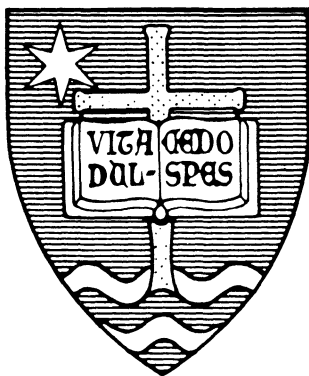


NOTRE DAME JOURNAL
OF
FORMAL LOGIC

Edited by

Bolesław Sobociński



VOLUME XIX

1978

NOTRE DAME JOURNAL OF FORMAL LOGIC

Bolesław Sobociński, *Editor*

Business Manager
Michele Daugherty

Editorial Board

Ignacio Angelelli
F. Gonzalez Asenjo
Nuel D. Belnap, Jr.
Ivan Boh
William W. Boone
Karel L. de Bouvère

Robert Bull
John Thomas Canty
George Goe
Hugues Leblanc
Gerald Massey
Elliott Mendelson

Marian B. Pour-El
Jean E. Rubin
Luis Elpidio Sanchis
Wilson E. Singletary
Vito F. Sinisi
J. Jay Zeman

Notre Dame Journal of Formal Logic is published quarterly by the University of Notre Dame in January, April, July and October of each year. The Journal is composed by Beljan, Dexter, Michigan and printed by Cushing-Malloy, Inc., Ann Arbor, Michigan. Second-class postage paid at Notre Dame, Indiana 46556.

Authors should consult the "Guide to authors" for editorial information. Two copies of articles for publication and editorial correspondence should be sent to *V. Frederick Rickey, Editor, P.O. Box 5, Notre Dame, Indiana 46556, U.S.A.*

Subscriptions are \$27.50 per year for institutions and \$20.00 for individuals. Back volumes are \$20.00 each for Volumes 1-10 and \$35.00 for Volumes 11-19. Orders for subscriptions and back volumes (accompanied by payment), and changes of address should be sent to the *Business Manager, P.O. Box 5, Notre Dame, Indiana 46556, U.S.A.*

Copyright ©1978 by the University of Notre Dame. All rights reserved.

NOTRE DAME JOURNAL OF FORMAL LOGIC

VOLUME XIX, 1978

CONTENTS

Isomorphism types of the hyperarithmetical sets H_α . By <i>George C. Nelson</i>	1
Critical points of normal functions. II. By <i>John L. Hickman</i>	20
Primitivity in mereology. I. By <i>Paul J. Welsh, Jr.</i>	25
A note on three-valued modal logic. By <i>Peter K. Schotch,</i> <i>Jorgen B. Jensen, Peter F. Larsen and Edwin J. MacLellan</i>	63
Apodictic truth: Husserl's eidetic reduction versus induction. By <i>James Palermo</i>	69
Essentialism and the modal semantics of J. Hintikka. By <i>John Robert Baker</i>	81
Foundational problems of number theory. By <i>Yvon Gauthier</i>	92
A modal system properly independent of both the Brouwerian system and S4. By <i>G. N. Georgacarakos</i>	101
A note on the decomposition of theories with respect to amalgamation, convexity, and related properties. By <i>Charles Pinter</i>	115
An automatic theorem prover for substitution and detachment systems. By <i>Jeremy George Peterson</i>	119
Logical and probability analysis of systems. By <i>Mitchell O. Locks</i>	123
Right-divisive groups. By <i>W. A. Verloren van Themaat</i>	137
A shortest single axiom for the classical equivalential calculus. By <i>John A. Kalman</i>	141
Geach and the Lewis result. By <i>Gary Iseminger</i>	145
A formal system for the non-theorems of the propositional calculus. By <i>Xavier Caicedo</i>	147
Degrees of partial functions. By <i>Jan Bergstra</i>	152
On the consistency and independence of some set-theoretical axioms. By <i>Alexander Abian and Samuel LaMacchia</i>	155
On some substitution instances of R1 and L1. By <i>Wolfgang Lenzen</i>	159
The intensionality of the predicate '___ is recursive'. By <i>Charles F. Kielkopf</i>	165
A note on the law of identity and the converse Parry property. By <i>Kosta Došen</i>	174
Attributive names. By <i>Steven E. Boër</i>	177
Forbidden subgraphs in terms of forbidden quantifiers. By <i>T. A. McKee</i>	186
Free S5 algebras. By <i>Alfred Horn</i>	189
Projective bigraphs with recursive operations. By <i>J. C. E. Dekker</i>	193

