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Arguments of statutory interpretation and argumentation schemes

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Abstract: In this paper it is shown how certain defeasible argumentation schemes can be used to represent the logical structure of the most common types of argument used for statutory interpretation both in civil and common law. The method is based on an argumentation structure in which the conclusion, namely, the meaning attributed to a legal source, is modeled as a claim that needs to be supported by pro and con defeasible arguments. The defeasible nature of each scheme is shown by means of critical questions, which identify the default conditions for the accepting interpretative arguments and provide a method for evaluating a given argument as weak or strong.

Keywords: arguments, statutory interpretation, argumentation schemes, defeasible reasoning, pragmatics

Argumentation is now widely accepted as a useful tool to assist with the understanding and interpretation of the law (MacCormick 1995; Patterson 2004; Perelman 1976, 1980). When the understanding of a legal concept is controversial, we need to support the interpretation that is presented as the “best” one by means of explicit presumptive arguments (Aalto-Heinilä 2016; Dascal and Wróblewski 1988; Atlas and Levinson 1981; Macagno and Capone 2016; Macagno 2012; Slocum 2015: 213). Traditionally, the reasoning underlying the reconstruction of the meaning of a statement has usually been represented in legal theory by means of the canons of interpretation, which the work of Viehweg (1953) connected to the ancient theory of topics (Chiassoni et al. 2016; Kreuzbauer 2008).

The purpose of this study is to investigate and classify the structure of the generic arguments used in statutory interpretation, starting from the logical analysis of interpretive arguments provided in (Macagno et al. 2014; Walton et al. 2016). The theoretical framework proposed is based on the models of

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interpretation advanced in legal theory and on the analysis and classification of arguments used in argumentation theory. The structure of legal arguments set out by Tarello (1980), for interpretation in civil law, and the ones used in common law (MacCormick 1995; MacCormick and Summers 1991) will be reconstructed using argumentation schemes as abstract patterns of reasoning (Walton et al. 2008). By means of a series of examples, we will discuss how to classify these schemes, how to apply them to cases, and how to use them to bring to light the defeasibility conditions and inferential structures of interpretive arguments.

1 Interpretation and its arguments

The activity of deliberative interpretation (interpretation in the strict sense, distinct from the broader concept of interpretation developed by Guastini 2011; Tarello 1980) presupposes a doubt, i. e. an implicit or explicit conflict of opinions, concerning the meaning of a word, a sentence or a text (Patterson 2004; Slocum 2015). It starts when no *prima facie* understanding (Dascal and Wróblewski 1988) is obtained directly, or when multiple incompatible *prima facie* meanings are provided, or also when the *prima facie* meaning fails to immediately satisfy the concerns of the interpreter, so that doubts are raised and need to be addressed (Kennedy 2007: 303–304; Dascal and Wróblewski 1988: 204). Following the account of Tarello and Guastini, we refer to the rule, which is the result an interpretative process, as the “meaning” of a statement of law.¹ We can then distinguish the following objects we are dealing with:

- *Source-statements*: Sentences contained in legal sources, meant to express legal rules;
- *Prima facie understanding* of a source-statement: The rule, if any, that in a certain socio-linguistic context is attributed by default to the source statement (and the activity of grasping such a rule);
- *Interpretative statements*: A statement affirming that a source-statement has a certain meaning (expresses a certain rule), made to overcome a doubt on its understanding (to select this one, among other possible meanings of the same source);

¹ Interpretation reduces the vagueness of the statements of law, identifying the specific cases that are governed by such statements of law (Guastini 2011: 18). On this view, the “meaning” corresponds to both *Sinn* and *Bedeutung* (Guastini 2011: 6).

- *Interpretation*: The rule, which is attributed to a source-statement, which amounts to an answer to a doubt on its understanding (and the activity of making and supporting such statement);
- *Arguments of interpretation*: The arguments provided to support a particular interpretation of a source-statement.

From an argumentation perspective, interpretation can be distinguished from *prima facie* understanding based on the processes of reasoning involved. In *prima facie* understanding, the passage from a statement of law to the rule it expresses is grounded on an unchallenged presumptive meaning (Levinson 2000; Capone 2011; Jaszczolt 2005), namely the default explanation of the meaning of a word or sentence according to shared linguistic-cultural conventions/practices (Hutton 2009: 72–73). Interpretation, in contrast, is grounded on a more complex type of reasoning, presumptive and systematic in nature, which can be represented using various types of patterns.

Walton, Macagno, and Sartor (Walton et al. 2014; Macagno et al. 2014) compiled a list of eleven interpretive arguments identified by MacCormick and Summers (MacCormick and Summers 1991; MacCormick 1995). Below each type of argument recognized in that prior list is explained in a condensed manner to give the reader some idea of each of them as a distinct form of argumentation.

1. Argument from ordinary meaning. If a statutory provision can be interpreted according to the meaning that a native speaker of a given language would ascribe to it, then it should be interpreted in this way, unless there is a reason to the contrary.
2. Argument from technical meaning. If a technical term appears within a statutory provision, then such a technical term should be interpreted considering its technical meaning.
3. Argument from contextual harmonization. If a term is part of a statute or set of statutes, then it should be interpreted in line with the whole statute or set.
4. Argument from precedent. If a term has been previously interpreted in a certain fashion, then it should be interpreted to fit that previous interpretation.
5. Argument from analogy. If a term is analogous to similar provisions of other statutes, then it should be interpreted to preserve the similarity of meaning.
6. Argument from a legal concept. A term should be interpreted in line with the way it has been previously recognized and doctrinally elaborated in law.
7. Argument from general principles. A term should be interpreted in a way that is most in conformity with these general legal principles already established.

8. Argument from history. A term should be interpreted in line with the historically evolved understanding of it that has evolved over time.
9. Argument from purpose. A term should be interpreted in a way that fits the purpose that can be ascribed to a statutory provision, or a whole statute, as applied to the case at issue.
10. Argument from substantive reasons. A term should be interpreted in line with a goal that is fundamentally important to the legal order.
11. Argument from intention. A term should be interpreted in line with any applicable legislative intention concerning the concerned statutory provision that can be identified.

These eleven kinds of interpretive arguments need to be compared to the list of interpretive arguments identified by Tarello (1980): (1) argument *a contrario* (from the contrary); (2) argument *a simili ad simile* (from analogy) (3) argument *a fortiori*, (4) argument from completeness of the legal regulation, (5) argument from the coherence of the legal regulation, (6) psychological argument, (7) historical argument, (8) apagogical argument (9) teleological argument, (10) parsimony argument, (11) authoritative argument, (12) systemic argument, (13) naturalistic argument, (14) argument from equity (15) argument from general principle.

The arguments from these two lists partially overlap, and in some cases (such as the arguments from ordinary and technical meaning) can be analyzed using more basic types of argument. More specifically, the arguments from ordinary and technical meaning can be considered as the result of the common interpretation of the term within its context,² which involves a fundamental legal presumption (the law shall be understood by the citizens) and the interpretive process that can be represented using other arguments. By comparing and combining these two lists of arguments, and by classifying some of them under more generic patterns, we identified eleven general categories of arguments of interpretation, which we have labeled using English names (Sartor et al. 2014; Macagno et al. 2014; Walton et al. 2016):

1. Argument from the Exclusion of what is not stated (*A Contrario* Arguments). In lack of any other explicit rules, if a rule attributes any normative qualification to an individual or a category of individuals, any additional rule attributing the same quality to any other individual or category of individuals should be excluded.

² The ordinary meaning does not correspond to “literal” meaning (i. e. interpretation within a stereotypical context, see Kecskes 2013: 136) nor to the “plain” meaning (which is a judgement a particular meaning is plainly or clearly correct; see Summers and Marshall 1992: 216).

