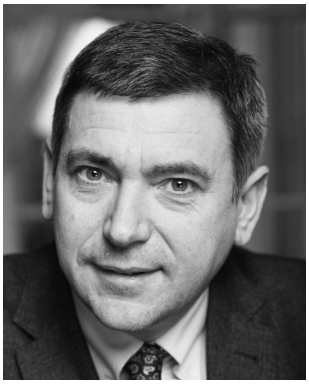
Wojciech Dajczak

# If One Who Overcomes B Overcomes Those Who Were by B Overcome?

## One of the Questions About Algorithmization of Law in Light of the European Legal Tradition



**Wojciech Dajczak**

*Professor of Law at Adam Mickiewicz University in Poznań; his subjects are Roman law, European legal history, comparative private law; legal methods and math; former judge and legal counsel; he has been an Alexander von Humboldt Fellow; Editor-in-chief of Forum Prawnicze.*

dajczak@amu.edu.pl

https://orcid.org/0000-0002-1565-0319

**Key words:** algorithmization of the law; conflict of rights; European legal tradition, Gottfried W. Leibniz

### 1. Introduction

The question in the title can be written in the form of the following algorithm: A>B and B>C, hence A>C. Its content reflects the Latin maxim *'Si vinco vincentem te, vinco te ipsum'* (if I defeat the one who overcomes you, I overcome you too) introduced to the legal discussion in the Middle Ages. It was widely present in legal reasoning[1] until the 18th century. Gottfried W. Leibniz – one of the protagonists of drawing inspiration in law from mathematics[2] – made it an important element of his studies on the method of solving the so-called doubtful case (*casus perplexus*).[3] It is currently not present

1 See J. Knippius, *Disputatio inaugurales de Victo Vincente*, Halae Magdeburgicae 1704, p. 5. The 18th century title probably contains a typographic error. The wording should be: *de vincovincente*.

2 He did this in his doctoral thesis in law *De casibus perplexis*, which he defended in November 1666 at the University of Altdorf. It was a work ending his direct relationship with law and preceding mathematical discoveries. His interest in using mathematical inspirations in law indicates that after completing his philosophical studies in Leipzig he studied for a semester in Jena, probably because he wanted to participate to in the lectures of an inspiring mathematician – Erhard Weigel, and that shortly after graduating in law in spring 1666 he published the dissertation *Dissertatio de Arte Combinatoria*. See M. R. Antognazza, *Leibniz. An Intellectual Biography*, Cambridge 2009, p. 58–62.

3 G. W. von Leibniz, *De casibus perplexis in iure*, Altdorf 1666. I used Latin text of a bilingual edition: G. W. von Leibniz, *I casi perplessi in diritto (De casibus perplexis in iure)*, translated and compiled by C. M. de Iuliis, Milan 2014, p. 3–24.

in popular collections of Latin legal maxims.[4] In a contemporary research on the early-modern legal reasoning, it is an example reflecting the limitations of logical rigorism in view of the circumstances of a given case.[5] The discussed maxim can, therefore, be perceived as a test for potential algorithmization of legal argumentation in relation to the specific issue of conflict of rights. A limited yet clear reflection on this subject was an element of the argument referring to the schemes described as *topica* which supported the search for rational and fair solutions to specific legal issues. The loss of popularity of the said maxim in legal reasoning coincided with the breakthrough of legal hermeneutics, which took place during the 18th and 19th centuries.[6] Its distinct example is the systematic development of interpretation methods[7] by Friedrich Carl von Savigny, which is continued expressly, though non-unanimously in the interpretation of codified law.[8] Since the end of the 20th century, however, there have been visible signs of the process of decodification, i.e. loss of stability of codes and its position that is meant to ensure enforceability of law.[9] This is accompanied by an observation that digitization of law changes the way of legal thinking,[10] as well

**The question in the title can be written in the form of the following algorithm: A>B and B>C, hence A>C.**

**The discussed maxim can, therefore, be perceived as a test for potential algorithmization of legal argumentation in relation to the specific issue of conflict of rights.**

4 See A. Dębiński, K. Burczak, M. Jońca, Łacińskie *sentencje i powiedzenia prawnicze*, Warszawa 2013; D. Liebs, *Lateinische Rechtsregeln und Rechts sprich wörter*, München 2007; R. Domingo, B. Rodriguez-Antolin, J. Ortega, *Principios de derecho global. Aforismos jurídicos comentados*, Pamplona 2003.

5 P. Boucher, *Inductive Topics and Reorganization of Clasifications* (in:) *Approaches to Legal Rationality*, eds. M. Gabbay, P. Canivez, S. Rahman, A. Thiercelin, Dordrecht 2010, p. 67–69.

6 See J. Stelmach, *Współczesna filozofia interpretacji prawniczej*, Kraków 1999, p. 62; Chr. Baldus, *Gesetzgebung, Auslegung und Analogie: Römische Grundlagen und Bedeutung des 19. Jahrhunderts* (in:) *Europäische Methodenlehre. Handbuch für Ausbildung und Praxis*, Hrsg. K. Riesenhuber, eds. 2, München 2010, p. 45.

7 F.K. Savigny, *System des heutigen roemischen Rechts*, vol. 1, Berlin 1840, p. 213–215.

8 Cf. L. Morawski, *Zasady wykładni prawa*, Toruń 2010, p. 73.

9 See e.g. N. Irti, *L'età della decodificazione*, Varese 1979, p. 22 et al.; H. Schlosser, *Grundzüge der Neueren Privatrechtsgeschichte. Rechtsentwicklungen im europäischen Kontext*, Heidelberg 2005, p. 262.

10 F. Longchamps de Bérier, *Myślenie dekodyfikacyjne a zjawisko dekodyfikacji* (in:) *Dekodyfikacja prawa prywatnego. Szkice do portretu*, eds. id., Warszawa 2017, p. 281.

as the thesis that in a discussion about the new idea of private law, legal tradition provides arguments in aid of an increase in its flexibility.[11]

Comparing those comments with the forecasts of an increase in the significance of IT tools, also to resolve legal issues,[12] prompts a question whether and how the experience behind the said maxim can enrich the discussion on algorithmization in dealing with cases of private law.

