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Legal theory, sources of law and the semantic web

Boer, A.

DOI

[10.3233/978-1-60750-003-2-i](https://doi.org/10.3233/978-1-60750-003-2-i)

Publication date

2009

[Link to publication](#)

Citation for published version (APA):

Boer, A. (2009). *Legal theory, sources of law and the semantic web*. [Thesis, fully internal, Universiteit van Amsterdam]. IOS Press. <https://doi.org/10.3233/978-1-60750-003-2-i>

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Bibliography

- [1] C. Alchourrón, P. Gärdenfors, and D. Makinson. On the logic of theory change: Partial meet functions for contraction and revision. *Journal of Symbolic Logic*, 50:510–530, 1985.
- [2] C. E. Alchourrón and E. Bulygin. The expressive conception of norms. In R. Hilpinen, editor, *New Studies in Deontic Logic*, pages 95–125. D. Reidel Publishing Company, Dordrecht, 1981.
- [3] J. Allen. Towards a general theory of action and time. *Artificial Intelligence*, 23:123–154, 1984.
- [4] J. F. Allen and G. Ferguson. Actions and events in interval temporal logic. *Journal of Logic and Computation*, 4(5):531–579, 1994.
- [5] L. Allen. The language of legal relations, RLL: useful in a legal ontology toolkit? In P. Visser and R. Winkels, editors, *Legal Ontologies: proceedings of the ICAIL-97 workshop*, pages 47 – 60. ACM, New York, 1997.
- [6] A. G. Amsterdam and J. S. Bruner. *Minding the Law*. Harvard University Press, Cambridge, Mass., 2000.
- [7] R. Arendsen. *Geen bericht, goed bericht: Een onderzoek naar de effecten van de introductie van elektronisch berichtenverkeer met de overheid op de administratieve lasten van bedrijven*. PhD thesis, University of Amsterdam, 2008.
- [8] R. Arendsen, T. van Engers, and R. te Velde. An empirical study on business-to-government data exchange strategies to reduce the administrative costs for businesses. In R. Suomi, R. Cabral, J. Hampe, A. Heikkila, J. Jarvelainen, and E. Koskivaara, editors, *Project E-Society: Building Bricks, 6th IFIP Conference on e-Commerce, e-Business and e-Government (I3E 2006)*, volume 226 of *IFIP International Federation for Information Processing*, pages 311–323, Boston, 2006. Springer.
- [9] K. Atkinson and T. Bench-Capon. Theory and practice in ai and law: A response to branting. In M.-F. Moens and P. Spyns, editors, *Jurix 2005: The Eighteenth Annual Conference.*, Legal Knowledge and Information Systems, pages 1–13, Amsterdam, 2005. IOS Press.
- [10] J. Austin. *The Province of Jurisprudence Determined*. Weidenfeld and Nicolson, London, 1954. edited by H.L.A. Hart.
- [11] F. Baader, D. Calvanese, D. McGuinness, D. Nardi, and P. F. Patel-Schneider, editors. *The Description Logic Handbook - Theory, Implementation and Applications*. Cambridge University Press, 2003.
- [12] F. Baader and W. Nutt. Basic description logics. In F. Baader, D. Calvanese,

- D. McGuinness, D. Nardi, and P. Patel-Schneider, editors, *Description Logic Handbook*, pages 47–100. Cambridge University Press, 2002.
- [13] F. Baader and U. Sattler. An Overview of Tableau Algorithms for Description Logics. *Studia Logica*, 69:5–40, 2001.
- [14] J. A. Bargh. Goal \neq intent: Goal-directed thought and behavior are often unintentional. *Psychological Inquiry*, 1(3):248–251, 1990.
- [15] J. Barwise and J. Perry. *Situations and Attitudes*. Bradford Books, MIT Press, 1983.
- [16] T. Bench-Capon. Neural networks and open texture. In *ICAAIL '93: Proceedings of the 4th international conference on Artificial intelligence and law*, pages 292–297, New York, NY, USA, 1993. ACM.
- [17] T. Bench-Capon and F. Coenen. Exploiting isomorphism: development of a KBS to support British coal insurance claims. In M. Sergot, editor, *Proceedings of the third International Conference on AI and Law*, pages 62–69, New York, 1991. Acm.
- [18] T. Bench-Capon and G. Sartor. Using values and theories to resolve disagreement in law. In J. Breuker, R. Leenes, and R. Winkels, editors, *Jurix 2000: The Thirteenth Annual Conference.*, Legal Knowledge and Information Systems, pages 73–84, Amsterdam, 2000. IOS Press.
- [19] T. Bench-Capon and G. Sartor. A model of legal reasoning with cases incorporating theories and values. *Artificial Intelligence*, 150:97–143, 2003.
- [20] T. J. M. Bench-Capon. Deep models, normative reasoning and legal expert systems. In *ICAAIL '89: Proceedings of the 2nd international conference on Artificial intelligence and law*, pages 37–45, New York, NY, USA, 1989. ACM.
- [21] T. J. M. Bench-Capon, G. O. Robinson, T. W. Routen, and M. J. Sergot. Logic programming for large scale applications in law: A formalisation of supplementary benefit legislation. In *ICAAIL '87: Proceedings of the 1st international conference on Artificial intelligence and law*, pages 190–198, New York, NY, USA, 1987. ACM.
- [22] V. R. Benjamins, P. Casanovas, J. Breuker, and A. Gangemi, editors. *Law and the Semantic Web*. Springer, LNCS 3369, 2005.
- [23] F. Bex, H. Prakken, and B. Verheij. Formalising argumentative story-based analysis of evidence. In *Proceedings of the Eleventh International Conference on Artificial Intelligence and Law*. New York, ACM Press, 2007.
- [24] P. Blackburn, M. de Rijke, and Y. Venema. *Modal Logic*. Cambridge University Press, 2001.
- [25] J. Blythe. Decision-theoretic planning. *AI Magazine*, 20(2), 1999.
- [26] O. Bodenreider, B. Smith, and A. Burgun. The ontology-epistemology divide: a case study in medical terminology. In A. Varzi and L. Vieu, editors, *Formal ontology in Information Systems*, pages 185–198. IOS-Press, Amsterdam, 2004.
- [27] G. Boella, L. Lesmo, and R. Damiano. On the ontological status of norms. In *Law and the Semantic Web*, volume 3369 of *Lecture Notes in Computer Science*. Springer Verlag, 2005.
- [28] G. Boella and L. van der Torre. Rational norm creation: attributing mental attitudes to normative systems, part 2. In *ICAAIL '03: Proceedings of the 9th*

