

Curriculum Vitae (6-30-06)

Name Jon Michael Dunn

University Address Informatics Bldg., Indiana University, 901 E. 10th St.,
Bloomington, IN 47408-3912

University Telephone (812) 856-1079

Degrees Philosophy A.B. (High Honors), Oberlin College, 1963
Philosophy Ph.D. (Logic), University of Pittsburgh, 1966

Research Logic (particularly computational and information based
logics), formal and philosophical aspects of computer
science, cognitive science and philosophy of mind

Dissertation Title *The Algebra of Intensional Logics*
Director: Nuel D. Belnap, Jr.

Positions

1966-69 Assistant Professor, Dept. of Philosophy, Wayne State University,
Detroit, Michigan (on leave, 1968-69)

1969-76 Associate Professor, Department of Philosophy, Indiana University,
Bloomington

1973- Associate Faculty Member, Department of History and Philosophy of
Science, Indiana University, Bloomington

1976-89 Professor, Department of Philosophy, Indiana University, Bloomington

1980-84 Chair, Department of Philosophy, Indiana University, Bloomington

1987-88 Adjunct Professor, Department of Computer Science, Indiana University,
Bloomington

1988-91 Associate Dean (for Planning), College of Arts and Sciences, Indiana
University, Bloomington

1989- Core Faculty, Cognitive Science Program, Indiana University, Bloomington

1989- Professor, Department of Computer Science, Indiana University,
Bloomington

1989- Oscar R. Ewing Professor of Philosophy, Indiana University, Bloomington

1991-93 Executive Associate Dean (for Academic Affairs), College of Arts and
Sciences, Indiana University, Bloomington

1994-97 Chair, Department of Philosophy, Indiana University, Bloomington

1999 Director, Office for Informatics (charged to organize a new School of
Informatics), Indiana University

1999-2002 Dean, School of Informatics, Indiana University

2000 Professor of Informatics

2002- University Dean, School of Informatics, Indiana University

Selected Awards, Fellowships, Visiting Positions, etc.

- 1959-63 National Merit Scholar
- 1963-64 Woodrow Wilson Fellow; Honorary Andrew Mellon Fellow
- 1964-65 Andrew Mellon Fellow
- 1965-66 Woodrow Wilson Dissertation Fellow; Honorary Andrew Mellon Fellow
- 1968-69 Visiting Assistant Professor of Philosophy, Yale University
- 1969-74 Principal Investigator (with R. K. Meyer), NSF Research Grant for project, "A Theory of Logical Implication."
- 1975 National Endowment for the Humanities Fellowship for Independent Study and Research (declined to accept Visiting Fulbright below)
- 1975-76 Research Senior Scholar under Fulbright-Hays via grant from Australian American Educational Foundation. Visiting Fellow, The Australian National University, Institute for Advanced Studies, Research School of Social Sciences
- 1978 Senior Visitor, Mathematical Institute, Oxford, England. Senior Common Room, Wadham College.
- 1979 Travel grants from Indiana University and National Academy of Sciences to attend Torun and Hannover Conferences. Guest of Polish Academy of Sciences.
- 1982 Short-term Visitor, Wolfson College, Oxford
- 1983 Faculty Visiting Scholar, Distinguished Visitor Program, University of Melbourne
- 1984-85 American Council of Learned Societies Fellow (Fall). Fellow, Indiana University Institute for Advanced Study (Fall). Senior Fellow, University of Pittsburgh Center for the Philosophy of Science (November). Adjunct Professor, Department of Philosophy, University of Massachusetts-Amherst (Spring).
- 1985- Selected for *Who's Who in America*, and for *Who's Who in the World* 2005
- 1988 Visiting Consultant, Center for Information Science Research, The Australian National University
- 1994 Visitor (May-June), Institute for American and European Studies, Academia Sinica, Taipei
- 1996 Visitor (June), Moscow State University and the Russian Academy of Sciences
- 1999 Member of proposal team for IPCRES (Indiana Pervasive Computing Research Initiative), funded by Lilly Endowment for \$30 million over 5 years, \$3 million of which goes to fund School of Informatics program development
- 2001 First Finalist, Indiana Information Technology Association CyberStar Award for Outstanding Information Technology Educator
- 2002 Indiana Information Technology Association CyberStar Award to the School

of Informatics for Outstanding Contribution to Information Technology

2004 Elected Honorary Member of Phi Beta Kappa

Member

American Association of University Professors
Association for Symbolic Logic
American Philosophical Association
IT Deans Group, Computing Research Society
Society for Exact Philosophy
Philosophy of Science Association
Association for Computing Machinery
IEEE Computer Society

Ph.D. Dissertations Directed

Completed:

