at. It is a pragmatist principle that, if the application of two concepts has the same practical consequences, they are the same concept under different names.[18] Now, if "extensive interpretation" and "analogical reasoning" produce the same practical

[16] But MacCormick (1995, p. 474) argues that analogy can work as an *interpretive* argument, extending the interpretation of one provision to another: "if a statutory provision is significantly analogous with similar provisions of other statutes, or a code, or another part of the code in which it appears, then even if this involves a significant extension of or departure from ordinary meaning, it may properly be interpreted so as to secure similarity of sense with the analogous provisions *either* considered in themselves *or* considered in the light of prior judicial interpretations of them. (The argument from analogy appears to be stronger on the second hypothesis, where it incorporates a version of the argument from precedent)" (note that this construction is more complex than mere extensive interpretation: it is *analogical extensive interpretation*).
[17] "The problem of the completeness of a legal system is linked with that of extra-statutory analogy ('analogy *extra legem*'), where legal consequences are ascribed to facts, which are not singled out in enacted legal rules. In interpretation, there is a problem of using analogy *intra legem*, where one does not go 'outside the valid law' but only tries so to fix the meaning of the legal rules that they constitute the most harmonious whole possible. Thus interpretation by analogy is singled out according to the reasoning it uses" (Wróblewski 1992, p. 103).
[18] It was, in particular, Peirce's pragmatic maxim. See e.g. Haack (2005, pp. 75-77).

consequences, one could say that they are the same argument and that it does not make sense to permit the one and prohibit the other. Same consequences, same arguments.
We shall discuss this core issue by considering the Vatican Radio Case, where our concerns as to the distinction between interpretive and analogical extension come directly into play. Indeed, the proof of the pudding is still in the eating.

4. *The Vatican Radio Case*

Vatican Radio transmission towers emitted electromagnetic waves that, according to the public prosecution, threatened the population nearby. A first disputed issue was whether the emissions were within the environmental limits fixed by Italian administrative law, and a second was whether the case had also a criminal profile.
Art. 674 of the Italian Criminal Code sanctions the "dangerous throwing of things" (*getto pericoloso di cose*), while no article of the Code mentions electromagnetic waves. Was the emission of such waves a "dangerous throwing of things"? The Court of Cassation (III Criminal Sec., decision n. 36845/2008) decided it was and claimed to argue from extensive interpretation and not from analogy.
Was the decision of the Court really the result of an interpretive extension of the regulation, or rather the hidden upshot of analogical reasoning? That case raised two interpretive problems in particular: 1) the meaning of "throwing" and 2) the meaning of "things". Is an emission an act of "throwing" according to the law? Are waves "things" according to the law? And, in conjunction, is the act of emitting such waves a "dangerous throwing of things"?
Note that these questions, put in this order, imply a semantics that follows the "principle of composition": first one has to determine the meanings of single words, then one has to put them together to determine the meanings of a whole sentence or complex expression. A semantics following the "principle of context" would do the other way round: first you determine the context, that is the meaning of sentences or complex expressions, then you extract from it the meaning of single words.[19] In our case the Court follows rather a compositional semantics, cutting the expression at stake into pieces and determining the meaning of its parts in order to establish the meaning of the whole.

4.1. *On "Things"*

To be sure, waves are not "things" according to the linguistic standard uses. So an argument is needed to support that interpretive conclusion. A significant argument provided by the prosecution and then used by the Court makes appeal to another norm of the system: art. 624 (c. II) of the criminal Code, on theft, states that electric power, as any other energy with economic value, legally counts as a thing; so electromagnetic waves are "things" according to the law. Against this argument the defense contended that, according to the intention of the legislature of 1930, when the Code was enacted, "things" in art. 674 refers to material things. To that argument the Court added some scientific considerations as to the physical nature of waves.
Now, to be sure, both interpretations seem admissible. The first is supported by a form of systemic argumentation (making appeal to other norms of the same legal system); the second is supported by a psychological argument (the argument from legislative intent). The first claims that taking waves as "things" is an extensive interpretation justified by systemic considerations; the second claims that treating electromagnetic waves as material things is to

[19] Cf. Searle (1978). For an inferentialist picture of these issues see Canale & Tuzet (2007).

make an analogy, since a psychological argument justifies a strict interpretation of art. 674 and the interpretive conclusion that there is gap: as a matter of fact, the 1930 legislature didn't care about such waves at all.
Note that if both interpretations are admissible there seems to be space for taking the extensive interpretation thesis as correct: there is no need to argue from analogy, it is sufficient, to settle the case, to select one of the admissible interpretations of "things", namely the extensive one.[20] This for the object of the conduct in question. What about the conduct itself?