2. Argument from Analogy (requiring similarity of meaning between similar provisions)
 - a. *Extending a Category to a Similar Case (Analogia Legis)*. The application of a *written* law applied to case *C* should be applied to a different, similar case *D*.
 - b. *Argument from General Principles (Analogia Iuris)*. An abstract and unexpressed *principle of law* from which the stated law is drawn is applied to a different case.
3. Argument *a fortiori*. If a rule attributes any normative qualification *Q* to an individual or a category of individuals *C*, it can be concluded that there is a different rule that attributes *Q* to another individual or another category of individuals *D*, based on the fact that in the specific situation *Q* shall be all the more attributed to *D*.
4. Authoritative Arguments:
 - a. The psychological argument. To a statement of law shall be attributed the meaning that corresponds to the intention of its drafter or author, that is, the historical legislator.
 - b. The historical argument. A statement of law should be interpreted according to the interpretation that has been developed historically.
 - c. The authoritative argument. A statement of law should be interpreted according to a previous interpretation, or rather on the authority of the product of a previous interpretation.
 - d. The naturalistic argument (or natural meaning argument). A term should be interpreted according to the commonly accepted “nature” of the things (or its commonly used definition).
5. The Absurdity Argument (*Reductio ad Absurdum*). The possible interpretations of a statement of law leading to an unreasonable or “absurd” rule should be rejected.
6. Equitative Argument. Interpretations leading to (un)fair or (un)just consequences should be (excluded) accepted.
7. Argument from Coherence of the Law. The legal system is complete and without gaps; therefore, from the lack of a specific rule governing a case, it is possible to infer the existence of a generic one attributing a legal qualification to such a case.
8. The Teleological (or Purposive) Argument. A statement of law should be given the interpretation that corresponds to its intended purpose.
9. The Economic Argument. The interpreter needs to exclude an interpretation of a statement of law that corresponds to the meaning of another (previously enacted or hierarchically superior) statement of law, as the legislator cannot issue a useless statement of law.

10. The Systematic Argument. If a term has a certain meaning in a statement of law, such a term should be interpreted as having such a meaning in all the statements of law in which it appears.
11. Arguments from completeness of the Law. If a term has a certain meaning in a statement of law, such a term shall be interpreted as having such a meaning in all the statements of law in which it appears.

These arguments can be analyzed using stereotypical and quasi-formal patterns that bring to light the semantic principle connecting the premises and the conclusions and representing the logical structure of the inference. Such patterns, called argumentation schemes (Walton et al. 2008), allow one to identify the nature and assess the strength of interpretative reasoning by providing a set of critical questions, or points of defeasibility, associated with the types of argument represented according to their most prototypical logical pattern (Macagno and Walton 2015; Walton and Macagno 2015).

2 Argumentation schemes

Argumentation schemes characterize the structure of defeasible arguments, namely arguments not proceeding from the meaning of quantifiers or connectors only, but from the semantic relations between the concepts involved. This account is rooted in Toulmin's notion of warrant, which he defines as "general, hypothetical statements, which can act as bridges, and authorize the sort of step to which our particular argument commits us" (Toulmin 1958: 91). These warrants can be different in nature: they can be grounded on laws, principles of classification, statistics, authority, causal relations or ethical principles. Such warrants have become the principle of classification of arguments (Toulmin et al. 1984: 199). Building on this approach, the idea of argumentation schemes was developed, describing the combination between a semantic principle (such as classification, cause, consequence, or authority) and a type of reasoning, such as deductive, inductive or abductive reasoning. Their main purpose as regards legal argumentation is to provide abstract patterns representing types of arguments that carry probative weight for supporting or attacking a conclusion, but in the most typical instances are defeasible. Such arguments do not lead necessarily to true conclusions and are not based on necessarily true premises.

Most of the argumentation schemes listed in (Walton et al. 2008) have a defeasible *modus ponens* structure, grounded on a conditional defeasible generalization. A standard example is the following expanded scheme for argument from expert opinion expert (Walton et al. 2008: 19):

Argumentation scheme 1: Argument from expert opinion

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- MINOR PREMISE 1: Source E is an expert in subject domain S containing proposition A .
- MINOR PREMISE 2: E asserts that proposition A (in domain S) is true (false).
- CONDITIONAL PREMISE: If source E is an expert in a subject domain S containing proposition A , and
- PREMISE: E asserts that proposition A is true (false), then A may plausibly be taken to be true (false).
- CONCLUSION: A may plausibly be taken to be true (false).
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It is readily visible that this version of the scheme for argument from expert opinion has a *modus ponens* structure as an inference. Since experts are generally not omniscient, and since in law it would be a great error to take what an expert says uncritically, this inference must be viewed as being defeasible.

Subsequent work on argumentation schemes has followed this general way of representing the logical structure of many defeasible argumentation schemes. Bench-Capon and Prakken view the applications of defeasible rules (such as legal or moral norms) as instances of defeasible *modus ponens*. They represent any inference warranted by a defeasible rule of this sort by a semicolon connective (;). Below is their basic argument scheme for applying defeasible rules called the Rule Application Scheme (Bench-Capon and Prakken 2010: 159):

r: $P_1, \dots, P_n; Q$
 P_1, \dots, P_n
Q

The letter r indicates the name of the rule. The following two critical questions match this scheme (Bench-Capon and Prakken 2010: 159):

- CQ₁: Is r valid?
CQ₂: Is r applicable to the current case?

Critical questions concerning an inference scheme indicate situations which can be presumptively assumed when reasoning with the scheme, but whose non-existence would put the application of the scheme into question. Negative answers to critical questions can be reformulated as counterarguments that undercut (make inapplicable) the concerned scheme or contradict (rebut) its premises (Walton and Sartor 2013).

Now we can see, in general, that our conditional rule for framing interpretive arguments is a general pattern for defeasible rules or argument schemes that can be cast into this format. Below this rule has been expanded into a DMP form of inference.

If a sentence\term X has the property P , then X should (not) be given meaning M .
This sentence\term X has the property P .
Therefore X should (not) be given meaning M .

This abstract structure of inference represents the most generic pattern that interpretative arguments have. On this perspective, the different argumentation schemes can be adapted to the specific field of interpretation by replacing the generic DMP form with the aforementioned one. This form of inference can be used to translate the aforementioned arguments described by Tarello into argumentation schemes.

3 A contrario argument

The argument *a contrario* can be summarized by the Latin principle *Ubi lex voluit, dixit; ubi noluit, tacuit* (what the law wishes, it states, what the law does not want, it keeps silent upon). According to this maxim, if a rule attributes any normative qualification (such as a power, an obligation or a status) to an individual or a category of individuals, in the absence of any other explicit rules it shall be excluded that a different rule is in force (exists, is valid) attributing the same quality to any other individual or category of individuals (Tarello 1980: 346). This argument excludes an interpretation wider than the literal one, and it rebuts any analogical or extensive interpretation (Guastini 2011: 271). For instance, art. 17, 1st paragraph of the Italian constitution provides that:

All citizens have the right to assemble peaceably and unarmed.

Is the legal predicate “to have the right of assembly” (A) also attributable to foreigners and stateless people? If we use the argument *a contrario*, we proceed from the principle that if the law wished to vest such a right in foreigners and stateless people, it would have stated it (Guastini 2011: 272). Since there are no legal provisions relative thereto, it shall be concluded that such a predicate is attributed *only* to citizens. As a consequence, foreigners and stateless people will be excluded from such a right.

The argument *a contrario* concerns what a law does not provide for. At common law, this argument is usually referred to as “*Expressio Unius Est Exclusio Alterius*.” A clear case is the United States Supreme court case *Leatherman v. Tarrant County Narcotics Intelligence and Coordination Unit* (507 U.S. 163, 1992). The issue concerned

the interpretation of the rules for filing a claim for relief in a specific circumstance in which a claim is brought against local officials acting in their official capacity, a county, and two municipal corporations for alleged unwarranted search of their homes for narcotics. The plaintiff allegedly failed to file a complaint that included a detailed and particular description of the basis for the claim, as requested by the Court of Appeals in complaints against municipal corporations. The problem was that this standard conflicted with Rule 8(a)(2) of the Federal Rules of Civil Procedure, which provided that a claim for relief must contain only “a short and plain statement of the claim showing that the pleader is entitled to relief.” The only exception is stated in Rule 9(b): “In alleging fraud or mistake, a party must state with particularity the circumstances constituting fraud or mistake,” which does not include among the enumerated actions any reference to complaints alleging municipal liability. The Supreme Court reasoned as follows (507 U.S. 163, 168):

Perhaps if Rules 8 and 9 were rewritten today, claims against municipalities under § 1983 might be subjected to the added specificity requirement of Rule 9(b). But that is a result which must be obtained by the process of amending the Federal Rules, and not by judicial interpretation. In the absence of such an amendment, federal courts and litigants must rely on summary judgment and control of discovery to weed out unmeritorious claims sooner rather than later.

As the Court maintained, the mention of some specific cases implies the exclusion of others not mentioned. The complete argument can be summarized in Figure 1 below.