1. Dolph Ulrich, *Characteristic Matrices for Sentential Calculi*, 1967: Wayne State University
2. James Freeman, *Algebraic Semantics for Modal and Relevant Predicate Logics*, 1973
3. Randal Dipert, *Development and Crisis in Late Boolean Logic: The Deductive Logics of Peirce, Jevons and Schröder*, 1978
4. Daniel Cohen, *The Logic of Conditional Assertions*, 1983 (with N. Belnap)
5. Edwin Mares, *On the Logic of Fictional Discourse*, 1990
6. Yu-Houng Houng, *Von Neumann Models versus Connectionist Models for Mind*, 1991
7. Gordon Beavers, *The Infinite-valued Lukasiewicz Logic* (won Graduate School's Esther Kinsley Prize for best two dissertations of the year), 1992 (with W. Wheeler)
8. Gerard Allwein (Computer Science), *The Duality of Algebraic and Kripke Models for Linear Logic*, 1992
9. David Chalmers (Philosophy and Cognitive Science), *Toward a Theory of Consciousness*, 1993 (with D. Hofstadter)
10. Chrysafis Hartonas (Philosophy and Mathematics), *Algebraic and Kripke Semantics for Substructural Logics*, 1993 (with J. Barwise)
11. Paul Syverson, *Logic, Convention, and Common Knowledge*, 1993
12. Raymundo Morado, *Fault Tolerant Reasoning*, 1994
13. Gregg Rosenberg (Philosophy and Cognitive Science), *A Place for Consciousness: Probing the Deep Structure of the Natural World*, 1997
14. Katalin Bimbo (Philosophy and Cognitive Science), *Substructural Logics, Combinatory Logic, and Lambda Calculus*, 1999
15. Pragati Jain (Philosophy), *Validity and its Epistemic Role*, 2004
16. Yuko Murakami (Philosophy), *Modal Logic of Partitions*, 2005 (with L. Moss)

Selected Professional Service

Program Chair of Fifth International Symposium on Multiple-Valued Logic (1975-1976)

Editor, *Journal of Symbolic Logic* (1982-1988)

Coordinating Editor, *Journal of Philosophical Logic* (1987-1996)

Executive Committee of Association for Symbolic Logic (1978-1981); Council, Association for Symbolic Logic (1978-1996)

Editorial Boards of *Noûs*, *Studia Logica*, *Journal of Non-Classical Logic*, *Tawain Journal of the History and Philosophy of Science*, *e-Service Journal*, *Annals of Mathematics*, *Computing & Teleinformatics*

Region 4 Selection Committee, Mellon Fellowships in the Humanities (1983-1987)

Program Co-chair, Association for Symbolic Logic Meeting (April, 1986)

Vice-President, Society for Exact Philosophy (1986-1988); President (1988-90)

North American Collecting Editor, *Bulletin of the Section of Logic of the Polish Academy of Sciences*, (1998-)

Vice-chair, IT Deans Group, Computing Research Association (2004-6)

Referee for various journals including *Journal of Symbolic Logic*; *Journal of Philosophical Logic*; *Nous*; *Philosophical Review*; *Philosophical Studies*; *Archives of Mathematical Logic*; *Synthese*; *Journal of Logic, Language, Information*; *Studia Logica*. Referee for various foundations and agencies including Guggenheim, ACLS, NSF, NEH, similar agencies in other countries including Canada, Australia, and Germany. Referee for various conferences and tenure and promotion cases.

Software

1. *FX-Loader* A "shareware" program to design fonts and download them into the Epson FX printer, together with a sample mathematics/logic symbol font.
2. *Star-Loader* A "shareware" program to design fonts and locate them into a modified *Wordstar* so they display on screen, together with a sample mathematics/logic symbol font.

Articles and Books Published

1. 1966. *The Algebra of Intensional Logics*. University of Pittsburgh doctoral dissertation. Ann Arbor (University Microfilms).
2. 1967. (Abstract) "Homomorphisms of Intensionally Complemented Distributive Lattices" (with N. D. Belnap, Jr.), *Journal of Symbolic Logic*, 32, pp. 433-434.
3. 1967a. (Abstract) "The Effective Equivalence of Certain Propositions about de Morgan Lattices," *Journal of Symbolic Logic*, 32, pp. 433-434.

4. 1967b. "Drange's Paradox Lost," *Philosophical Studies*, 18, pp. 94-95.
5. 1967c. (Abstract) "An Algebraic Completeness Proof for the First Degree Fragment of Entailment," *Abstracts of Papers: Third International Congress for Logic, Methodology and Philosophy of Science*, Amsterdam, p. 9.
6. 1968. "Homomorphisms of Intensionally Complemented Distributive Lattices" (with N. D. Belnap, Jr.), *Mathematische Annalen*, 176, pp. 28-38.
7. 1968a. (Abstract) "Representation Theory of Normal R-Mingle Matrices," *Journal of Symbolic Logic*, 33, p. 637.
8. 1968b. "The Substitution Interpretation of the Quantifiers" (with N. D. Belnap, Jr.), *Noûs*, 2, pp. 177-85.
9. 1968c. (Abstract) "Entailment Logics and Material Implication" (with R.K. Meyer), *Notices of the American Mathematical Society*, 15, pp. 1021-1022.
10. 1969. "E, R, and Gamma" (with R. K. Meyer), *Journal of Symbolic Logic*, 34, pp. 460-474. Reprinted with alterations by A. R. Anderson and N. D. Belnap, Jr. in their book *Entailment: The Logic of Relevance and Necessity*, vol. 1, Princeton (Princeton University Press), 1975.
11. 1970. (Abstract) "Extensions of RM and LC," *Journal of Symbolic Logic*, 35, p. 360.
12. 1970. (Abstract) "Comments on N. D. Belnap, Jr.'s 'Conditional Assertion and Restricted Quantification'," *Noûs*, IV, p. 13.
13. 1970b. "Algebraic Completeness Results for R-Mingle and its Extensions," *Journal of Symbolic Logic*, 35, pp. 1-13.
14. 1971. "Algebraic Completeness Results for Dummett's LC and its Extensions" (with R. K. Meyer), *Zeitschrift für Mathematische Logik und Grundlagen der Mathematik*, 17, pp. 225-230.
15. 1971a. (Abstract) "An Intuitive Semantics for First Degree Relevant Implications," *Journal of Symbolic Logic*, 36, pp. 362-363.
16. 1972. "A Modification of Parry's Analytic Implication," *Notre Dame Journal of Formal Logic*, XIII, pp. 195-205.
17. 1973 (Abstract) "A 'Gentzen System' for Positive Relevant Implication," *Journal of Symbolic Logic*, 38, pp. 356-357.
18. 1973a. "A Truth-Value Semantics for Modal Logic," in *Truth, Syntax and Modality*, Amsterdam (North Holland Publishing Co.), pp.87-100.
19. 1974. "Completeness of Relevant Quantification Theories" (with R. K. Meyer and H. Leblanc), *Notre Dame Journal of Formal Logic*, XV, pp. 97-121.
20. 1975. (Book) *Proceedings of the 1975 International Symposium on Multiple-Valued Logic* (editor with G. Epstein, N. Cocchiarella, S. Shapiro), Bloomington (Indiana University Publications), 475