4.2. *On "Throwing"*

Again, the argument of the prosecution and the Court about "throwing" is that art. 674 can be interpreted extensively. An emission falls under the notion of "throwing" because there are linguistic uses of the latter referring to the former; for instance, says the Court, to describe the act of emitting a cry one can use the expression "throwing a cry". You might also think at the phrases "throwing light" on something and "throwing suspicion" on somebody, which share with "throwing a cry" the fact of extending the meaning of the expression.
The defense replies that according to standard uses "throwing" refers to the act of flinging something, for instance out of the window, with some physical effort, and that a "dangerous throwing of things" refers to the act of dangerously flinging some material things in the public space (or in private spaces open to the public); metaphorical uses are not at stake here and no interpretive canon permits to construe the provision as referring to an emission of waves. So there is a gap in the law, which could be filled only by analogy; but analogy is prohibited in criminal law.
It is worth noticing that the interpretive argument of the defense seems to be inspired by a contextualist semantics: the meanings of "throwing" and "things" cannot be determined in isolation and should be fixed with reference to the whole meaning of the sentence in that context. As a result, the term "things" is referred to material things only, and the meaning of "throwing" is restricted to non-metaphorical senses.
Finally, note that if both interpretations are admissible there is room for thinking also here that extensive interpretation is a right solution. But one may have legitimate doubts about the admissibility of such an extensive interpretation of "throwing". The Court says there are linguistic uses of "throwing" that refer to the act of emitting something, for instance a cry. Dante's poetic language is taken by the Court as an example of this. But one may wonder if a line of a poet who lived eight centuries ago is among the uses that determine the admissible interpretations of a provision in a legal controversy nowadays.
In any case the Court contended that the emission of electromagnetic waves can be a dangerous throwing of things and, after settling this interpretive issue, it quashed the appellate decision and ordered a new appeals trial for two Vatican Radio's officials, in order to settle the relevant factual question, that is, to ascertain if the waves were in fact dangerous for the people living nearby.

5. *Vagueness and the Location Problem*

On the basis of the arguments provided by the Italian Court of Cassation, it is actually far from being clear that its decision was the result of an interpretive extension and not instead of an undeclared extension by analogy. Actually, it is the standard account of the distinction

[20] On "things" in ancient and modern law see also Silving (1967, pp. 313-314).

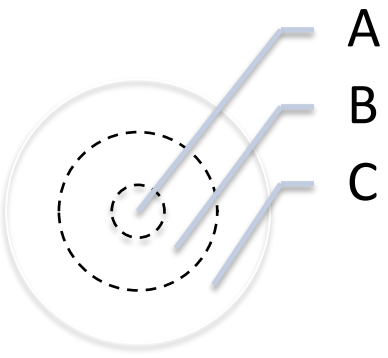
between the two that seems to be unsatisfying or even lacking. In particular, the distinctive features of extensive interpretation in the standard picture seem to provide little or no guidance at all to legal interpreters, thereby giving rise to misuses of this interpretive technique.

In the following two sections we shall try to put forward a different explanation of the interpretive practices we are focusing on in order to throw some light, as it were, on the issues considered in the outset.

As the Vatican Radio Case clearly shows, the question whether a legal provision is to be interpreted extensively presupposes that such a provision (or its content) is vague.[21] This is actually true by definition. Extensive interpretation is possible if, and only if, the interpreted legal provision admits some changes in the cases to which it can be meaningfully applied. In other words, to be interpreted extensively a legal provision shall yield borderline cases. As Paul Grice puts it, "To say that an expression is vague (in a broad sense of vague) is presumably, roughly speaking, to say that there are cases (actual or possible) in which one just does not know whether to apply the expression or to withhold it, and one's not knowing is not due to ignorance of the facts."[22] The words "things" and "throwing" are a good example of this phenomenon, at least according to the Italian Court of Cassation. On the Court's view, it is not immediately clear whether the term "things" applies to electromagnetic waves, nor whether the word "throwing" applies to their emission. Consequently, art. 674 of the Italian Criminal Code is vague: it is not definitely true that electromagnetic waves are things nor that they are not; similarly, it is not definitely true that waves emission is a kind of throwing nor that it is not.

Now, the word "definitely" assumes quite different meanings in the philosophical literature on vagueness. As Stewart Shapiro has put it, "each theorist has his or her own definition of definiteness, and the various concepts have little in common. There seems to be no way to make further progress in defining 'borderline case' or 'definitely' without begging the question against some view or other."[23]

Regardless of the controversial nature of vagueness and the related concepts, a thorny issue that we shall not take up in this article, one may outline the linguistic problem faced by the Italian Court by means of the following uncontroversial scheme:



[21] Some authors claim that vagueness is a property of (some) words, others claim it is a property of (some) contents. See below for some references.