- international conference on Artificial intelligence and law*, pages 81–82, New York, NY, USA, 2003. ACM.
- [29] G. Boella and L. W. N. van der Torre. Regulative and constitutive norms in normative multiagent systems. In *Proceedings of the 9th International Conference on the Principles of Knowledge Representation and Reasoning*, Whistler (CA), 2004.
- [30] A. Boer. The Consultancy Game. In J. Breuker, R. Leenes, and R. Winkels, editors, *Legal Knowledge and Information Systems. Jurix 2000: The Thirteenth Annual Conference*, Frontiers in Artificial Intelligence and Applications, pages 99–112, Amsterdam, 2000. IOS Press.
- [31] A. Boer. Notes on the legal knowledge interchange format. Estrella technical report, Leibniz Center for Law, University of Amsterdam, 2006.
- [32] A. Boer. Using event descriptions for metadata about legal documents. In R. Winkels and E. Francesconi, editors, *Electronic Proceedings of the Workshop on Standards for Legislative XML, in conjunction with Jurix 2007*, 2007.
- [33] A. Boer and J. Breuker. So you want to Validate your Problem-Solving Methods? In *Proceedings of the Knowledge Acquisition Workshop (KAW)*, Banff, Canada, 1998.
- [34] A. Boer and J. Breuker. Verifying and Validating the CommonKADS Library of Problem-Solving Methods. In *Proceedings of the Second French-American Conference on Validation and Verification*, Nîmes, France, 1998.
- [35] A. Boer, T. F. Gordon, K. van den Berg, M. Di Bello, A. Föhréc, and R. Vas. Specification of the legal knowledge interchange format. Deliverable 1.1, Estrella, 2007.
- [36] A. Boer, R. Hoekstra, R. Winkels, and T. van Engers. *METAlex*: Jurisdiction and Language. In M. Palmirani, T. van Engers, and M. A. Wimmer, editors, *Proceedings of the E-Government Workshop in conjunction with JURIX 2003*, pages 54–66. Universitätsverlag Rudolf Trauner, December 2003.
- [37] A. Boer, R. Hoekstra, R. Winkels, T. van Engers, and F. Willaert. *METAlex*: Legislation in XML. In T. Bench-Capon, A. Daskalopulu, and R. Winkels, editors, *Legal Knowledge and Information Systems. Jurix 2002: The Fifteenth Annual Conference*, Frontiers in Artificial Intelligence and Applications, pages 1–10, Amsterdam, 2002. IOS Press.
- [38] A. Boer, R. Hoekstra, R. Winkels, T. van Engers, and F. Willaert. Proposal for a Dutch Legal XML Standard. In R. Traunmüller and K. Lenk, editors, *Electronic Government (EGOV 2002)*, pages 142–149, Berlin; Heidelberg; New York, 2002. Springer Lecture Notes in Computer Science.
- [39] A. Boer, E. Hupkes, F. Vitali, M. Palmirani, and B. Rátai. Metalex CEN workshop proposal. Technical report, CEN Workshop on an Open XML Interchange Format for Legal and Legislative Resources (Metalex), May 2008.
- [40] A. Boer and T. van Engers. Standards for spatial regulations. In *Proceedings of the Workshop on the Role of legal knowledge in e-Government, held in conjunction with the Tenth International Conference on ARTIFICIAL INTELLIGENCE and LAW*, Bologna, Italy, 2005.
- [41] A. Boer, T. van Engers, R. Peters, and R. Winkels. Separating law from geograp-

- hy in gis-based egovernment services. *Artificial Intelligence & Law*, 15(1):49–76, February 2007.
- [42] A. Boer, T. van Engers, and R. Winkels. Using Ontologies for Comparing and Harmonizing Legislation. In *Proceedings of the International Conference on Artificial Intelligence and Law (ICAIL)*, Edinburgh (UK), 2003. ACM Press.
- [43] A. Boer, T. van Engers, and R. Winkels. Mixing legal and non-legal norms. In M.-F. Moens and P. Spyns, editors, *Legal Knowledge and Information Systems. Jurix 2005: The Eighteenth Annual Conference*, Frontiers in Artificial Intelligence and Applications, pages 25–36, Amsterdam, 2005. IOS Press.
- [44] A. Boer, T. van Engers, and R. Winkels. Normative statements on the semantic web. In *Proceedings of the Workshop on Legal Ontologies and Artificial Intelligence Techniques, held in conjunction with the Tenth International Conference on ARTIFICIAL INTELLIGENCE and LAW*, Bologna, Italy, 2005.
- [45] A. Boer, T. van Engers, and R. Winkels. Open standards for spatial regulations: an interdisciplinary approach. In *Proceedings of the Holland Open Software Conference*, Amsterdam, Netherlands, 2005.
- [46] A. Boer, T. van Engers, and R. Winkels. Probleemverkenning implementatie afspraken en standaarden DURP. Rapport voor ministerie VROM, Leibniz Center for Law, April 2005.
- [47] A. Boer, F. Vitali, and E. de Maat. CEN Workshop Agreement on MetaLex XML, an open XML Interchange Format for Legal and Legislative Resources (CWA 15710). Technical report, European Committee for Standardization (CEN), 2006.
- [48] A. Boer and R. Winkels. What’s in an Interchange Standard for Legislative XML? *I Quaderni*, Novembre(18):32–41, 2005.
- [49] A. Boer, R. Winkels, and R. Hoekstra. *METAlex*: een schema voor de structuur van wet- en regelgeving. *<!ELEMENT*, 1, 2003.
- [50] A. Boer, R. Winkels, R. Hoekstra, and T. M. van Engers. Knowledge Management for Legislative Drafting in an International Setting. In D. Bourcier, editor, *Legal Knowledge and Information Systems. Jurix 2003: The Sixteenth Annual Conference.*, Frontiers in Artificial Intelligence and Applications, pages 91–100, Amsterdam, 2003. IOS Press.
- [51] A. Boer, R. Winkels, T. van Engers, and E. de Maat. A content management system based on an event-based model of version management information in legislation. In T. Gordon, editor, *Legal Knowledge and Information Systems. Jurix 2004: The Seventeenth Annual Conference.*, Frontiers in Artificial Intelligence and Applications, pages 19–28, Amsterdam, 2004. IOS Press.
- [52] A. Boer, R. Winkels, T. van Engers, and E. de Maat. Time and versions in *METAlex* XML. In *Proceeding of the Workshop on Legislative XML*, Kobaek Strand, 2004.
- [53] A. Boer, R. Winkels, and F. Vitali. Proposed XML standards for law: Metalex and LKIF. In A. R. Lodder and L. Mommers, editors, *Legal Knowledge and Information Systems. Jurix 2007: The Twentieth Annual Conference Annual Conference*, volume 165 of *Frontiers in Artificial Intelligence and Applications*, pages 19–28. IOS Press, December 2007.