pp.

21. 1975a. "Intensional Algebras," in *Entailment: The Logic of Relevance and Necessity*, vol. 1, principal authors A. R. Anderson and N. D. Belnap, Jr., contributions by J. M. Dunn and R. K. Meyer, with further contributions by others, Princeton (Princeton University Press), 18, pp. 180-206.
22. 1975b. "The Algebra of R," *ibid.*, 28.2, pp. 352-371.
23. 1975c. "Consecution Formulation of Positive R," *ibid.*, 28.5, pp. 381-91.
24. 1975d. "Extensions of RM," *ibid.*, 29.3, pp. 420-429.
25. 1975e. "Axiomatizing Belnap's Conditional Assertion," *Journal of Philosophical Logic*, 4, pp. 383-397.
26. 1976. "Intuitive Semantics for First-Degree Entailments and Coupled Trees," *Philosophical Studies*, 29, pp. 149-168.
27. 1976a. (Abstract) "A Natural Family of Sentential Calculi Intermediate Between R and R-Mingle," *Journal of Symbolic Logic*, 41, p. 553.
28. 1976b. "A Kripke-Style Semantics for R-Mingle Using a Binary Accessibility Relation," *Studia Logica*, 35, pp. 163-172.
29. 1976c. "A Variation on the Binary Semantics for RM," *Relevance Logic Newsletter*, 1, pp. 56-57.
30. 1976d. "Quantification and RM," *Studia Logica*, 35, pp. 315-322.
31. 1977. (Book) *Modern Uses of Multiple-Valued Logic* (editor with G. Epstein), Dordrecht, Holland (D. Reidel Publishing Co.), 338 pp.
32. 1978. (Abstract) "A Theorem in 3-Valued Model Theory with Connections to Number Theory, Type Theory, and Relevant Logic," *Journal of Symbolic Logic*, 43, pp. 615-616.
33. 1979. "R-Mingle and Beneath. Extensions of the Routley-Meyer Semantics for R," *Notre Dame Journal of Formal Logic*, 38, pp. 149-169.
34. 1979a. "A Theorem in 3-Valued Model Theory with Connections to Number Theory, Type Theory, and Relevant Logic," *Studia Logica* (special issue: Problems in Relevance Logic), 38, pp. 149-169.
35. 1979b. "Relevant Robinson's Arithmetic," *Studia Logica*, 38, pp. 407-418.

36. 1979c. (Abstract) "A Sieve for Entailments," *Abstracts of Papers: Sixth International Congress of Logic, Methodology and Philosophy of Science* (Secs. 5.7), pp. 1-5.
37. 1979d. "Curry's Paradox" (with R. K. Meyer and R. Routley), *Analysis*, 39, pp. 124-128.
38. 1980. "A Sieve for Entailments," *Journal of Philosophical Logic*, 9, pp. 41-57.
39. 1980a. "A Consecution Calculus for Positive Relevant Implication with Necessity: (with N. D. Belnap, Jr. and A. Gupta), *Journal of Philosophical Logic*, 9, pp. 343-362.
40. 1980b. "Anderson-Belnap and Lewy on Entailment," *Proceedings of the Sixth International Congress of Logic, Methodology and Philosophy of Science*, editors L. J. Cohen, J. Kos, H. Pfeiffer, and K P. Podewski, Amsterdam (North Holland Pub. Co.), Ch.10, pp. 287-293.
41. 1981. "Entailment and the Disjunctive Syllogism" (with N. D. Belnap, Jr.), *Contemporary Philosophy: A New Survey, Vol. 1, Philosophy of Language/Philosophical Logic*, eds. G. Floistad and G. H. von Wright, Martinus Nijhoff, The Hague, pp. 337-366.
42. 1982. "Quantum Mathematics": *PSA 80*, vol. 2, eds. P. Asquith and R. Gierce, Philosophy of Science Association, East Lansing, Michigan.
43. 1982a. "A Relational Representation of Quasi-Boolean Algebras," *Notre Dame Journal of Formal Logic*, 23, pp. 353-357.
44. 1985. "Relevance Logic and Entailment," in *Handbook of Philosophical Logic*, vol. 3, eds. D. Gabbay and F. Guentner, D. Reidel, Dordrecht, Holland, pp. 117-224.
45. 1986. "Dualling: A Critique of an Argument of Popper and Miller" (with G. Hellman), *The British Journal for the Philosophy of Science*, 37, pp. 220-223.
46. 1987. "Relevant Predication 1: The Formal Theory," *Journal of Philosophical Logic*, vol. 16, pp. 347-381.
47. 1987a. "Incompleteness of the BINARY Semantics for R," *Bulletin of the Section of Logic*, Polish Academy of Sciences, Institute of Philosophy and Sociology, pp. 107-110.
48. 1988. "Extensionality in Non-Classical Logic," in *Philosophical Analysis: A Defense by Example* (A Festschrift for E. Gettier), ed. D. Austin, D. Reidel Publishing Company, pp. 263-281.
49. 1989. "The Frame Problem and Relevant Predication," in *Knowledge Representation and Defeasible Reasoning*, H. Kyburg, R. Loui, and C. Carlson eds., Kluwer Academic Publishers, pp. 108-116. (Preprinted in Automated Reasoning Project Research Paper Series, The Australian National University, 1988).
50. 1989a. "Gentzen's Cut and Ackermann's Gamma" (with R. K. Meyer), in *Directions in Relevance Logic*, eds. J. Norman and R. Sylvan, Kluwer Academic Publishers, pp. 229-240.
51. 1990. "Relevant Predication 2: Intrinsic Properties and Internal Relations," *Philosophical Studies*, pp. 177-206.