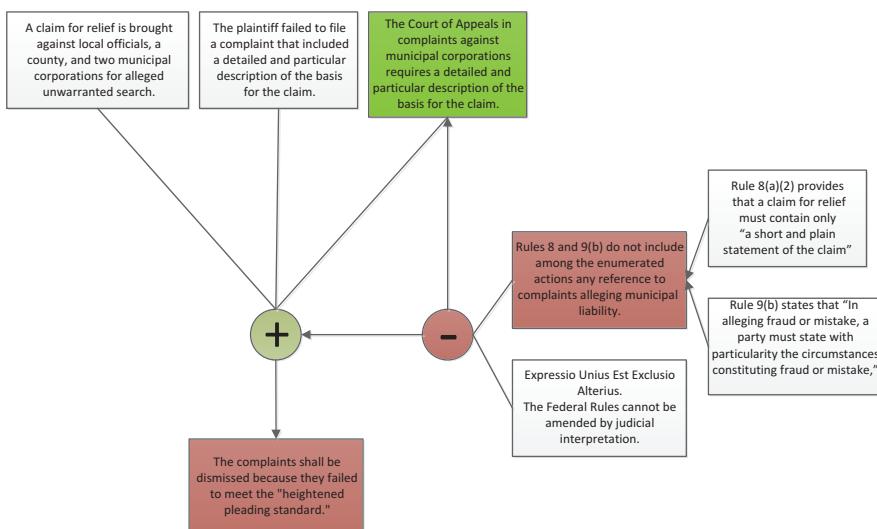


Figure 1: *A contraria* reasoning in *Leatherman v. Tarrant County*.

In this figure (Figure 1), the pro-argument advanced by the respondent (Tarrant County Narcotics Intelligence and Coordination Unit) is grounded on the authority of the Court of Appeals for the Fifth Circuit (green box on top), requiring a detailed description of the claim. This argument, however, is rebutted by the *a contrario* reasoning based on Rules 8 and 9 of the Federal Rules of Civil Procedure. Since a heightened pleading standard (a detailed description of the claim) is requested only in cases of fraud or mistake, which do not correspond to the cause of complaint in the pleaded case, such a standard shall be considered as not applicable to all the other cases.

The reasoning structure of this argument can be modeled according to the *a contrario* argumentation scheme below.

Argumentation scheme 2a: *A contrario* scheme

MAJOR PREMISE	If x is P , then x has the right/is A .
CLOSED WORLD PREMISE	In lack of contrary provisions, if x is not P , then x does not have the right/is not A .
MINOR PREMISE	Individual a is not P .
CONCLUSION	Therefore, individual a does not have the right/is not A .

In this case, we need to notice that the reasoning is effective only in a closed-world scenario. The conclusion can be drawn only in conditions of lack of contrary evidence, that is, when no other laws setting out the attribution of the same predicate to other categories are known. For this reason, the crucial logical assumption behind this type of reasoning can be represented as a form of reasoning from ignorance (Walton et al. 2008: 327):

Argumentation scheme 2b: Argument from ignorance

MAJOR PREMISE	If A were true, then A would be known to be true.
MINOR PREMISE	It is not the case that A is known to be true.
CONCLUSION	Therefore A is not true.

This argument represents the passage from lack of knowledge to negation. Similarly, the closed-world premise represents the inference from the absence of a provision for attributing a predicate to category of individuals to the

negation of the predicate for such a category. However, this latter type of reasoning is much more specific, as it excludes the possible counterargument, namely that if A were false, A would be known to be false. The *a contrario* excludes the inference from the lack of a denial of a right (negation of a predicate) to its attribution.

4 Arguments from analogy

Argument from similarity can be considered as opposite (from an interpretative perspective) to the argument *a contrario*. Instead of excluding the attribution of the legal predicate to the entities not belonging to the category mentioned in the law, it extends it. As Tarello put it, if a rule attributes any normative qualification to an individual or a category of individuals, it can be concluded that there is a different rule in force that attributes the same quality to another individual or category of individuals connected with the former class by a similarity or an analogy relation. Such a relationship is held to be relevant from the perspective of the applicable law, or the qualification to be attributed (Tarello 1980: 351). The reasoning structure of this type of argument can be represented as follows (Walton et al. 2008: 315):

Argumentation scheme 3: Argument from analogy

MAJOR PREMISE	Generally, case C_1 is similar to case C_2 .
MINOR PREMISE	Proposition A is true (false) in case C_1 .
CONCLUSION	Proposition A is true (false) in case C_2 .

However, this pattern is ambiguous. The cases compared can be instances of the same category governed by the legal qualification A , or two categories of which the second (C_2) is not governed by A . In other words, there is a crucial difference between a similarity of two cases that can belong to the class P , and a similarity of two categories, P and Q . In law this difference is drawn by the concepts of *analogia legis*, or the application of a *written* law to a different, similar case (Colombo 2003: 96–97), and *analogia iuris*, or the application of an abstract and unexpressed principle of law from which the stated law is drawn (Guastini 2011: 281). While in the first case analogy is used to *apply* the law to borderline or controversial cases, in the second case it is used to draw and support a *new unexpressed rule* covering a legal gap.

This type of argument is used both in civil law and common law systems. However, in the first case the expressed principle is a law, while in the second case it is usually a prior case. We will show the uses in both systems of law, building on the accounts of analogy advanced in argumentation theory (Macagno and Walton 2009; Macagno et al. 2016) and our previous works on specific interpretive schemes (Macagno 2015a).

4.1 *Analogia legis*

The argument from *analogia legis* can be illustrated in civil law by the following case from the Italian Corte Costituzionale (judgment no. 0280 of 2010). The article no. 180, 4th paragraph of the Legislative Decree n. 285 of 1992 allowed public transport (vehicles for the transportation of persons) and vehicles for rental (without driver) to keep on board only the photocopy of the registration document, authenticated by the owner. The police officers stopped the driver of a vehicle owned by a company of waste management, who showed them the driving license and the photocopy of the registration documents, authenticated by the company. Was the legal provision applicable in this case, even though the purpose of the vehicle was not transportation of people, but of objects? The Italian Corte Costituzionale advanced an argument comparing waste management trucks with vehicles for public transport of persons, pointing out that the essential features of the category of “vehicles for public transport of persons” of entities are “being an essential public service” and “managing a fleet of vehicles.”³

At common law the judge both applies and defines the legal rules based on previously decided cases (Friesen 1996: 12–13). In this system we can consider the principle underlying the concept of *analogia legis*, and conceive of it as the specification or extension of a category, by pointing out the essential or fundamental characteristics (or factors), already governed by a legal provision or a precedent to include a borderline case. One of the most famous cases involving this use of analogy is *Popov v. Hayashi* (WL 31833731, Cal. Super. Ct. 2002). In this case the plaintiff, Popov (a baseball fan), stopped the ball hit by a famous player with his glove. The player who hit the ball has set a new record for home runs, making the ball very valuable. However, in order to reach for the ball,

³ See http://www.dircost.unito.it/SentNet1.01/srch/sn_showArgs.asp?id_sentenza=20100280#20100280_3 (accessed on 7 March 2012).

Popov lost his balance and was forced to the ground by the crowd, leaving the ball loose on the ground. Hayashi (the defendant) was involuntarily forced to the ground too, and when he saw the loose ball, he picked it up, rose to his feet and put it in his pocket. Popov, who intended to establish and maintain possession of the ball, could not prove that he secured it. An issue for both parties was the classification of Popov's act as possession. The defense used the following argument (at 8):

The hunting and fishing cases recognize that a mortally wounded animal may run for a distance before falling. The hunter acquires possession upon the act of wounding the animal not the eventual capture. Similarly, whalers acquire possession by landing a harpoon, not by subduing the animal.

The plaintiff compared the possession of the ball with the possession of an animal or a whale in hunting and fishing. In these latter cases, possession is established based on the criterion, or rather factor, of partial dominion and control over the possessed item.

From a reasoning perspective, *analogia legis* can be conceived as a form of specification of the properties of the predicate. Since the definition does not allow a classification of borderline cases, through analogy the relevant, unstated factors are pointed out. This type of reasoning can be represented as follows (Ashley 1991: 758):

Argumentation scheme 3a: Argument from *analogia legis*

PREMISE 1 (RULE)	If x is P , then x has the right/is A .
PREMISE 2 (BORDERLINE)	It is not clear whether a (a borderline case) is P .
SIMILARITY PREMISE	a is similar to b .
PREMISE 3 (PRINCIPLE OF CLASSIFICATION)	b was classified as P because of the factors f_1, f_2, \dots, f_n .
REDEFINITION PREMISE	If x has the factors f_1, f_2, \dots, f_n , then x is P .
PREMISE 4 (FACTORS)	a has f_1, f_2, \dots, f_n .
CONCLUSION	Therefore, a is P .