- [54] A. Boer, R. Winkels, and F. Vitali. Metalex XML and the Legal Knowledge Interchange Format. In G. Sartor, P. Casanovas, N. Casellas, and R. Rubino, editors, *Computational Models of the Law*, volume LNCS 4884 of *Lecture Notes in Artificial Intelligence*. Springer, 2008.
- [55] S. Borgo, N. Guarino, and C. Masolo. Stratified ontologies: The case of physical objects. In *Proceedings of the ECAI-96 Workshop on Ontological Engineering*, 1996.
- [56] C. Boutilier. Unifying default reasoning and belief revision in a modal framework. *Artificial Intelligence*, 68, 1994.
- [57] I. Bratko. *Prolog programming for artificial intelligence, 3rd ed.* Harlow: Addison-Wesley, 2001.
- [58] M. Bratman. Two faces of intention. *Philosophical Review*, 93(3):375–405, 1984.
- [59] J. Breuker. A suite of problem types. In J. Breuker and W. V. de Velde, editors, *CommonKADS Library for Expertise Modelling*, pages 57 – 88. IOS-Press/Ohmsha, Amsterdam/Tokyo, 1994.
- [60] J. Breuker. The construction and use of ontologies of criminal law in the eCourt european project. In V. Golaczynski, editor, *Proceedings of Means of electronic communication in court administration*, pages 15–40. ILV, Wroclaw, 2003.
- [61] J. Breuker, A. Boer, R. Hoekstra, and K. van den Berg. Developing content for LKIF: Ontologies and frameworks for legal reasoning. In T. M. van Engers, editor, *Legal Knowledge and Information Systems. Jurix 2006: The Nineteenth Annual Conference*, volume 152 of *Frontiers in Artificial Intelligence and Applications*, pages 169–174. IOS Press, December 2006.
- [62] J. Breuker and W. V. de Velde, editors. *CommonKADS Library for Expertise Modeling: reusable problem solving components*. IOS-Press/Ohmsha, Amsterdam/Tokyo, 1994.
- [63] J. Breuker and N. Den Haan. Separating world and regulation knowledge: where is the logic? In *Proceedings of the third international conference on AI and Law*, Oxford, 1991. Acm.
- [64] J. Breuker, A. Elhag, E. Petkov, and R. Winkels. It support for the judiciary: Use of ontologies in the eCourt project. In *Proceedings of the ICCS Conference on Conceptual Graphs*, pages 17 – 26, 2002.
- [65] J. Breuker and R. Hoekstra. Core concepts of law: taking common-sense seriously. In *Proceedings of Formal Ontologies in Information Systems FOIS-2004*, pages 210–221. IOS-Press, 2004.
- [66] J. Breuker, R. Hoekstra, A. Boer, K. van den Berg, R. Rubino, G. Sartor, M. Palmirani, A. Wyner, and T. Bench-Capon. OWL ontology of basic legal concepts (LKIF-Core). Deliverable 1.4, Estrella, 2007.
- [67] J. Breuker and R. Winkels. Taking ontological commitments seriously. *Extraction Des Connaissances Et Apprentissage*, 1(4):9–26, 2002.
- [68] R. Brohm. Bringing Polanyi on the Theatre Stage: A study on Polanyi applied to Knowledge Management. In J. F. Schreinemakers and T. V. Engers, editors, *15 Years of Knowledge Management*, volume 3 of *Advances in Knowledge Management*, chapter Part I, pages 3–24. Ergon Verlag, 2007.
- [69] E. Bulygin. On norms of competence. *Law and Philosophy*, 11(3):201–216, 1992.

- [70] M. Bussani and U. Mattei, editors. *Making European Law: Essays on the Common Core Project*. Università degli Studi di Trento, 2000.
- [71] J. Caldow. Cinderella cities. See <http://www-1.ibm.com/industries-government/ieg/pdf/cinderella.pdf>, 2000.
- [72] D. Calvanese, G. D. Giacomo, D. Lembo, M. Lenzerini, and R. Rosati. Epistemic first-order queries over description logic knowledge bases. In *Description Logics*, 2006.
- [73] D. Calvanese, G. D. Giacomo, and M. Lenzerini. A Framework for Ontology Integration. In *Proceedings of the First Semantic Web Working Symposium*, pages 303–316, 2001.
- [74] H.-N. Castañeda. On the semantics of the ought-to-do. *Synthese*, 21(3-4):449–468, 1970.
- [75] B. Chandrasekaran. Design problem solving: A task analysis. *AI Magazine*, 11(4):59–71, 1990.
- [76] B. Chandrasekaran and T. R. Johnson. Generic tasks and task structures: History, critique and new directions. In J. M. David, J. P. Krivine, and R. Simmons, editors, *Second Generation Expert Systems*. Springer Verlag, 1993.
- [77] R. M. Chisholm. Contrary-to-duty imperatives and deontic logic. *Analysis*, 24:33–36, 1963.
- [78] R. M. Chisholm. Legal reasoning in 3-d. In A. Press, editor, *In Proceedings of the First International Conference in Artificial Intelligence and Law*, pages 155–163, Boston, 1987.
- [79] A. Chorley and T. Bench-Capon. Reasoning with legal cases as theory construction: Some experimental results. In D. Bourcier, editor, *Jurix 2003: The Sixteenth Annual Conference.*, Legal Knowledge and Information Systems, pages 173–182, Amsterdam, 2003. IOS Press.
- [80] A. Chorley and T. Bench-Capon. Agatha: Automation of the construction of theories in case law domains. In T. Gordon, editor, *Jurix 2004: The Seventeenth Annual Conference.*, Legal Knowledge and Information Systems, pages 89–98, Amsterdam, 2004. IOS Press.
- [81] W. J. Clancey. Heuristic classification. *Artificial Intelligence*, 27:289–350, 1985.
- [82] W. J. Clancey. Model construction operators. *Artificial Intelligence*, 53(1):1–115, 1992.
- [83] S. Cnossen. Vermogensrendementsheffing: vondst of miskleun? OCFEB papers and proceedings 9903, Onderzoekscentrum Financieel Economisch Beleid (OCFEB), Erasmus Universiteit Rotterdam, 1999.
- [84] J. Cohen and I. Stewart. *The Collapse of Chaos: Discovering Simplicity in a Complex World*. Penguin Books, 1994.
- [85] P. Cohen and H. Levesque. Intention is choice with commitment. *Artificial Intelligence*, 42:213–261, 1990.
- [86] T. Costello. Change, change, change: Three approaches. In *IJCAI*, pages 1426–1433, 1997.
- [87] P. d’Altan, J.-J. C. Meyer, and R. Wieringa. An integrated framework for ought-to-be and ought-to-do constraints. *Artif. Intell. Law*, 4(2):77–111, 1996.
- [88] R. Davis, H. E. Shrobe, and P. Szlovits. What is knowledge representation? *AI*

- Magazine*, 14(1):17–33, 1993.
- [89] E. Dayton. Two approaches to deontic logic. *The Journal of Value Inquiry*, 15(2):137–147, 1981.
- [90] M. de Montaigne. Of ancient customs. In *Essays of Michel de Montaigne*. Project Gutenberg (online), 2006/1580.
- [91] C. de Montesquieu. *Spirit of the Laws*. Cambridge University Press, 1989.
- [92] N. den Haan. On structure preserving representations of law. In T. Gordon, editor, *Proceedings of the German Conference on Artificial Intelligence and Law*, Vienna, 1994. Invited lecture.
- [93] N. den Haan and J. Breuker. Constructing normative rules. In R. van Kralingen, H. van den Herik, J. Prins, M. Sergot, and J. Zeleznikow, editors, *Legal Knowledge Based Systems JURIX'96: Foundations of legal knowledge systems*, pages 135–147. Tilburg University Press, 1996. ISBN 90-361-9657-4.
- [94] N. den Haan and R. Winkels. The Deep Structure of Law. In H. Prakken, A. Muntjewerff, A. Soeteman, and R. Winkels, editors, *Legal Knowledge Based Systems: The Relation with Legal Theory*, pages 43–54. Koninklijke Vermande, Lelystad, 1994.
- [95] D. Dennett. *The Intentional Stance*. MIT-Press, 1987.
- [96] J. P. Dick. Representation of legal text for conceptual retrieval. In *ICAIL '91: Proceedings of the 3rd international conference on Artificial intelligence and law*, pages 244–253, New York, NY, USA, 1991. ACM Press.
- [97] F. Dignum, J. Broersen, V. Dignum, and J.-J. Meyer. Meeting the deadline: Why, when and how. In *Formal Approaches to Agent-Based Systems*. Lecture Notes in Computer Science, Springer Verlag, 2005.
- [98] C. Doctorow. Metacrap: Putting the torch to seven straw-men of the metatopia. See <http://www.well.com/doctorow/metacrap.htm>, 2001.
- [99] M. Donnelly. Relative places. *Applied Ontology*, 1(1):55–75, 2005.
- [100] D. Doyle. Prospects for preferences. *Computational Intelligence*, 20:111–136, 2004.
- [101] J. Doyle and R. H. Thomason, editors. *Working papers of the AAAI Spring Symposium on Qualitative Preferences in Deliberation and Practical Reasoning*. American Association for Artificial Intelligence, Menlo Park, California, 1997.
- [102] J. Doyle and M. P. Wellman. Representing preferences as ceteris paribus comparatives. In *Decision-Theoretic Planning: Papers from the 1994 Spring AAI Symposium*, pages 69–75. AAAI Press, Menlo Park, California, 1994.
- [103] W. Dubislav. Zur unbegründbarkeit der forderungsätze. *Theoria*, 3:330–342, 1937.
- [104] J. Dyer. MAUT multiattribute utility theory. In J. Figueira, S. Greco, and M. Ehrgott, editors, *Multiple Criteria Decision Analysis: State of the Art Surveys*, pages 265–285. Springer Verlag, Boston, Dordrecht, London, 2005.
- [105] A. A. Elhag, J. A. Breuker, and B. W. Brouwer. On the formal analysis of normative conflicts. In H. van den Herik et al., editor, *JURIX 1999: The Twelfth Annual Conference*, Frontiers in Artificial Intelligence and Applications, pages 35–46, Nijmegen, 1999. GNI.
- [106] E. Engelen. Financialization, Pension Restructuring, and the Logic of Funding.