52. 1990a. "Relevant Predication 3: Essential Properties," in *Truth or Consequence: (Book) Truth or Consequence: Essays in Honor of Nuel Belnap*, eds. J. M. Dunn and A. Gupta, Kluwer Academic Publishers, pp. 77-95.
53. 1990b. (Book) *Truth or Consequence: Essays in Honor of Nuel Belnap*, eds. J. M. Dunn and A. Gupta, Kluwer Academic Publishers, 378 + xii pp.
54. 1990c. "Gaggle Theory, an Abstraction of Galois Connections and Residuation, with Applications to Negation, Implication, and Various Logical Operators," in *Logics in AI (European Workshop JELIA 1990, Amsterdam)*, ed. J. Van Eijck, Lecture Notes in AI, Springer Verlag, pp. 31-51.
55. 1992. (Book) *Entailment: The Logic of Relevance and Necessity*, vol. 2 (with A. R. Anderson and N. D. Belnap, Jr.), Princeton University Press, 749 + xxvii pp.
56. 1992a. "Recent Work at the Interface of Logic, Combinatorics, and Computer Science," (with J. Franco and W. Wheeler), *Annals of Mathematics and Artificial Intelligence*, 6, pp. 1-16.
57. 1993. "Partial-Gaggles Applied to Sub-structural Logics," 55 pp. in *Substructural Logics*, eds. P. Schroeder-Heister and K. Dosen, Oxford Press.
58. 1993a. "A Kripke Semantics for Linear Logic," (with Gerard Allwein), *The Journal of Symbolic Logic*, vol. 58, June 1993, pp. 514-545. Abstract of talk (83) also forthcoming in *The Journal of Symbolic Logic*.
59. 1993b. "Perp and Star: Two Treatments of Negation," in *Philosophical Perspectives vol.7: Language and Logic*, ed. James Tomberlin, pp. 331-357.
60. 1993c "Gaggle Theory Applied to Modal, Intuitionistic, and Relevance Logics," in *Logik und Mathematik: Frege-Kolloquium Jena*, eds. I. Max and W. Stelzner, de Gruyter, pp. 335-368.
61. 1995 "Positive Modal Logic," *Studia Logica*, 55, pp. 301-317.
62. 1996 "Generalized Ortho-Negation," in *Negation: A Concept in Focus*, ed. H. Wansing, de Gruyter, pp. 3-26.
63. 1996a "Relevant Predication: A Logical Framework for Natural Properties," in *The Cosmos of Science*, eds. J. Earman and J. D. Norton, Pittsburgh-Konstanz Series in the Philosophy and History of Science, University of Pittsburgh Press and Universitäts Verlag Konstanz, 1996, pp. 458-497.
64. 1996b. "Is Existence a (Relevant) Predicate?" *Philosophical Topics*, vol. 24, no. 1, spring 1996, pp. 1-34.
65. 1997 "Combinatory Logic and Structurally Free Logic" (with R. K. Meyer), *Journal of the Interest Group in Pure and Applied Logic*, Oxford University Press, vol. 5, no. 4, 1997, pp. 505-537.*
66. 1997a. "Stone Duality for Lattices" (with C. Hartonas), *Algebra Universalis*, vol. 37, 1997, pp. 391-401. Preliminary version, "Duality Theorems for Partial Orders, Semilattices, Galois

Connections and Lattices" in Indiana University Logic Group Preprint Series IULG-93-26, 1993, 27 pp.