[22] Grice (1989, p. 177).

[23] Shapiro (2006, p. 2). As a matter of fact, most theorists claim that vagueness involves a form of ignorance, so that the different accounts of this phenomenon depend on what such an ignorance amounts to. For instance, epistemicists claim that with borderline cases we are ignorant of facts that actually we cannot know (Williamson 1994); a supervaluationist holds that we are ignorant because a vague sentence is neither true nor false (Fine 1975); an incoherentist claims that we do not know whether a vague term apply to a case because our language sometimes is incoherent (Dummett 1975); a contextualist assumes that we are (apparently) ignorant of the conditions of application of vague terms because these conditions shift with context (see Raffman 1994 and Soames 1999). For a discussion of these accounts of vagueness as to legal language see Endicott (2000), Jónsson (2009) and Poscher (2012).

This scheme represents the extension and antiextension of a legal provision such as art. 674 of the Italian Criminal Code.[24] Let A be the set of cases that clearly fall under the legal provision according to its standard meaning and which thus belong to its extension. We have no doubts that a bottle or a hammer is a thing that can by thrown within the meaning of the provision. Similarly, let C be the set of cases that clearly do not fall under the standard meaning of the same provision, i.e., that belong to its antiextension. A trust or a deal cannot be "thrown" as things like bottles can be. Similarly, the mount Everest is definitely a thing but cannot be "thrown" either. Therefore, the case of the mount Everest belongs to C and not to A. Finally, B is the set of the borderline cases that come between clear "positive" and "negative" ones.[25] When *x* is a borderline case, the task for legal interpretation is determining whether *x* ought to be treated as a "positive" or "negative" case from the legal point of view. In the first circumstance, the content of the provision shall be extended so that to include *x*: the boundary between A and B moves to include *x* within the meaning of the provision as far as the singular case at hand is concerned. In the second circumstance, the content of the provision will be restricted: the boundary between C and B is shaped so that to include *x* in C. Obviously, all this requires that the boundaries between A, B and C are flexible in the sense that they have not sharp cutoff-points.[26] By interpreting the legal provision for decisional purposes, however, the judge is called upon to set up these boundaries and to determine where the case at hand is located. As a result, *after* legal interpretation *x* shall be qualified as belonging to A or C as a matter of fact. This will not get rid of vagueness; the vagueness of the interpreted provision will be simply reduced to such an extent as to permit legal adjudication in the given case.

Now, the crucial point is determining whether *x* belongs to A, B or C according to the standard meaning of the legal provision. If *x* is located in B, then extensive interpretation can be worked out from a semantic point of view. On the contrary, if *x* is located in C, extensive interpretation is not semantically admissible. This does not imply that the regulation provided by the legal provision cannot be extended to *x* by a court, being *x* located in C. The case could be so regulated by means of analogical reasoning, when legally permitted. But the starting point of analogical extension is quite different. Indeed, if *x* is located in C it is definitely not covered by the interpreted legal provision. Case *x* could still be regulated according to the law on the basis of its relevant similarity to the standard cases of application, although the interpreted legal provision does not rule *x* at all.

We shall label the problem just outlined "the location problem". The divide between extensive interpretation and analogical extension depends first of all on it. If we had some criteria for locating a given case within A, B or C, it would be possible to determine under what conditions extensive interpretation is admitted and analogical extension is not. Do such criteria exist?

6. *Extension and Tolerance*

[24] The extension and antiextension of a sentence S shall not be confused here with the extensive interpretation of S. The extension of a sentence is the set of objects, events or states of affairs S refers to, whereas the antiextension is the complementary set thereof. An extensive interpretation of S actually modifies the standard extension and antiextension of it.

[25] See Endicott (2000, p. 55). Cf. obviously Hart (1961, Ch. 7).

[26] This claim is countered, however, by the epistemic theory of vagueness and by supervaluation theory as well. Cf. Williamson (1994). On supervaluationism and its logics cf. Varzi (2007).

