

Word and Object

S T U D I E S I N C O M M U N I C A T I O N

EDITORS

Leo L. Beranek

Roman Jakobson

William N. Locke

WORD AND OBJECT

By Willard Van Orman Quine

ON HUMAN COMMUNICATION: A REVIEW, A SURVEY, AND A CRITICISM

By Colin Cherry

PUBLISHED JOINTLY BY

The Technology Press of The Massachusetts Institute of Technology

and

John Wiley & Sons, Inc., New York and London

Word and Object

Willard Van Orman Quine

Edgar Pierce Professor of Philosophy

Harvard University

MUNSHIRAMJI LAL
Oriental & Foreign Book-Sellers
P.B. 1165, Nai Sarak, DELHI-6

COPYRIGHT © 1960
BY
THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

All Rights Reserved

*This book or any part thereof must not
be reproduced in any form without
the written permission of the publisher.*

CURTIS JAY...
APR 21 1961
401

Library of Congress Catalog Card Number: 60-9621

PRINTED IN THE UNITED STATES OF AMERICA

To
RUDOLF CARNAP
Teacher and Friend

Wie Schiffer sind wir, die ihr Schiff auf offener See umbauen
müssen, ohne es jemals in einem Dock zerlegen und aus
besten Bestandteilen neu errichten zu können.

—OTTO NEURATH

Ontology recapitulates philology.

—JAMES GRIER MILLER

Preface

Language is a social art. In acquiring it we have to depend entirely on intersubjectively available cues as to what to say and when. Hence there is no justification for collating linguistic meanings, unless in terms of men's dispositions to respond overtly to socially observable stimulations. An effect of recognizing this limitation is that the enterprise of translation is found to be involved in a certain systematic indeterminacy; and this is the main theme of Chapter II.

The indeterminacy of translation invests even the question what objects to construe a term as true of. Studies of the semantics of reference consequently turn out to make sense only when directed upon substantially our language, from within. But we do remain free to reflect, thus parochially, on the development and structure of our own referential apparatus; and this I do in ensuing chapters. In so doing one encounters various anomalies and conflicts that are implicit in this apparatus (Chapter IV), and is moved to adopt remedies in the spirit of modern logic (Chapters V and VI). Clarity also is perhaps gained on what we do when we impute existence, and what considerations may best guide such decisions; thus Chapter VII.

My six Gavin David Young Lectures in Philosophy at the University of Adelaide, June 1959, will have consisted of portions of this book. Similarly for various of my lectures at the University of Tokyo in July and August. An abridgment of the last chapter figured as the Howison Lecture in Philosophy at the University of California in Berkeley, May 1959, and parts of Chapters II through

VI went to make up five lectures that I gave at Stanford University in April.

A year earlier I drew on the work in progress for my paper at the fourth Colloque Philosophique de Royaumont and for my presidential address to the Eastern Division of the American Philosophical Association. The year before that, 1956–57, I presented portions of interim versions of Chapter II as single lectures at four institutions: Princeton University, the Institute for Advanced Study, Columbia University, and the University of Pennsylvania. My course in the philosophy of language, which I have given ten times at Harvard since VJ-day, has represented ten phases in the development of the book; and a further intervening phase was represented by courses that I gave at Oxford as George Eastman Visiting Professor in 1953–54 and by my A. T. Shearman Lectures at University College, London, in 1954.

Three publications overlap the present text of the book, having stemmed from the work in progress. Two of them are indicated at the beginnings of §§ 7 and 19. The third is “Le mythe de la signification,” presumed forthcoming in the acts of the Royaumont colloquium. Three further recent papers bear mention as having conveyed some of the developing notions of the book in other phrasing. One is “The scope and language of science,” which formed part of the Columbia Bicentennial program in 1954 and appeared in the *British Journal for the Philosophy of Science* in 1957. The others are “Quantifiers and propositional attitudes,” *Journal of Philosophy*, 1956, and “Logical truth,” in Hook’s *American Philosophers at Work*.

The benefits of a Harvard sabbatical, combined with a generous grant in aid from the Institute for Advanced Study at Princeton, enabled me to devote the year 1956–57 to the book as a member of that Institute. Similar generosity on the part of the Ford Foundation enabled me to devote the year 1958–59 to the same effort, as a Fellow of the Center for Advanced Study in the Behavioral Sciences at Stanford. I gratefully acknowledge all this support. In addition I have the Rockefeller Foundation to thank for a grant which provided secretarial help in keeping up the flow of typescript during years when the secretarial services of the Institute and the Center were not at my disposal.

Last winter I enjoyed the close collaboration of Donald Davidson, who studied drafts of the book and gave me the benefit of his able criticism and his knowledge of the literature. The book has gained

much from his help, and much also, in its first half, from the wise scrutiny of my colleague Burton Dreben. At various points in the book I have been helped also by advice and criticism from many other friends, including J. L. Austin, C. A. Baylis, L. J. Binkley, Alonzo Church, J. C. Cooley, Raymond Firth, Nelson Goodman, Joseph Greenberg, H. P. Grice, C. G. Hempel, Roman Jakobson, J. A. Jenkins, Georg Kreisel, T. S. Kuhn, C. E. Osgood, Hilary Putnam, P. F. Strawson, Morton White, Oscar Zariski, and Paul Ziff. I am grateful further to Jakobson for frequent encouragement and varied helpfulness in his capacity of editor of this series.

WILLARD VAN ORMAN QUINE

Stanford, California
June 3, 1959

Contents

Chapter I. Language and Truth

1	Beginning with ordinary things	1
2	The objective pull; or, <i>e pluribus unum</i>	5
3	The interanimation of sentences	9
4	Ways of learning words	13
5	Evidence	17
6	Posits and truth	21

Chapter II. Translation and Meaning

7	First steps of radical translation	26
8	Stimulation and stimulus meaning	31
9	Occasion sentences. Intrusive information	35
10	Observation sentences	40
11	Intrasubjective synonymy of occasion sentences	46
12	Synonymy of terms	51
13	Translating logical connectives	57
14	Synonymous and analytic sentences	61
15	Analytical hypotheses	68
16	On failure to perceive the indeterminacy	73

Chapter III. The Ontogenesis of Reference

17	Words and qualities	80
18	Phonetic norms	85
19	Divided reference	90
20	Predication	95
21	Demonstratives. Attributives	100
22	Relative terms. Four phases of reference	105
23	Relative clauses. Indefinite singular terms	110
24	Identity	114
25	Abstract terms	118

Chapter IV. Vagaries of Reference

26	Vagueness	125
27	Ambiguity of terms	129
28	Some ambiguities of syntax	134
29	Ambiguity of scope	138
30	Referential opacity	141
31	Opacity and indefinite terms	146
32	Opacity in certain verbs	151

Chapter V. Regimentation

33	Aims and claims of regimentation	157
34	Quantifiers and other operators	161
35	Variables and referential opacity	166
36	Time. Confinement of general terms	170
37	Names reparsed	176
38	Conciliatory remarks. Elimination of singular terms	181
39	Definition and the double life	186

Chapter VI. Flight from Intension

40	Propositions and eternal sentences	191
41	Modality	195

CONTENTS

xv

42	Propositions as meanings	200
43	Toward dispensing with intensional objects	206
44	Other objects for the attitudes	211
45	The double standard	216
46	Dispositions and conditionals	222
47	A framework for theory	226

Chapter VII. Ontic Decision

48	Nominalism and realism	233
49	False predilections. Ontic commitment	238
50	<i>Entia non grata</i>	243
51	Limit myths	248
52	Geometrical objects	251
53	The ordered pair as philosophical paradigm	257
54	Numbers, mind, and body	262
55	Whither classes?	266
56	Semantic ascent	270
Bibliographical References		277
Index		287

Bibliographical References

(Only those works are listed that are alluded to elsewhere in the book.)