67. 1998. "Two Extensions of the Structurally Free Logic LC" (with K. Bimbo), *Journal of the Interest Group in Pure and Applied Logic*, Oxford University Press, vol. 6, pp. 403-424.
68. 1999. "A Comparative Study of Various Semantical Treatments of Negation: A History of Formal Negation," in *What is Negation*, eds. D. Gabbay and H. Wansing, Kluwer Academic Publishers, pp. 23-61.
69. 2000 "Dual Combinators Bite the Dust" (with K. Bimbo and R. K. Meyer), *The Bulletin of Symbolic Logic*, vol. 65, p. 101.
70. 2000 "The Key to the Universe -- Intersection Types, Lambda, CL and Relevant Entailment"(with R. K. Meyer, M. Dezani, Y. Motohama, and R. Sylvan), *The Bulletin of Symbolic Logic*, vol. 6, pp. 252-253.
71. 2000 "Partiality and its Dual," *Partiality and Modality*, eds. E.Thijssse, F.Lepage & H.Wansing, special issue of *Studia Logica*, Vol.66, pp. 5-40.
72. 2001 (Book) *Algebraic Methods in Philosophical Logic* (with G. Hardgree), Oxford University Press, 470 + xv pages.
73. 2001 "The Concept of Information and the Development of Modern Logic," in *Non-classical Approaches in the Transition from Traditional to Modern Logic*, ed. W. Stelzner, de Gruyter, pp. 423-427.
74. 2001 "The Trilattice of Constructive Truth Values," with Y. Shramko and T. Takenaka, *Journal of Language and Computation*, vol. 11, No. 6, pp. 761- 788.
75. 2001 "Ternary Relational Semantics and Beyond: Programs as Data and Programs as Instructions," *Logical Studies* (on line journal), no. 7, Institute of Logic, Russian Academy of Sciences, Special Issue: Proceedings of the International Conference *Third Smirnov Readings* (Moscow, May 24-27, 2001), Part 2, <http://www.logic.ru/LogStud/>, 20 pp.
76. 2001 "A Representation of Relation Algebras Using Routley-Meyer Frames," *Logic, Meaning and Computation: Essays in Memory of Alonzo Church*, eds. C. A. Anderson and M. Zeleny, pp. 77-108. Preliminary version in Indiana University Logic Group Preprint Series, IULG-93-28, 1993.
77. 2002 "Relevance Logic" (with G. Restall), *Handbook of Philosophical Logic*, 2nd edition, vol. 6, eds. D. Gabbay and F. Guenther, Kluwer Academic Publishers, 138 pages.
78. 2003 "Ternary Semantics for Dynamic Logic, Hoare Logic, Action Logic, etc.," *Smirnov's Readings 4*, Institute of Logic, Russian Academy of Sciences, pp. 70-71.
79. 2003 "Four-valued Logic" (with K. Bimbo), *Notre Dame Journal of Formal Logic*, vol. 42, pp. 171-192.
80. 2005 "Quantum Logic as Motivated by Quantum Computing," *The Journal of Symbolic Logic* (with Tobias J. Hagge, Lawrence S. Moss, and Zhenghan Wang), vol. 70, pp. 353-359.

- 81. 2005 "Relational Semantics for Kleene logic and Action Logic" (with K. Bimbo), *Notre Dame Journal of Formal Logic*, vol. 46, no. 4.
- 82. 2005 "Canonical Extensions of Ordered Algebraic Structures and Relational Completeness of Some Substructural Logics" *The Journal of Symbolic Logic* (with Mai Gehrke and Alessandra Palmigiano), vol. 70, no. 3, pp.713-740.
- 83. 2005 "Negation in the Context of Gaggle Theory" (with Chunlai Zhou), *Studia Logica*, vol. 80, nos. 2 and 3, Special Issue on Negation in Constructive logic, eds. Heinrich Wansing, Sergei Odintsov, and Yaroslave Shramko, pp. 235-264.

Research Talks

(Items marked with an asterisk are published, in full or in abstract, as part of the official publication of the meeting.)

- 1. *"Homomorphisms of Intensionally Complemented Distributive Lattices" (with N. D. Belnap, Jr., delivered by Dunn), contributed paper, meeting of the Association for Symbolic Logic, New York, December, 1965.
- 2. "The Algebra of Entailment," Philosophy Department Colloquium, Wayne State University, January, 1966.
- 3. *"The Effective Equivalence of Certain Propositions about de Morgan Lattices," contributed paper, meeting of the Association for Symbolic Logic, Houston, Texas, January, 1967.
- 4. "The Substitution Interpretation of Quantification," invited paper at the Second Annual Michigan State University Logic Colloquium, June, 1967.
- 5. *"An Algebraic Completeness Proof for the First Degree Fragment of Entailment," contributed paper, Third International Congress for Logic, Methodology and Philosophy of Science, Amsterdam, August, 1967.
- 6. *"An Intuitive Semantics for First Degree Relevant Implications," contributed paper, meeting of the Association for Symbolic Logic, Chicago, May, 1967.
- 7. *"Representation Theory of Normal R-Mingle Matrices," contributed paper, meeting of the Association for Symbolic Logic, Boston, December, 1967.
- 8. "Entailment: A Survey," Philosophy Department colloquium, University of Massachusetts, October, 1968.
- 9. "Extensions of R-Mingle," Philosophy Department Mahlon Powell Lecture, November, 1968.
- 10. *"Entailment Logics and Material Implication" (with R. K. Meyer, delivered by him), meeting of The American Mathematical Society, Clemson, South Carolina, November, 1968.
- 11. "Comments on Philip Peterson's 'Concepts and Words'," commentator, American Philosophical Association (Eastern Division) Meeting, Washington, D. C., December, 1968.