**While defining the image of the early days of the maxim which already resembled an algorithm, one can imply that it was introduced as part of a set of arguments helping to solve issues of the open i.e. uncodified legal order.**

## 2. *Origins of the maxim – from intuition to quasi-algorithm*

In the debate of Roman jurists, the *ratio decidendi* closest to the considered maxim can be found in an excerpt from the work of Cervidius Scaevola, one of the leading Roman jurists of the second half of the 2nd century AD. The text concerns adding the periods of possession the specific thing by different persons in the context of determination of legally relevant terms of possession. The jurist based admissibility of such addition in analyzed cases on equity (*sola aequitas*).[13] By such case he considered the situation of adding the time of possession of an item by the debtor in the interest of the creditor who received it in pledge not directly from the possessor but from the person who had the thing earlier in pledge. The general reference to equity (*aequitas*) is here reinforced by a logical grading of position. Since the second creditor is better (*potior*) than the first one, then they should much more (*multo magis*) exceed (*superaturus*) the possessor.[14] This passage, included in Justinian's 'Digesta', became the subject of a discussion among late medieval lawyers. Its picture – available to us through *ius commune* books – allows one to assume that Roman *ratio* was not so much a source but rather a confirmation of the *'si vinco vincentem te, vinco te ipsum'* rule. In legal discussion, this *ratio decidendi* can be found for the first time in the explanations to one of the emperor Justinian constitutions made by a glossator Azo of Bologna who lived at the turn of the 12th and 13th century. Justinian recognized there that the settlement of conflict of rights between creditors based on priority in time is modified in the interest of an effective subsequent wife's claim for restoration of the dowry.[15] In this context, glossator noticed that when we go beyond the time-order criterion,[16] the maxim *'si vinco vencentem te, vinco te ipsum'* does not apply.[17] In the closing part of the deliberations which develop the deviation from the

11 W. Dajczak, F. Longchamps de Bérier, *Prawo rzymskie w czasach dekodyfikacji*, „Forum Prawnicze" 2012, Volume 10, Issue nr. 2, p. 22.

12 R. Susskind, *Tomorrow's Lawyers. An Introduction to Your Future*, Oxford 2013, p. 47–49. 25

13 D. 44,3,14pr.

14 D. 44,3,14,3.

15 C. 8,17 (18), 12.

16 P. Azo, *Summa locuples iuris civilis thesaurus*, Venetiis 1584, item. 831 (VIII, *qui potiores*, 15): *Creditoris, qui prior est tempore, potestas quanta sit.*

17 Ibidem, item. 831 (VIII, *qui potiores*, 16): *Regulam, si vinco vincentem te, vinco te, non habere locum in quibusdam casibus.*

principle in light of the Roman sources, Porcius Azo explained that the maxim does not apply in absolute,[18] and indicated that summing the time of possession of the same thing by different persons is a probable case of its pertinence, which remained the subject of the Scaevola's text.[19]

While defining the image of the early days of the maxim which already resembled an algorithm, one can imply that it was introduced as part of a set of arguments helping to solve issues of the open i.e. uncodified legal order – as in the model well-known even from *Broccardio* by Azo of Bologna.[20] The starting point was to recognize its potentially broad application as well as notice limits of this application based on the confrontation with the Roman sources. So marked directions of deliberations on the maxim became a part of the discussion of *ius commune* lawyers until the 18th century. It was permanently connected with the Roman sources but ceased to be limited to them. A look at this legal experience from a current perspective can, therefore, be put in the question on setting the limits of an algorithmic solution to a legal problem in a complex social reality.

### 3. *Describing and justifying the limits of maxime's application in* ius commune

While referring at least terminologically to the scholastic probabilism,[21] Azo considered the maxim *probabilis* when its confirmation was found in the authority of Roman sources.[22] Acceptance of the maxime's argumentative value was expressed in *ius commune* – adequately to legal methods dominant at different times – as the commonly known sub-rule (*vulgaris sub regula*),[23] the common axiom of all scholars (*doctorum omnium axioma commune*),[24] the very well known (*celeberrima regula*)[25] or the compatible with natural reason (*conformis naturali rationi*).[26] Greater attention of the *ius commune* lawyers was drawn to the scope of maxim's application. Changes in legal methods meant that constant use of Roman sources was accompanied by the introduction of new elements of falsifying the universality of the principle and then determining the limits of its application. This legal experience can be synthetically presented by distinguishing two groups of arguments.

**Acceptance of the maxime's argumentative value was expressed in *ius commune* – adequately to legal methods.**

18 Ibidem, item. 834 (VIII, *qui potiores*, 16): *nec nam necessario concludit illud arg. ego vincum te et tu vincis illum, ergo debo vincere illum.*

19 Ibidem, item. 834 (VIII, *qui potiores*, 16): *Probabile tamen est ut de diversis temporalibus praescriptionibus et de accessionibus possessionum* (D.44,3).

20 In the 16th century work dedicated to legal argumentation (Cl. Prateo, *Regulae generales iuris*, Lugduni 1589, p. 162), the discussed maxim was indicated as a principle whose limitations are similar to the limitations of the argument '*ubi quod minimum est prohibetur, id quod maius est vetatur*' (where less is not allowed, the more so is more prohibited) and '*cum id quod maius est, conceditur, quod minus non vetatur*' (when more is allowed, it is prohibited less), indicated by Azon in the 46th column of Broccardia; P. Azo, *Broccardiasive generalia iuris*, Basileae 1567, pp. 420–422 (ref. XLVI).

21 See R. Schüssler, *Scholastic probability as rational assertability: the rise of theories of reasonable disagreement*, „Archiv für Geschichte der Philosophie" 2014, no. 96, p. 151–284.

22 P. Azo, *Summa*…, item 834 (VIII, *qui potiores*, 16).

23 Cl. Prateo, *Regulae*…, p. 162 (II, 718).

24 J. del Castillo Sotomayor, *Quotidianarum controversiarum iuris liber*, Lugduni 1658, p. 460 (lib. III, cap. 30).

25 G. W. von Leibniz, *De casibus*…, XXI.

26 J. Knippius, *Disputatio*…, p. 13.

### *3.1. Arguments excluding the use of maxim*

The discussed maxim is found in Azo's deliberations on Justinian's constitution, whose main subject is to explain that a woman's claim for restoration of the dowry also takes precedence over 'those husband's creditors whose rights established earlier'.[27] The possibility to break the principle which favours those who establish their rights earlier (*qui prior est tempore*) was additionally confirmed in a glossa by an example from Justinian's Digesta,[28] where the third in time order creditor only for formal reasons won a dispute over the conflict of rights against the prior creditor.[29] Using yet another passage of Digesta,[30] Azo showed that limiting the use of the discussed maxim 'if I overcome the one who overcomes you, I overcome you too' (*si vinco vincentem te, vinco te ipsum*) may result not only from breaking the rule 'who better as to time, the better as to law *(prior tempore, potior iure*), but also a different precedence of inheritance in binding parallel regimes of succession based on the resolution of the senate (*SC Tertulianum*) and the praetor's edict.[31] The texts thus extracted from Justinian's compilation became the basis of falsifying the said maxim while citing the authority of Roman law. The texts quoted from Digesta helped the glossator show vividly that the falsification based on Roman sources does not lead to a new, clear ranking of three rights, but a difficult in grasping transitivity of order (*res in circulo*).[32] While describing this matter in reference to the algorithm provided in the introduction, one can explain the essence of the problem raised in the glossa with the following symbols:

A>B, B>C, C>A.

Detection of such nature of the problem was reflected in reaching for new arguments which convey imperfection of the quasi-algorithmic maxim in a clearer and more general way than ancient texts. Azo referred to a rule clarified in feudal reality, which says that as a vassal I do not have to serve the master whose vassal is my superior;[33] and he also mentioned a common-sense *dictum*: 'if I like you and you like them, it does not mean that I like them'.[34] Such falsification of the maxim's universality based on reference to colloquial ideas and common sense became popular in the 13th-century doctrine of glossators,[35] and was later

**One can explain the essence of the problem raised in the glossa with the following symbols: A > B, B > C, C > A.**

27 C. 8,17 (18),12. Azo included in the glossa also Justinian's constitution from the collection of Novels, which relates to the subject (Nov. 97,3).