Logics for knowledge, possibility, and existence. By <i>Roderic A. Girle</i> .	200
Model theory of alternative rings. By <i>Bruce I. Rose</i>	215
An independence result concerning infinite products of alephs. By <i>John L. Hickman</i>	244
A rare accident. By <i>Wolfgang Lenzen</i>	249
A note concerning the notion of mereological class. By <i>Czesław Lejewski</i>	251
Minimalization of Boolean polynomials, truth functions, and lattices. By <i>Mitchell O. Locks</i>	264
A new family of modal systems. By <i>G. N. Georgacarakos</i>	271
The closing passage of Frege's "Über Sinn und Bedeutung". By <i>Ronald B. Nusenoff</i>	282
On the independence of the Bigos-Kalmár axioms for sentential calculus. By <i>Robert C. Flagg</i>	285
A note on Turing machine regularity and primitive recursion. By <i>Nicholas J. de Lillo</i>	289
Analytica Priora I, 38 and reduplication. By <i>Ignacio Angelelli</i>	295
Supervaluations and Tarski. By <i>Nicholas Griffin</i>	297
On propositions. By <i>W. D. Hart</i> and <i>Colin McGinn</i>	299
On creative definitions in first order functional calculi. By <i>V. Frederick Rickey</i>	307
The middle term. By <i>Demetrius J. Hadgopoulos</i>	310
Awkward axiom systems. By <i>Bolesław Sobociński</i>	315
The adequacy of material dialogue-games. By <i>Erik C. W. Krabbe</i>	321
Three substitution-instance interpretations. By <i>John T. Kearns</i>	331
Primitivity in mereology. II. By <i>Paul J. Welsh, Jr.</i>	355
Doubly transitive sets. By <i>John L. Hickman</i>	386
Some observations on a method of McKinsey. By <i>Herbert E. Hendry</i> and <i>Allan M. Hart</i>	395
Buridan: 'Every proposition is false' is false. By <i>Mary Sirridge</i>	397
Hyperenumeration reducibility. By <i>Luis E. Sanchis</i>	405
On certain incapacities claimed for logicians. By <i>Benjamin S. Hawkins</i>	416
A note concerning a sole sufficient operator. By <i>J. C. Muzio</i>	419
Binomial pairs, semi-Brouwerian and Brouwerian semilattices. By <i>Jürgen Schmidt</i>	421
Classifications for inconsistent theories. By <i>John Grant</i>	435
Proofs of the normalization and Church-Rosser theorems for the typed λ -calculus. By <i>Garrel Pottinger</i>	445
Passages between finite and infinite. By <i>Alexander Abian</i>	452
Note about Łukasiewicz's theorem concerning the system of axioms of the implicational propositional calculus. By <i>Bolesław Sobociński</i> .	457
Semantics for S4.1.2. By <i>Dolph Ulrich</i>	461
S4.1.4 = S4.1.2 and S4.021 = S4.04. By <i>Wolfgang Lenzen</i>	465