12. *"Extensions of RM and LC," contributed paper, meeting of the Association for Symbolic Logic, New Orleans, Louisiana, January, 1969.
13. "Relevant Implication: Proof Theory and Model Theory" (two lectures), Mathematics Department Logic Colloquium, Yale University, February, 1969.
14. "A Gentzen System for Positive R," Philosophy Department Logic Seminar, University of Pittsburgh, March, 1969.
15. "Natural Language versus Formal Language," invited speaker (together with Frederic Fitch, Bas van Fraassen, and *Richard Montague) in the joint symposium by that title of the Association for Symbolic Logic and the American Philosophical Association at their joint meeting, December, 1969.
16. *"A `Gentzen System' for Positive Relevant Implication," contributed paper (read by title only), meeting of the Association for Symbolic Logic, New York, December, 1969.
17. *"Comments on N. D. Belnap, Jr.'s `Conditional Assertion and Restricted Quantification'," invited speaker (together with Belnap and W. V. Quine) in symposium on Quantification and Generality, American Philosophical Association (Western Division) Meeting, St. Louis, Missouri, May, 1970.
18. *"A Truth-Value Semantics for Modal Logic," invited speaker, Temple University conference on Deviant Formal Semantics (co-sponsored by Association for Symbolic Logic), Philadelphia, Pennsylvania, December, 1970.
19. "A Kripke-Style Semantics for R-Mingle," contributed paper, Tarski Symposium, University of California, Berkeley, June, 1971.
20. "Comments of Fitch's `Toward Proving the Consistency of Principia Mathematica'," invited paper, Bertrand Russell Centenary Conference, Indiana University, Bloomington, March, 1972.
21. "Relevant Implication," Computer Science Department Colloquium, Indiana University, October, 1973.
22. *"Gentzen's Cut and Ackermann's Gamma," (with R. K. Meyer, invited paper delivered by Dunn) at First International Conference on Relevance Logics, St. Louis, Missouri, September 26-28, 1974.
23. *"A Natural Family of Sentential Calculi Intermediate Between R and R-Mingle," contributed paper, meeting of the Association for Symbolic Logic, Chicago, April, 1975.
24. "Gentzen's Cut and Ackermann's Gamma," Philosophy Department Staff Seminar, Auckland University, July, 1975.
25. "A Kripke-Style Semantics for R-Mingle," Mathematics and Philosophy Departments Colloquium, University of Wellington, Victoria, July, 1975.
26. "An Intuitive Semantics for First-Degree Entailments," Philosophy Department Seminar, University of Wellington, Victoria, July, 1975.
27. "A Tableau System for First-Degree Relevant Implications,"

- contributed paper, Australasian Association for Logic 1975 Mini Conference, Institute of Advanced Studies, The Australian National University, Canberra, August 22-24, 1975.
28. "A Completeness Result for First-Order RM," (two lectures) Logic Group Staff Seminar, The Australian National University, Canberra, February, 1976.
 29. "An Intuitive Semantics for First-Degree Entailments," Philosophy Department Staff Seminar, University of Adelaide, April, 1976.
 30. "A Kripke-Style Semantics for R-Mingle," Philosophy Department Staff Seminar, University of Queensland, May, 1976.
 31. "An Intuitive Semantics for R-Mingle," Philosophy Department Staff Seminar, University of Sydney, June, 1976.
 32. "A Theorem in 3-Valued Model Theory with Connections to Number Theory, Type Theory, and Relevant Logic," Logic Group Staff Seminar, The Australian National University, Canberra, June, 1976.
 33. "An Intuitive Semantics for First Degree Entailments," Philosophy Department Staff Seminar, La Trobe University, October, 1976.
 34. "A Truth-Value Semantics for Modal Logic," Philosophy Department Staff Seminar, University of Melbourne, October, 1976.
 35. "Inconsistent Models, Ambiguous Information, and Relevant Logic," Philosophy Department Colloquium, Southern Illinois University, Edwardsville, November, 1976; Mathematics and Philosophy Departments Colloquium, Oberlin College, February, 1977.
 36. *"A Theorem in 3-Valued Model Theory with Connections to Number Theory, Type Theory, and Relevant Logic, contributed paper, meeting of the Association for Symbolic Logic, Chicago, April, 1977.
 37. "Inconsistent Models, Ambiguous Information, and Relevant Logic," contributed paper, meeting of The Society for Exact Philosophy, Victoria, B.C., May, 1977; University of Warwick, England, March, 1978; Philosophy Sub-Faculty Wednesday Night Discussion Group, University of Oxford, England, March, 1978.
 38. "Some Proof-Theoretic Aspects of Relevance Logic," Logic Seminar, The Mathematical Institute, University of Oxford, England, April, 1978.
 39. "The Paradoxes of Implication," Philosophy Department, University of Cambridge, England, May, 1978.
 40. "Entailment and the Disjunctive Syllogism, invited paper, The Scots Philosophy Club Annual Meeting, St. Andrews, Scotland, May, 1978.
 41. "Inconsistent Models, Ambiguous Information, and Relevant Logic," Philosophy Club of the University of St. Andrews, May, 1978.
 42. "Relevance Logic," Mathematics Department Logic Seminar, Simon Fraser University, June, 1979.
 43. "Generalized Representation and Completeness Results," Philosophy Department Staff Seminar, University of Victoria (B.C.), June, 1979.