- In *Proceedings of SASE 2002*, 2002.
- [107] K. Erol, J. Hendler, and D. S. Nau. Htn planning: complexity and expressivity. In *AAAI'94: Proceedings of the twelfth national conference on Artificial intelligence (vol. 2)*, pages 1123–1128, Menlo Park, CA, USA, 1994. American Association for Artificial Intelligence.
- [108] D. Fensel. A case study: Assumptions and limitations of a problem solving method. In *International Journal of Human Computer Studies*, 1995.
- [109] D. Fensel and R. Straatman. Problem-solving methods: Making assumptions for efficiency reasons. In *EKAW '96: Proceedings of the 9th European Knowledge Acquisition Workshop on Advances in Knowledge Acquisition*, pages 17–32, London, UK, 1996. Springer-Verlag.
- [110] K. M. Ford, F. E. Petry, J. R. Adams-Webber, and P. J. Chang. An approach to knowledge acquisition based on the structure of personal construct systems. *IEEE Transactions on Knowledge and Data Engineering*, 3(1):78–88, 1991.
- [111] J. W. Forrester. Gentle murder, or the adverbial samaritan. *Journal of Philosophy*, 81:193–197, 1984.
- [112] E. Francesconi. *Technologies for European Integration*. European Press Academic Publishing, 2007.
- [113] B. Gaines and M. Shaw. Knowledge acquisition tools based on personal construct psychology, 1993.
- [114] A. Gangemi, N. Guarino, C. Masolo, A. Oltramari, and L. Schneider. Sweetening ontologies with DOLCE. In A. Gomez-Perez and V. Benjamins, editors, *Proceedings of the EKAW-2002*, pages 166–181. Springer, 2002.
- [115] A. Gangemi, D. Pisanelli, and G. Steve. A formal ontology framework to represent norm dynamics. In R. Winkels and R. Hoekstra, editors, *Proceedings of the Second International Workshop on Legal Ontologies (LEGONT)*, Amsterdam, Netherlands, 2001.
- [116] A. Gangemi, A. Prisco, M. Sagri, G. Steve, and D. Tiscornia. Some ontological tools to support legal regulatory compliance, with a case study. In *Proceedings of the Workshop on Regulatory Ontologies and the Modeling of Complaint Regulations (WORM CoRe 2003)*, Catania, Sicily, Italy, 2003. Springer Lecture Notes in Computer Science.
- [117] P. Gärdenfors and D. Makinson. Revisions of knowledge systems using epistemic entrenchment. In M. Y. Vardi, editor, *Theoretical Aspects of Reasoning about Knowledge: Proceedings of the Second Conference*, pages 83–96. Morgan Kaufmann, Los Altos, CA, 1988.
- [118] S. Garrels. Imitation, mirror neurons, and mimetic desire: Convergence between the mimetic theory of René Girard and empirical research on imitation. *Contagion: Journal of Violence, Mimesis, and Culture*, 12–13:47–86, 2006.
- [119] T. Geiger. *Theodor Geiger on Social Order and Mass Society: Selected Papers*. University of Chicago Press, 1969.
- [120] M. R. Genesereth and N. J. Nilsson. *Logical Foundations of Artificial Intelligence*. Morgan Kaufmann, Los Altos, 1987.
- [121] A. I. Goldman. Desire, intention, and the simulation theory. In B. F. Malle, L. J. Moses, and D. A. Baldwin, editors, *Intentions and intentionality: Foundations*

- of social cognition*, pages 207–225. MIT Press, Cambridge, MA, 2001.
- [122] T. F. Gordon, H. Prakken, and D. Walton. The Carneades model of argument and burden of proof. *Artificial Intelligence*, 171(10-11):875–896, 2007.
- [123] G. Governatori and A. Rotolo. Modelling contract using RuleML. In T. Gordon, editor, *Legal Knowledge and Information Systems (Jurix 2004)*, pages 141–150, Amsterdam, 2004. IOS Press.
- [124] T. Grandon Gill. Early expert systems: Where are they now? *MIS Quarterly*, 19(1):51–81, 1995.
- [125] B. C. Grau, I. Horrocks, and B. Parsia. Online proceedings of the first OWL: Experiences and directions workshop, 2005. <http://www.mindswap.org/2005/OWLWorkshop/accepted.shtml>.
- [126] B. C. Grau, B. Parsia, E. Sirin, and A. Kalyanpur. Modularizing OWL ontologies. In *Proc. of the 4th International Semantic Web Conference (ISWC-2005)*, 2005.
- [127] S. Grimm and B. Motik. Closed world reasoning in the semantic web through epistemic operators. In *Online Proceedings of the First OWL: Experiences and Directions Workshop (OWLED)*, Galway, Ireland, 2005. <http://dip.semanticweb.org/publications.html>.
- [128] C. Groendijk. Neural schemata in automated judicial problem solving. In C. Grütters, J. Breuker, H. van den Herik, A. Schmidt, and C. de Vey Mestdagh, editors, *Legal Knowledge Based Systems: Information Technology & Law*, Lelystad, 1992. Vermande.
- [129] M. M. Groothuis and J. S. Svensson. Expert system support and juridical quality. In J. Breuker, R. Leenes, and R. Winkels, editors, *Legal Knowledge and Information Systems. Jurix 2000: The Thirteenth Annual Conference*, Frontiers in Artificial Intelligence and Applications, pages 1–10, Amsterdam, 2000. IOS Press.
- [130] D. Grossi and F. Dignum. Abstract and concrete norms in institutions. Technical report, University of Utrecht, technical report UU-CS-2004-016, 2004.
- [131] T. R. Gruber. A translation approach to portable ontology specifications. *Knowledge Acquisition*, 5(2):199–220, 1993.
- [132] J. Hage. De wondere wereld van het recht. Technical report, Universiteit Maastricht, 2007. inaugurele rede.
- [133] J. C. Hage, H. B. Verheij, and A. R. Lodder. Reason based logic; a logic that deals with rules and reasons. In *In J.M. Akkermans and J.A. Breuker, editors, Working Papers NAIC '93*, pages 293–304, 1993.
- [134] C. Halaschek-Wiener, Y. Katz, and B. Parsia. Belief base revision for expressive description logics. In *Online Proceedings of the Second OWL: Experiences and Directions Workshop (OWLED)*, Athens, Georgia, USA, 2006. <http://owl-workshop.man.ac.uk/accepted06.shtml>.
- [135] A. Halpin. Fundamental legal conceptions reconsidered. *Canadian Journal of Law and Jurisprudence*, 16:41–54, 2003.
- [136] B. Hansson. An analysis of some deontic logics. *Nous*, 3:373–398, 1969.
- [137] S. O. Hansson. Decision theory: A brief introduction. Technical report, Department of Philosophy and the History of Technology, Royal Institute of Technology,