28 D. 20,4,16 (Paul.).

29 P. Azo, *Summa…*, item 834 (VIII, *qui potiores*, 15).

30 D. 38,17,5 (Paul.). See. P. Voci, *Diritto ereditario Romano, Parte speciale*, vol. 2, Milano 1963, p. 28.

31 P. Azo, *Summa…*, item 834 (VIII, *qui potiores*, 16).

32 Ibidem. In the passage preserved as D. 20, 16,16, Paulus explained that judgment between the first and the third creditor had no effect on the second one. Paulus' text passed in D. 38,17,5 presents the issue of determining the order resulting from the fact that according to S.C. *Tertullianum*, the father of the child overcame their mother, but the mother took precedence over the agnate grandfather. However, according to the second class of the praetor's edict (*unde legitimi*), the agnate grandfather overcame the testator's mother.

33 P. Azo, *Summa…*, item 834 (VIII, *qui potiores*, 16): *si ego vasallumtuus sum et tibi debeo servire, tu autem vas alius est alterius non ideo teneo rilli servire.*

34 Ibidem, item 834 (VIII, *qui potiores*, 16): *si diligo te, tu diligis illum non ideo diligo illum.*

35 This is illustrated by Accursius' *Glossa ordinaria*, gl. ad D. 44,3,14,3 <*debeat*>. See. *Digestum Novum seu Pandectarum Iuris Civilis*, vol. 3, Lugduni 1627, item 848.

developed in *ius commune*. For example, Bartolus de Saxoferrato (1313/14–1357), an eminent commentator, tended to give clear and effective picture of exemptions from the maxim's universal application as analogous to reasoning according to which when one surpasses another(B) in calculations, it can not be inferred that they are better than those who defeated another(B) in a battle. He also used an example indicating that the defeated in a game by a particular person can in the same game defeat the one who defeated that person.[36] A popular work dedicated to legal argumentation of Nicolaus Everard, published for the first time in the early 16th century also referred to a game in explaining the maxim's limits. The jurist claimed that one would not accept as a hindrance to the maturity of payment to the winner of the game the fact that the promising of payment did not lose the game with another person.[37] By assessing this group of arguments, we can state, bearing the current perspective, that they did not yet give a clear foundation to ascertain when ensues the transition from the order consistent with the maxim and described by the following formula of transitive property of order:

A>B i B>C hence A>C,

to the situation described by the formula below:

A>B, B>C i C>A.

A more detailed reason for such a transition can be noted in the discussion specifying the criteria for the maxim's application.

### *3.2. Criteria specifying limits of the maxim's application*

The practical sense of the discussion about the criteria defining the scope of maxim's application is confirmed by the fact that we can follow it from the first half of the 14th century when legal science based on Roman texts gained a more practical dimension. Oldrado da Ponte (died after 1337) explained in one of his opinions (*consilium*) that the maxim 'if I overcome the one who overcomes you, I overcome you too' applies when the causes (*causae*) or *rationes* of both victories are of the same kind. They then belong to the same order[38] and this, as a consequence, allows to determine the hierarchy of rights. Similarly, Bartolus de Saxoferrato pointed out in his comment that when in relations between three persons a different nature of benefit is at stake (*utilitas*, *commodus*), the discussed maxim that nominates the ranking does not apply.[39] The connection captured in this way between the use of a quasi-algorithmic maxim and some identity of the relation between three persons was later confirmed in

**The practical sense of the discussion about the criteria defining the scope of maxim's application is confirmed by the fact that we can follow it from the first half of the 14th century when legal science based on Roman texts gained a more practical dimension.**

36 Bartolus de Saxoferrato, *Commentaria. In secundam Digesti Veteris partem*, Venetiis 1593, p. 139 (*Qui potiores in pignoribus habeantur, l. Claudius*).

37 N. Everardi, *Loci argumentorum legales*, Lugduni 1579, p. 469.

38 Oldrado da Ponte, *Consilia seu responsa et quaestiones aureae*, Venetiis 1570, p. 84 (con. CXCVIII, 6).

39 Bartolus de Saxoferrato, *Commentaria*…, p. 139.

*ius commune* by both references to *causa*, *ratio*[40] or *utilitas* and new formulas requiring the same strength (*eadem vis*)[41] or dignity (*dignitas*), not greater, however, than dignity of the first winning person[42] or the same type of victory (*eodem genere vincendi*).[43] This legal intuition repeated for centuries was presented by Leibniz in the way closer to the approach of exact sciences. The scholar pointed out that the discussed maxim works consistently in reference to determined relations (*relations determinatae*), i.e. those in which the position can be quantified, which means, for example, that 'twice the double is not simply double but quadruple'.[44] On the other hand, undetermined relation (*relations indeterminatae*) that is inadequate to the axiomatic use of maxim were explained as random relation. Leibniz illustrated this with examples originating from *ius commune*[45] and also referred to a physical truth, according to which throwing one stone into another will not always cause that one to hit the next.[46] The progress in formalizing the scope of maxim's application can eventually be observed in the monograph devoted to this subject from the beginning of the 18th century. The notion known from an earlier period of *ius commune*, which consisted in combining this scope with the identity of genus (*genus*), order (*ordo*), measure (*media*), circumstances (*accidens*), degree (*gradus*), cause (*ratio*) or force (*virtus*) in the relation between three persons, was specified by Johannes Knippius as a limit (*limes*) determined by the existence of a uniform basis of their comparison (*fundamentum comparationis*).[47] As a result, going beyond the common point of reference (*tertium comparationis*) already required a way of settling the conflict of rights, which was independent from the maxim.[48]

**The trend presented in the discussion of *ius commune* jurists, which goes towards explicitness in handling the discussed maxim, can be read as a confirmation of its usefulness and practical importance.**

The trend presented in the discussion of *ius commune* jurists, which goes towards explicitness in handling the discussed maxim, can be read as a confirmation of its usefulness and practical importance. The 17th-century sources also allow one to note in this context some formal similarities to the argumentation typical for contemporaneous physics and mathematics. This inspires to pose the next two questions: what is the experience of discussing the method of resolving cases which were exempted from the use of maxim? Did extending theoretical reflection on the discussed paradigm contribute to the search for some regularity beyond the scope of its simple, algorithmic application in the context of the 17th and 18th-centuries' tendencies

40 N. Everardi, *Loci…*, p. 469; H. Donellus, *Opera omnia*, t. 9, *Commentari absolutissimi ad II, III, IV, VI et VIII libros Codicis Justinianei*, Lucae 1766, item 1125 (ad tit. XVIII, lib. VIII, *De his qui in pignorem*);

41 L. Pontano, *Consilia sive Responsa*, Venetiis 1569, p. 314 (cons. CCCCXXXVI).

42 Cl. Prateo, *Regulae…*, 163.

43 J. del Castillo Sotomayor, *Quotidianarum controversiarum…*, cap. XXX, 4.

44 G. W. von Leibniz, *De casibus…*, XXI: *…duplum dupli non est duplum simpli sed quadruplum*.

45 See ibidem: … a*micus amici meus amicius non statim est* (…) *neque libertus liberti mei meus libertus est*.

46 Ibidem.

47 J. Knippius, *Disputatio…*, p. 15.

48 Ibidem, p. 15: *Quoties enim extra tertium comparationis elabitur toties diversitas iuris adest, et regula nostra non procedit*.

to mathematisation of the legal method? Let's begin with the first one.