44. *"Relevant Robinson's Arithmetic," invited paper at Conference on Practical and Philosophical Motivations of Non-Classical Logics (Sponsored by Polish Academy of Sciences, IUHPS, and Nicolas Copernicus University), Torun, Poland, August, 1979.
45. *"Anderson-Belnap and Lewy on Entailment," invited paper at 6th International Congress for Logic, Methodology and Philosophy of Science, Hannover, BDR, August, 1979.
46. *"Quantum Mathematics," invited speaker (with G. Hellman) in symposium on Quantum Logic and Mathematics, Biennial Meeting of The Philosophy of Science Association, Toronto, October, 1980.; Department of Philosophy, University of Illinois at Chicago Circle, November, 1980.
47. "Relevance Logic and Entailment," invited presentation at Workshop on Philosophical Logic, Werner Reimers Stiftung, July 15-18, 1981.
48. "Topics in Relevance Logic," invited Hour Lecture, meeting of the Association for Symbolic Logic, Philadelphia, December, 1981.
49. "Mathematics Based on Quantum Logic," Mathematical Institute, Oxford, June, 1982.
50. *"Relevant Predication," invited lecture, Australasian Association of Philosophy, Auckland, May, 1983.
51. *"Extensionality in Non-Classical Logics," invited lecture, Australasian Association for Logic, Perth, May, 1983.
52. Survey lecture in relevance logic, Philosophy Department, University of Western Australia (Perth), May, 1983.
53. "Quantum Mathematics" and "Extensionality in Non-Classical Logics," Department of Philosophy, Institute for Advanced Study, The Australian National University Canberra, June, 1983.
54. "Relevant Predication," Department of Philosophy, The Faculties, The Australian National University, Canberra, June, 1983.
- 55-56. Two survey lectures on relevance logic, Philosophy Department Staff Seminars, University of Melbourne, June and July, 1983.
57. "Relevant Predication," Department of Traditional and Modern Philosophy, Sydney University, July, 1983.
58. "Relevance Logic with Reference to Category Theory," Department of Pure Mathematics, Sydney University, July, 1983.
59. "The Turing Test," Department of Philosophy, University of Queensland, July, 1983.
60. Survey lecture on relevance logic, and "The Turing Test: Can Machines Think?" Philosophy Department, Flinders University, Adelaide, July 1983.
61. "Relevant Predication," Department of Philosophy, University of Adelaide, August, 1983.
62. Three survey lectures on quantum logic, La Trobe University (Melbourne), July, 1983.

63. "Quantum Mathematics," Department of History and Philosophy of Science, University of Melbourne, July, 1983.
64. "Predication in Relevance Logic," Department of Philosophy, Purdue University, September, 1983.
65. *"Relevant Predication," contributed paper, Society for Exact Philosophy, Athens, Georgia, May, 1984.
66. "Hypothetical Platonism," invited paper, Working Conference on the Philosophy of Mathematics, Indiana University, October, 1984; Center for the Philosophy of Science, University of Pittsburgh, November, 1984.
67. "A Uniform Treatment of Implication and Negation Through Residuation and Galois Connections," Joint Theory Seminar, Department of Computer Science, Carnegie-Mellon University, November, 1984.
68. "A Primer of Non-Classical Logics, with Applications to Various and Sundry of the Arts and Sciences," general university lecture sponsored by the Indiana University Institute for Advanced Study, November, 1984.
69. "Relevant Predication," Department of Philosophy, University of Massachusetts, March, 1985.
70. "A Primer of Non-Classical Logics, with Applications to Various and Sundry of the Arts and Sciences," Department of Philosophy, Amherst College, April, 1985.
71. "Relevant Predication," Department of Philosophy, Rutgers University, October, 1987.
72. "Intrinsic Properties and Internal Relations," Department of Philosophy, University of Massachusetts, March, 1988.
73. "The Relevance of Relevance Logic to Artificial Intelligence," invited paper, Society for Exact Philosophy meeting, University of Rochester, June, 1988.
74. "Intrinsic Properties and Internal Relations," Department of Philosophy, La Trobe University, Melbourne, July, 1988.
75. "Intrinsic Properties and Internal Relations," Department of Philosophy, University of Adelaide, August, 1988.
76. "Relevant Predication and the Frame Problem," The Automated Reasoning Project, The Australian National University, Canberra, August, 1988.
77. "The Relevance of Relevance Logic to Artificial Intelligence," The Automated Reasoning Project, The Australian National University, Canberra, August, 1988.
78. "Intrinsic Properties and Internal Relations," Department of Philosophy, University of Sydney, August, 1988.
79. "Relevance Logic," invited paper at Ohio State University Interdisciplinary conference on Axiomatic Systems (organized by Harvey Friedman), December, 1988.

80. "Relevant Predication 2: Intrinsic Properties and Internal Relations," invited paper, Society for Exact Philosophy, University of Alberta, Edmonton, August, 1989.
81. "Relevant Predication," invited paper, Conference on the Development of the Concept of Predication at the University of California Institute for Research in the Humanities, August, 1989.
82. "Relevant Predication and Essential Predication," Presidential Address, Society for Exact Philosophy, Florida State University, June 1990.
83. "Gaggle Theory: An Abstraction of Galois Connections and Residuation, with Applications to Negation and Various Logical Operators," Indiana University Logic Seminar, September, 1990.
84. *"Gaggle Theory: An Abstraction of Galois Connections and Residuation, with Applications to Negation and Various Logical Operators," invited paper, JELIA (The European Workshop on Logics in Artificial Intelligence), Amsterdam, October, 1990.
85. *"Partial Gaggles Applied to Substructural Logics," invited paper, Conference on Substructural Logics, University of Tuebingen, November, 1990.
86. "A Primer on Gaggles," Indiana University Logic Seminar, March, 1992.
87. *"A Kripke Semantics for Linear Logic," joint work presented by Gerard Allwein, contributed paper, meeting of the Association of Symbolic Logic, Duke University, April, 1992.
88. "A Primer on Gaggles," Logic Playschool, Univ. of Victoria, July 1992.