To answer this question, let us return to the features of vague terms or contents. We have seen that a vague term admits some content changes in the cases to which it can be meaningfully applied. The term "hammer" applies to the hammer in my tool case even if I paint it pink. On the contrary, the term "hammer" would not be applicable any longer if I took off the handle from my tool, or one would have at least serious doubts about calling it a hammer in that case. If you say "Pass me the hammer" when repairing your house and I give you my handless tool, you would probably respond "This is not what I asked!" Now, in this sense we may say that the term "hammer" is tolerant to a certain extent as to its application conditions, and that the same holds for "things" and "throwing", as claimed by the Italian Cassation Court. The tolerance metaphor is used here to point out that certain terms or expressions are less precise than others in a given context, so that they can be meaningfully used to denote cases that do not fall under their standard meaning.[27] As a consequence, semantic tolerance is a matter of degree and depends on context. Turning back to our example, when a case is slightly different from the standard one in the light of the contextual constraints put on the use of "things" and "throwing", these terms apply to it nevertheless. On the contrary, if the difference is contextually relevant, these terms do not apply. Given all this, the *Tolerance Principle* can be framed as follows:

> Being P the set of relevant properties for a term T in context C, if *x* and *y* do not share all their properties but are indiscernible with respect to every member of P, then if T applies to *x* it applies to *y* as well.

A pragmatic refinement of this principle could be the following: when two cases in the field of P differ only marginally in the respects on which T is tolerant, so that they share the same relevant properties, if a competent speaker judges the first case to have P, then she cannot competently judge the other case in any other manner.[28] Therefore, if having P justifies the ascription of the legal consequence *q* to *x*, it justifies the same consequence in the case of *y* also. Notice that as far as the standard meaning of T is concerned, the interpreter might permissibly go either way with respect to a borderline case *y*. The principle of tolerance gives the interpreter a good reason for applying T to *y* in context C.

The Tolerance Principle reframes the problem of vagueness of legal terms and expressions in a way that is particularly helpful as to our purposes in this paper. This principle sets out the conditions under which the extension of a regulation to a borderline case is justified. These conditions depend on the properties of the subject of regulation that are taken to be relevant within a given context. By pointing out that such conditions are satisfied, therefore, a court sets on the boundaries between the extension and antiextension of the interpreted provision in a way that is coherent with the semantic content of the provision within the context of adjudication.

One might ask here: Why are those properties relevant? The relevance criterion cannot be determined by the standard meaning of the vague term. Indeed, the standard meaning is not sufficient to determine semantic extension and antiextension in case of vagueness by definition: the rules governing the use of linguistic expressions issue here no definite verdict.

As we have just pointed out, relevance is rather a function of context. More precisely, contextual constraints put on language uses determine what properties of a given case are relevant in adjudication. These constraints are typically made explicit by means of legal arguments. The argument from intention, the argument from purpose, the argument from legal history, and the various sorts of systemic argument used in legal argumentation highlight different contextual constraints that the judge can taken into account in interpreting a statute, which in turn make some properties of the case relevant according to the law. When

[27] See Dummett (1975) and Wright (1975).
[28] Cf. Shapiro (2006, Ch. 1).

interpreting the term "things" so that to include in its extension the case of electromagnetic waves, for instance, the judge is committed to give a reason for content extension, which sorts out the properties of the case at hand: some properties will turn out to be relevant according to the argument that the judge resorts to, others will not. If this commitment is satisfied from the point of view of the participants in the argumentative practice according to the accepted argumentative standards, then the word "things" correctly applies to electromagnetic waves, since the latter are taken to have the same relevant properties as the standard instances of things. In this sense, the sort of tolerance we are focusing on here can be called "semantic tolerance". The argumentative process aims at determining the semantic content of a vague term in a borderline case on the basis of the contextual constraints that are made explicit by legal arguments.[29]

As to analogical extension, on the contrary, the starting point of judicial reasoning is that the case is not within the meaning of the legal provision and thus no interpretation can include it in the extension of the provision. The toleration principle does not hold as to the case at hand, which in fact is not a borderline case. In this sense, the argument from analogy takes for granted that extensive interpretation has failed: analogy is a remedy to the lack of success of any interpretive effort. Despite this, there might be further reasons justifying the extension of the regulation. In this respect, the argumentative process does not seek to determine the semantic content of an interpreted term or expression: the content is taken for granted and the case falls under the antiextension of the interpreted term or expression. Argumentation aims to flesh out whether the purpose of the interpreted legal provision justifies the analogical extension of the regulation beyond the semantic boundaries of language.

One might oppose to this that analogical reasoning is based upon a relevance criterion too. Analogical extension of a given regulation is admitted only if there are relevant similarities between the source and the target, i.e., if the two cases share the same relevant properties. This being true, in what does analogical extension differ from interpretive extension?