### 4. Searching for a settlement method when the maxim did not have any use

Uncertainty as to resolving the conflict of three rights, when the said maxim does not apply, is synthetically expressed by determining this state as transitive property of order (*res in circulo*)[49] and emphasizing its inevitability.[50] The practical dimension of this uncertainty is well illustrated by two texts from Justinian's Digesta indicated by Azo as falsification of the universality of the discussed maxim. The first is a passage from the third book of *Questiones* by Paulus who lived at the turn of the 2nd and 3rd century AD.[51] The jurist discussed the case of mortgages from three lenders referred to one specific land. One of the creditors is called Eutychian and the other Turbon. We do not know the third man's name. To simplify this description they are named A, B and C. The creditors' right of pledge was first established in favour of A, then in favour of B and C the latest. There was a trial between A and C about the order of payment of their dues from the land, which was won by C. The ruling was probably incorrect, because the jurist explains arising the claim preclusion (*res iudicata*) because the verdict has not been appealed. Paulus also explained that the state of *res iudicata* refers only to the relation between A and C. Consequently, B can in no way (*nullo modo*) rely on the issued ruling to justify the priority of their claim towards A. The resulting situation can thus be described by the following formula:

A>B>C>A.

The Roman jurist did not specify what should be the order of payment among those three creditors in this case. The second example comes from the work of Paulus[52] dedicated to a resolution of the Roman Senate called *Orfitianum*.[53] The problem considered in the text, however, concerns another resolution of Roman Senate called *Tertullianum*. It granted the mother the right to inherit after children. In this succession based on biological kinship (*cognatio*) she kept priority over those entitled to inheritance on the basis of a relation resulting from subordination to the legal head of Roman family (*agnatio*).[54] The complexity of the case discussed by Paulus arose from the fact that although in succession based on the Senate's resolution the testator's mother (herein after A) overcomes their agnate grandfather (B) and all the more the testator's father under his patronage (C),[55] the person called to succession was the testator's father (C) and not the mother (A), according to the praetor's edict. Based on the same edict, the grandfather's succession resulted from a legal relation, hence it overcame the son's entitlement (C).[56] This can be written by the formula below:

A>B>C i B>C>A.

In this case, the ancient jurist settled the doubtful issue. He found that application of the Senate's resolution is excluded (*desinit senatus consultum locus esse*), and confirmed the priority of the succession right of the grandfather (B). The settlement excluded the first order of succession and put forward the second, as the basic one, but constant precedence of the grandfather before the son in both of those orders was included (B> C).

The lack of solution in the first case and the arbitrary assignment of precedence in the second one confirm the difficulty in the matter of the transitive property of order of rights discussed by glossators. They prove

49 Cf. P. Azo, *Summa*…, item 834 (VIII, *qui potiores*, 16).

50 Bartolus de Saxoferrato, *Commentaria*…, p. 139: …*circuit indissolubilis*; Baldus de Ubaldis, *Commentaria in sextum Liberum Codicis*, Lugduni 1585, p. 202 (IX,4): …*quod non causa evitandi circuitus*; G. W. von Leibniz, *De casibus*…, XX: *in circulo autem principium et finis est*; J. Knippius, *Disputatio*…, p. 15: …*perpetuusque manet circulus*.

51 D. 20,4,16.

52 D. 38,17,5.

53 D. 38,17,9 (Gai.) The resolution established that when inheriting after the mother, children take precedence over the head of family whose power they are subject to. See also P. Voci, *Diritto*…, p. 18, ref. 3.

54 D. 38,17,2,17 (Ulp.).

55 See P. Voci, Diritto…, p. 28.

56 See ibidem.

that this difficulty could not be overcome with the argumentation scheme imported from Roman sources. This entails a question about the method of resolving the conflict of rights that cannot be arranged algorithmically by applying the discussed maxim. The sources allow following a more general reflection on this subject from the 16th century. Hugo Donellus, the modern forerunner of the idea of a systemic order of law, noted that when we state the impossibility of applying the '*si vinco vincentem te, vinco te ipsum*' maxim, we encounter an unclear case.[57] In connection with the first of Paulus' texts (D. 20, 4, 16), he defined the presented freedom of evaluation as universally accepted and consistent with obvious equity.[58] Jacques Cujas (Cuiacius), the representative of legal humanism contemporary to Donellus, drew attention to the aspect of fairness, while discussing doubts about the order of payment of privileged claims which exclude application of the discussed maxim.[59] He stated that the privileges granted by the ruler or statute should be interpreted in such a way as to not cause wrong to anyone (*nemini iniuriam inferant*) and choose what is fairer (*ut aequior humaniorque sit*).[60] Authors of the 17th and the beginning of the 18th century already repeat in their deliberations general comments on the difficulty in finding a right solution (*difficile est iustam rationem invenire*) when the mentioned maxim turns out to be inapplicable. The jurists close to the experience of a so-called Roman-Saxon law clarified, for instance, that in such situations solving the conflict of rights should be subject to the judge's merits on the basis of what is good and right (*ex aequo et bono*). They pointed out that the judge should take into account the position of parties and the type of creditors' rights[61] by applying what is good and right. Among the reflections on finding an accurate solution to the conflict of rights when the discussed maxim is inadequate, one can distinguish the deliberations of Gottfried W. Leibniz, included in his doctoral thesis in law, which he obtained as a twenty-year old man. The young doctor came out as outstanding in breaking the typical convention of a legal discourse and adopt-

**Hugo Donellus, the modern forerunner of the idea of a systemic order of law, noted that when we state the impossibility of applying the '*si vinco vincentem te, vinco te ipsum*' maxim, we encounter an unclear case.**

57 H. Donellus, *Commentari…*, item 1126 (ad tit. XVIII, lib. VIII, *Qui potiores*): *Res per se paulo obscurior exemplo plana fiet.*

58 Ibidem: *… ea sententia quam statuimus, aperte defendatur et verbis huius legis et sententia et manifesta aequitate et praeterea communi sententia recepta sit.*

59 The basis of the dispute were two of Justinian's constitutions indicated above. The issue was whether the payment of a wife's claim for restoration of the dowry, having priority over the secured earlier claims, (C. 8,17 (18), 12), takes also precedence over earlier privileged claims for the return of money lent for example for the construction of ships or homes (Nov. 97, 3).

60 J. Cujacius, *Opera*, vol. 10, *In Digesta seu Pandectas Justiniani Imperatoris Notae*, Neapoli 1722, item316 (lib. III, cap. XIV).