The predicate is specified (or rather redefined, Sorensen 1991) by highlighting the factors that are considered as essential for the legal qualification to apply.

4.2 Analogia iuris (argument from general principles)

The analysis of analogy as a strategy of redefinition can be used to describe another mechanism of reasoning, which we can refer to as *analogia iuris*. This

label is intended to only cover a specific logical dimension of analogy, taking into account the reasoning aspect of this instrument of legal interpretation (without any pretense to discuss the legal implications or characteristics thereof). *Analogia iuris* represents the application of an implicit ratio governing a law to a different case. In civil law it represents the reasoning underlying the “construction of an unexpressed rule” (Guastini 2011: 278), which can be illustrated by the following case (Guastini 2011: 280):

According to art. 2038 of the Italian Civil code, anyone who has unduly received some goods and has transferred them in good faith, ignoring the obligation to return them, shall return the consideration thereof and not the very goods or their value. The ratio of the law is the principle of protecting good faith. On this view, the law provides only for the restitution of the consideration and not more burdensome obligations in order to protect the good faith of the individual. The undue receipt and the transferal subsequent thereof is similar to the purchase and sale of stolen goods when their illicit provenience is unknown. Therefore, art. 2038, 1st paragraph, shall be interpreted as applicable also to the case of purchase in good faith of stolen goods.

In this case, an unexpressed principle is abstracted from a law and applied to a case not possibly falling thereunder. From this perspective, the *analogia iuris* creates a new law.

At common law, this type of reasoning is conceived not merely as aimed at extending or precisifying (Sorensen 1991: 100) a concept, but at stipulating a new one, more generic and not potentially covered by the existing ones. It can be illustrated by the following case (*Adams v. New Jersey Steamboat Co.*, 29 N.Y. S. 56, 1894):

The action was brought to recover a certain sum of money alleged to have been lost to plaintiff when a passenger upon one of defendant's steamboats. [...] The liability of a steamboat company is analogous to that of an innkeeper at common law, and proof of the loss from a stateroom of a sum of money which might reasonably be carried for traveling expenses renders the company liable therefor [...]

In this case, there was no law governing the liability of steamboat operators. However, there was a law providing that innkeepers shall be liable as insurers for their guest's losses. The court decided to use the ratio underlying the liability of innkeepers, abstracting the essential properties motivating the application of the legal predicate. In this case, the ratio was the accessory consequence of the contract to feed, lodge and accommodate a guest for a suitable reward. A new implicit category was created, namely “providers of a service of accommodation governed by contract,” which comprised both innkeepers and steamboat operators.

This argument can be represented as follows (Macagno and Walton 2009: 173; Macagno et al. 2016; Guastini 2011: 280–281):

Argumentation scheme 3b: Argument from *analogia iuris*

Premise 1 (target)	No law provides for the x 's that are Q .
Premise 2 (property)	If x is P , then x has the right/is A .
Similarity premise	P and Q are included/are subsets of the same functional genus G .
Species – Genus premise	If x is G , then x has the right/is A .
Conclusion	If x is Q , then x has the right/is A .

This type of reasoning is grounded on two fundamental principles, expressed by Boethius in his *De Differentiis Topicis* (Stump 2004). The first principle is the attribution of the property A of the species P to the functional genus G . This passage is supported by the maxim connecting the species to the genus: what is predicated of the parts (in this case essential part, the species) is predicated also of the whole (in this case essential whole, the genus).⁴ In a case of analogy, the genus G is abstracted based on the property A predicated of the species. It is considered as an essential property of the species (or rather, the category P has been chosen because it is essentially similar to Q from the point of view of A) and for this reason is predicated of the possible essential parts of G . The other inferential step is presupposed by the requirements of the former. From the predication of the property A to the genus G , the attribution of A to the other species P is concluded. This inferential step is supported by the maxim stating that “What is (not essentially) said of the genus is said of its species as well.”⁵ Since P and Q are the two species of G , and A is attributed to G , then Q is G .

5 *A fortiori* argument

The first analysis of *a fortiori* argument was undertaken by Aristotle in the *Topics* and in the *Rhetoric*. In both works he pointed out how this type of reasoning is grounded on the concept of likeness of predication: if a predicate cannot be attributed to an entity $P1$ to which it is more likely to be predicated, neither can it be attributed to an entity $P2$ that it is less likely to be characterized as such

⁴ Quod enim singulis partibus inest, id toti inesse necesse est (Boethii *De Topicis Differentiis*, 1189A).

⁵ [...] quae generi adsunt specie adsunt (Boethii *De Topicis Differentiis*, 1188C).

(*Topics* II, 10). The positive *a fortiori* reasoning can be stated as follows: if a predicate P_2 can be attributed to an entity to which it is less likely predicated, it must be attributed to an entity that it is more likely predicated P_1 . In legal argumentation, the *a fortiori* argument can be considered as similar to the argument from similarity (Guastini 2011: 282–283). In both cases, the interpreter aims at supporting an unexpressed rule and presupposes a *ratio iuris*, which is applied to the case not judged yet (Horovitz 1972: 96). The structure of the reasoning can be expressed as follows. If a rule attributes any normative qualification (such as a power, an obligation or a status) to an individual or a category of individuals, it can be concluded that there is a different rule (or a different rule exists, is valid) that attributes the same quality to another individual or category of individuals in a situation in which such a normative qualification shall be all the more attributed (Tarello 1980: 355). This argument is used to extend the application of the interpreted normative statement to categories of individuals or behaviors apparently not falling within the scope of the rule. The reasoning structure of this argument can be understood from the following example (*Bekteshi v. Mukasey*, 260 Fed. Appx. 642, 2007):

Failure to satisfy the less demanding asylum standard was, *a fortiori*, a failure to demonstrate eligibility for withholding of removal.

From the perspective of the CAT⁶ “eligibility for relief” (A), the standard of proof for “withholding or removal” P_2 included the one applied to “asylum” (P_1), in the sense that P_2 presented all the relevant characteristics (or rather requirements) of P_1 , plus some additional ones. For that reason, this type of reasoning is convertible for destructive purposes but not for constructive ones. If P_2 is the case, then P_1 is the case, but if P_2 is not the case, it does not follow that P_1 is not the case. On the other hand, if P_1 is the case, it does not follow that P_2 is the case, while if P_1 is not the case, P_2 cannot be the case:

Valid inferences	Invalid inferences
$(P_2(x) \wedge A(x)) \rightarrow (P_1(x) \wedge A(x))$	$(P_2(x) \wedge \neg A(x)) \rightarrow ?(P_1(x) \wedge \neg A(x))$
$(P_1(x) \wedge \neg A(x)) \rightarrow (P_2(x) \wedge \neg A(x))$	$(P_1(x) \wedge A(x)) \rightarrow ?(P_2(x) \wedge A(x))$

For this reason, we can consider the *a fortiori* argument an argument from analogy not as establishing a relation of equivalence (P_2 is the same as P_1),

⁶ United Nations Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment.

but as a relation of entailment between the two predicates (if P_2 , then P_1). We can represent the structure of the argument as follows:

Argumentation scheme 3c: Argument from analogy – a *fortiori*

Premise 1 (target)	No law provides for the x 's that are Q .
Premise 2 (property)	If x is P , then x has the right/is A .
Similarity premise	P and Q are included/are subsets of the same functional genus G that motivates A .
Species – Genus premise	If x is G , then x has the right/is A .
A <i>fortiori</i> premise	Q belongs to G more than P does.
Conclusion	If x is Q , then x has the right/is A .

In civil law these inferences are used to interpret normative statements. For instance, we can consider the following cases (Guastini 2011: 283)

According to art. 11, 1st paragraph disp. prel. (disposition effective prior to constitution) of the Italian Civil Code, statutes cannot be retroactively effective; therefore, *a fortiori*, regulations, which are subordinated to statutes, cannot be retroactively effective.