- Stockholm, 1994.
- [138] S. O. Hansson. *The Structure of Values and Norms*. Cambridge University Press, UK, 2001.
- [139] S. O. Hansson. The dual nature of technological concepts. In *Invited contribution to the international conference Technological Knowledge: Philosophical Reflection*, 2002.
- [140] H. Hart. *The Concept of Law*. Clarendon Press, Oxford, 1961.
- [141] H. Hart and T. Honoré. *Causation in the Law*. Oxford University Press, New York, second edition edition, 1985.
- [142] P. Hassett. Can expert systems improve the exercise of judicial discretion? In C. Grütters, J. Breuker, H. van den Herik, A. Schmidt, and C. de Vey Mestdagh, editors, *Legal Knowledge Based Systems: Information Technology and Law*, 1992.
- [143] P. J. Hayes. Naive physics I: Ontology for liquids. In J. R. Hobbs and R. C. Moore, editors, *Formal Theories of the Common Sense World*, pages 71–108. Ablex Publishing Corporation, Norwood, 1985.
- [144] P. J. Hayes. The second naive physics manifesto. In J. R. Hobbs and R. C. Moore, editors, *Formal Theories of the Common Sense World*, pages 1–36. Ablex Publishing Corporation, Norwood, 1985.
- [145] W. Hettich and S. L. Winer. Economic and political foundations of tax structure. *American Economic Review*, 78(4):701–712, 1988.
- [146] W. Hettich and S. L. Winer. Rules, Politics, and the Normative Analysis of Taxation. Carleton Economic Papers 00-12, Carleton University, 2000.
- [147] H. Hill. A functional taxonomy of normative conflict. *Law and Philosophy*, 6:227–247, 1987.
- [148] F. A. Hindriks. *Rules & Institutions; essays in meaning, speech and social ontology*. PhD thesis, Erasmus University Rotterdam, 2005.
- [149] J. Hobbs and V. Kreinovich. Optimal choice of granularity in commonsense estimation: Why half-orders of magnitude. In *Proc. IFSA/NAFIPS'2001*, pages 1343–1348, 2001.
- [150] J. R. Hobbs. Sketch of an ontology underlying the way we talk about the world. *Int. J. Hum.-Comput. Stud.*, 43(5-6):819–830, 1995.
- [151] J. R. Hobbs and F. Pan. Time ontology in OWL. Technical report, W3C, May 2006.
- [152] R. Hoekstra and J. Breuker. Commonsense causal explanation in a legal domain. *Artificial Intelligence & Law*, 15(3):281–299, September 2007. Special issue on Legal Ontologies and Artificial Intelligence Techniques.
- [153] R. Hoekstra, J. Breuker, M. D. Bello, and A. Boer. The LKIF Core ontology of basic legal concepts. In P. Casanovas, M. A. Biasiotti, E. Francesconi, and M. T. Sagri, editors, *Proceedings of the Workshop on Legal Ontologies and Artificial Intelligence Techniques (LOAIT 2007)*, June 2007.
- [154] R. Hoekstra, J. Breuker, M. Di Bello, and A. Boer. LKIF Core: Principled ontology development for the legal domain. In J. Breuker, P. Casanovas, M. Klein, and E. Francesconi, editors, *Law, Ontologies, and the Semantic Web*. IOS Press, 2008. Submitted for review.
- [155] R. Hoekstra, J. Breuker, M. Di Bello, and A. Boer. LKIF core: Principled onto-

- logy development for the legal domain. In J. Breuker, P. Casanovas, M. Klein, and E. Francesconi, editors, *Law, Ontologies and the Semantic Web*, Frontiers of Artificial Intelligence and Applications. IOS Press, Amsterdam, 2008. To be Published.
- [156] W. Hohfeld. *Fundamental Legal Conceptions as Applied in Legal Reasoning*. Yale University Press, 1919. Edited by W.W. Cook, fourth printing, 1966.
- [157] I. Horrocks and P. Patel-Schneider. Reducing OWL entailment to description logic satisfiability. In *Proc. of the 2nd International Semantic Web Conference (ISWC)*, 2003.
- [158] I. Horrocks, P. Patel-Schneider, and F. van Harmelen. From SHIQ and RDF to OWL: The making of a web ontology language. *Journal of Web Semantics*, 1(1):7–26, 2003.
- [159] I. Horrocks and S. Tessaris. A conjunctive query language for description logic aboxes. In *AAAI/IAAI*, pages 399–404, 2000.
- [160] D. Hume. *A Treatise on Human Nature*. Boston: Little, Brown and Company, 1854 (1739).
- [161] D. Hunter. Out of their minds: Legal theory in neural networks. *Artificial Intelligence and Law*, 7:129–151, 1999.
- [162] A. Jones and M. Sergot. *On the Characterization of Law and Computer Systems: The Normative Systems Perspective*, chapter 12, pages 275–307. John Wiley & Sons, 1993.
- [163] J. Jørgensen. Imperatives and logic. *Erkenntnis*, 7:288–296, 1937.
- [164] D. Kahneman, J. Knetsch, and R. Thaler. Fairness as a constraint on profit-seeking. *American Economic Review*, 76(4):728–741, 1986.
- [165] D. Kahneman, J. Knetsch, and R. Thaler. The endowment effect, loss aversion, and status quo bias. *Journal of Economic Perspectives*, 5(1):193–206, 1991.
- [166] D. Kahneman and A. Tversky. Prospect theory: an analysis of decision under risk. *Econometrica*, 47(2):263–291, 1979.
- [167] A. Katsenelinboigen. *The Concept of Indeterminism and Its Applications: Economics, Social Systems, Ethics, Artificial Intelligence, and Aesthetics*. Greenwood Publishing, Westport, 1997.
- [168] Y. Katz and J. Golbeck. Social network-based trust in prioritized default logic. In *AAAI*. AAAI Press, 2006.
- [169] R. Keeney and H. Raiffa. *Decisions with multiple objectives*. Wiley Press, 1976.
- [170] M. Keller, M. Gummeran, X. Wang, and S. Lindsey. Understanding perspectives and emotions in contract violation: Development of deontic and moral reasoning. *Child Development*, 75:614–635, 2004.
- [171] G. A. Kelly. *The Psychology of Personal Constructs*. Norton, New York, 1955.
- [172] H. Kelsen. *General Theory of Norms*. Clarendon Press, Oxford, 1991.
- [173] M. Klein and N. F. Noy. A component-based framework for ontology evolution. Technical Report IR-504, Department of Computer Science, Vrije Universiteit Amsterdam, March 2003.
- [174] M. Kohen. Europe and the Standardization of the Law: Past and Present. In *Proceedings of the Conference on Globalisation and International Relations in the 21st Century*, 2002.