89. "A Representation of Relation Algebras Using Routley-Meyer Frames," contributed paper, meeting of the Australasian Association for Logic, Canberra, July, 1992.
90. "Gaggle Theory," Logic Seminar, University of Wisconsin Mathematics Department, March 1993.
91. "Gaggle Theory," Interdisciplinary Logic Seminar, The Graduate Center, CUNY, April, 1993.
92. "Predication and Relevance," Distinguished Philosophers Series, Manhattanville College, April, 1993.
93. "Gaggle Theory and a Ternary Semantics for Intuitionistic Logic," invited paper, Frege-Kolloquium 1993, Jena, Germany, September, 1993.
94. "Gaggle Theory," University of Leipzig, Department of Logic and Theory of Science, September, 1993.
95. "A Logical Framework for Natural Properties," University of Pittsburgh Center for Philosophy of Science, October, 1993.
96. "A Logical Framework for Natural Properties," University of Montreal Philosophy Department, April, 1994.
97. "A Representation of Lattices in the Context of Generalized Galois Logics," University of Montreal Department of Mathematics, April, 1994.
98. "A Logical Framework for Natural Properties," Univ. of Wisconsin Philosophy Department, April, 1994.
99. "A Survey of Relevance Logic," *Academica Sinica*, May, 1994.
100. "Relevant Predication," Institute of Philosophy, National Cheung Cheng University, May, 1994.
101. "A Logical Framework for Natural Properties," Philosophy Dept., Hong Kong University, June, 1994.
102. "A Comparative Study of Various Semantical Treatments of Negation," invited paper, Gesellschaft für Analytische Philosophie, Leipzig, September, 1994.
103. "Negation in Non-classical Logics," Oberlin College Departments of Computer Science and Philosophy, October, 1994.
104. "Relevant Prediction and Natural Properties," Philosophy Department, University of Texas (Austin), May, 1995.
105. "Gaggle Theory and Multiple-Valued Logic," invited address, IEEE 25th International Symposium on Multiple-Valued Logic, Indiana University, Bloomington, May, 1995.
106. "Relevance Logic as a Partial, Epistemic and Dynamic Logic," keynote address at Workshop on Epistemic Logic, Partial Logic, Dynamic Logic, University of Montreal, June, 1995.
107. "Logic Freed of Structural Assumptions," Indiana University Logic Seminar, March, 1996.

108. "Non-classical Logics," address to Indiana University's Phi Beta Kappa Chapter, April, 1996.
109. "Proof Theory and Semantics for Structurally Free Logics," 3rd Workshop on Logic, Language, Information, and Computation (WoLLIC 96), Salvador, Brazil, May 1996.
110. "Gaggle Theory and Substructural Logics," Department of Logic, Faculty of Philosophy, Moscow State University, June 1996.
111. "Structurally Free Logic," Center for Logic, Russian Academy of Sciences, Moscow, June, 1996.
112. "Some Partial Logics and their Duals," student organized workshop in philosophical logic titled "Partial Logics and Strange Objects," the Claremont Graduate Center. Other participants were Kit Fine (NYU) and Peter Woodruff (UC-Irvine), April 10-11, 1997.
113. "Is Existence a (Relevant) Predicate?," Annual Meeting of the Society for Exact Philosophy, University of Toronto, May 15-18, 1997.
114. "Partiality and its Dual," First World Congress on Paraconsistency, Ghent, Belgium, July 29-August 2, 1997.
115. "Partiality and its Dual," IU Logic Group Seminar, March, 1998.
116. "Gaggles." Relaxed Logic Conference, University of Victoria (Canada), September, 1998.
117. "Structurally Free Logics," invited talk, Logic Seminar at CUNY Graduate Center, October, 1998.
118. "The Role of Information in the Development of Non-classical Logics," invited paper, Conference on "Sources and outlines of non-classical approaches in the transition from traditional to modern logic," University of Bremen, Germany, March 19, 1999.
119. "The Duality of Programs and Data," invited presentation at Logic Workshop, Department of Philosophy, National Chung Cheng University, Taiwan, June 4, 1999.
120. "When is a Logic 'Partially Algebraizable'?", invited paper, Seventh Asian Logic Conference, Hsi-Tou, Taiwan, June 8, 1999
121. "Ternary Relational Semantics and Beyond: Programs as Data and Programs as Instructions," invited paper, Third Smirnov Readings, Institute of Logic, Russian Academy of Sciences, May 25, 2001.
122. "Tonoids," Workshop on Automated Reasoning and Deduction, Argonne National Laboratory, July 13, 2001.
123. "A Brief History of the Concept of Information," Invited lecture, NASSLLI (North American Summer School in Logic, Language and Information), Indiana University Bloomington, June 19, 2003.
124. "Computation and Information: Two Sides of the Same Coin," ISE '03 (Information Systems and Engineering), Montreal, July 22, 2003.
125. "A Brief (Biased) History of the Concept of Information," invited lecture to the Polish Association for Logic and Philosophy of

Science, and the Poland-Japan Institute for Information Technology, Warsaw, Poland, October 14, 2003.

126. "The Duality Between Computation and Information," invited lecture, Trends in Logic conference celebrating the 50th anniversary of the journal *Studia Logica*, Warsaw, Poland, October 15, 2003.
127. "Informatics: Plato's Revenge?," Annual Herman B. Wells Lecture to the Society for Advanced Study, Indiana University, October 10, 2003.
128. "Quantum Logic / Quantum Computing = Classical Logic / Classical Computing," Invited Lecture, Logica 2004, Hejnice Monastery, Czech Republic, June 24, 2004.
129. "Negation as an Explicit and Implicit Duality," Workshop on Negation in Constructive Logic, TU Dresden, 2004.
130. "Information in Computer Science," Invited Presenter, Workshop for the *Handbook on the Philosophy of Information*, sponsored by the Dutch Royal Academy of Science and Elsevier, Amsterdam, March 9, 2004.
131. "Steps towards a Symmetric Gaggle Theory," Invited Lecture, First World Congress on Universal Logic, Montreux, Switzerland, April 1, 2005.