61 See: M. Berlich, *Conclusionum practicabilium. Pars prima*, Lipsiae/Jenae 1651, p. 477 (con. LXXII, 30): *…arbitrio iudicis decidendos reliqui debere, qui attentis circumstantiis facultatibus creditorum, eorum que qualitatibus et conditionibus ex aequo et bono arbitertur*; B. Carpzow, *Jurisprudentia forensis romano-saxonica secundum ordinem constitutionum Augustis Electoris Saxoniae*, Francofurti ad Moenum 1650, p. 307 (Const. XXVIII, def. CLXXV, 12) – repeats as correct (*bene docet*) the opinion of Berlich; J. Knippius, *Disputatio…*, p. 14: *Hinc ex aequo et bono pro ratione circumstantiarum materi am hanc esse iudicandam concludebant.*

ing a view closer to exact sciences.[62] He attempted to rationalize the conflict of three rights that could not be sorted by means of the discussed maxim. By approaching the three rights graphically as vertices of a triangle inscribed in a circle, he noticed that in the case of the circle, the beginning and end are conventional.[63] Hence – taking Leibniz's thought synthetically – the disorder in applying the rule, which results from heterogeneity of the relation between rights, can be perceived as either setting a different starting point by law (e.g. granting priority to a later claim for restoration of the dowry),[64] or recognizing that different priorities in particular relations lift one another which leads to adopting the equivalence of rights as a starting point in the search for a solution to their conflict.[65] Leibniz then analyzed fourteen cases of the conflict of three rights which can be pre-arranged according to a measurable criterion (e.g. time, degree of kinship) but elude application of the discussed maxim due to deviation from the homogeneity of relations. This analysis showed the use of both models of uncertainty resolution, as distinguished by him. While comparing the results of those deliberations, one can notice that Leibniz accepted the change in the order of priority when he recognized it a result of an unequivocal order. He accepted such explicitness of the order when it resulted from the statutory law (Saxon law),[66] a specific clause which accompanied granting a particular right[67] or judgment.[68] When Saxon law repealed privileges originating from ancient Roman law or a *ius commune*, Leibniz recognized, with the support of the statutory law, the order resulting from a measurable criterion (e.g. time).[69] In other cases, he remained reserved as to the change in the ranking of rights resulting from measurable criteria. Leibniz accepted controversies in *ius commune* related to the scope of preference as an argument in aid of determining the conflict according to a measurable criterion (e.g. time).[70] The critical assessment of Roman solutions, which granted exclusiveness to one of the successors, gave him a ground to recognize equivalence of conflicting rights based on pure and certain natural law (*ius merum*).[71] When the disassociated from a measurable criterion change of priority exempted the remaining rights entirely, the uncertainty ceased to exist. When such a result, however, was not accompanied by a specific privilege of the third right towards the first one (the situation

**The jurists close to the experience of a so-called Roman-Saxon law clarified, for instance, that in such situations solving the conflict of rights should be subject to the judge's merits on the basis of what is good and right (*ex aequo et bono*).**

62 Such inclination is indicated by the idea expressed at the beginning of the dissertation that the word *casus* reflects a certain similarity between the search for the size of a geometrical figure and the search for adequate remedy at law; see: G. W. von Leibniz, *De casibus*…, II.

63 Ibidem, XIX, XX: …*in circulo principium et finem autem est (…) tantum non natura*.

64 Ibidem, XXIII: …*ab alia parte hoc obiicitur*.

65 Ibidem, XXIII: …*quia nullus alterum vincit in effectu, mutua victoria propriae non victoria, sed paritas appellatur*.

66 Ibidem, XXX, XXXVII.

67 Ibidem, XXVI.

68 Ibidem, XXXII.

69 Ibidem, XXXVI, XXXVII, XXXVIII, XXXIX.

70 Ibidem, XXXIV, XXXV.

71 Ibidem, XXIX.

described by the formula A> B, B> C, and C>A), Leibniz tends to favour the solution that assigns priority to the second right (B) in accordance with a measurable criterion (time, generality) and determines subsequent positions adequately to the specific privilege.[72]

This picture allows one to notice the young thinker's few intuitions about the position of the discussed maxim in solving difficult cases of the conflict of rights. Firstly, a propensity to increase the importance of the discussed maxim by specifying and limiting reasons that cause disruption to the ranking of rights determined by means of a measurable criterion. Secondly, due to a specific characteristic of one of the conflicting rights, the change of priority was accompanied by the idea of limiting uncertainty, which was observed in preferring such a new order (of rights) that constitutes a compromise between a measurable criterion (e.g. time) and a special preference for some of those rights. When the starting point was the problem represented by the following formula:

A>B, B>C and C>A,

then the preferred solution in the absence of interaction between A and C led to determining the order below:

B>C>A.

Thirdly, in the absence of acceptance for the change of priority resulting from Roman law and impossibility to build a ranking with the use of a measurable criterion, Leibniz replaced the irregular and unclear order of rights in a transitive relation with the state of their equivalence. This can be expressed by the following formula:

A>B>C and B>C>A  hence A=B=C.

Leibniz's reconstructed intuitions show clearly that he did not force a general theory which would lead

**Leibniz's reconstructed intuitions show clearly that he did not force a general theory which would lead to replacing the uncertainty resulting from non-application of the discussed maxim with a new order arranging the conflict of rights. *Novum* of the young thinker consisted in seeking – for this part of legal argumentation – some regularity in an area where experienced *ius commune* jurists confined to assessing circumstances, based on equity.**

72 Ibidem, XXVI: …*Igitur ponetur secundus loco Imo, tertius IIIdo, primus IIItio; ibidem, xxxii: Decidendum igitur mero iure Imo exo ponendum Secundum, IIdo Tertium, IIItio Primum*. In connection with the discussed Paulus text (D. 20,4,16), Leibniz allowed for the correction of this position and preservation of precedence based on a measurable criterion (time), when A acted in cooperation with C (*si prima esset in possessionione forte de consensu Tertii post rem iudiciatam, nunquid non optime dicetur integroiure contra Secundum uti posse, necquicquam obstante res iudicata*).

to replacing the uncertainty resulting from non-application of the discussed maxim with a new order arranging the conflict of rights. *Novum* of the young thinker consisted in seeking – for this part of legal argumentation – some regularity in an area where experienced *ius commune* jurists confined to assessing circumstances, based on equity. Boldness and innovative thinking of young Leibniz can be interpreted as a consequence of the view that there exist common features of a legal system based on natural reasonableness as well as geometric rationality and faith in the possibility of finding an accurate solution with the use of rules rationally considered as natural.[73] Such a mathematical approach to law showed that the argumentative potential of the discussed maxim is in fact broader. Leibniz drew attention to the possibilities of extending its application to some difficult cases of the conflict of rights. Moreover, he showed that a critical reflection on the reasons for breaking this maxim sets the starting point in search of a solution to such mentioned cases. His doctoral thesis, which presented those ideas, was in fact a juvenescent and limited-in-effect example of a formalized approach to law. The question then emerges whether – and if so then to what extent – the modernization of a legal method completed in the 17th and 18th centuries, with clear inspirations of contemporaneous mathematics, included reflections on the potential of the maxim?