- [175] V. Kolovski, B. Parsia, and Y. Katz. Implementing OWL defaults. Technical report, Defense Technical Information Center OAI-PMH Repository [<http://stinet.dtic.mil/oai/oai>] (United States), 2006.
- [176] T. Konrad. On law, religion, and custom. In *To Honor René Girard: Presented on the Occasion of his Sixtieth Birthday by Colleagues, Students, Friends*, pages 177–190, Saratoga, 1986.
- [177] W. Kowalczyk. Neural networks in knowledge-based systems. In *Proceedings of the second symposium on neural networks*, Nijmegen, 1992.
- [178] R. A. Kowalski and M. J. Sergot. A logic-based calculus of events. *New Generation Comput.*, 4(1):67–95, 1986.
- [179] R. A. Kowalski and F. Toni. Abstract argumentation. *Artificial Intelligence and Law*, 4:275–296, 1996.
- [180] M. Krötzsch, S. Rudolph, and P. Hitzler. Expressive tractable description logics based on SROIQ rules. Technical report, Universität Karlsruhe (TH), February 2008.
- [181] J. Kuhl. Who controls whom when i control myself? *Psychological Inquiry*, 7(1):61–68, 1996.
- [182] C. Lagoze, J. Hunter, and D. Brickley. An event-aware model for metadata interoperability. In *ECDL 2000 - Lisbon, September 2000*, 2000.
- [183] G. Lakoff and M. Johnson. *Metaphors We Live By*. University of Chicago Press, Chicago, 1980.
- [184] J. Lehmann. *Causation in Artificial Intelligence and Law - A modelling approach*. PhD thesis, University of Amsterdam - Faculty of Law - Department of Computer Science and Law, 2003.
- [185] D. Lenat and R. Guha. *Building Large Knowledge Based Systems*. Addison Wesley, Reading, Massachusetts, 1990.
- [186] D. B. Lenat. CYC: A large-scale investment in knowledge infrastructure. *Communications of the ACM*, 38(11):33–38, 1995.
- [187] H. J. Levesque. Foundations of a functional approach to knowledge representation. *Artif. Intell.*, 23(2):155–212, 1984.
- [188] S. Levinson. *Pragmatics*. Cambridge University Press, Cambridge, 1983.
- [189] L. Lindahl. Conflicts in systems of legal norms: A logical point of view. In P. Brouwer, B. Hol, A. Soeteman, W. van der Velde, and A. de Wild, editors, *Coherence and Conflict in Law*, pages 39–64, Deventer, 1992. Kluwer.
- [190] C. Lupo, F. Vitali, E. Francesconi, M. Palmirani, R. Winkels, E. de Maat, A. Boer, and P. Mascellani. General XML format(s) for legal sources. Deliverable 3.1, Estrella, 2007.
- [191] C. Maasdorp. Concept and Context: Tacit Knowledge in Knowledge Management Theory. In J. F. Schreinemakers and T. V. Engers, editors, *15 Years of Knowledge Management*, volume 3 of *Advances in Knowledge Management*, chapter Part I, pages 59–68. Ergon Verlag, 2007.
- [192] N. MacCormick. Norms, institutions, and institutional facts. *Law and Philosophy*, 17(3):301–345, 1998.
- [193] R. M. MacGregor and D. L. McGuinness. DARPA’s high performance knowledge base (HPKB) program. In *Description Logics*, 1999.

- [194] D. Makinson. Five faces of minimality. *Studia Logica*, 52(3):339–380, 1993.
- [195] D. Makinson. On a fundamental problem of deontic logic. In P. McNamara and H. Prakken, editors, *Norms, Logics and Information Systems. New Studies in Deontic Logic and Computer Science*, volume 49 of *Frontiers in Artificial Intelligence and Applications*, pages 29–53. IOS Press, Amsterdam, 1999.
- [196] R. H. Marin, J. L. Hernandez, and J. J. I. Delgado. Cronolex: a computing representation of law dynamics. In *XXII World congress of Philosophy of Law and Socialphilosophy. Granada, Spain*, May 2005.
- [197] C. Masolo, S. Borgo, A. Gangemi, N. Guarino, and A. Oltramari. Wonder-Web ontology library. Technical Report Deliverable D18, version 1, ISTC-CNR (Italy), 2002.
- [198] C. Masolo, L. Vieu, E. Bottazzi, C. Catenacci, R. Ferrario, A. Gangemi, and N. Guarino. Social roles and their descriptions. In *Proceedings of Knowledge Representation Workshop*, 2004.
- [199] T. Mazzaresse. Towards the semantics of “constitutive” in judicial reasoning. *Ratio Iuris*, 12:252–262, 1999.
- [200] J. McCarthy. Programs with common sense. In *Proceedings of the Teddington Conference on the Mechanization of Thought Processes*, pages 75–91, London, 1959. Her Majesty’s Stationary Office.
- [201] R. N. Moles. Expert systems - the need for theory. In C. Grütters, J. Breuker, H. van den Herik, A. Schmidt, and C. de Vey Mestdagh, editors, *Legal Knowledge Based Systems: Information Technology and Law*, 1992.
- [202] L. Mommers. *Applied Legal Epistemology*. PhD thesis, Universiteit Leiden, 2002.
- [203] J. Montrose. Is negligence an ethical or a sociological concept? *Modern Law Review*, 21(3):259–264, 1958.
- [204] M. S. Moore. Legal reality: a naturalist approach to legal ontology. *Law and Philosophy*, 21:619–705, 2002.
- [205] B. Motik, I. Horrocks, R. Rosati, and U. Sattler. Can OWL and logic programming live together happily ever after? In I. Cruz, S. Decker, D. Allemang, C. Preist, D. Schwabe, P. Mika, M. Uschold, and L. Aroyo, editors, *The Semantic Web - ISWC 2006*, volume 4273 of *Lecture Notes in Computer Science*, pages 501–514. Springer, 2006.
- [206] E. Motta. *Reusable Components for Knowledge Modelling*. FAIA-Series. IOS Pres, Amsterdam NL, 1999.
- [207] E. Motta and Z. Zdrahal. Parametric design problem solving. In *Proceedings of the 10th Banff Knowledge Acquisition for Knowledge-Based System Workshop*, 1996.
- [208] B. Nebel. Syntax-based approaches to belief revision. In P. Gärdenfors, editor, *Belief Revision*, volume 29, pages 52–88. Cambridge University Press, Cambridge, UK, 1992.
- [209] A. Newell. The knowledge level. *Artificial Intelligence*, 18:87–127, 1982.
- [210] N. Noy and M. Musen. Ontology versioning in an ontology management framework. *IEEE Intelligent Systems*, 19(4), August 2004.
- [211] D. Nute. Defeasible logic. In *Handbook of Logic in Artificial Intelligence and Logic Programming*, pages 353–395. Oxford University Press, 1994.