- Ajdukiewicz, Kazimierz. "Sprache und Sinn." *Erkenntnis* 4 (1934), pp. 100–138.
- Aldrich, Virgil. "Mr. Quine on meaning, naming, and purporting to name." *Philosophical Studies* 6 (1955), pp. 17–26.
- Alston, W. P. "Ontological commitment." *Philosophical Studies* 9 (1958), pp. 8–17.
- Anrep, G. V. "The irradiation of conditioned reflexes." *Proceedings of the Royal Society of London* 94 (1923), pp. 404–426.
- Apostel, L., W. Mays, A. Morf, and J. Piaget. *Les liaisons analytiques et synthétiques dans les comportements du sujet*. Paris: Presses Universitaires, 1957.
- Ayer, A. J. *Language, Truth and Logic*. London: Gollancz, 1936, 1946.
- Bar-Hillel, Yehoshua. "Bolzano's definition of analytic propositions." *Theoria* 16 (1950), pp. 91–117, and concurrently in *Methodos*.
- Barcan, Ruth C. "A functional calculus of first order based on strict implication." *Journal of Symbolic Logic* 11 (1946), pp. 115–118.
- "The identity of individuals in a strict functional calculus of second order." *Journal of Symbolic Logic* 12 (1947), pp. 12–15. (See *Journal of Symbolic Logic* 23, p. 342, for a correction of my review of this paper.)
- Bass, M. J., and C. L. Hull. "The irradiation of a tactile conditioned reflex in man." *Journal of Comparative Psychology* 17 (1934), pp. 47–66.
- Baylis, C. A. "Universals, communicable knowledge, and metaphysics." *Journal of Philosophy* 48 (1951), pp. 636–644.
- Bedau, H. A. Review of Whorf. *Philosophy of Science* 24 (1957), pp. 289–293.
- Bennett, Jonathan. "Analytic-synthetic." *Proceedings of the Aristotelian Society* 59 (1959), pp. 163–188.
- Bergmann, Gustav. "Two types of linguistic philosophy." *Review of Metaphysics* 5 (1952), pp. 417–438.
- "Intentionality." *Archivio di Filosofia* 1955, pp. 177–216.
- Birkhoff, G. D. "Three public lectures on scientific subjects." *Rice Institute Pamphlet* 28 (1941), pp. 1–76.
- Black, Max. *Critical Thinking*. New York: Prentice-Hall, 1952.
- Bloomfield, Leonard. *Language*. New York: Holt, 1933.

- Braithwaite, R. B. *Scientific Explanation*. Cambridge, England: University, 1953.
- Review of Quine's *From a Logical Point of View*. *Cambridge Review* 75 (1954), pp. 417-418.
- Brough, John. "Theories of general linguistics in the Sanskrit grammarians." *Transactions of the Philological Society* (Oxford) 1951, pp. 27-46.
- "Some Indian theories of meaning." *Transactions of the Philological Society* (Oxford) 1953, pp. 161-176.
- Brower, R. A. (ed.). *On Translation*. Cambridge, Mass.: Harvard, 1959.
- Carnap, Rudolf. *Physikalische Begriffsbildung*. Karlsruhe, 1926.
- *Der logische Aufbau der Welt*. Berlin, 1928.
- "Ueberwindung der Metaphysik durch logische Analyse der Sprache." *Erkenntnis* 2 (1931), pp. 219-241.
- *The Unity of Science*. London: Kegan Paul, 1934.
- "Testability and meaning." *Philosophy of Science* 3 (1936), pp. 419-471; 4 (1937), pp. 1-40. Reprinted in Feigl and Brodbeck.
- *The Logical Syntax of Language*. New York: Harcourt, Brace; and London: K. Paul, Trench, Trubner, 1937.
- *Meaning and Necessity*, Chicago: University, 1947. 2d ed., with supplements, 1956.
- "Empiricism, semantics, and ontology." *Revue Internationale de Philosophie* 11 (1950), pp. 208-228. Reprinted in Linsky, in P. P. Wiener, and in 2d ed. of Carnap's *Meaning and Necessity*.
- "The methodological character of theoretical concepts." *Minnesota Studies in the Philosophy of Science* 1 (1956), pp. 38-76.
- Cassirer, Ernst. *Language and Myth*. New York: Harper, 1946.
- Chisholm, R. M. "Sentences about believing." *Proceedings of the Aristotelian Society* 56 (1956), pp. 125-148. Reprinted with revisions in *Minnesota Studies in the Philosophy of Science* 2 (1958), pp. 510-519.
- *Perceiving: A Philosophical Study*. Ithaca: Cornell, 1957.
- Chomsky, Noam. Review of Skinner's *Verbal Behavior*. *Language* 35 (1959), pp. 26-58.
- Church, Alonzo. Review of Carnap's *Introduction to Semantics*. *Philosophical Review* 52 (1943), pp. 298-304.
- Review of Quine's "Notes on existence and necessity." *Journal of Symbolic Logic* 8 (1943), pp. 45-47.
- "On Carnap's analysis of statements of assertion and belief." *Analysis* 10 (1950), pp. 97-99.
- "A formulation of the logic of sense and denotation." In Henle, Kallen, and Langer, pp. 3-24.
- "Intensional isomorphism and identity of belief." *Philosophical Studies* 5 (1954), pp. 65-73.
- "Ontological commitment." *Journal of Philosophy* 55 (1958), pp. 1008-1014.
- Review of Quine's "On Frege's way out." *Journal of Symbolic Logic*, at press.