## 5. Popularization of the maxim in the axiomatic legal reasoning in the 18th century

On the 20th September 1690 at Viadrina University in Frankfurt (Oder) the faculty of law chaired by Samuel Stryk adopted *disputatio inauguralis* by Johannes Knippius titled *De vinco vincentem*.[74] The work was assessed under the direction of Stryk, who – according to Franz Wiaecker[75] – charted a pathway of practical *usus modernus* jurisprudence at the beginning of the 18th century, and it remains a valuable source of reference to the question posed above. After presenting the concept and meaning of the principles in law, Knippius began his deliberations on the '*si vinco vincentem te, vinco et te ipsum*' maxim from emphasizing its axiomatic character. He described it as compatible with natural reason[76] and objectively valid, for it was true in accordance with nature.[77] Then the repeated thought about the limited scope of the maxim's use is combined in the thesis with a transition from axiomatic premises typical for the law of nature reasoning to relatively extensive analysis of the *usus modernus* practice-oriented cases. Knippius separately discussed legal transactions between the living (*De usu regulae in actibus inter vivos*)[78] and in the event of death (*de usu regulae in actibus ultimae voluntatis*).[79] The style of this discourse reflects – in my opinion – its two features. Firstly, within the reflection on the scope of practical application of the maxim appeared cases unseen in this context. The jurist, for instance, proved that the discussed maxim indicates the solution to the dispute between the seller and the acquirer of buyer's rights when the seller won the lawsuit against the buyer about an effective withdrawal from the contract.[80] Another example is Knippius' conclusions indicating usefulness of the maxim when interpreting testaments. He discussed as one of such situations the case of doubts, where the starting point was a disposition to appoint a substitute in the person of the deceased's wife for the son, should they died within 30 years. The wife's substitute, according to the testator, were supposed to be the poor. The doubt arose from the fact that although the son of the deceased died in the prescribed time, he left behind a son who, however, was not mentioned in the will. The

73 Ibidem, XI. It is worth reminding that it was the time when the vision of a young thinker came to life to build for the divine glory the unity of social reality divided in various ways, cf. M. R. Antognazza, *Leibniz*…, p. 66.

74 J. Knippius, *Disputatio*…, information on the title page.

75 F. Wieacker, *Privatrechtsgeschichte der Neuzeit*, Göttingen 1967, p. 220.

76 J. Knippius, *Disputatio*…, p. 13: *…est admodum conformis naturali rationi*.

77 Ibidem, p. 13: *…istiusmodi regulae (…) qui ipsius naturae autor est, nec ab hominum opinione suspensa sunt, sed propria sua se veritate tuentur.*

78 Ibidem, p. 15–36.

79 Ibidem, p. 36–40.

80 Ibidem, p. 31: *si ego venditor vinco vincentem primum emptorem multo magis vinco te, qui ius ex cessione praetendis.*

jurist accepted the priority of the testator's grandson over the poor, and he based this choice on recognizing this especially close relation between the two;[81] he then reasoned that since the grandson excluded the widow, all the more he would do so with the poor.[82]

**Decline of the idea of popularizing the use of maxim *de facto* as an algorithm that forms a basis or a link of legal argumentation in an open legal order can be associated with another and new in the 18th century direction of drawing legal inspirations from mathematics.**

Another characteristic of Knippius' deliberations is combining the mechanism of applying the maxim with the achievements of the *ius commune* legal science. This consisted in disclosing the possibility of its broad application in cases where the relation of three entities is a consequence of a surrogation[83] or succession[84] of rights and duties.[85] Knippius' deliberations, therefore, allow for a conclusion that the potential of the discussed rule, inherent in its treatment as a wider-used quasi-algorithm that organizes and simplifies the legal argument, was noticed in the *usus modernus* experience at the turn of the 17th and 18th centuries. However, one will not – unlike in Leibniz's – find in his work any search for argumentative order for the cases in which the maxim did not apply. The similarities in the approaches of Leibniz and Knippius can be combined with the general idea of axiomatization of the legacy of legal argument based on topoi. The indicated difference between them shows that certain formalization of thought about the maxim, taken after the school of natural law in *usus modernus*, did not link with the question about the possibility of argumentative progress that could arise from the mathematical development of intuition, which can be observed in Leibniz's work. However, even the model of a broader approach to the rule presented in Knippius' work was not developed in the 18th-century *usus modernus*. In an extensive work of Christian Friedrich von Glück, which gathers and summarizes the achievement of *usus modernus*, the discussed maxim has only an auxiliary meaning in the explanations of the conflict of creditors' rights of pledge.[86] Such a picture of legal experience allows one to formulate two general remarks. Firstly, decline of the idea of popularizing the use of maxim *de facto* as an algorithm that forms a basis or a link of legal argumentation in an open legal order can be associated with another and new in the 18th century direction of drawing legal inspirations from mathematics. This new direction meant taking up the construction of a legal order in which solving

81 Ibidem, p. 37: *…nepos et filius habentur pro eadem personam.*

82 Ibidem, p. 37: *si neposiste ex ver osimili voluntate testatoris (…) excludituxorem magis dilectam, multo magis debet excluder emulto magis debet excludere peuperes minus dilectos.*

83 Ibidem, p. 37: *illam non procedere, quando vincens non surrogatur in locum victi.*

84 E.g. Ibidem p. 34: *…si vinco patrem etiam vinco filium in locum patris succedentem.*

85 The link between the scope of application of the discussed maxim and the effects of substitution and surrogacy was already noted earlier, cf. J. del Castillo Sotomayor, *Quotidianarum controversiarum…*, p. 461 (XXX, 5).

86 Ch. F. Glück, *Ausführliche Erläuterung der Pandekten nach Hellfeld ein Commentar*, vol. 19, part 2, Erlangen 1818, p. 282.

problems occurs by deduction from the rules constituting a closed system.[87] Secondly, juxtaposing the deliberations of Leibniz and Knippius suggests that significant progress in creating a model of a broader operation of the maxim in legal reasoning was and still is impossible without a deeper reflection on partly mathematical intuitions by Leibniz. I would consider the following as key ones among them: removing unnecessary restrictions on the use of maxim by the legislator in the course of law modernization and searching a new, argumentative order in areas where the quasi-algorithmic maxim cannot be applied to settle the conflict of rights.

## 6. Conclusion – remembering the maxim in the age of decodification

Limiting the use of maxim to the explanations of the conflict of creditors' rights, noticed in the work of Ch. Glück, is found in his contemporary theoretical discussion[88] as well as early remarks to the codification of civil procedure.[89] In this area, the references to the maxim gradually began to disappear. Seen from today's perspective, it can be regarded as a confirmation of a general view that Leibniz's attempt to mathematize the topoi applied in *ius commune* failed.[90] The '*si vinco vincentem te, vinco te ipsum*' maxim strengthens the clarity of such an opinion, both for its quasi-algorithmic form and the abovementioned argumentative experience that stands behind it. The view on Leibniz's failure at mathematizing topoi was voiced by Theodor Viehweg in the mid-20th century.[91] While he recognised a central role of the system's theory represented in private law by codification, he thought, however, that the topoi and figures of reasonings known from the pre-codification period did not lose their usefulness because of the multiplicity and variety of issues that legal practice faces.[92] The direction into which the law develops seems to confirm the importance of the pre-codification experience of legal reasoning. Since the end of the 20th century, the process of decodification has been widely recognized. Practice shows ever more clearly the illusive expectation underlying the 19th and 20th-century codifications, which believed that they would ensure finding the right answer easily, and a systemic structure and accompanying formalization of legal methods would give a stable foundation for predictability of solutions to particular cases. The important premises of decodification include the increasing number of specific statutory regulations which partly regulate the same issues as codes and the development of legal pluralism resulting from a significant increase in transnational lawmaking as well as the increase in the importance of the so-called *soft law*.