- [212] K. Opalek and J. Wolenski. Normative systems, permission and deontic logic. *Ratio Juris*, 4:334–348, 1991.
- [213] O. Pacheco and J. Carmo. A role based model for the normative specification of organized collective agency and agents interaction. *Journal of Autonomous Agents and Multi-Agent Systems*, 6:145–184, 2003.
- [214] M. Pagnucco. *The Role of Abductive Reasoning within the Process of Belief Revision*. PhD thesis, University of Sydney, 1996.
- [215] L. Pallipoli, F. Pirri, and C. Pizzuti. Algorithms for Selective Enumeration of Prime Implicants. *Artificial Intelligence*, 111:41–72, 1999.
- [216] M. Palmirani. Time model in normative information system. In *Post-proceedings of the ICAIL Workshop on the Role of Legal Knowledge in e-Government*, 2005.
- [217] M. Palmirani. Dynamics of norms over time: a model for legislative consolidation. In *Proceedings of 3rd Legislative XML Workshop, Furore 6-8 April 2005*, Quaderno 18, pages 42–57. CNIPA, 2006.
- [218] M. Palmirani and R. Brighi. Time model for managing the dynamic of normative system. In M. Wimmer, H. Scholl, A. Grönlund, and K. Andersen, editors, *Proceedings of 5th International Conference (EGOV 2006), Krakow, Poland, September 4-8, 2006*, Lecture Notes in Computer Science, pages 207–218. Springer, Berlin, 2006, 2006.
- [219] M. Palmirani, G. Sartor, R. Rubino, A. Boer, E. de Maat, F. Vitali, and E. Francesconi. Guidelines for applying the new format. Deliverable 3.2, Estrella, 2007.
- [220] P. Patel-Schneider and I. Horrocks. A comparison of two modelling paradigms in the semantic web. *Web Semantics: Science, Services and Agents on the World Wide Web*, 5(4):240–250, December 2007.
- [221] M. Peacock. Everyday conceptions of justice and their role in economics. In *Proceedings of the 11th World Congress of Social Economics*, Albertville, 2004.
- [222] A. Pease and I. Niles. IEEE Standard Upper Ontology: A progress report. *Knowledge Engineering Review*, 17:65–70, 2002. Special Issue on Ontologies and Agents.
- [223] R. Pelánek. *Reduction and Abstraction Techniques for Model Checking*. PhD thesis, Masaryk University, Brno, 2006.
- [224] J. Perry. Symposium papers, comments, and an abstract: Cognitive significance and new theories of reference. *Nous*, 22(1):1–18, mar 1988.
- [225] S. Pinker. *The Stuff of Thought: Language As a Window Into Human Nature*. Penguin Group (Viking Press), 2007.
- [226] H. Pinto, A. Prez, and J. Martins. Some Issues on Ontology Integration. In V. Benjamins, B. Chandrasekaran, A. Gomez-Perez, N. Guarino, and M. Uschold, editors, *Proceedings of the IJCAI-99 Workshop on Ontologies and Problem-Solving Methods (KRR5)*, Stockholm, Sweden, 1999.
- [227] P. Piwek. *Logic, Information, Conversation*. PhD thesis, Eindhoven University of Technology, 1998.
- [228] J. L. Pollock. Defeasible reasoning. *Cognitive Science*, 11:481–518, 1987.
- [229] H. Prakken, C. Reed, and D. Walton. Dialogues about the burden of proof. In *ICAIL '05: Proceedings of the 10th international conference on Artificial intelligence and law*, pages 115–124, New York, NY, USA, 2005. ACM.

- [230] H. Prakken and G. Sartor. On the relation between legal language and legal argument: assumptions, applicability and dynamic priorities. In *ICAAIL '95: Proceedings of the 5th international conference on Artificial intelligence and law*, pages 1–10, New York, NY, USA, 1995. ACM.
- [231] H. Prakken and J. Schrickx. Isomorphic models for rules and exceptions in legislation. In J. Breuker, R. de Mulder, and J. Hage, editors, *Legal Knowledge Based Systems. Model-Based Legal Reasoning (Proceedings of JURIX91)*, pages 17–27, Lelystad, the Netherlands, 1991. Koninklijke Vermande.
- [232] H. Prakken and M. Sergot. Dyadic deontic logic and contrary-to-duty obligations. In D. N. Nute, editor, *Defeasible Deontic Logic*, Synthese Library, pages 223–263. Kluwer, 1997.
- [233] A. Rector, N. Drummond, M. Horridge, J. Rogers, H. Knublauch, R. Stevens, H. Wang, and C. Wroe. OWL pizzas: Practical experience of teaching OWL-DL: Common errors & common patterns. In *Proceedings of the European Conference on Knowledge Acquisition (LNAI 3257)*, pages 63–81, Northampton, England, 2004. Springer-Verlag.
- [234] N. Rescher. Axioms for the part relation. *Philosophical Studies*, 6:8–11, 1955.
- [235] E. Rissland and K. Ashley. A note on dimensions and factors. *Artificial Intelligence and Law*, 10:65–77, 2004.
- [236] E. Rissland, K. Ashley, and R. Loui. Ai and law: A fruitful synergy. *Artificial Intelligence*, 150:1–15, 2003.
- [237] E. Rissland and T. Friedman. Detecting change in legal concepts. In *Proceedings of the Fifth International Conference on Artificial Intelligence and Law (ICAAIL-99)*, pages 127–136, New York (NY), 1995. ACM.
- [238] T. Routen. Hierarchically organised formalisations. In *ICAAIL '89: Proceedings of the 2nd international conference on Artificial intelligence and law*, pages 242–250, New York, NY, USA, 1989. ACM.
- [239] L. Royakkers. Giving permission implies giving choice. In *Proceedings of the 8th International Conference on Database and Expert System Applications (DEXA '97)*, 1997.
- [240] S. Russell and P. Norvig. *Artificial Intelligence: A Modern Approach*. Prentice-Hall, Englewood Cliffs, NJ, 2nd edition edition, 2003.
- [241] M. Sagoff. On the relation between preference and choice. *Journal of Socio-Economics*, 31(6):587–598, 2003.
- [242] W. S. Sarle. Measurement theory: Frequently asked questions. See <ftp://ftp.sas.com/pub/neural/measurement.faq>, 1995.
- [243] G. Sartor. Why agents comply with norms, and why they should. In R. Conte and C. Dellarocas, editors, *Social Order in MAS*, Dordrecht, 2002. Kluwer.
- [244] G. Sartor. Fundamental legal concepts: A formal and teleological characterisation. Technical report, European University Institute, Florence / Cirsfid, University of Bologna, 2006.
- [245] K. G. Saur. Functional requirements for bibliographic records. *UBCIM Publications - IFLA Section on Cataloguing*, 19, 1998.
- [246] R. Schank and R. Abelson. *Scripts, Plans Goals and Understanding*. Lawrence Erlbaum, New Jersey, 1977.