- Conant, J. B. *Modern Science and Modern Man*. New York: Columbia University, 1952.
- Duhem, Pierre. *La théorie physique: Son objet et sa structure*. Paris, 1906.
- Eddington, A. S. *The Nature of the Physical World*. Cambridge, England, 1928.
- Einstein, Albert. "Remarks on Bertrand Russell's theory of knowledge." In Schilpp, *The Philosophy of Bertrand Russell*.
- Erdmann, K. O. *Die Bedeutung des Wortes*. Leipzig, 1900.
- Evans-Pritchard, E. E. (ed.). *The Institutions of Primitive Society*. Oxford: Blackwell, 1954.
- Feigl, Herbert. "The 'mental' and the 'physical'." *Minnesota Studies in the Philosophy of Science* 2 (1958), pp. 370-497.
- and Wilfrid Sellars (eds.). *Readings in Philosophical Analysis*. New York: Appleton-Century-Crofts, 1949.
- and May Brodbeck (eds.). *Readings in the Philosophy of Science*. New York: Appleton-Century-Crofts, 1953.
- Firth, Raymond. *Elements of Social Organization*. London: Watts, 1951.
- (ed.). *Man and Culture: An Evaluation of the Works of Malinowski*. London: Routledge and Kegan Paul, 1957.
- Firth, Roderick. "Phenomenalism." *American Philosophical Association* suppl. vol., 1952 (*Science, Language, and Human Rights*), pp. 1-20.
- Fitch, F. B. *Symbolic Logic*. New York: Ronald, 1952.
- Flew, A. G. N. (ed.). *Logic and Language*, 1st series. Oxford: Blackwell, 1952.
- Frank, Philipp. *Modern Science and its Philosophy*. Cambridge, Mass.: Harvard, 1950.
- Frege, Gottlob. *Begriffsschrift*. Halle, 1879.
- *Grundlagen der Arithmetik*. Breslau, 1884. Reprinted with English translation as *The Foundations of Arithmetic*, New York: Philosophical Library, and Oxford: Blackwell, 1950.
- "Ueber Sinn und Bedeutung." *Zeitschrift für Philosophie und philosophische Kritik* 100 (1892), pp. 25-50. English translation ("On sense and reference") in Frege, *Philosophical Writings*, and also (as "On sense and nominatum") in Feigl and Sellars.
- *Philosophical Writings*. (Peter Geach and Max Black, eds.) Oxford: Blackwell, 1952.
- Geach, P. T. "Frege's *Grundlagen*." *Philosophical Review* 60 (1951), pp. 535-544.
- Gewirth, Alan. "The distinction between analytic and synthetic truths." *Journal of Philosophy* 50 (1953), pp. 397-426.
- Goodman, Nelson. "On likeness of meaning." *Analysis* 10 (1949), pp. 1-7. Reprinted with revisions in Linsky.
- *The Structure of Appearance*. Cambridge, Mass.: Harvard, 1951.
- *Fact, Fiction, and Forecast*. Cambridge, Mass.: Harvard, 1955.
- and W. V. Quine. "Steps toward a constructive nominalism." *Journal of Symbolic Logic* 12 (1947), pp. 105-122.

- Grice, A. P., and P. F. Strawson. "In defense of a dogma." *Philosophical Review* 65 (1956), pp. 141-158.
- Hampshire, Stuart. "Subjunctive conditionals." *Analysis* 9 (1948), pp. 9-14.
- Heidegger, Martin. *Was ist Metaphysik?* Berlin, 1929.
- Hempel, C. G. *Fundamentals of Concept Formation*. International Encyclopedia of Unified Science II, 7. Chicago: University, 1952.
- "The theoretician's dilemma." *Minnesota Studies in the Philosophy of Science* 2 (1958), pp. 37-96.
- Henderson, G. P. "Intensional entities and ontology." *Proceedings of the Aristotelian Society* 58 (1958), pp. 269-288.
- Henle, Paul, H. M. Kallen, and S. K. Langer (eds.). *Structure, Method, and Meaning: Essays in Honor of H. M. Sheffer*. New York: Liberal Arts, 1951.
- Hilbert, David, and Paul Bernays. *Grundlagen der Mathematik*, vol. 1. Berlin: Springer, 1934.
- Hintikka, Jaakko. "Modality as referential multiplicity." *Eripainos Ajatus* 20 (1957), pp. 49-64.
- Hochberg, Herbert. "The ontological operator." *Philosophy of Science* 23 (1956), pp. 250-259.
- "On pegasizing." *Philosophy and Phenomenological Research* 17 (1957), pp. 551-554.
- Hofstadter, Albert. "The myth of the whole: an examination of Quine's view of knowledge." *Journal of Philosophy* 51 (1954), pp. 397-417.
- Hook, Sidney (ed.). *John Dewey: Philosopher of Science and Freedom*. New York: Dial, 1950.
- (ed.). *American Philosophers at Work*. New York: Criterion, 1956.
- Hovland, C. I. "The generalization of conditioned responses: I. The sensory generalization of conditioned responses with varying frequencies of tone." *Journal of General Psychology* 17 (1937), pp. 125-148.
- Hume, David. *A Treatise of Human Nature*. 1739-1740. L. A. Selby-Bigge (ed.), Oxford, 1888.
- Jakobson, Roman, and Morris Halle. *Fundamentals of Language*. The Hague: Mouton, 1956.
- Jespersen, Otto. *Language: Its Nature, Development, and Origin*. New York, 1923.
- *The Philosophy of Grammar*. New York, 1924.
- Joos, M. A. *Acoustic Phonetics*. Baltimore: Linguistic Society, 1948.
- Jourdain, P. E. B. *The Philosophy of Mr. B*rt*nd R*ss*ll*. Chicago and London, 1918.
- Kemeny, J. G. Review of Quine's "Two dogmas." *Journal of Symbolic Logic* 17 (1952), pp. 281-283.
- "The use of simplicity in induction." *Philosophical Review* 62 (1953), pp. 391-408.
- Korzybski, Alfred. *Science and Sanity*. Lancaster, Pa.: Science Press, 1933.
- Krikorian, Y. H., and Abraham Edel (eds.). *Contemporary Philosophic Problems*. New York: Macmillan, 1959.
- Kuratowski, Kazimierz. "Sur la notion de l'ordre dans la théorie des ensembles." *Fundamenta Mathematicae* 2 (1921), pp. 161-171.