A new axiomatization of the mixed associative Newman algebras. By <i>Bolestaw Sobociński</i>	467
An ambiguity in modal logic. By <i>John Williamson</i>	475
The minimal modal logic: A cautionary tale about primitives and definitions. By <i>Marilyn Milberger</i>	486
Truth in constructive metamathematics. By <i>John Staples</i>	489
Relative strength of Malitz quantifiers. By <i>Steven Garavaglia</i>	495
Self-conjugate functions on Boolean algebras. By <i>Thomas A. Sudkamp</i>	504
Provably recursive real numbers. By <i>William J. Collins</i>	513
Model theoretical investigation of theorem proving methods. By <i>T. Gergely</i> and <i>K. P. Vershinin</i>	523
More logics without tautologies. By <i>Leo Simons</i>	543
A modal logic with temporal variables. By <i>Tobias Chapman</i>	558
John Buridan on the liar: A study and reconstruction. By <i>Paul Vincent Spade</i>	579
The ontological theorem. By <i>Charles D. Brown</i>	591
The ideal of orderable subsets of a set. By <i>John L. Hickman</i>	593
Multiple quantification and the use of special quantifiers in early sixteenth century logic. By <i>E. J. Ashworth</i>	599
Aristotle on the subject of predication. By <i>George Englebretsen</i>	614
The eliminability of the actuality operator in propositional modal logic. By <i>Allen Hazen</i>	617
Putting K in its place. By <i>George F. Schumm</i>	623
A second order axiomatic theory of strings. By <i>Howard C. Wasserman</i>	629
An incompleteness theorem for conditional logic. By <i>Donald Nute</i>	634
An additional remark on self-conjugate functions on Boolean algebras. By <i>Thomas A. Sudkamp</i>	637
A generalization of combinatorial operators. By <i>Anna Silverstein</i>	639
A semantics for a weak free logic. By <i>Ermanno Bencivenga</i>	646
Uncertainties over distribution dispelled. By <i>William H. Friedman</i>	653
Some remarks on Quine's arguments against modal logic. By <i>John Robert Baker</i>	663
Axioms for generalized Newman algebras. By <i>R. Beazer</i>	674
A note on the Q-topology. By <i>Robert Warren Button</i>	679
The finite model property for MIPQ and some consequences. By <i>Gisèle Fischer Servi</i>	687
Effective inner product spaces. By <i>Northrup Fowler III</i>	693
Commutativity of generalized ordinals. By <i>John L. Hickman</i>	702

LIST OF AUTHORS

This list of authors gives a complete roster of all who have contributed articles to the *Notre Dame Journal of Formal Logic*. It is arranged alphabetically and contains the names of five hundred twenty-seven authors.