- [247] P. Schlag. Hiding the ball. *New York University Law Review*, 1681, 1996.
- [248] J. Searle and D. Vanderveken. *Foundations of illocutionary logic*. Cambridge University Press, Cambridge, England, 1985.
- [249] J. R. Searle. *Speech Acts*. Cambridge University Press, 1970.
- [250] M. Sergot and F. Richards. On the representation of action and agency in the theory of normative positions. *Fundamenta Informaticae*, 48:273–293, 2001.
- [251] J. C. Shepherdson. Negation as failure. ii. *J. Log. Program.*, 2(3):185–202, 1985.
- [252] H. Simons. *Personal Income Taxation*. University of Chicago Press, Chicago, IL, USA, 1938.
- [253] E. Sirin, B. C. Grau, and B. Parsia. From wine to water: Optimizing description logic reasoning for nominals. In *KR*, pages 90–99, 2006.
- [254] B. Smith. An essay in formal ontology. *Grazer Philosophische Studien*, 6:39–62, 1978.
- [255] B. Smith and C. Welty. Ontology: Towards a new synthesis. In *Proceedings of Formal Ontology and Information Systems (FOIS)*. Acm, 2001.
- [256] J. Sombekke, T. van Engers, and H. Prakken. Argumentation structures in legal dossiers. In R. Winkels, editor, *Proceedings of the 11th International Conference on Artificial Intelligence and Law (ICAIL-2007)*, New York, 2007. ACM Press.
- [257] M. V. Someren, Y. Barnard, and J. Sandberg. *The Think Aloud Method: A Practical Guide to Modelling Cognitive Processes*. Academic Press, 1994.
- [258] L. Steels. Components of expertise. *AI Mag.*, 11(2):30–49, 1990.
- [259] J. Straach and K. Truemper. Learning to Ask Relevant Questions. *Artificial Intelligence*, 111:301–328, 1999.
- [260] P. Suber. *The Paradox of Self-Amendment: A Study of Law, Logic, Omnipotence, and Change*. Peter lang Publishing, New York, 1990.
- [261] L. A. Suchman. *Plans and Situated Actions: The Problem of Human-Machine Communication*. Cambridge University Press, Cambridge, UK, 1987.
- [262] Y. Tan and L. W. N. van der Torre. How to combine ordering and minimizing in a deontic logic based on preferences. In M. A. Brown and J. Carmo, editors, *Deontic Logic, Agency and Normative Systems: ΔEON'96, Third International Workshop on Deontic Logic in Computer Science, Sesimbra, Portugal, 11–13 January 1996*, pages 216–232. Springer-Verlag, Berlin, 1996.
- [263] F. Tanghe. *Links is soms rechts: over gelijkheid, democratie, en multiculturalisme*. Houtekiet, 2004.
- [264] A. Teije, F. van Harmelen, A. Th, and S. Wielinga. Construction of problem solving methods as parametric design. *International Journal of Human-Computer Studies, special issue on problem-solving methods*, 1998.
- [265] A. Valente. *Legal knowledge engineering: A modelling approach*. PhD thesis, University of Amsterdam, 1995.
- [266] A. Valente and J. Breuker. ON-LINE: An architecture for modelling legal information. In *International Conference on Artificial Intelligence and Law (ICAIL-1995)*, pages 307–315, 1995.
- [267] J. van Benthem, S. van Otterloo, and O. Roy. Preference logic, conditionals, and solution concepts in games. Technical report pp-2005-28, Institute for Logic, Language, and Computation, University of Amsterdam, 2005.

- [268] L. van der Torre. *Reasoning about Obligations: Defeasibility in Preference-based Deontic Logic*. PhD thesis, Erasmus University, Rotterdam, 1997.
- [269] L. W. N. van der Torre and Y. Tan. The temporal analysis of Chisholm's paradox. In T. Senator and B. Buchanan, editors, *Proceedings of the Fourteenth National Conference on Artificial Intelligence and the Ninth Innovative Applications of Artificial Intelligence Conference*, pages 650–655, Menlo Park, California, 1998. AAAI Press.
- [270] T. van Engers, R. Gerrits, M. Boekenoogen, E. Glassée, and P. Kordelaar. POWER: Using UML/OCL for modeling legislation - an application report. In *Proceedings of the International Conference on Artificial Intelligence and Law*. ACM Press, 2001. 1-58113-368-5/01/0005.
- [271] T. van Engers, R. Winkels, A. Boer, and E. de Maat. Knowledge management and the dutch legal aid service counter. In J. J. Schreinemakers and T. van Engers, editors, *Advances in Knowledge Management*, volume IV, Würzburg, 2006. Ergon Verlag.
- [272] T. M. van Engers, R. Winkels, A. Boer, and E. de Maat. Internet, portal to justice? In T. Gordon, editor, *Legal Knowledge and Information Systems. Jurix 2004: The Seventeenth Annual Conference*, Frontiers in Artificial Intelligence and Applications, pages 131–140, Amsterdam, 2004. IOS Press.
- [273] C. van Laer. The Applicability of Comparative Concepts. *European Journal of Comparative Law*, 2.2, 1998.
- [274] J. Velcin and J.-G. Ganascia. Stereo type extraction with default clustering. In *Proc. of IJCAI 2005*, pages 883–888, 2005.
- [275] P. R. S. Visser. *Knowledge Specification for Multiple Legal Tasks. A Case Study of the Interaction Problem in the Legal Domain*. PhD thesis, Leiden University, Leiden, 1995.
- [276] F. Vitali, A. D. Iorio, , and D. Gubellini. Design patterns for document substructures. In *Extreme Markup 2005 Conference. Montreal, 1-5 August 2005*, 2005.
- [277] W. A. Wagenaar. The proper seat: A bayesian discussion of the position of expert witnesses. *Law and Human Behavior*, 12(4):499–510, 1988.
- [278] D. Walton. *Argumentation Methods for Artificial Intelligence in Law*. Springer, 2005.
- [279] D. M. West. Global e-government, 2007 report. Technical report, 2007. <http://www.insidepolitics.org/egovt07int.pdf>.
- [280] B. Wielinga, J. Akkermans, and A. Schreiber. A formal analysis of parametric design problem solving. In *In Proceedings of the 9th Banff Knowledge Acquisition Workshop (KAW95)*, pages 1–15, 1995.
- [281] B. J. Wielinga and G. Schreiber. Configuration-design problem solving. *IEEE Expert*, 12(2):49–56, 1997.
- [282] R. Winkels, A. Boer, E. de Maat, T. van Engers, M. Breebaart, and H. Melger. Constructing a semantic network for legal content. In A. Gardner, editor, *Proceedings of the Tenth International Conference on Artificial Intelligence and Law (ICAAIL)*, pages 125–140, Bologna, Italy, June 2005. IAAAIL, ACM Press.
- [283] R. Winkels, A. Boer, E. de Maat, T. van Engers, M. Breebaart, and H. Melger.

- Constructing a semantic network for legal content. In K. Verbeeck, K. Tuyls, A. Nowé, B. Manderick, and B. Kuipers, editors, *Proceedings of the Seventeenth Belgium-Netherlands Conference on Artificial Intelligence*, pages 405–406. KVAK, 2005. D/2005/0455/15.
- [284] R. Winkels, A. Boer, and R. Hoekstra. CLIME: Lessons learned in Legal Information Serving. In F. van Harmelen, editor, *Proceedings of the European Conference on Artificial Intelligence 2002, Lyon*, Amsterdam, 2002. IOS-Press.
- [285] R. Winkels, A. Boer, and R. Hoekstra. *METAlex*: An XML Standard for Legal Documents. In *Proceedings of the XML Europe Conference*, London (UK), 2003.
- [286] R. Winkels, D. Bosscher, A. Boer, and J. Breuker. Generating exception structures for legal information serving. In T. Gordon, editor, *Proceedings of the Seventh International Conference on Artificial Intelligence and Law (ICAIL-99)*, pages 182–195, New York (NY), 1999. ACM.
- [287] R. Winkels and H. de Bruijn. Making a case for case frames. *Information & Communications Technology Law*, 7(2):117–133, 1998.
- [288] L. Wittgenstein. *Philosophical Investigations*. Blackwell Publishers, April 1973.
- [289] S. E. Zijlstra. *Mandaat en delegatie*. Boom, 2001.