The difference rests upon the source of relevance. As far as interpretive extension is concerned, relevance has a *semantic* source: it depends on the rules governing the uses of language and the contextual constraints put on them. In the case of analogical extension, on the contrary, relevance has a *pragmatic* source: relevance conditions are fixed by the purpose of the law in its standard circumstances of application. When analogical extension achieves the same goal that the provision was assumed to achieve in standard cases, then the extension is justified. These conditions, therefore, are fixed by the legislature or by the legal system as a matter of policy; they do not merely depend on language and context of use. As a consequence, pragmatic relevance might vary from semantic relevance. And these are precisely the circumstances in which analogical reasoning comes into play.

Accordingly, extensive interpretation and analogical reasoning can bee seen as distinct argumentative games, that are inferentially articulated, in the most interesting cases, by means of a chain of arguments. As we have seen in the previous sections, extensive interpretation is simply an interpretive technique that relies on some argumentative canons: it is normally justified on the basis of the argument from intention, the argument from purpose, or a sort of systemic argument. These standards, in turn, rely on further arguments that justify their premises, often building up a complex argumentative framework. It has to be noticed, however, that the commitment undertaken by using these argumentative techniques is determining the semantic content of a legal provision, it is not accomplishing the regulation function in society nor assessing whether the application of the norm so stated is just and fair. Analogical reasoning is connected to interpretive canons and has a complex argumentative

[29] In the light of this, the semantic content of a legal provision can be conceived of as the set of inferences the provision is involved in in legal argumentation. We have discussed this idea in Canale & Tuzet (2007).

structure too. The argument form analogy does not take off the ground if the interpreter does not show that she is facing a gap in the law. Equally, the similarity relation between source and target case is normally backed by an argument from purpose, a systemic argument, or the assessment of the consequences of regulation. Nevertheless, the commitments assumed by using analogical reasoning strongly differ form those characterizing extensive interpretation. The arguer from analogy commits herself to determine the aim of a legal provision and to draw a normative conclusion assuming that like cases ought to be treated alike, although their relevant similarity is not captured by language uses in a given context.

To sum up our analysis, the two argumentative games considered in this paper are similar.[30] First of all, they pursue the same goal: extending a regulation to a case that is not explicitly considered by the law. Moreover, some argumentative constraints are pretty alike. For instance, relevance is a necessary condition for getting the regulation extended according to the law in both games. Notwithstanding this, they are not the same game: they display a quite different argumentative path in theory and practice. In order to justify a judicial decision, it is up to the judge to decide what game to engage in, assuming that extensive interpretation comes first and analogical extension is (normally) not allowed in criminal law.[31]

On the basis of these findings, one may claim that analogical reasoning and interpretive extension actually do not have the same upshot. Their outcome is the same in the sense that they justify the extension of a regulation to a case that is not explicitly considered by it. But this is only one part of the story. With extensive interpretation one claims that the case is within the meaning of a legal provision: there is no gap in the law as to the case at hand, and it is so on the basis of a certain reconstruction of legislative intent, the considered legal system, or the goal pursued by the interpreted legal provision. Engaging in this argumentative game commits the interpreter to a systemic picture of the regulation. On the contrary, analogical reasoning assumes that the case is beyond the meaning of the interpreted legal provision: the court faces a gap that has to be filled. And this follows from an alternative systemic picture of the same regulation, a picture where purposes or principles certainly play a significant but different role.[32] From a pragmatic point of view, this fact has important consequences as to the future interpretations of the same provision in similar cases, and on the evolution of the relationships among norms within the legal system as well. In a nutshell, the proof of the pudding is still in the eating, but also in the consequences that the latter triggers after dinner.

7. *Conclusions*

On the basis of the framework just proposed, one can critically assess the justification provided by the Italian Court of Cassation in the Vatican radio Case.

In this case the Court did not provide sufficient elements to justify its decision according to our analysis. The Court claimed that the emission of electromagnetic waves falls within the extended meaning of the expression "dangerous throwing of things" but this conclusion could be clearly considered as the upshot of an argument from analogy.

[30] On interpretive games cf. Chiassoni (1999).

[31] "'Extensive interpretation' may not be distinguishable from 'analogy' in the sphere where the inclusiveness or exclusiveness of a word is uncertain. But where the outer limits of word meaning are exceeded, only 'analogy' can be said to be applicable if the statute is to be extended to conform to its apparent purpose" (Silving 1967, p. 315; this again reminds of Hartian core and penumbra of meaning).

[32] "The decision whether to interpret a statute restrictively or extensively, or the decision whether to explain and distinguish or follow by extending a case-law rule is, as a matter of observation, in part at least based on arguments from legal principles, as that we can't tell whether the case we are faced with is easy or hard until we have reflected on the principles as well as on the prima facie applicable rule or rules" (MacCormick 1978, p. 231).