A. Abian, R. Ackermann, M. Adams, E. Alves, J. Anderson, M. Anderson, P. Andrews, I. Angelelli, C. Applebaum, R. Applebee, L. Archie, R. Armstrong, F. Asenjo, E. Ashworth, J. Bacon, A. Baker, J. Baker, B. Banaschewski, J. Baralt-Torrijos, J. Barback, J. Barker, R. Baxter, J. Beard, R. Beatty, R. Beazer, W. R. Belding, J. Bell, N. Belnap, Jr., E. Bencivenga, D. Bennett, L. Beran, J. Bergstra, J. Berry, O. Bird, L. Birnbaum, J. H. Blackhurst, S. Bloom, A. Blum, I. Bocheński, S. Boër, I. Boh, D. Bollman, G. Boolos, K. de Bouvère, K. Bowen, M. Bradley, R. Brady, C. Bredlau, D. Brignole, J. Broido, C. D. Brown, B. Bruce, G. Brumm, R. Bull, A. Bullock, M. Bunder, A. Bundy, H. Burdick, R. Butrick, R. Button, H. Byerly, T. Bynum, X. Caicedo, P. Calabrese, R. Call, P. Campbell, J. Canty, J. Cargile, R. Carnes, A. Carpentier, H-N. Castañeda, S. Catlin, C. Caton, H. Chandler, E. W. Chapin, Jr., T. Chapman, C. Cheng, L. Chiaraviglio, L. Chidgey, M. Chytil, R. Clay, B. Coburn, N. Cocchiarella, R. Cogan, R. Cole, K. Collier, G. Collins, W. J. Collins, J. Cooley, F. Coppotelli, J. Corcoran, W. Cornish, N. da Costa, R. Cowen, M. Cresswell, W. S. Croddy, F. Crosson, E. Curley, J. Czermak, I. Dapunt, J. Davant, B. Davidson, C. Davis, D. Daye, J. Dekker, R. DeMillo, T. Denise, K. Döpp, J. Donnelly, D. Dorrough, K. Došen, R. Doss, A. Dou, S. Dowdy, J. Drabbe, B. Dreben, A. Dumitriu, J. Dunn, R. Eberle, E. Ellentuck, H. Enderton, G. Englebretsen, W. Essler, T. Evans, J. Evenden, P. Facione, G. Farre, R. Farrell, H. Fast, J. Feibleman, K. Fine, M. Fisk, M. Fitting, P. FitzPatrick, R. C. Flag, L. Foss, N. Fowler, III, F. Fox, E. Foxley, W. Frank, W. Frascella, G. Frei-Imfeld, W. H. Friedman, J. Fulton, P. Gärdenfors, L. Gagnon, S. Garavaglia, J. Garson, F. Gass, Y. Gauthier, M. Gemignani, H. Gensler, G. Georgacarakos, N. Georgieva, T. Gergely, G. Germano, J. Gersting, M. Gilbert, M. Ginsberg, R. Girle, M. Gladstone, G. Gleason, L. Goble, L. Goddard, G. Goe, A. Goetz, D. Gogol, H. Goldberg, R. Goldblatt, M. Goldstein, H. Gonshor, R. Goodstein, J. Gracia, R. Grandy, J. Grant, J. Green, J. Gregg, N. Griffin, T. Grilloit, W. Grosky, R. Güting, R. Guhl, K. Gyekye, E. Hacker, D. Hadgopoulos, J. Halpern, C. Hamblin, N. Hanson, J. Harper, J. F. Harris, J. H. Harris, W. Harris, A. Hart, W. Hart, B. Hawkins, S. Hayes, A. Hazen, T. Hearne, I. Heath, T. Hecht, H. Hendry, D. Henry, L. Herman, H. Hermes, A. Heyting, K. Hickin, J. Hickman, K. Hino, H. Hiž, M. Hocutt, J. Hooley, C. Hoormann, Jr., A. Horn, P. Horwich, C. Hughes, I. Humberstone, B. Hurdle, Jr., A. Ihrig, G. Iseminger, L. Iturrioz, P. Jablon, F. Jackson, W. Jackson, W. Jaffe, B. Jeffcott, J. B. Jensen, Z. Jordan, G. Kalinowski, J. A. Kalman, D. Kaplan, T. Katriňák, B. Katz, J. Kearns, H. Kennedy, C. Kielkopf, R. Kohn, J. Kotelly, J. Kowalski, E. Krabbe, M. Krom, A. Kron, G. Küng, L. Kulathungam, F. von Kutshera, L. Laita, J. Lake, S. LaMaccia, K. Lambert, M. Laplaza, D. La Porte, L. Larouche, P. F. Larsen, A. Lauer, H. Leblanc, J. Lee, R. Lee, A. Lehmann, S. Lehmann, C. Leininger, C. Lejewski, E. Lemmon, W. Lenzen, B. Lercher, D. Lichtblau, N. de Lillo, S. Liu, J. Loader, M. O. Locks, K. Loewen, G. Lolli, M. Loux, W. Lycan, C. Lyngholm, M. Machover, J. Mackie, E. J. Maclellan, E. Madison, K. Mainzer, D. Makinson, W. Malcolm, R. Manor, D. Marans,