In this case, the *a fortiori* reasoning presupposes the implicit principle that the limits and the restrictions that apply to hierarchically superior sources of law apply also to the inferior ones. However, the same pattern of reasoning could not be used for concluding that if the constitutional law shall be approved by the absolute majority of the Parliamentary members, *a fortiori* a rule shall be approved by the absolute majority of the PMs. Guastini distinguishes between two types of *a fortiori* argument, depending on whether the reasoning is aimed at interpreting statements imposing an advantageous condition (such as a right) or a disadvantageous one (such as a duty). In the first case, the argument proceeds *a majori ad minus* (from the greater to the lesser). For instance, if it is allowed to flash one's own headlights to warn other cars, then in such cases it is allowed to flash one's own dimmed headlights. In the second case, the argument is *a minori ad maius* (from the lesser to the greater). For instance, if bikes are not allowed in a park, then, *a fortiori*, motorbikes are not allowed. This distinction drawn by Guastini highlights the difference between the constructive predicates (rights) and the destructive ones (obligations and limitations). This distinction depends on the evaluation of the action at issue. If an action is prohibited, then any action which is of a similar kind but is worse (with regard to the law's values) is also *a fortiori* prohibited; if an action is permitted then anything which is better is *a fortiori* permitted. This type of reasoning is

grounded on the legally relevant characteristics of an action. Something is regarded as legally bad when it has a certain feature or dimension legally assessed as negative. As a consequence, something is worse when it is characterized by a higher degree or level of such a negative feature, while it is better when it is characterized by a lower degree of such a negative property. On the contrary, something is regarded as legally better when it characterized by a property whose higher degree increases the goodness of the action, while the lower degree thereof worsens the action.

6 Arguments from authority

Walton and Koszowy (2015) have extended the study of arguments from authority by adding an argumentation scheme for arguments from administrative authority to the existing scheme for argument from expert opinion. An epistemic authority is defined as an expert in the field of knowledge, whereas a deontic administrative authority has a right to exercise command or influence over another party subject to that authority (Bochenksi 1974: 71; Walton 2010). The pronouncement of an administrative authority can be legally binding but can also be subject to appeal, and disobedience can have penalties. This distinction between administrative authority and expert opinion illustrates the difference between the various types of arguments grounded on the authority of the lawmaker and the ones based on the appeal to the expert witness. The use of authority characterizes also a third kind of argument used in statutory interpretation, the naturalistic argument, whose force derives from the authority of the majority of the people or the common opinion.

a) *Psychological argument (intention of the actual legislator)*

This argument is grounded on the intention of the actual, real drafter of the statement of law that needs to be interpreted. According to this line of reasoning, to a statement of law shall be attributed the meaning that should allegedly correspond to the intention of its drafter or author, that is, the historical legislator (Tarello 1980: 364). This type of argument is based on the idea that a statement of law is the expression of a command from a superior authority. Therefore, the interpretation of a statement of law corresponds to the reconstruction of the command of the authority. However, if the legislator is not a single authority, such as a king or an *imperator*, but a plurality of people (an assembly such as the Senate or the House of Representatives), this argument amounts to attributing a unique intention to a community of people, who may

have voted the statement of law for different reasons and different intentions (Easterbrook 1984).

This type of argument can be illustrated using an example from the common law (*United States v. California*, 381 U.S. 139, at 150, 151, 1965). This controversy, concerning the possession of the submerged lands of California, was based on the definition of “submerged water,” which in turn amounted to the definition of “inland water.” The Court grounded its argument on the fact that the only way of recovering the definition was the legislative history, or rather the intention of the legislator. Since the Senate Committee excluded the definition set out in the proposed bill, their intention was not to define it, leaving its meaning to be determined by the Courts:

As first written, the bill defined inland waters to include “all estuaries, ports, harbors, bays, channels, straits, historic bays, and sounds, and all other bodies of water which join the open sea.” This definition was removed by the Senate Committee. [...] Removal of the definition for inland waters and the addition of the three-mile limitation in the Pacific, when taken together, unmistakably show that California cannot prevail in its contention that “as used in the Act, Congress intended inland waters to identify those areas which the states always thought were inland waters.” By deleting the original definition of “inland waters” Congress made plain its intent to leave the meaning of the term to be elaborated by the courts, independently of the Submerged Lands Act.

In order to analyze the force and the characteristics of this type of argument, it is useful to distinguish between two kinds of authority. One is the classic form of argument from authority, corresponding to the authority of the expert mentioned in Section 2 above (Walton et al. 2008: 19). As mentioned above, the legislator can be considered an administrative authority, characterized by the power deriving from a superior role or standing of some official who is entitled to make rulings that are binding within a legislative framework (Ciceronis *Topica*, 24). This type of argument from authority has the following argumentation scheme:

Argumentation scheme 1a: Administrative authority

-
- Minor Premise:** Source L is an authority involved in (passing, drafting, amending) the statement of law A .
- Major Premise:** L (passed, drafted, amended) proposition A intending A_1 .
- Conditional Premise:** If source L is an authority involved in (passing, drafting, amending) the statement of law A , and L intended the interpretation A_1 , then A_1 may plausibly be taken to be right interpretation.
- Conclusion:** A_1 may plausibly be taken to be the right interpretation.
-

In *Conroy v. Aniskoff* (507 U.S. 511, at 519, 1993), Justice Scalia pointed out some crucial critical dimensions of this scheme, related to the fact that attributing a specific intention to a body is extremely problematic, and depending on the viewpoint one wants to defend, he will choose the opinions of the personages better suiting his own purpose. Building on the critical questions of the argument from expert opinion, along with Tarello's analysis (Tarello 1980: 366–367) and the aforementioned refutation of the psychological argument, this response can be summarized in the following crucial defeasible dimensions:

1. *Authority Question*: Shall L be considered as an authority (the law is independent from the will of the legislator)?
2. *Role Question*: Who is L (the majority, the most influential, the representatives) and what role has he played?
3. *Opinion Question*: What did L assert that implies A_1 ?
4. *Consistency Question*: Is A_1 consistent with the intention of other Ls that passed the same law?
5. *Coherence Question*: Does A_1 lead to any antinomy or incoherence in the legal system?

One of the crucial and most controversial problems is how to determine a collective intention, especially if the statement of law has been voted by different political groups for different purposes. As Scalia put it, "There is no escaping the point: Legislative history that does not represent the intent of the whole Congress is non-probative; and legislative history that does represent the intent of the whole Congress is fanciful" (*Bank One Chi., N.A. v. Midwest Bank & Trust Co.*, 516 U.S. 264, at 281, 1996). Another crucial problem is to understand the intention. The *travaux préparatoires*, or legislative history, are used for this purpose as evidence which is employed for analyzing the reasons given by the legislative bodies to support a statement of law. Obviously the reconstruction of the intention needs to be supported by further arguments, one of which is the appeal to further authorities.

b) *Historical argument (presumption of continuity or conservative legislator)*

The psychological argument is based on the legislator as an authority. However, the crucial problem is to determine what the legislator intended in that specific case. The historical argument can be considered as a different form of argument from authority, where the authority is not directly the actual legislator but the traditional interpretation of a previous statement of law that governed the same case in the same legal system. This reasoning is based on the principle that the rules are constant in time, and that subsequent legislators used and use the

ancient rules as a model to be simply improved from a formal or lexical perspective (Tarello 1980: 368). On this perspective, the previous interpretation works as an authority for the subsequent ones, and then the previous legislators can be thought of as the authorities on whom the actual ones base their intentions. This argument is used at common law to reconstruct the intention of the legislator in cases in which the intent is not clear. For instance we consider the use of this argument in the following case, concerning the interpretation of the section 12-47-901 of the Colorado statutes (*People v. Davis*, 218 P.3d 718, at 726, 2008):

Because the legislative intent is not reasonably certain from the plain language of the 2005 version of section 12-47-903(5), we look to the prior version of the law, the goal of the statutory scheme, the consequences of its construction, and the legislative history to determine legislative intent. In 1997, the General Assembly manifested its intent that violations of the liquor code proscription of providing liquor to a minor would also violate the general criminal code proscription against contributing to the delinquency of a minor. In doing so, the legislature explicitly provided that these violations of the liquor code could also be prosecuted under the criminal code. Thus, [...] the plain language of the 1997 statute explicitly reflected the legislature's intent to permit prosecution under the criminal code. [...] In this context, we conclude that the 1997 amendment demonstrates that the General Assembly intended that liquor code violations pertaining to providing alcohol to minors could be punishable under the criminal code. Further, we conclude that the 2005 amendment, and the fact that the General Assembly did not, at the same time, amend section 12-47-903(5) to reflect the addition of subsection (a.5) in 12-47-901(1), do not express or imply an intention to preclude prosecution of contributing to the delinquency of a minor under the criminal code.