Typical consequences of those phenomena include greater difficulties in finding the proper text of law, greater ambiguity of the sense of provisions and the following increase in uncertainty of the *ad casum* legal assessment. Such image of the environment in which law is currently applied can only support the thought of the usefulness of topoi in legal argumentation.[93] The catalogues of Latin maxims considered useful in current legal argumentation may vary[94] owing to both different knowledge of topoi of the pre-codification period and beliefs about their current usefulness.

The conducted deliberations thus justify the question of whether the failure of Leibniz's idea of mathematization of topoi as well as practical, 19th-century identification of argumentative function of the maxims '*si vinco vincentem te, vinco te ipsum*' and '*prior tempore potior iure*' are sufficient evidence to currently ignore the experience that remains behind the former. In the system-developed private law orders, some of the problems related to the use of the discussed maxim seem

87 See e.g.: T. Viehweg, *Topik und Jurisprudenz*, München 1953, p. 54; D. von Stephanitz, *Exakte Wissenschaft und Recht. Der Einfluß von Naturwissenschaft und Mathematik auf Rechtsdenken und Rechtswissenschaft in zweien halb Jahrtausenden, Ein historischer Grundriß*, Berlin 1970, p. 94.

88 See Löhr, Über das Privilegium der zur Sicherheit der dos stattfindenden Pfandrechte, „Archiv für die civilistische Praxis" 1822, no. 5, p. 312.

89 See C. F. Mühlenbruch, *Entwurf des gemeinrechtlichen Civil prozesses*, vol. 2, Halle 1840, p. 229.

90 T. Viehweg, *Topik…*, p. 52.

91 Ibidem, p. 52 i 54.

92 Ibidem, p. 59.

93 W. Cyrul, *Topika i prawo (Krytyczna analiza topicznej wizji dyskursu prawnego)*, „Państwo i Prawo" 2004, vol. 59, no. 6, p. 54.

94 See J. Stelmach, *Kodeks argumentacyjny*, Kraków 2003, p. 86–87.

unlikely, such as the statutory inheritance patterns competing with one another within one legal system. However, the problem of the conflict of rights that result from various legal acts regulating analogous circumstances was one of the reasons for the maxim's reference in *ius commune*, and today it can be indicated as one of the manifestations of decodification. Refining the maxim and broadening the scope of its application over the issues regarding changes in law and transfer of rights relate to situations that are much more common today than in the world of the 17th-century Roman-Saxon jurists.

**Remembering the said maxim directs attention today to the functionalities of digitization of legal texts and their inclusion in electronic databases.**

The uniqueness of experience behind the *'si vinco vincentem te, vinco te ipsum'* maxim lies in the fact that it specifies the limits of an algorithmic solution to the conflict of rights, indicates the premises and directions to extend the scope of this solution in solving problems, and includes Leibniz's intuitions to search for a certain regularity of decisions beyond the limits of an algorithmic solution to the mentioned conflict of rights. Such characteristics of legal thinking in the pre-codification period resemble the search of exact sciences. Therefore, remembering the said maxim directs attention today to the functionalities of digitization of legal texts and their inclusion in electronic databases. The essence of innovation introduced by IT technology consists in the legal text being presented as a hyperlink, which in practice means a combination of a text written in a language compatible with a computer system. This allows one to present on the screen a consolidated version of a legal text based on the record in an electronic format.[95] Creating texts in this format enables them to be equipped with a system managing information and thus offers an expert system that aids in applying law.[96] Preparation of such aid in noticing possible consequences of the legal text displayed on the screen requires, however, the introduction of links in an electronic format. At this point then, it seems that the experience behind the discussed maxim can be one of the inspirations when designing the electronic format, as it shows that the legal discussion conducted in a pluralistic legal system recognized the utility of algorithmization to arrange limited cases of the conflict of at least three rights as well as those linking at least three persons (entities) as a result of surrogation, substitution or preliminary ruling. The discussed legal experience made it possible to introduce a functionality which combines within a single set the rights which have a common basis for comparison (e.g. claims against a particular debtor, right to succession after a specific person), and then supplement it with two standardized mechanisms of excluding the said set. Firstly, there are elements based on the legal provisions whose relation is not formally equivalent, which causes confusion of the order (A> B> C and B>C>A).[97] Secondly, there is a specific relation among some of the elements (A> B> C and C>A).[98] In both cases, this is combined with checking whether there is a relation of surrogation, substitution or preliminary ruling[99] between the excluded rights. The elements remaining in the set would be arranged systematically (in a way leading to confirming priority of payment or determining an order of payment) and adequately to the measurable criteria contained in the database, such as an absolute privilege, a relative privilege, a time sequence or

95 W. Cyrul, J. Duda, J. Opiła, T. Pełech-Pilichowski, *Informatyzacja tekstu prawnego*, Warszawa 2014, p. 34–35.

96 Ibidem, p. 72.

97 See above, p. 13.

98 See above, p. 13.

99 See above, p. 18.

a degree in a relation specified by law. Those elements would, therefore, be presented in an order based on the mechanism using the formula A>B and B>C, hence A>C, which corresponds to the discussed maxim. In essence, it would be a formal protection against an error in determining the consequences of a broadly understood conflict of rights – developing the medieval maxim. When, as a result of a verification of the set, it is impossible to put elements in order, then – reaching back to history – one can recommend those designing the electronic document to consider Leibniz's intuition from the perspective of the so-called multivalued logic, whose usefulness to rationalize legal argumentation has recently been the subject of discussion.[100] Exceeding this threshold of thinking, unknown to Leibniz, links with recognition that dichotomy of truth and non-truth, which is typical for logic, is complemented by categories – to put it simply – of "half-truth" (half true/false).[101] As a consequence, one could equip the expert system accompanying the digitized legal text with the function of replacing an unclear formula A>B>C and C>A with a list of three 'half-true' combinations in the order adequate to Leibniz's intuition, i.e. A = B = C or A>B >C and less likely C>B>A. Increase in the number of conflicting rights would expand the number of such 'true' variants, which would make IT support even more useful. It would be a tool designed to help the lawyer choose one of the arranged solutions – adequately to the sense of justice.[102]

The findings and the conclusions drawn on their basis lead to a general reflection. The focus on the '*si vino vincetem te, vinco te ipsum*' maxim has shown that although the possibilities for mathematizing legal reasoning are clearly limited, this maxim though is an example of evolution – from purely rightful intuition of Scaevola to some algorithmization of argumentation, whose peak was noted in Leibniz's doctoral thesis. In the age of digitization of legal texts, the current thought remains that the failure of Leibniz's formalization of topoi is a proof that systemic algorithmization of solving legal cases is impossible. On the other hand, the digitization of law encourages to seek inspiration, also in the *ius commune* jurists' argumentation, while creating algorithmic protection instruments against errors and significant uncertainties whose risk grows when one seeks a just solution to the problem in a dynamic as well as pluralist legal order both in regards to law and new, factual situations.