J. Markham, E. Marsden, D. Marshall, J. Martin, N. Martin, R. Martin, A. Martinich, G. Massey, R. McArthur, S. McCall, S. McCleary, C. McGinn, C. McKay, J. McKean, T. A. McKee, V. McKim, T. McLaughlin, J. McLelland, E. Mendelson, K. Menger, C. Merchant, C. Meredith, D. Meredith, D. Merrill, G. Merrill, R. Meyer, L. Meyers, E. Michael, E. Mihailescu, M. Milberger, C. Milici, D. Miller, D. M. Miller, J. Miller, J. Minichiello, S. Miura, R. Montague, L. Monteiro, H. Montgomery, A. Moreno, C. Morgan, N. Moutafakis, M. Mullick, A. Mullin, R. Murungi, J. Muzio, J. Myhill, O. Narbutt, A. vander Nat, G. C. Nelson, E. Nemesszeghy, W. Nemitz, H. Nielsen, P. Nolan, R. B. Nusenoff, D. Nute, W. O'Briant, P. Odifreddi, S. Ohama, K. Ohashi, J. Okee, J. Orenduff, J. Owings, B. Pahi, T. Pak, J. Palermo, R. Pargetter, R. Z. Parks, M. Parnes, W. Parry, C. Parsons, M. Partis, Y. Patt, T. Patton, J. Paulos, T. Payne, B. Peklo, D. Pelletier, P. Perkins, R. Peters, J. Peterson, C. Pinter, R. Piziak, K. Pledger, J. Plotkin, H. Pogorzelski, N. Pole, J. Pollock, H. Pospesel, R. Poss, G. Pottinger, L. Pozsgay, G. Priest, A. Prior, M. Prullage, R. Purtill, H. Putnam, C. Quinn, A. Raggio, G. Rainich, A. Rao, E. Rasof, R. Redmon, Jr., J. Reichbach, M. Rennie, N. Rescher, M. Resnik, V. F. Rickey, T. Ristea, F. Rivetti Barbò, F. Roberts, B. van Rootselaar, A. Roqué, A. Rose, B. I. Rose, J. Rosenberg, S. Rosenberg, Y. Rosenberg, J. Rosenthal, R. Routley, H. Rubin, J. Rubin, Janet Ryback, John Ryback, A. Sade, R. Sagal, S. Saito, L. Sanchis, H. Sarlet, T. Satre, K. Sayre, T. Scharle, J. Schmidt, H. Schneider, R. Schock, P. K. Schotch, H. Schott, E. Schuh, M. Schultz, G. Schumm, S. Sehgal, J. Seldin, G. Fischer Servi, R. Setlur, S. Shapiro, A. Shukla, Sibajiban, D. Siemens, Jr., W. Sierpiński, J. Sikora, A. Silverstein, L. Simons, D. Singh, W. Singletary, V. Sinisi, F. Sioson, M. Sirridge, H. Skala, T. Skolem, B. Skyrms, R. Slaght, T. Smiley, D. Smith, T. Smith, M. Smyth, D. P. Snyder, J. Sobel, B. Sobociński, W. D. Solomon, C. de Renna e Souza, P. Spade, J. Staples, W. Stegmüller, J. Stevenson, L. Stevenson, T. Stihl, H. Stopes-Roe, P. Strauss, T. Sudkamp, T. Sullivan, S. Summersbee, R. Suszko, A. Sweet, P. Swiggart, M. Szabo, D. Székely, J. Tamburino, S. Tamura, M. Tapia, R. Tax, I. Thomas, W. Thomas, R. Thomason, S. Thomason, W. Thomblison, R. Tompkins, J. Trentman, A. Trew, C. Turek, R. Tursman, F. Tytus, J. Ullian, D. Ulrich, J. Van Evra, W. Verloren van Themaat, K. P. Vershinin, R. Vesley, A. Vobach, J. Volgo, V. Vučković, J. Vuillemin, J. J. Wadleigh, C. Wagner, A. Walters, H. Wasserman, G. Weaver, S. M. Webb, P. Weingartner, D. Welker, P. Welsh, Jr., R. Wengert, C. Werner, S. Wertz, T. Wesselkamper, K. Weston, T. Weston, B. White, W. Wilcox, A. Wilde, H. Williams, C. Williamson, J. Williamson, R. Wilson, J. Winnie, J. Wiredu, W. Wisdom, P. Woodruff, J. Woods, C. Works, J. Wu, M. Yntema, W. Yourgrau, H. Zassenhaus, J. Zeman, M. Zuckerman.

NOTRE DAME JOURNAL OF FORMAL LOGIC

Bolesław Sobociński, *Editor*

Michele Daugherty, *Business Manager*

Guide to authors submitting articles for publication

Articles are invited for publication in the Journal which bring new results to any of the following areas: algebraic logic, classical logical systems, constructive mathematics, methodology of deductive systems, model theory, non-classical formal systems, proof theory, recursion theory, and set theory. The Journal is devoted primarily to logic and the foundations of mathematics and papers which are historical or philosophical in nature will only be considered for publication provided they employ the methods of formal logic in their exposition.