In the absence of more powerful arguments clearly supporting the actual legislator's intent, the historical argument can be extremely effective, especially when the documents considered are close in time to the statement of law to be interpreted. However, this argument is grounded on the principle that the law should reflect the intent of the legislator, incurring the same weaknesses as the psychological argument. Moreover, it presupposes that the actual legislator is relying on the intentions of previous legislators. Finally, just as the psychological argument risks becoming a following of one's "friends," quoting Scalia's metaphor, the historical one risks turning into a potentially open ended inquiry (*Conroy v. Aniskoff*, 507 U.S. 511, at 520, 521, 1993), in which "one could go back further in time to examine the Civil War-era relief Acts."

c) *Authoritative argument (ab exemplo)*

The authoritative argument is based on the authority of a previous interpretation, or rather on the authority of the product of a previous interpretation. This

type of reasoning cannot be considered as the same as the argument from precedent, or analogy, because the authoritative argument applies when the appeal to the precedent is not a rule or when the legal theory is not considered as a source of the law. The crucial problem consists in identifying the legal theory that is majoritarian, or is the best one. The crucial dimension of the argument from precedent is the *ratio decidendi*, the reason why the precedent case was decided in a certain way. Such a reason, which corresponds to an argument or a combination of arguments, is applied to a similar case.

This type of argument can be represented as a variant of the aforementioned argument from expertise (Walton et al. 2008: 19):

Argumentation scheme 1b: Authority of previous interpretations

MAJOR PREMISE:	Source <i>L</i> (legal theory/previous case) is an authority in subject domain <i>S</i> containing proposition <i>A</i> .
MINOR PREMISE:	<i>L</i> asserts that proposition <i>A</i> (in domain <i>S</i>) is true (false).
CONDITIONAL PREMISE:	If source <i>L</i> is an authority in a subject domain <i>S</i> containing proposition <i>A</i> , and <i>L</i> asserts that proposition <i>A</i> is true (false), then <i>A</i> may plausibly be taken to be true (false).
CONCLUSION:	<i>A</i> may plausibly be taken to be true (false).

d) *Appeal to popular opinion: Naturalistic argument*

The naturalistic argument is based on the so-called “nature” of man, social relations, or things. On this perspective, the law is directly drawn or taken from the nature of something, and the legislator cannot force it, otherwise is not real law. On this perspective, for instance, killing and torturing are objectively wrong, and therefore there are laws against homicide and torture (Guastini 2011: 242). Therefore, the fact that killing is wrong is not based on a decision of a legislator; on the contrary, the law is based on a natural value (preserving human life). For this reason, this statement of law can be said to be true. An example of this argument, which is often left implicit and underlying other arguments is the following Italian case (Corte Costituzionale, Sentenza n. 138/210) concerning the constitutionality of the civil law prohibiting same-sex marriage. Such a law was allegedly conflicting with article 3 of the Italian constitution (prohibiting any discrimination) and article 29, defining family. The Court found that the same-sex marriage ban was not unconstitutional, grounding its argument on the definition of family as a “natural society based on marriage” (Italian Constitution, art. 29). This definition is gender-neutral; however, what

shall be considered as a “natural society” (Damele 2016)? The argument provided by the Court and supporting the unnaturalness of same-sex marriage proceeds from the “nature” of family, which seems to amount to the realistic idea that there are entities that fit natural kinds, and that the terms denoting them have a meaning that is not fixed by linguistic convention but rather by reference. However, if we do not accept this type of philosophical position, we need to analyze the structure of this type of argument adopting a conventionalist point of view, which is supported by leading federal cases in the United States.

This naturalistic argument can be interpreted as the ground of the rule of “natural meaning” or “common sense” (Soboleva 2007), namely that “in the absence of a definition in a statute, the United States Supreme Court will construe a statutory term in accordance with the term’s ordinary or natural meaning” (*Fed. Deposit Ins. Corp. v. Meyer*, 510 U.S. 471, 1994; *Perrin v. United States*, 444 U.S. 37, at 42, 1979; 322 L Ed Digest § 165). A clear and seminal case is the definition of “fruit” in *Nix v. Hedden* (149 U.S. 304, 1893):

Botanically speaking, tomatoes are the fruit of a vine, just as are cucumbers, squashes, beans, and peas. But in the common language of the people, whether sellers or consumers of provisions, all these are vegetables which are grown in kitchen gardens, and which, whether eaten cooked or raw, are, like potatoes, carrots, parsnips, turnips, beets, cauliflower, cabbage, celery, and lettuce, usually served at dinner in, with, or after the soup, fish, or meats which constitute the principal part of the repast, and not, like fruits generally, as dessert.

The “nature of the things” can be also regarded as the common sense, commonly accepted principles that do not need to be further proved (*People v. Collins*, 214 Ill. 2d 206, at 218, 2005). This type of argument can be represented using the argument from popular opinion (Walton et al. 2008: 311):

Argumentation scheme 4: Argument from popular opinion

GENERAL ACCEPTANCE PREMISE	A is generally accepted as true.
PRESUMPTION PREMISE	If A is generally accepted as true, that gives a reason in favor of A.
CONCLUSION:	There is a reason in favor of A.

On this perspective, we can conceive the structure of the interpretive naturalistic argument (i. e. an appeal to the “nature” of a concept that needs to be interpreted) as a specific case of an appeal to a shared consensus on a definition (the “true” or “real” meaning) (Halldén 1960; Schiappa 1993; Macagno and Walton 2014: Chap. 3).

7 Arguments from consequences

Three interpretative arguments can be traced back to instances or subtypes of argument from consequences: the *reductio ad absurdum* (apagogic or absurdity argument), the equitative argument, and the ancillary argument of coherence of the law.

e) *Reductio ad absurdum*

The apagogic argument, or rather the *reductio ad absurdum*, is grounded on the principle of the reasonableness of the legislator. This argument is aimed at excluding the possible interpretations of a statement of law leading to an unreasonable or “absurd” rule (Tarello 1980: 369). This type of argument is purely destructive, as it is aimed at excluding one or more possible alternatives without providing any positive grounds to support a specific interpretation. It can be particularly effective when there is only one possible alternative interpretation, as it turns into the pragmatic counterpart of the disjunctive syllogism, or reasoning from oppositions.

The force of this type of reasoning, however, lies on an ambiguous concept, absurdity, and in particular the absurdity of a rule of law. As Tarello emphasized (Tarello 1980: 370), a rule of law can be absurd because of its application to a case (or the generalization of such an application) or because of the outcomes or effects of its application to a case (or the generalization thereof). Moreover, the nature of absurdity is ambiguous. Such applications or effects can be logically, practically or ethically absurd. For this reason, Tarello suggests that the apagogic argument is an umbrella term covering different strategies of refutation, aimed at excluding a possible interpretation in order to affirm possible alternative ones.

At common law, this type of reasoning is called the “absurdity doctrine” (Manning 2003: 2389–2390; Gold 2006: 53). It can be illustrated through the following case (*Corley v. United States*, 556 U.S. 303, at 317; 2009):

§ 3501(e) defines “confession” as “any confession of guilt of any criminal offense or any self-incriminating statement made or given orally or in writing.” Thus, if the Government seriously urged a literal reading, (a) would mean that “[i]n any criminal prosecution brought by the United States ..., [any self-incriminating statement] with respect to ‘any criminal offense’] ... shall be admissible in evidence if it is voluntarily given.” Thus would many a Rule of Evidence be overridden in case after case: a defendant’s self-incriminating statement to his lawyer would be admissible despite his insistence on attorney-client privilege; a fourth-hand hearsay statement the defendant allegedly made would come in; and a defendant’s confession to an entirely unrelated crime committed years earlier would

be admissible. These are some of the absurdities of literalism that show that Congress could not have been writing in a literalistic frame of mind.

As maintained in (Macagno 2015a), this type of reasoning can be represented with the argument from consequences (Walton et al. 2008: 332):

Argumentation scheme 5: Argument from consequences

PREMISE 1:	If <i>A</i> is brought about, good (bad) consequences will plausibly occur.
PREMISE 2:	What leads to good (bad) consequences shall be (not) brought about.
CONCLUSION:	Therefore <i>A</i> should be (not) brought about.

In this case, a legal interpretation of a statement of law, if maintained, leads to outcomes that are unacceptable for different reasons. For instance, the rule created by such an interpretation would introduce a contradiction into the legal system (directly or indirectly conflicting with another provision), or contradict ethical rules.