**The digitization of law encourages to seek inspiration, also in the *ius commune* jurists' argumentation, while creating algorithmic protection instruments against errors and significant uncertainties.**

The paper was written as part of the following research project: 'De-codification of private law in the European legal tradition' funded by the means of National Science Centre. (OPUS-2014/13/B/H5/00857).

100 H. Prakken, *New Logics in the Functioning of Legal Orders* (in:) *Law and the New Logics*, eds. H. P. Glenn, L. D. Smith, Cambridge 2017, p. 3. This issue, or at least the scope of usefulness of multivalued logics in law remains controversial, cf. A. Halpin, *The Applications of Bivalent Logic, and the Misapplication of Multivalent Logic to Law* (in:) *Law and the New Logics*…, pp. 234–235.

101 G. Priest, *Where Laws Conflict. An Application of the Method of Chunk and Permeate* (in:) *Law and the New Logics*…, p. 177.

102 In this regard, I agree with the view that the reference to multivalued logic in legal argumentation should include a non-legal context in which we seek a solution to a legal problem; A. Halpin, *The Applications*…, p. 235.

## References


Antognazza M. R., Leibniz, *An Intellectual Biography*, Cambridge 2009

Azo, *Broccardia sive generalia iuris*, Basileae 1567

Azo, *Summa locuples iuris civilis thesaurus*, Venetiis 1584

Baldus de Ubaldis, *Commentaria in sextum codicis*, Lugduni 1585

Baldus Chr., *Gesetzgebung, Auslegung und Analogie: Römische Grundlagen und Bedeutung des 19. Jahrhunderts*, (in:) K. Riesenhuber (ed.), *Europäische Methodenlehre. Handbuch für Ausbildung und Praxis*, 2nd. ed. München 2010, p. 26–111

Bartolus de Saxoferrato, *Commentaria. In secundam Digesti Veterispartem*, Venetiis 1593

Berlich M., *Conclusionum practicabilium*. Pars prima, Lipsiae/Jenae 1651

Boucher P, *Inductive Topics and Reorganization of Clasifications* (in:) M. Gabbay, P. Canivez, S. Rahman, A. Thiercelin (eds.), Approaches to Legal Rationality, Dordrecht 2010, p. 49–72

Carpzow B., *Jurisprudentia forensis romano-saxonica secundum ordinem constitutionum Augustis Electoris Saxoniae*, Francofurti ad Moenum 1650

Castillo Sotomayor I., *Quotidianarum controversiarum iuris liber*, Lugduni 1658

Cujacius J., *In Digesta seu Pandectas Justiniani Imperatoris Notae*, (in:) Opera, vol. 10, Neapoli 1722

Cyrul W., *Topika i prawo (Krytyczna analiza topicznej wizji dyskursu prawnego)*, „Państwo i Prawo" 2004, vol. 59, no. 6, p. 47–54

Cyrul W., Duda J., Opiła J., Pełech-Pilichowski T., *Informatyzacja tekstu prawnego*, Warszawa 2014

Dajczak W., Longchamps de Bérier F., *Prawo rzymskie w czasach dekodyfikacji*, „Forum Prawnicze" 2012, vol. 10, no. 2, p. 8–22

Dębiński A., Burczak K., Jońca M., *Łacińskie sentencje i powiedzenia prawnicze*, Warszawa 2013

Domingo R., Rodriguez-Antolin B., Ortega J., *Principios de derecho global. Aforismos juridicos comentados*, Pamplona 2003

Donellus H., *Commentari absolutissimi ad II, III, IV, VI et VIII libros Codicis Justinianei*, (in:) *Opera omnia*, vol. 9, Lucae 1766

Everardi N., *Loci argumentorum legales*, Lugduni 1579

Glück Chr. F., *Ausführliche Erläuterung der Pandekten nach Hellfeld ein Commentar*, vol. 19, part. 2, Erlangen 1818

Halpin A., *The Applications of Bivalent Logic, and the Misapplication of Multivalent Logic to Law*, (in:) H. P. Glenn, L. D. Smith (eds.) *Law and the New Logics*, Cambridge 2017, p. 208–235

Irti N., *L'età della decodificazione*, Varese 1979

Knippius I., *Disputatio inaugurale de vinco vincente*, Halae Magdeburgicae 1704

Leibniz v. G. W., *I casi perplessi in diritto (De casibus perplexis in iure), saggio introduttivo, traduzione e note di C. M de Iuliis*, Milano 2014

Liebs D., *Lateinische Rechtsregeln und Rechtssprichwörter*, München 2007

F. Longchamps de Bérier, *Myślenie dekodyfikacyjne* (in:) F. Longchamps de Bérier (ed.), *Dekodyfikacja prawa prywatnego*, Warszawa 2017, p. 269–293

Löhr, *Über das Privilegium der zur Sicherheit der dos stattfindenden Pfandrechte*, „Archiv für die civilistische Praxis", 1822, Volume. 5, p. 290–312

Morawski L., *Zasady wykładni prawa*, Toruń 2010

Mühlenbruch C. F., *Entwurf des gemeinrechtlichen Civilprozesses*, 2nd ed., Halle 1840

Oldrado da Ponte, *Consilia seu responsa et quaestiones aureae*, Venetiis 1570

Prakken H., *New Logics in the Functioning of Legal Orders*, (in:) H. P. Glenn, L. D. Smith (eds.) *Law and the New Logics*, Cambridge 2017, p. 3–31

Prateo, *Regulae generales iuris*, Lugduni 1589

Priest G., *Where Laws Conflict. An Application of the Method of Chunk and Permeate*, (in:) H. P. Glenn, L. D. Smith (eds.) *Law and the New Logics*, Cambridge 2017, p. 168–180

Savigny F. K., *System des heutigen roemischen Rechts*, vol. 1, Berlin 1840

Schlosser H., *Grundzüge der Neueren Privatrechtsgeschichte. Rechtsentwicklungen im europäischen Kontext*, Heidelberg 2005

Schüssler R., *Scholastic probability as rational assertability: the rise of theories of reasonable disagreement*, "Archiv für Geschichte der Philosophie" 2014, vol. 96, p. 151–284

Stelmach J., *Współczesna filozofia interpretacji prawniczej*, Kraków 1999

Stelmach J., *Kodeks argumentacyjny*, Kraków 2003

Stephanitz v. D., *Exakte Wissenschaft und Recht. Der Einfluß von Naturwissenschaft und Mathematik auf Rechtsdenken und Rechtswissenschaft in zweienhalb Jahrtausenden, Ein historischer Grundriß*, Berlin 1970

Susskind R., *Tomorrow's Lawyers. An Introduction to Your Future*, Oxford 2013

Viehweg T., *Topik und Jurisprudenz*, München 1953

Voci P., *Diritto ereditario Romano, Parte speciale*, Volume. 2, Milano 1963

Wieacker F., *Privatrechtsgeschichte der Neuzeit*, Göttingen 1967