- Land, E. H. "Experiments in color vision." *Scientific American*, May 1959, pp. 84-99.
- Langer, Suzanne K. *Philosophy in a New Key*. Cambridge, Mass.: Harvard, 1942.
- Lazerowitz, Morris. *The Structure of Metaphysics*. London: Routledge and Kegan Paul, 1955.
- Leach, E. R. "The epistemological background to Malinowski's empiricism." In Raymond Firth, *Man and Culture*, pp. 119-137.
- Lee, Dorothy D. "Conceptual implications of an Indian language." *Philosophy of Science* 5 (1938), pp. 89-102.
- Lee, O. H. (ed.). *Philosophical Essays for A. N. Whitehead*. New York: Longmans, 1936.
- Lejewski, Czesław. "Logic and existence." *British Journal for the Philosophy of Science* 5 (1954), pp. 1-16.
- Lenneberg, E. H., and J. M. Roberts. "The language of experience." *International Journal of American Linguistics*, suppl., 1956.
- Leśniewski, Stanisław. "Ueber die Grundlagen der Ontologie." *Comptes rendus des séances de la Société des Sciences et des Lettres de Varsovie*, Classe III, 1930, pp. 111-132.
- Lévy-Bruhl, Lucien. *Les Carnets*. Paris: Presses Universitaires, 1949.
- Lewis, C. I. *A Survey of Symbolic Logic*. Berkeley, 1918.
- "The modes of meaning." *Philosophy and Phenomenological Research* 4 (1944), pp. 236-249. Reprinted in Linsky.
- and C. H. Langford. *Symbolic Logic*. New York: Century, 1932.
- Lienhardt, Godfrey. "Modes of thought." In Evans-Pritchard, pp. 95-107.
- Linsky, Leonard (ed.). *Semantics and the Philosophy of Language*. Urbana: University of Illinois, 1952.
- Locke, John. *Essay concerning the Human Understanding*. 1690.
- Malinowski, Bronisław. *Coral Gardens and Their Magic*, vol. 2. New York: American, 1935.
- Mandelbrot, Benoît. "Structure formelle des textes et communication." *Word* 10 (1954), pp. 1-27; 11 (1955), p. 424.
- Martin, R. M., "On 'analytic'." *Philosophical Studies* 3 (1952), pp. 42-47.
- *Truth and Denotation*. Chicago: University, 1958.
- Mates, Benson. "Synonymity." *University of California Publications in Philosophy* 25 (1950), pp. 201-226. Reprinted in Linsky.
- "Analytic sentences." *Philosophical Review* 60 (1951), pp. 525-534.
- Mill, John Stuart. *A System of Logic*, New York, 1867.
- Mises, Richard von. *Positivism: A Study in Human Understanding*. Cambridge, Mass.: Harvard, 1951.
- Naess, Arne. *Interpretation and Preciseness*. Oslo: Dybwad, 1953.
- Neumann, J. von. "Zur Einführung der transfiniten Zahlen." *Acta Litterarum ac Scientiarum Regiae Universitatis Hungaricae Francisco-Josephinae*, sectio math., vol. 1 (1923), pp. 199-208.
- Neurath, Otto. "Protokollsätze." *Erkenntnis* 3 (1932), pp. 204-214.
- Osgood, C. E., and T. A. Sebeok (eds.). "Psycholinguistics." *International Journal of American Linguistics*, suppl., 1954.

- Pap, Arthur. "Belief, synonymity, and analysis." *Philosophical Studies* 6 (1955), pp. 11-15.
- "Belief and propositions." *Philosophy of Science* 24 (1957), pp. 123-136.
- "Disposition concepts and extensional logic." *Minnesota Studies in the Philosophy of Science* 2 (1958), pp. 196-224.
- *Semantics and Necessary Truth*. New Haven: Yale, 1958.
- Pasch, Alan. *Experience and the Analytic*. Chicago: University, 1959.
- Peano, Giuseppe. *Formulaire de mathématiques*. Paris, 1901.
- *Opere scelte*, vol. 2. Rome: Cremonese, 1958.
- Peirce, C. S. *Collected Papers*, vols. 2 and 5. Cambridge, Mass.: Harvard, 1932, 1934.
- Perkins, Moreland, and Irving Singer. "Analyticity." *Journal of Philosophy* 48 (1951), pp. 485-497.
- Pike, K. L. *Phonemics: A Technique for Reducing Languages to Writing*. Ann Arbor: University of Michigan, 1947.
- Prior, A. N. *Time and Modality*. Oxford: Clarendon, 1957.
- Putnam, Hilary. "Synonymity and the analysis of belief sentences." *Analysis* 14 (1954), pp. 114-122.
- "Mathematics and the existence of abstract entities." *Philosophical Studies* 7 (1956), pp. 81-88.
- "The analytic and the synthetic." *Minnesota Studies in the Philosophy of Science* 3, at press.
- Quine, W. V. *A System of Logistic*. Cambridge, Mass.: Harvard, 1934.
- "Truth by convention." In O. H. Lee, pp. 90-124. Reprinted in Feigl and Sellars.
- *Mathematical Logic*. New York, 1940. Revised edition, Cambridge, Mass.: Harvard, 1951.
- *Elementary Logic*. Boston: Ginn, 1941.
- "Whitehead and the rise of modern logic." In Schilpp, *The Philosophy of Alfred North Whitehead*, pp. 125-163.
- "Notes on existence and necessity." *Journal of Philosophy* 40 (1943), pp. 113-127. Reprinted in Linsky.
- *O sentido da nova lógica*. São Paulo: Martins, 1944. Spanish edition, *El sentido de la nueva lógica*, Buenos Aires: Nueva Visión, 1958.
- "The problem of interpreting modal logic." *Journal of Symbolic Logic* 12 (1947), pp. 43-48.
- Review of Reichenbach. *Journal of Philosophy* 45 (1948), pp. 161-166.
- *From a Logical Point of View*. Cambridge, Mass.: Harvard, 1953.
- "On mental entities." *Proceedings of American Academy of Arts and Sciences* 80 (1953), pp. 198-203.
- "Three grades of modal involvement." *Proceedings of XIth International Congress of Philosophy* (Brussels, 1953), vol. 14, pp. 65-81.
- "Two dogmas of empiricism." See *From a Logical Point of View*, Essay 2.

- “Carnap and logical truth.” Mimeographed. Written early in 1954 at the request of P. A. Schilpp for a volume he had been planning. Published in Italian in *Rivista di filosofia* 48 (1957), pp. 3–29. Portions also published under the title “Logical truth” in Hook, *American Philosophers at Work*.
- “Reduction to a dyadic predicate,” *Journal of Symbolic Logic* 19 (1954), pp. 180–182.
- “On Frege’s way out.” *Mind* 64 (1955), pp. 145–159.
- “Unification of universes in set theory.” *Journal of Symbolic Logic* 21 (1956), pp. 267–279.
- “Speaking of objects.” *Proceedings and Addresses of the American Philosophical Association* 31 (1958), pp. 5–22. Reprinted in Krikorian and Edel.
- “Meaning and translation.” In Brower, pp. 148–172.
- *Methods of Logic*. Revised edition. New York: Holt, 1959.
- Reichenbach, Hans. *Elements of Symbolic Logic*. New York: Macmillan, 1947.
- Reid, J. R. “Analytic statements in semiosis.” *Mind* 52 (1943), pp. 314–330.
- Richards, I. A. *The Philosophy of Rhetoric*. London: Oxford, 1936.
- Richman, R. J. “Neo-pragmatism.” *Methodos* 8 (1956), pp. 35–45.
- “Ambiguity and intuition.” *Mind* 68 (1959), pp. 87–92.
- Russell, Bertrand. *The Principles of Mathematics*. London, 1903.
- “On denoting.” *Mind* 14 (1905), pp. 479–493. Reprinted in Russell’s *Logic and Knowledge*, and in Feigl and Sellars.
- *The Problems of Philosophy*. New York, 1912.
- *Our Knowledge of the External World*. London, 1914.
- *Mysticism and Logic and Other Essays*. London, 1918. The essays date from 1901–1914.
- *Introduction to Mathematical Philosophy*. New York and London, 1919.
- *An Inquiry into Meaning and Truth*. New York: Norton, 1940.
- “Mr. Strawson on referring.” *Mind* 66 (1957), pp. 385–389.
- *Logic and Knowledge*. London: Allen & Unwin, 1958.
- Ryle, Gilbert. “Imaginary objects.” *Aristotelian Society suppl.* vol. 12 (*Creativity, Politics, and the A Priori*), 1933, pp. 18–43.
- *The Concept of Mind*. London: Hutchinson, 1949.
- Rynin, David. “The dogma of logical pragmatism.” *Mind* 65 (1956), pp. 379–391.
- Sapir, Edward. *Language*. New York, 1921.
- Scheffler, Israel. “An inscriptional approach to indirect quotation.” *Analysis* 14 (1954), pp. 83–90.
- “On synonymy and indirect discourse.” *Philosophy of Science* 22 (1955), pp. 39–44.
- “Thoughts on teleology.” *British Journal for the Philosophy of Science* 9 (1959), pp. 265–284.
- Schilpp, P. A. (ed.). *The Philosophy of Alfred North Whitehead*. 1941. 2d ed., New York: Tudor, 1951.
- (ed.). *The Philosophy of Bertrand Russell*. Evanston: Northwestern University, 1944.