We now need to recall that the quotation from Tarello just above defined the “absurd” result as a result that is “contrary to perceived social values.” Here we need to recognize the pair of argumentation schemes for arguments from values. The first of the pair is the scheme for argument from positive value (Walton et al. 2008: 321).

Argumentation scheme 6: Argument from values – positive values

PREMISE 1:	Value <i>V</i> is <i>positive</i> as judged by agent <i>A</i> .
PREMISE 2:	If <i>V</i> is <i>positive</i> , it is a reason for <i>A</i> to commit to goal <i>G</i> .
CONCLUSION:	<i>V</i> is a reason for <i>A</i> to commit to goal <i>G</i> .

The second of the pair is the scheme for argument from negative value (Walton et al. 2008: 321).

Argumentation scheme 6: Argument from values – negative values

PREMISE 1:	Value <i>V</i> is <i>negative</i> as judged by agent <i>A</i> .
PREMISE 2:	If <i>V</i> is <i>negative</i> , it is a reason for retracting commitment to goal <i>G</i> .
CONCLUSION:	<i>V</i> is a reason for retracting commitment to goal <i>G</i> .

Note that argument from consequences is a species of value-based argument which assumes that the consequences at issue can be classified as good (positive value) or bad (negative value).

f) *Equitative argument*

One of the interpretative arguments that fall within the argumentation from values (Argumentation scheme 6) is the equitative one, an argument proceeding from a specific value that cannot be disputed, i. e. fairness. In analyzing legal argumentation based on appeal to justice, Perelman (1980: 11) argued that the notion of justice consists in an application of the notion of equality. Following Aristotle, who observed that there should exist a likeness between beings to whom justice is administered, Perelman (1980) defined the principle of formal or abstract justice as the principle of action in accordance with which beings of one in the same essential category must be treated in the same way.

One clear example comes from the case *Popov v. Hayashi* (WL 31833731, 2002). As mentioned above, both claimant and defendant had different reasons to claim possession of the home-run ball. Claimant had first a pre-possessory interest in the ball, as he tried to catch it, not achieving full possession. Defendant achieved full possession of the ball, but it had a cloud on its title. The court proposed to apply the principle of equitable division, which, however, had to be supported by reasons. One of the arguments used was from the authority of Roman law, which is not considered as a source of law at common law (at 11):

Both men have a superior claim to the ball as against all the world. Each man has a claim of equal dignity as to the other. We are, therefore, left with something of a dilemma. [...] The concept of equitable division has its roots in ancient Roman law. As Helmholtz points out, it is useful in that it "provides an equitable way to resolve competing claims which are equally strong." Moreover, "[i]t comports with what one instinctively feels to be fair"

In the same case, the court had to justify the application of the principle. However, there were no California cases on such an issue and for this reason argument from analogy could not be used. The only argument was the authority of a previous case where the same principle ("where more than one party has a valid claim to a single piece of property, the court will recognize an undivided interest in the property in proportion to the strength of the claim") was used (at 11).

Since this is a civil case, it has to be decided on the basis of the preponderance of the evidence. But what happens if the argument of the one side is not even provably stronger than the argument the other side to justify awarding the ball to one of the sides? As Judge McCarthy put it, each man has a claim of equal worth, based on the facts that could be determined. On the evidence, there appears to be no way to arrive at a just decision. However, Judge McCarthy broke the deadlock by appealing to the principle of fairness. As it happens, this way of arriving at a legal decision is a form of argument that does fit an

argumentation scheme (Walton 2014: 434) derived from Perelman's views on the principle of justice (Perelman 1980: 10–11). In the formulation of this scheme below α and β are agents and φ is an action or policy being considered.

Argumentation scheme 6a: Argument from values – fairness

PREMISE 1:	Agents α and β are of the same kind.
PREMISE 2:	φ treats α and β equally.
PREMISE 3:	If φ treats α and β equally, then φ is fair.
INTERIM CONCLUSION:	φ is fair.
PREMISE 4:	If φ is fair, then φ should be carried out.
ULTIMATE CONCLUSION:	φ should be carried out.

This version of the argument from fairness models the scheme as a chaining together of two inferences. The first inference supports the conclusion that φ is fair. The second inference uses this conclusion as a premise in an argument supporting the action φ .

Judge McCarthy's argument fits the scheme because Popov and Hayashi are agents of the same kind, for splitting the proceeds for the ball treats them both equally, and if splitting the ball treats both equally then it is a fair policy. Moreover, if this is a fair policy, it should be carried out.

g) *Ancillary argument: Argument from the coherence of the law*

The argument from the coherence of the law is an ancillary argument, or rather a rebuttal of arguments supporting an interpretation of a statement of law leading to a conflict of rules. It is grounded on the principle that the law provides a coherent system regulating community life without antinomies. It leads to the conclusion that in cases of interpretative controversies involving interpretations resulting in a conflict of rules, a “corrective interpretation” needs to be found (Tarello 1980: 361). Like the argument from the completeness of the law, the argument from coherence is purely negative, as it is used to rebut a specific (interpretative) conclusion without advancing any interpretation. However, while the argument from the completeness of the law simply supports the need for an interpretation of a statement of law, this argument, by rejecting one of the possible interpretations, indicates the paradigm of the acceptable ones. In particular, it is used to exclude the possibility of annulling one of the conflicting statements of law (the older or the hierarchically inferior), opening the paradigm of their possible interpretations that do not result in a conflict of

rules. As Tarello put it, in the event that there are two statements of law (A and B) that allow for different interpretations ($a_1, a_2, a_3; b_1, b_2$), some of which are incompatible (a_2 and b_2 , or a_3 and b_2), there are two possible scenarios (Tarello 1980: 362):

Possible solutions	Arg. from coherence	Possible solutions
1. Declaring B unenforceable, as inferior or prior to A.	→	Not possible
2. Choosing non-conflicting interpretations (a_1 and $b_1/ b_2 /b_3$; a_2 and b_1 ; or a_3 and b_1).	→	(a_1 and $b_1/ b_2 /b_3$; a_2 and b_1 ; or a_3 and b_1)

This type of argument can be considered a subtype of arguments from consequences - see Argumentation scheme 5 above.

8 Practical reasoning and teleological argument

This type of argument is based on the idea of an abstract legislator who enacted the law for a specific purpose. The interpreter is not reconstructing the actual will of a real person, but the goal for which a statement of law was issued. According to this argument, a statement of law shall be given the interpretation that corresponds to its purpose. The goal is reconstructed considering the text of the specific act under consideration or the interests and goals pursued by the law in general (Tarello 1980: 370). By means of this argument, the interpreted text can extend the application of a certain act beyond the literary meaning of the terms used therein.

This type of argument can be represented with the following pattern of argument, called practical reasoning (Walton et al. 2008: 323):

Argumentation scheme 7: Practical reasoning

PREMISE 1:	I (an agent) have a goal G .
PREMISE 2:	Carrying out this action A is a means to realize G .
CONCLUSION:	Therefore, I ought to (practically speaking) carry out this action A .

For instance we can consider the case *Garner v Burr* (1 KB 31, at 33; 1951). In this case, a farmer put wheels without rubber tires on a chicken coop and towed it with his tractor. He was prosecuted pursuant to the Road Traffic Act 1930, which prohibited the use of vehicles without rubber tires on highways. The defense argued that the coop was not a vehicle, which the dictionary defined as “a means of conveyance provided with wheels or runners and used for the carriage of persons or goods.” The wheeled coop was not used to transport any person or goods at that time, and could not be classified as a “vehicle.” The court applied teleological reasoning as follows (emphasis added):

The regulations are designed for a variety of reasons, among them ***the protection of road surfaces***; and, as this vehicle had ordinary iron tyres, not pneumatic tyres, it was liable to damage the roads. [...] It is true that, according to the dictionary definition, a ‘vehicle’ is primarily to be regarded as a means of conveyance provided with wheels or runners and used for the carriage of persons or goods. It is true that the [magistrates] do not find that anything was carried in the vehicle at the time; but I think that the Act is clearly ***aimed at anything which will run on wheels which is being drawn by a tractor or another motor vehicle.***

In the case above, the purpose of the law is drawn from the “social” effects of the law, i. e. to protect road surfaces. The definition of vehicle in this sense is argued for as a means to pursue the original purpose of the law.