Manuscripts should be typewritten with wide margins on bond paper, using double (or triple) spacing between lines throughout (including notes and references). Particular care should be given to allow sufficient space between lines containing subscripted and superscripted symbols. Each page of the manuscript (including notes and references) should be numbered. The first page should contain the article title and author's name. The last page should contain the institutional affiliation and the exact mailing address. A concise abstract should accompany each article. Authors have full responsibility for the proper preparation of manuscripts. When the manuscript is not properly prepared it may be returned to the author for retyping; services performed by the editorial offices in this regard are properly chargeable to authors. The original copy and one additional copy of the manuscript should be submitted (to only one journal at a time), authors should retain one copy of everything submitted.

Footnotes should be indicated by consecutive superscript numerals and listed with wide spacing between lines at the end of the article. Footnotes may appear in print at the bottom of the appropriate pages, but should nevertheless be submitted in this form. A footnote which acknowledges a debt of the author to a foundation grant or individuals should be indicated by an asterisk.

References should be cited by consecutive numerals in square brackets and listed with wide spacing between lines at the end of the listing of footnotes.

A **list of symbols** used should be submitted with the manuscript. This list may be headed "Note to the Printer"; it should not define the symbols mathematically, but should identify them typographically. Authors should underline various types of symbols in different colors throughout the manuscript, blue for bold, red for Greek, green for Gothic and other characters. It is suggested that authors refer to back issues of the Journal for examples of the style of composition.

Proof sheets are generally given authors for correcting errors that occur in composition. However, any special composition costs arising out of an author's revision of text of an article in proof will be charged to the author.

Fifty offprints without covers of each article will be supplied free of charge. Additional offprints or covers for offprints may be purchased.

Editorial correspondence and articles should be sent to:

V. Frederick Rickey, Editor, P.O. Box 5, Notre Dame, Indiana 46556, U.S.A.

The Journal is published quarterly by the University of Notre Dame. Subscriptions are \$27.50 per year for institutions and \$20.00 for individuals. Back volumes are \$20.00 each for Volumes 1-10 and \$35.00 for Volumes 11-19. Orders for subscriptions and back volumes (accompanied by payment), and changes of address should be sent to the Business Manager, P.O. Box 5, Notre Dame, Indiana 46556, U.S.A.

AUSTRALASIAN JOURNAL OF PHILOSOPHY

EDITOR: BRIAN ELLIS

CONTENTS OF VOLUME 56, NO. 1, MAY 1978

ARTICLES

- Incorrigibility and the Mental Gerald Doppelt
Two Merits of the Circumstantial Operator Language
for Conditional Logics I.L. Humberstone
Ethical Universalism, Justice and Favouritism David Heyd
Conclusive Reasons and Scepticism William S. Boardman
The Argument from Psychological Egoism to Ethical Egoism Terrance C. McConnell
Nonegalitarian Justice Derek Browne

DISCUSSION

- Belief in Dreams Charles E.M. Dunlop
Sensations and Information: A Reply to Cornman George Pitcher
Semantic Analysis in the Philosophy of Mind: A Reply to Ellis Alan Sussman

CRITICAL NOTICES, REVIEWS, NOTES AND NEWS

ANNUAL SUBSCRIPTIONS: Individuals A\$7.00 (US\$9.00 or St. £5.00); Institutions A\$10.00 (US\$12.00 or St. £6.25). All correspondence should be addressed to the Editor or the Business Manager, Department of Philosophy, La Trobe University, Bundoora, Victoria, 3083, Australia.

The British Journal for the Philosophy of Science

Contents, Volume 29 Number 1 March 1978

Articles

- SPENCER GRAVES On the Neyman-Pearson Theory of Testing
RICHARD BUXTON The interpretation and Justification of the Subjective Bayesian
Approach to Statistical Inference
G. J. WHITROW On the Impossibility of an Infinite Past

Discussions

- KARL POPPER On the Possibility of an Infinite Past: A Reply to Whitrow
ELIE ZAHAR Einstein's Debt to Lorentz: A Reply to Feyerabend and Miller