- Schönfinkel, Moses. "Ueber die Bausteine der mathematischen Logik." *Mathematische Annalen* 92 (1924), pp. 305–316.
- Sellars, Wilfrid. "Counterfactuals, dispositions, and the causal modalities." *Minnesota Studies in the Philosophy of Science* 2 (1958), pp. 225–308.
- Shannon, C. E., and Warren Weaver. *The Mathematical Theory of Communication*. Urbana: University of Illinois, 1949.
- Skinner, B. F. *Science and Human Behavior*. New York: Macmillan, 1953.
- *Verbal Behavior*. New York: Appleton-Century-Crofts, 1957.
- Smith, John. "Tre tipi e due dogmi dell'empirismo." *Rivista di filosofia* 48 (1957), pp. 257–273.
- Stanley, R. L. "A theory of subjunctive conditionals." *Philosophy and Phenomenological Research* 17 (1956), pp. 22–35.
- Stebbing, L. Susan. *Philosophy and the Physicists*. London: Methuen, 1937.
- Stegmüller, Wolfgang. "Das Universalienproblem einst und jetzt." *Archiv für Philosophie* 6 (1956?), pp. 192–225; 7 (1957?), pp. 45–81.
- Strawson, P. F. *Introduction to Logical Theory*. London: Methuen, and New York: Wiley, 1952.
- "Particular and general." *Proceedings of the Aristotelian Society* 54 (1954), pp. 233–260.
- "A logician's landscape." *Philosophy* 30 (1955), pp. 229–237.
- "Singular terms, ontology, and identity." *Mind* 65 (1956), pp. 433–454.
- "Propositions, concepts, and logical truths." *Philosophical Quarterly* 7 (1957), pp. 15–25.
- *Individuals*. London: Methuen, 1959.
- Tarski, Alfred. *Logic, Semantics, Metamathematics*. Oxford: Clarendon, 1956.
- Taylor, Richard. "Spatial and temporal analogies and the concept of identity." *Journal of Philosophy* 52 (1955), pp. 599–612.
- Urmson, J. O. "Some questions concerning validity." *Revue Internationale de Philosophie* 7 (1953), pp. 217–229.
- von Mises, see Mises.
- von Neumann, see Neumann.
- Waismann, Friedrich. "Verifiability." In Flew, pp. 117–144.
- White, Morton. "On the Church-Frege solution of the paradox of analysis." *Philosophy and Phenomenological Research* 9 (1948), pp. 305–308.
- "The analytic and the synthetic: An untenable dualism." In Hook, *John Dewey*, pp. 316–330.
- *Toward Reunion in Philosophy*. Cambridge, Mass.: Harvard, 1956.
- Whitehead, A. N. *Universal Algebra*. Cambridge, England, 1898.
- and Bertrand Russell. *Principia Mathematica*, vol. 1. Cambridge, England, 1910. 2d ed., 1925.
- Whorf, B. L. *Language, Thought, and Reality: Selected Writings of Benjamin Lee Whorf*. (J. B. Carroll, ed.) M.I.T.: Technology Press and New York: Wiley, 1956.
- Wiener, Norbert. "Simplification of the logic of relations." *Proceedings of the Cambridge Philosophical Society* 17 (1912–1914), pp. 387–390.

- Wiener, P. P. (ed.). *Philosophy of Science*. New York: Scribner's, 1953.
- Williams, D. C. "The sea fight tomorrow." In Henle, Kallen, and Langer, pp. 282-306.
- Wilson, N. L. "Substances without substrata." *Review of Metaphysics* 12 (1959), pp. 521-539.
- Wittgenstein, Ludwig. *Tractatus Logico-Philosophicus*. New York and London, 1922.
- *The Blue and Brown Books*. Oxford: Blackwell, 1958.
- Woodger, J. H. *Biology and Language*. Cambridge, England: University, 1952.
- Xenakis, Jason. "The logic of proper names." *Methodos* 7 (1955), pp. 13-24.
- Ziff, Paul. "About behaviorism." *Analysis* 18 (1958), pp. 132-136.
- Zipf, G. K. *The Psycho-Biology of Language*. Boston: Houghton Mifflin, 1935.

Index

- About 239, 246
Abstract object 34, 52, 269; commitment to 119f, 123, 241ff; pro and con 122ff, 234, 237, 270
Abstraction: of classes 163ff, 209, 211f, 237. *See also* Intensional abstraction
Acquaintance 53n, 56, 178
Adjective 96f, 119; attributively used 103ff; predicatively used 96ff, 104; syncategorematic 103, 126, 132ff, 138, 175
AJDUKIEWICZ, Kazimierz 65n
ALDRICH, Virgil 12n
Algebraic 112, 184f, 188f
ALLEN, J. H. 135
ALSTON, W. P. 238n, 260n
Alternation 57f, 134, 144
Ambiguity 81, 129–133, 183; of scope 138–141; of syntax 134–137. *See also* Vagueness
Analogy 9, 14ff, 19f
Analytic sentence 65ff, 182, 207, 220f, 247, 271; and modal 195f; stimulus-55, 65–69
Analytical hypotheses 68–71, 94; freedom of 72–76, 206, 221, 243; homophonic 59, 78, 203
Ancestor 237, 269
ANREP, G. V. 84n
Antinomy 229, 232n, 266ff
APOSTEL, Leo 67n
Application 106–110, 112
A priori 66
AQUINAS, Thomas 116n
ARISTOTLE 116n, 199
Article: definite, *see* Description; indefinite 96f, 118. *See also* Indefinite singular term
Assent 29f, 57, 62
Attribute 16f, 54, 118–123, 209ff, 233, 238ff; abstraction of 163ff, 169; identity of 209, 211, 244; versus class 123, 151, 166, 210, 257n, 267
Attributive position 103ff, 107, 112
Austerity 188, 210, 221, 225, 227
AYER, A. J. 201n, 241n
BAR-HILLEL, Yehoshua 65n
BARCAN, Ruth C. 197f
BASS, M. J. 84n
BAYLIS, C. A. 239n
BEDAU, H. A. 77n
Belief: -in 174; intensions as objects of 168f, 204; other objects for 211–216; transparent and opaque 145–150; with occasion sentences 217; with variables 166f, 214ff. *See also* Propositional attitude
BENNETT, Jonathan 68n