The argument from purpose can be supported also by an historical argument, showing how the purpose of the law should correspond to the purpose of the legislators. For instance, in *Smith v. United States* the defendants were accused of drug trafficking aggravated by the alleged “use of weapons.” However, the defendants were actually bartering weapons, not “using it [a weapon] for its intended purpose,” as the defense defined the term to counter the prosecution’s more generic definition as “to derive service from.” The court supported the broader definition, refusing to attribute to the Congress an intention that was claimed to be unreasonable given the possibility of violence that weapons create in any case (*Smith v. United States*, 508 U.S. 223, at 240; 1993). The argument from the purpose of the law is extremely effective also if associated with an argument aimed at excluding alternatives, such as the *reductio ad absurdum*. By claiming that the intended interpretation is the only one that does not lead to absurd results or contradictions with the purpose of the law, it is also supported by denying all the alternatives (see for example *United States v. Barber* 360 F. Supp. 2d 784, at 788; 2005).

9 Abductive arguments

Under this category of schemes fall the interpretative arguments called the economic argument and the systematic argument, and the ancillary argument from the completeness of the law.

a) *Economic argument*

This argument is also called argument from the non-repetitive legislator, as it is based on the principle that the legislator cannot issue a useless statement of law. This argument is used for destructive purposes, and excludes an interpretation of a statement of law that corresponds to the meaning of another, older or hierarchically superior, statement of law. This argument is particularly effective if the statements of law are issued by the same source. However, it is extremely weak if the laws are on different hierarchical levels (statutes v. laws; laws v. regional laws), as in this case repetition is extremely frequent. This criterion is mirrored by the first canon of statutory interpretation, set out as follows (*Healthkeepers, Inc. v. Richmond Ambulance Auth.*, 642 F.3d 466, at 472; 2011):

All language in the statute should be given full effect. *Clinchfield Coal Co. v. Harris*, 149 F.3d 307, 313 (4th Cir. 1998). “In interpreting a statute, we should strive to give effect to every word that Congress has used” to avoid surplusage. *Id.* This concept represents courts’ “deep reluctance to interpret a statutory provision so as to render superfluous other provisions in the same enactment.”

In the aforementioned case, for instance, the term “emergency services” was defined as follows (United States Code, § 1396u-2(b)(2)(B)):

In subparagraph (A)(i), the term “emergency services” means, with respect to an individual enrolled with an organization, covered inpatient and outpatient services [...]

According to this argument, the words “In subparagraph (A)(i)” limit the application of the definition to the subparagraph mentioned, otherwise such a phrase would be superfluous.

This type of reasoning can be mirrored by the scheme for reasoning from best explanation (Walton 2002: 44):

Argumentation scheme 8: Reasoning from best explanation

PREMISE 1	F is a finding or given set of facts.
PREMISE 2	E is a satisfactory explanation of F .
PREMISE 3	No alternative explanation E' given so far is as satisfactory as E .
CONCLUSION	Therefore, E is plausible, as a hypothesis.

The different interpretation of a principle expressed in a different place, or that is redundant, is a satisfactory explanation of a fact. It is a possible way of explaining the superfluity of a statement of law or a specific phrase in it.

b) *Systematic argument*

This argument is grounded on the concept of legal system. The meaning of a statement of law shall correspond to the meaning imposed (and not excluded) by the legal system. Tarello points out that, due to the ambiguity of “legal system”, the systematic argument is actually an umbrella term under which several types of arguments are collected.

The first meaning is the place where the statements of law are collocated. According to this meaning, a statement of law shall be interpreted according to its order or place within a code. This argument actually corresponds to the combination of the argument from best explanation (Argumentation scheme 8) and the psychological argument. The place and disposition are considered as a sign of an intention of the legislator, which is in its turn supported by a form of argument from authority. For instance Guastini provides the following example (Guastini 2011: 48–49). Article 49 of the Italian constitution reads as follows:

All citizens have the right to freely associate in political parties in order to contribute by democratic methods to determine national policy.

How shall be the concept of “citizen” interpreted? According to the systematic argument, such a term shall be analyzed within the whole constitution. On this perspective, it falls within the category of the inviolable human rights, which are governed by art 2:

The republic recognizes and guarantees the inviolable human rights, be it as an individual or in social groups expressing their personality, and it ensures the performance of the unalterable duty to political, economic, and social solidarity.

The inviolable human rights are extended to all human beings. Therefore, also the right of association in political parties shall be not limited only to citizens.

The systematic argument can also correspond to the argument grounded on a terminological consistency. According to a second interpretation of “legal system,” it shall be considered as the set of concepts used by the legislator (in a code, in an act). For this reason, based on the presumption that there is a rigid correspondence between legal concepts and legal terms, if a term has a certain meaning in a statement of law, such a term shall be interpreted as having such a meaning in all the statements of law in which it appears. This type of reasoning

can be explained by the case *Healthkeepers, Inc. v. Richmond Ambulance Auth.* (642 F.3d 466, at 472; 2011), in which the concept of “emergency services” was defined in a paragraph, but the definition provided was limited to its use in a previous paragraph. According to the systematic argument, such a definition shall be applied also for all the uses within the statute. In this case, in particular, the systematic argument is reinforced by an argument from absurd consequences (*ibidem*):

Here, were emergency services given two different meanings in two parts of the statute, there would be inconsistencies in its application to various services.

The third meaning of “system” corresponds to the whole set of legal concepts. However, since legal concepts are often conflicting with each other, this argument is often weak (Tarello 1980: 378).

c) *Ancillary argument: Argument from the completeness of the law*

This argument is ancillary, in the sense that it supports the need for an interpretation, without providing it. It is based on the idea that the legal system is complete and without gaps and it is aimed at inferring, from the lack of a specific rule governing a case, the existence of a generic one attributing to such a case a legal qualification (a subtype of argument from best explanation, see Argumentation scheme 8). This argument is grounded on the fact that it is impossible to repeat a rule governing a specific category of individuals and a specific behavior and attributing any legal qualifications to such an individual. For this reason, if no legal qualifications are attributed to a certain behavior, then it is possible to conclude that there is a rule governing such behavior. This argument is used to reject any arguments leading to the conclusion that if a specific behavior is not governed by a specific rule, then no legal qualification is attributed by law to such behavior.

10 Conclusion

In this paper we have shown how it is possible to translate the arguments of interpretation into quasi-formal patterns of argument, i. e. the argumentation schemes. By identifying the semantic and logical structure of the prototypical inferences used to support the interpretation of a source statement, it is possible to reduce the arguments of interpretation to six argumentation schemes (as preliminarily shown in Macagno et al. 2014), the scheme for argument from

lack of evidence, the scheme for argument from analogy, the scheme for argument from authority (including the scheme from a “democratic” authority, i.e. popular opinion), the scheme for argument from consequences (including the argument from values), the scheme for practical reasoning, and the scheme for abductive arguments. Arguments from interpretation are subtypes of these generic patterns, each representing a specific characterization of the semantic principle underlying the use of the scheme. The summary of this translation can be diagrammed as shown in Figure 2 below.

1. <i>Argumentum a contrario</i> (from exclusion of what is not stated)	Argument in lack of evidence
2. <i>Argumentum a simili</i> 2a. Extending a category to a similar case (<i>Analogia Legis</i>) 2b. Argument from general principles (<i>Analogia Iuris</i>)	Analogical arguments
3. <i>A fortiori</i> argument	
4. Authoritative arguments • 4a. Argument from the intention of the legislator • 4b. The historical argument • 4c. Authoritative argument (<i>ab exemplo</i>) • 4d. The natural meaning argument	Arguments proceeding from the authority of the source
5. Reduction to absurdity	
6. The equitative argument	
7. The argument from coherence of the law	
8. The purposive argument	
9. The economic argument	
10. The systematic argument	
11. The argument from completeness of the law	

Figure 2: The arguments of interpretation.

This correspondence between interpretative arguments and argumentation schemes can be important for several reasons. First, it provides a common vocabulary, which can be shared in the fields of law, argumentation theory, artificial intelligence, and pragmatics (Macagno et al. 2017) for referring to

maxims usually named differently in the various common law or civil law traditions or schools. Second, it is crucial for assessing the grounds of statute interpretation (formalized in artificial intelligence, see Bench-Capon and Prakken 2010; Gordon 2010; Verheij 2003) and detecting the potential critical dimensions of each construction. Third, schemes can be further classified, providing tree-models that allow the interpreter to select the most suitable argument by means of disjunctive questions (Macagno and Walton 2015; Macagno 2015b; Walton et al. 2016: 57), depending on the type of conclusion the interpreter intends to pursue (or the interpretive text advocates). But, as we have shown what is also important is the categorization of the maxims of judicial interpretation by the types of reasoning that justify their application.

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