As far as the word "things" is concerned, the Court satisfied its argumentative commitment to extensive interpretation providing suitable reasons. The Court argued that the case of electromagnetic waves falls under the extension of the predicate "things" according to a systemic argument that relies, in turn, on scientific considerations as to the physical nature of waves. The counter argument provided by the defense, according to which the legislature intended the term to be referred only to material things, is not complete, since the defense provided no evidence of this fact. The argument from legislative intention was not properly used, since its premises were lacking: the defense just expressed its own intuition, not unwarranted in itself, about what the 1930 legislature intended to say. As a consequence, the Court was entitled to claim that "things" applies to the electromagnetic waves released by Vatican Radio according to the interpretive standards accepted in the Italian judicial community. These standards, in particular, single out the relevant properties of the subject of regulation and thus the conditions of application of the term "things" as to the case at hand.

Conversely, the qualification of waves emission as an act of "throwing" was highly questionable. The Court merely claimed that the standard uses of the term "throwing" cover a number of different actions, so that the content of this term is not vague but general: it does not yield borderline cases being its extension highly inclusive. As a consequence, the emission of electromagnetic waves would clearly fall under the meaning of "throwing", according to the Court, as supported by the poetic use of the term in the 13th century.

It has to be noticed, however, that the term "throwing" is not highly general as assumed by the Court. The judges simply mentioned an idiomatic or metaphorical use of the term ("throwing a cry") that is not sufficient to assess its extension in ordinary language. Moreover, the poetic use of this term in the 13th century is not relevant in legal interpretation: this is not an accepted canon of argumentation and statutory construction in Italian adjudication, since it does not single out a semantic standard neither at the time in which the law was enacted (original meaning), nor at the time in which the law is applied (current meaning). Notwithstanding Dante's greatness and his majestic use of the 13th century Italian, if even poetic and marginal uses fall within the framework of admissibility (together with ordinary and legally technical uses), one can suspect serious violations of the rule of law or of the principle of legality in criminal law. One might always find some marginal or eccentric linguistic uses that would justify an extensive interpretation, if poetic language would be within the repertoire of linguistic uses that determine admissible legal interpretations.[33]

Aside from these considerations, what we would like to underline is that the theoretical framework proposed in this article could be used by courts as a methodological tool to assess whether extensive interpretation is possible, and, when it is not, analogical extension may be worked out.

But is this enough to claim that the distinction between analogical extension and interpretive extension is not just a matter of strategic maneuvering in legal argumentation? Do not judges actually make the law up as they come along in cases like the one we have been discussing?

[33] The Italian Court of Cassation has provided a second linguistic argument to underpin its decision. In art. 674 of the Italian Criminal Code the term "throwing" is syntactically related to the term "things" to form the expression "throwing of things": given that the complement refers to immaterial entities such as electromagnetic waves, it would follow that the verb can be clearly predicated of the same set of entities. On this respect, it is true that syntactical relations help reducing vagueness when a vague term is related to a term whose semantic content is not vague in a given context. As far as art. 674 of the Italian Criminal Code is concerned, however, this is not the case. The term "throwing" is here predicatively related to the term "things", but the fact that the latter applies to electromagnetic waves does not imply that the former applies too. On the contrary, the fact that electromagnetic waves cannot be thrown on the basis of the standard meaning of "throwing" suggests that the expression "dangerous throwing of things" does not refer to the emission of electromagnetic waves, at least on the basis of the compositional conception of semantics subscribed to by the Court, according to which if one term does not apply, the whole expression doesn't apply either.

We think that the discretionary choice of judges in borderline cases shall not be equated to judicial arbitrariness. As a matter of fact, borderline cases such as the Vatican Radio Case admit of no single right answer: a discretionary choice of the judge cannot be removed in cases like these.[34] Is this fact consistent with the principle of legality and the rule of law? The answer depends on how we conceive of these principles. Some final remarks on this issue can help clarifying some general premises of our analysis.