- BERGMANN, Gustav 201n, 219n, 221n, 239n
- BERKELEY, George 1f
- BERNAYS, Paul 230n
- Binding 137, 165f
- BIRKHOFF, G. D. 21n
- BLACK, Max 130
- BLOOMFIELD, Leonard 90n
- Body, *see* Physical object
- BOLZANO, Bernard 65n
- BRAITHWAITE, R. B. 16n, 243n
- BRENTANO, Franz 53n, 219–222
- BROUGH, John 9n, 90n
- Caeteris paribus* 225
- Canonical notation 164, 173ff, 181, 226ff, 231; place of 158–161, 183, 188, 204, 221, 242f. *See also* Paraphrase
- CANTOR, Georg 209, 232n
- CARNAP, Rudolf 67n, 133, 229, 244n, 259n, 265n; *Aufbau* 19n, 84n; on intensional isomorphism 62, 75n, 202–205; on meaning 35, 53n; on modality 195f, 198n; on nature of philosophy 271f; on propositional attitudes 212n, 217n; on propositions 149n, 202; on theoretical concepts 16n, 226n
- CASSIRER, Ernst 77n, 122n
- Categoricals 60f, 70
- Category 161, 229f, 275
- Charity 59n, 69n
- CHISHOLM, R. M. 3n, 35, 180n, 218ff, 235n
- CHOMSKY, Noam 82n
- CHURCH, Alonzo 149n, 151n, 202, 204n, 213, 241; on sense and denotation 151, 168, 197f
- Class 17, 229f, 237f, 266–271; abstraction of 163ff, 209, 211f, 237; abstractness of 123, 233, 266; versus attributes 123, 151, 166, 209f, 257n, 267
- Coextensiveness 51, 54f, 151, 211
- Collateral information 37–42, 55, 62
- Collective 91n
- Commitment 4, 112, 119f, 123, 241ff, 270
- CONANT, J. B. 251n, 270
- Concatenation 143, 185, 189f
- Conceptual scheme 3ff, 10, 92, 123f, 161, 275f; comparison of 77f; truth in 24f
- Concrete 233. *See also* Physical object
- Concretion 151n, 237
- Conditional 33ff, 64, 196, 222–226, 261
- Conditioning, *see* Learning to talk, Reinforcement, Stimulation
- Confirmation 63f
- Conjunction 57f, 64
- Conservatism 20f
- Construction (grammatical) 49, 70, 231
- Contradiction, law of 59
- Converse 106, 112
- Copula 54, 60f, 74, 96f, 99, 118
- Cross-reference 113, 119, 135ff, 148, 157, 166ff
- Cumulative 91, 97
- DAVIDSON, Donald 32n, 37n, 49n, 66n, 83n, 153n, 217n, 265n
- Definition 188ff, 250
- Demonstrative 100–103, 108, 163, 185n
- Denotation 90n
- Derelativization 106, 112
- DESCARTES, René 24, 256
- Description 56, 95, 102, 107, 111, 178; elimination of 183f, 187ff, 259ff; pronoun as 103, 113; referential instability of 108, 113, 131, 183; regimentation of 164f, 174
- Discernible 230
- Discrimination threshold 83f
- Disposition 33f, 134, 175, 222–225
- Divided reference 91–95, 100, 108, 115, 124
- Don't-cares 182, 259
- DUHEM, Pierre 67n

- EDDINGTON, A. S. 265
 EINSTEIN, Albert 16n, 172, 251, 253, 272
 Equivocation, fallacy of 227
 ERDMANN, K. O. 130
 Essence 199
 Eternal sentence 12, 193f, 200f, 208, 213, 226f
 EUCLID 251, 253
 Evidence 3, 17ff
 Existence 4, 176, 184, 242, 272, 275; ambiguous? 131, 242; and indefinite terms 112, 162; commitment to 119f, 123, 241ff, 270
 Explication 258–266
 Extension 134, 239
 Extensionality 151, 231
 Extrapolation 14, 19f

 Fact 44n, 246ff
 Falsehood 47, 59, 177
 Familiarity of principle 20f
 FEIGL, Herbert 265n
 FIRTH, Raymond 30n, 39n
 FIRTH, Roderick 234
 FITCH, F. B. 198
 Form, linguistic 48, 89, 129, 191, 194f
 FRANK, Philipp 16n
 FREGE, Gottlob 163f, 196, 226, 237, 257, 269; on number 259, 262–265; on sense and reference 113n, 142n, 151, 168, 201
 Function 233, 237

 GEACH, P. T. 117n
 General term 90ff, 95ff, 99f, 105; abstract 119f; learning of 92–95, 102, 115; regimentation of 174ff, 230ff; synonymy of 51–57, 70; versus abstract 119, 123, 239ff; versus ambiguous 130f
 Geometry 251–257, 273
 GEWIRTH, Alan 65n, 206f
 GOODMAN, Nelson 67n, 84n, 101n, 145n, 171f, 269n; on conditionals 222, 226n; on part and whole 52, 61, 91n, 98f

 GREENOUGH, J. B. 135
 GRELLING, Kurt 232n
 GRICE, A. P. 63f, 66n, 206f

 HALLE, Morris 90n
 HAMPSHIRE, Stuart 225n
 HEIDEGGER, Martin 133
 HEMPEL, C. G. 11n, 16n
 HENDERSON, G. P. 243n
 HERACLITUS 116, 171
 HILBERT, David 230n
 HINTIKKA, Jaakko 197n
 HOCHBERG, Herbert 180n, 182n
 HOFSTADTER, Albert 13n, 68n
 Holism 13n
 Homonym 81, 129
 Homophonic 59, 78, 203
 HOVLAND, C. I. 84n
 HULL, C. L. 84n
 HUME, David 9, 116, 133
 Hunting 134, 154ff, 219f, 242, 274

 Idea 26, 74, 210, 239n, 258, 264ff
 Ideal object 249f, 266
 Identity 70, 114–118; in canonical notation 186f, 230f; in construing terms 53ff, 61, 74, 95; lexical 130; of attributes 209, 211, 244; of indiscernibles 230; of propositions 200f, 203, 205, 244; substitutivity of 142f, 146, 151, 153, 167, 178
 Implication 196, 226
 Indefinite singular term 112ff, 117, 133; in opaque construction 146ff; regimentation of 162f; scope of 138–141
 Indeterminacy of translation 27, 54, 72–79, 206, 221
 Indicator word 101, 173, 183, 185n, 218, 226, 228
 Indirect quotation 211–220
 Infinitesimal 248f, 266
 Information: intrusive 37–42, 55, 62
 Inscription 214
 Intension 164f, 257n; as object of propositional attitudes 168f, 200, 202f, 209, 211f, 216; identity of