Review Articles

- ROLAND PUCCETTI Unravelling the World Knot: Scientists and Philosophers on the
Mind-Brain Controversy (review of G. G. Globus, G. Maxwell and I. Savodnik (eds.):
Consciousness and the Brain: A Scientific and Philosophical Inquiry)
DONALD GILLIES The Development of Mathematics (review of M. Kline: *Mathematical
Thought from Ancient to Modern Times*)
RAIMO TUOMELA Scientific Realism and Perception (review of J. W. Cornman: *Perception,
Common Sense, and Science*)

Reviews

- ALASDAIR MACINTYRE on E. Gellner: *The Legitimation of Belief*; EDWARD MANIER on
F. J. Ayala and T. Dobzhansky (eds.): *Studies in the Philosophy of Biology, Reduction
and Related Problems*

Announcements

Published for the British Society for the Philosophy of Science by
Aberdeen University Press, Farmers Hall, Aberdeen AB9 2XT, Scotland

Editors: John Watkins and John Worrall

Price £2.50 (\$8.00)

Subscription Price £7.00 (\$22.00)

RATIO

edited by STEPHAN KÖRNER

Volume XIX

June 1977

No. 1

Emotions and Feelings	WILLIAM LYONS
A Place for Works of Art	T. J. DIFFEY
The Diversity of Identity	E. J. BOROWSKI
A Set of Criteria for Distinguishing Natural from Conventional Signs	EIKE V. SAVIGNY
Detecting Change	PAUL HELM
Our Considered Judgements	KAI NIELSEN
The Nature of Hume's Inductive Scepticism: A Critical Notice	JOHN CASSIDY
How to Derive 'Ought' from 'May'	WILLIAM G. LYCAN
On the Logic of Norms: A Natural Deontics	HELMUT ANGSTL
Towards a Satisfactory Formulation of Utilitarianism	R. I. SIKORA
Fairness and Fortune	J. P. DAY
On Wandschneider's Way Out	R. R. ROCKINGHAM GILL

Annual Subscription: £9.25 (inland), £11.00 (overseas), \$24.00 (U.S.A. and Canada)

Published by BASIL BLACKWELL, Oxford
Orders to: Journals Department, Basil Blackwell & Mott Ltd.,
108 Cowley Road, Oxford OX4 1JF, England.

The Monist *An International Quarterly Journal of General Philosophical Inquiry*

Founded 1888 by **Edward C. Hegeler**

Editor, Eugene FREEMAN

Editorial Board: William P. Alston, Monroe C. Beardsley, Lewis White Beck, William A. Earle, Dagfinn Føllesdal, William Frankena, Maurice Mandelbaum, R. Barcan Marcus, Richard Martin, Mary Mothersill, Joseph Owens, Richard Rorty, J. B. Schneewind, Wilfrid Sellars, John E. Smith, Richard Wasserstrom.

Managing Editor, Ann FREEMAN

EACH ISSUE IS LIMITED TO ARTICLES ON A SINGLE GENERAL TOPIC. Communicate with the Editor in advance for Special Instructions. Papers should be 4000-8000 words in length and must be submitted in duplicate nine months prior to the scheduled publication of the issue, accompanied by return postage.

SCHEDULED PUBLICATION DATES:

Vol. 61, No. 1	Jan., 1978	Conceptions of the Self: East and West
Vol. 61, No. 2	Apr., 1978	The Philosophy of Thomas Reid
Vol. 61, No. 3	July, 1978	Nominalism, Past and Present
Vol. 61, No. 4	Oct., 1978	The Philosophy and Psychology of Cognition
Vol. 62, No. 1	Jan., 1979	Parmenides and His Influence on Western Thought
Vol. 62, No. 2	Apr., 1979	Truth, Meaning, and Reference
Vol. 62, No. 3	July, 1979	The Concept of A Person in Ethical Theory
Vol. 62, No. 4	Oct., 1979	Objectivity in Knowledge and Valuation

Editorial Office: Box 1908, Los Gatos, California 95030

Business Office: Box 600, La Salle, Illinois 61301

SUBSCRIPTION RATES: United States: Annual (4 issues): Institutions, \$18.00; Individuals, \$12.00.
Single copies: \$4.50. Foreign postage: Add 25 cents to single copy rate or \$1.00 to subscription rate.