In contemporary constitutional states, these principles govern legislation, administration and adjudication. With respect to legislation, in particular, they require "that new law should be publicly promulgated, reasonably clear, and prospective."[35] Equally, with respect to adjudication they require "that judicial decisions should be in accordance with law, issued after a fair and public hearing by an independent and impartial court, and that they should be reasoned and available to the public."[36] But what does "in accordance with law" mean in our context? It does not mean that borderline cases shall be dismissed by courts, for in these cases no single right answer is available by definition. These principles require rather that adjudication be "according to the exercise of reason", assuming that "the exercise of reason" is opposed to "the mere imposition of will".[37] Now, in those circumstances in which a court faces a borderline case, the legality requirement is that among the decisions not ruled out by legal texts according to their standard meanings, the court chooses "reasonably", that is, on the basis of a justification process that is sound and public and whose premises are open to challenge. This being done, a legal decision is "in accordance with law" even if the text of the law is indeterminate and it is used to decide a case that is not explicitly covered by it. The legality requirement is satisfied, first of all, when the argumentative process is sound, i.e., when the interpreter satisfies the commitments she assumes by arguing a certain legal conclusion within a given argumentative context.[38] As Duncan Kennedy once observed representing the situation of a judge assigned to a borderline case, "I see myself as having promised some diffuse public that I will 'decide according to law', and it is clear to me that a minimum of meaning of this pledge is that I won't do things for which I don't have a good legal argument."[39]

REFERENCES

Bobbio, N. (1994), *Contributi ad un dizionario giuridico*, Giappichelli, Turin.

Brewer, S. (1996), *Exemplary Reasoning: Semantics, Pragmatics, and the Rational Force of Legal Argument by Analogy*, Harvard Law Review, vol. 109, pp. 923-1028.

[34] One could actually oppose to this that, when there is a doubt, the lenity rule or *in dubio pro reo* principle applies: in criminal doubtful cases acquittal is the right answer. It can be pointed out, however, that according to the rule of lenity the court has to resolve the ambiguity in favor of the defendant when interpreting an *ambiguous* legal provision (see among others *McNally v. United States*, 483 U.S. 350, 1987). Even if one interprets the rule of lenity strictly, assuming that it compels courts to adopt the narrowest plausible interpretation of any criminal statute (cf. Price 2004, p. 889), this rule of interpretation, it could be argued, cannot be applied to the case at stake. We do not have here two plausible interpretations of the same statute. Actually the interpreter does not know whether a norm applies to the case because the content of the norm is lacking. It follows from this that the interpreter is first called upon to determine the content of the legal provision; only when this content is not univocal the lenity rule could apply. In a nutshell, the lenity rule cannot apply in place of a criminal norm. On this reading it is a rule of interpretation among others, which leads a court to select the best interpretation of a criminal provision.

[35] Raz (1990, p. 331).

[36] Raz (1990, p. 331).

[37] Kennedy (1986, p. 527).

[38] Even if legal systems and judicial outcomes are largely indeterminate "argumentation frameworks provide a measure of at least short-term systemic stability to the extent that they condition how litigants and judges pursue their self interest, social justice, or other values through adjudication" (Stone Sweet 2002, p. 125).

[39] Kennedy (1986, p. 527).