- 200f, 203, 205, 209, 211, 244; in modal logic 199f; renunciation of 206–213, 216
- Intensional abstraction 164f, 185f, 216; in modal logic 199f; opacity of 169, 209–213
- Intensional isomorphism 62, 75n, 202–205
- Intentionality 219–222
- Interanimation of sentences 9–13
- Intersubjective 1f, 8, 31, 134
- Intrasubjective stimulus synonymy 46–49, 51
- Intrusive information 37–42, 55, 62
- Intuitive 36n
- JAKOBSON, Roman 46n, 90n, 138n
- JESPERSEN, Otto 91n, 101n, 135n
- JOHNSON, Samuel 3f, 17f
- JOOS, M. A. 89n
- JOURDAIN, P. E. B. 135
- KANT, Immanuel 67n
- KEMENY, J. G. 20n, 207n
- KORZYBSKI, Alfred 117
- KRONECKER, Leopold 148
- KURATOWSKI, Kazimierz 259f, 262
- LAND, E. H. 127n
- LANGER, Suzanne K. 80n
- LANGFORD, C. H. 195n, 213n
- Language 1, 8, 27f, 77; as value of variable 214; ordinary 3f, 259, 261. *See also* Learning to talk *and* Translation
- LAZEROWITZ, Morris 119n, 260n
- LEACH, E. R. 58n
- Learning to talk: abstractly 121f; by analogy 9, 14ff; by context 14–17, 51, 60, 93ff; by linked sentences 10–13, 45; by ostension 5f, 45, 81–85, 92, 94, 125; by phonetic norms 88; referential phases of 108ff; social focus of 1, 5–8
- LEE, Dorothy D. 77n
- LEIBNIZ, G. W. von 116
- LEJEWSKI, Czesław 181n
- LENNEBERG, E. H. 77n
- LEONARD, H. S. 61
- LEŚNIEWSKI, Stanisław 61, 181
- LÉVY-BRUHL, Lucien 59n
- LEWIS, C. I. 75n, 99n, 195f, 202
- Lexical identity 130
- LIENHARDT, Godfrey 77n
- Limit 248–251
- Linguistic form 48, 89, 129, 191, 194f
- LOCKE, John 133, 239n
- Logic 11ff, 158f, 163f, 227, 273f; and regimentation 158–161, 228, 230ff; in translation 57–61. *See also* Class, Description, Identity, Modality, Quantification, Variable
- Logical: particle 57, 60, 65n, 67, 105; truth 11ff, 59ff, 65f, 131, 273f
- ŁUKASIEWICZ, Jan 158n
- MALINOWSKI, Bronisław 58n, 129n
- MANDELBROT, Benoît 88n
- MARTIN, R. M. 90n, 207n, 269n
- Mass term 91ff, 95, 101; adjectival 97, 104; as precursor of abstract 120f; in predication 97ff
- Material 91n. *See also* Physical object
- MATES, Benson 66n, 202, 207n, 243n
- Maxim: of shallow analysis 160; of translation 59, 69
- Meaning: as class of synonyms 201; indeterminacy of 26, 34, 38, 76, 160, 243; intentionality of 220; loose talk of 43, 61, 76, 78, 206f, 250; proposition as 201ff, 206. *See also* Analytic sentence, Stimulus meaning, Synonymy
- Meaninglessness 229
- MEIER, Adolf 160
- Memory 3, 10, 88
- Mentalistic 1–4, 74, 79, 219, 234, 264–267
- Mereology 61
- MICHELSON, A. A. 36
- MILL, J. S. 90n, 105n
- MILLER, G. A. 82n
- Mimicry 81f, 88
- MINKOWSKI, Hermann 172n

- MISES, Richard von 44n
 Modality 195–200, 202
 Modulus 28, 32f, 36, 43, 55; bearing
 on stimulus synonymy 50f, 63
 Molecule 14–17, 21f, 98, 224, 250, 265
 MORLEY, E. W. 36
- NAESS, Arne 67n
 Name 61, 180ff, 189. *See also* Singu-
 lar term
 Necessity 66, 195–199
 Negation 57ff, 140
 Neologism 3
 NEUMANN, J. von 262f
 NEURATH, Otto 3f, 124, 210
 Neutrino 16, 76
 NEWTON, Isaac 250f
 Nominalism 233, 237f, 243n, 268ff
 Norm 85–90, 191
 Nothing 133, 261
 Noun, *see* Adjective, Substantive,
 Term
 Number 118, 237, 245, 265f; as illus-
 trating explication 259, 262ff
- Object 52, 79; -directed 7f, 10, 239,
 246; geometrical 251–257; ideal
 249f, 266; intentional 220; possible
 34, 245f. *See also* Abstract object,
 Intension, Physical object
 Objective pull 7f, 10
 Observation sentence 42–45, 68, 71,
 76, 217, 227
 Occasion sentence 35ff, 57, 73, 217;
 infantile learning of 81, 92; non-
 observational 42, 45–51, 71, 76;
 versus term 51–54, 56, 61
 Ontology 122ff, 233, 271f, 275f; com-
 mitment to 4, 112, 119f, 123, 241ff,
 270
 Opacity 144–151; and variables 166ff;
 of 'hunt' etc. 152–156; of inten-
 sional abstraction 169, 209–213; of
 modality 197f
 Open sentence 137, 211f
 Operant behavior 80ff
 Ordered pair 210, 257–260
 Ordinary language 3f, 158, 259, 261
 OSKOOD, C. E. 81n
 Ostension 5f, 45, 81ff, 92, 94, 115,
 125. *See also* Demonstrative
- PAP, Arthur 65n, 186n, 194n, 202n,
 214n, 226n
 Paradox 229, 232n, 266ff
 Paraphrase: in grades 188, 221, 225ff;
 opportunistic 160ff, 180, 188ff, 193,
 221; to aid communication 157f,
 221; to explicate 258–266; to out-
 line reality 161, 210, 221, 227f; to
 simplify logic 158f, 161, 221; versus
 synonymy 159ff, 182f, 214, 250,
 258f
 Parentheses 137, 157f
 PARMENIDES 133
 Part 52f, 61, 91, 98f
 Particle: logical 57, 60, 65n, 67,
 105; physical 14–17, 21f, 98, 123,
 224, 250, 265
 Particular 34, 53n, 233. *See also*
 Physical object
 PASCH, Alan 68n, 235n
 PEANO, Giuseppe 97n, 116n, 164,
 257n, 262
 PEIRCE, C. S. 23, 101n, 135, 186, 257
 PERKINS, Moreland 63f
 Phoneme 28, 48, 89f, 195
 Physical object 233, 241; and divided
 reference 92, 95, 123f; as basic 1–4,
 234, 237f; scattered 98f, 210; small
 14–17, 21f, 98, 123, 224, 250, 265
 Physicalism 1–4, 234ff, 264ff
 PIKE, K. L. 28n
 PLATO 133
 Platonism 233, 243n
 POINCARÉ, Henri 251
 Posit 3, 22, 118. *See also* Ontology
 Possible object 34, 245f
 Predication 96ff, 104, 106, 119, 239;
 as canonical role of general term
 175, 228, 231
 Prediction 18
 Prelogical 58f, 69
 PRIOR, A. N. 197n