Caiani, L. (1958), *Analogia. b) Teoria Generale*, in "Enciclopedia del diritto", vol. 2, Giuffrè, Milan, pp. 348-378.
Carcaterra, G. (1988), *Analogia. I) Teoria generale*, in "Enciclopedia giuridica", vol. 2, Treccani, Rome, pp. 1-25.
Cardozo, B.N. (1921), *The Nature of Judicial Process*, Yale University Press, New Haven.
Cardozo, B.N. (1924), *The Growth of the Law*, Yale University Press, New Haven,.
Canale, D. & Tuzet, G. (2007), *On Legal Inferentialism. Toward a Pragmatics of Semantic Content in Legal Interpretation?*, Ratio Juris, vol. 20, pp. 32-44.
Canale, D. & Tuzet, G. (2009), *The A Simili Argument: An Inferentialist Setting*, Ratio Juris, vol. 22, pp. 499-509.
Chiassoni, P. (1999), *Interpretive Games: Statutory Construction Through Gricean Eyes*, in "Analisi e diritto 1999", ed. by P. Comanducci & R. Guastini, Giappichelli, Turin, pp. 79-99.
Dressler, J. (1987), *Understanding Criminal Law*, Matthew Bender, New York.
Dummett, M. (1975), *Wang's Paradox*, Synthese, vol. 30, pp. 301-324.
Endicott, T. (2000), *Vagueness in Law*, Oxford University Press, Oxford.
Fine, K. (1975), *Vagueness, Truth and Logic*, Synthese, vol. 30, pp. 265-300.
Gianformaggio, L. (1997), *"Like" – "Equal" – "Similar": Are They To Be Treated Alike?*, in E. Garzón Valdés, W. Krawietz, G.H. von Wright & R. Zimmerling (eds.), "Normative Systems in Legal and Moral Theory", Duncker & Humblot, Berlin, pp. 251-277.
Golding, M.P. (1980), *Legal Reasoning*, Random House, New York.
Grice, P.H. (1989), *Studies in the Way of Words*, Harvard University Press, Cambridge (Mass.).
Guarini, M. (2010), *Understanding Blended Multi-Source Arguments as Arguments from Partial Analogies*, Ratio Juris, vol. 23, pp. 65-100.
Haack, S. (2005), *On Legal Pragmatism*, The American Journal of Jurisprudence, vol. 50, pp. 71-105.
Hart, H.L.A. (1961), *The Concept of Law*, Oxford University Press, Oxford (2nd ed. 1994).
Hassemer, W. (1992), *Richtiges Recht durch richtiges Sprechen? Zum Analogieverbot im Strafrecht*, in G. Grewendorf (hrsg.), "Rechtkultur als Sprachkultur. Zur Forensischen Funktion der Sprachanalyse", Suhrkamp, Frankfurt am Main, pp. 71-92.
Holyoak, K.J. & Thagard, P. (1995), *Mental Leaps. Analogy in Creative Thought*, The MIT Press, Cambridge (Mass.).
Jónsson, O.P. (2009), *Vagueness, Interpretation and the Law*, Legal Theory, vol. 15, pp. 193-214.
Kaptein, H. (2005), *Legal Progress Through Pragma-Dialectics? Prospects Beyond Analogy and E Contrario*, Argumentation, vol. 19, pp. 497-507.
Kennedy, D. (1986), *Freedom and Constraint in Adjudication: A Critical Phenomenology*, Journal of Legal Education, vol. 36, pp. 518-562.
Kloosterhuis, H. (2005), *Reconstructing Complex Analogy Argumentation in Judicial Decisions: A Pragma-Dialectical Perspective*, Argumentation, vol. 19, pp. 471-483.
MacCormick, N. (1978), *Legal Reasoning and Legal Theory*, Clarendon Press, Oxford.
MacCormick, N. (1995), *Argumentation and Interpretation in Law*, Argumentation, vol. 9, pp. 467-480.
Quintero Olivares, G. (1989), *Derecho penal. Parte general*, Marcial Pons, Madrid.
Peczenik, A. (2005), *Scientia Juris. Legal Doctrine as Knowledge of Law and as a Source of Law*, Springer, Dordrecht.
Poscher, R. (2012), *Ambiguity and Vagueness in Legal Interpretation*, in L. Solan & P. Tiersma (eds.), *Oxford Handbook on Language and Law*, Oxford University Press, Oxford (forthcoming).
Posner, R. (2006), *Reasoning by Analogy*, Cornell Law Review, vol. 91, pp. 761-774.

Price, Z. (2004). *The Rule of Lenity as a Rule of Structure*, Fordham Law Review, vol. 72, pp. 885-941.
Raffman, D. (1994), *Vagueness without Paradox*, Philosophical Review, vol. 103, pp. 41-74.
Raz, J. (1990), *The Politics of the Rule of Law*, Ratio Juris, vol. 3, pp. 331-339.
Robert, J.-H. (2001), *Droit pénal général*, Puf, Paris.
Ross, A. (1958), *On Law and Justice*, Stevens & Sons, London.
Searle, J.R. (1978), *Literal Meaning*, Erkenntnis, vol. 13, pp. 207-224.
Shapiro, S. (2006), *Vagueness in Context*, Oxford University Press, Oxford.
Silving, H. (1967), *Analogy and Extensive Interpretation*, Revista Jurídica de la Universidad de Puerto Rico, vol. 36, pp. 311-316.
Soames, S. (1999),*Understanding Truth*, Oxford University Press, Oxford.
Stone Sweet A. (2002), *Path Dependence, Precedent, and Judicial Power*, in M. Shapiro & A. Stone Sweet (eds.), "On Law, Politics, and Judicialization", Oxford University Press, Oxford, pp. 112-135.
Sunstein, C. (1993), *On Analogical Reasoning*, Harvard Law Review, vol. 106, pp. 741-791.
Varzi, A. (2007), *Supervaluationism and Its Logics*, Mind, vol. 116, pp. 633-675.
Weinreb, L.L. (2005), *Legal Reason. The Use of Analogy in Legal Argument*, Cambridge University Press, Cambridge.
Williamson, T. (1994), *Vagueness*, Routledge, London.
Wright, C. (1975), *On the Coherence of Vague Predicates*, Synthese, vol. 30, pp. 325-364.
Wróblewski, J. (1992), *The Judicial Application of Law*, ed. by Z. Bankowski & N. MacCormick, Kluwer Academic Publishers, Dordrecht.