- Progression 262f
Pronoun 53, 101, 113f, 119, 135, 137;
relative 110ff, 117f; with indefinite
antecedent 113, 148
Proposition 151, 192ff, 246; abstrac-
tion of 165, 185, 192; as meaning
201ff, 206
Propositional attitude 150–156; and
modality 195, 199; intensions as ob-
jects of 168, 209; other objects for
211, 213, 215f; shakiness of the
idioms 216–222, 228. *See also* Be-
lief
Protocol language 2. *See also* Ob-
servation sentence *and* Sense datum
PUTNAM, Hilary 57n, 202, 204n, 242n
- Quality 41, 83ff, 234, 238f
Quantification 163, 261; and classes
209f, 237, 266; and limits of uni-
verse 232; and modality 197f; and
ontic commitment 241ff, 251, 258,
266; and opacity 166ff
Quotation: and modality 197; and
propositional attitudes 212ff; and
spelling 143, 189f; indirect 211–
220; opacity of 142ff, 146, 190
- Realism 233, 237
Reality 3f, 22, 161, 221, 227f
Reduction 265f
Reference: cross- 113, 119, 135ff, 148,
157, 166ff; cumulative 91, 97; di-
vided 91–95, 100, 108, 115, 124;
singular 95f, 177ff, 181ff
Referential position 142ff, 146f, 152–
155, 167f; elimination of names
from 176–180. *See also* Opacity
REICHENBACH, Hans 101n, 150n, 172n,
197n, 226n
REID, J. R. 67n
Reinforcement 18, 80–83, 85, 88, 125
Relation 164, 209ff, 257n, 258, 266
Relative: clause 110ff, 118, 140f, 150;
term 105–109
Relativity theory 172, 251, 253ff, 272
RICHARDS, I. A. 9n, 127
RICHMAN, R. J. 131n, 207n
ROBERTS, J. M. 77n
RUSSELL, Bertrand 101n, 131n, 144n,
150f, 273; on acquaintance 53n, 56,
178; on classes 229f, 266, 268f; on
conditionals 196, 226; on descrip-
tion 184f, 189, 246n, 259, 261; on
number 262; on time 172n
RYLE, Gilbert 131n, 181, 241n
RYNIN, David 24n, 206n
- SAPIR, Edward 77n
Scatter 98f, 210
SCHEFFLER, Israel 145n, 202, 204n,
214f, 218n
SCHÖNFINKEL, Moses 112
SCHRÖDINGER, Erwin 49n
Scientific method 19–25, 75
Scope: of indefinite term 138–141,
147, 154f, 158, 162; of quantifier
165; of syncategorematic adjective
138; of theory 20
SEBEOK, T. A. 81n
Second intention 48f. *See also* Quota-
tion
SELLARS, Wilfrid 226n
Semantic: ascent 271–276; correlation
71, 73f
Sense datum 1f, 9, 41, 44, 84f, 234–
239
Sentence 5f, 9, 51, 195; eternal 12,
193f, 200f, 208, 213, 226f; inter-
animation of 9–13; long 49, 58; ob-
servation 42–45, 68, 71, 76, 217,
227; open 137, 211f; standing 35f,
43, 57, 63, 69. *See also* Analytic
sentence *and* Occasion sentence
Sequence 195
Set, *see* Class
Shallow analysis 160
SHANNON, C. E. 88n
SHEFFER, H. M. 228n
Simplicity 19–23, 158, 188, 227, 229
SINGER, Irving 63f
Singular description, *see* Description
Singular term 52, 55, 90ff, 95f, 126,
130; abstract 97, 118ff, 134, 240f;

- demonstrative 100–103, 108, 163, 185n; eliminated 179–187, 216; lacking object 95, 108f, 113, 176f; mass term as 98f, 104f; pronominal 103, 112f; restored 188f; with identity 115ff, 176–180. *See also* Abstraction, Description, Indefinite singular term, Referential position
- SKINNER, B. F. 80, 82
- SMITH, John 12n
- Specious present 28
- Spelling 143f, 190
- Standing sentence 35f, 43, 57, 63, 69
- STANLEY, R. L. 222n
- STEBBING, Susan L. 265
- STEGMÜLLER, Wolfgang 269n
- Stimulation: and translation 27–30; and word learning 5f, 9, 81, 83ff; as pattern 31f, 34; in theory of knowledge 2f, 11, 13, 17ff. *See also* Modulus and Stimulus meaning
- Stimulus-analytic 55, 65–69
- Stimulus meaning 32–36; and categoricals 60f; and infantile learning 92f; and intrusive information 37–42; and modulus 33, 63; by samples 45ff; discrepancies 37–40, 43, 48; of terms 51ff, 56, 70, 80; random variation of 45f, 56
- Stimulus synonymy: and analytical hypotheses 68, 73; and belief 217; and propositions 204; intrasubjective 46–49, 51; of standing sentences 63ff; of terms 54ff; socialized 46f, 56, 62f, 66
- STRAWSON, P. F. 44n, 53n, 90f, 171n, 233n, 238n; on analyticity and synonymy 63–66, 206f; on singular terms 173n, 177, 185f, 259n
- Substantive 96f, 102ff, 111f, 118f, 162
- Substitution 67, 158, 187f
- Substitutivity of identity 142f, 146, 151, 153, 167, 178
- Subtraction, fallacy of 206f
- Such that 112, 114, 136, 140f, 148, 150; absorbed 162, 164f, 175
- Sufficient reason 21
- Syncategorematic adjective 103, 126, 132ff, 138, 175
- Synonymy: and paraphrase 159ff, 182f, 214, 250, 258f; and propositions 200–205; of sentences 37, 41, 46, 61–66; of terms 56f; structural 204f; translational 75. *See also* Analytic sentence, Intensional isomorphism, Meaning, Stimulus synonymy
- Synthetic, *see* Analytic sentence
- TARSKI, Alfred 24n, 67n, 143, 158n, 232n
- Tautology 60
- TAYLOR, Richard 172n
- Term, *see* General term, Mass term, Relative: term, Singular term
- Theory: as fabric of sentences 11f, 18, 35, 64; desiderata of 19ff; empirically under-determined 26f, 78; examined from within 4f, 24f, 80, 276; framework for 228–232; ideal 23; multiplicity of 251, 270; relativity to 22, 24f, 34; talk of 272ff; terms of 56f
- Time 170–173, 191–194, 227
- Translation: by acculturation 47, 71; indeterminacy of 27, 54, 72–79, 206, 221; of logical particles 57–61; radical 28ff, 57, 60, 75f, 92. *See also* Analytical hypotheses
- Transparency, *see* Opacity
- Truth 23f, 67, 75f, 131; function 57–60, 68, 144, 226; logical 11ff, 59ff, 65f, 131, 273; vehicle 192f, 208f, 227. *See also* Truth value
- Truth value 58, 60, 62, 64, 131, 227; gaps 113, 176f, 182ff, 226, 261
- Types 229f, 268n
- Universal, *see* Abstract object and Quantification
- Unrealized entity 34, 245f
- URMSON, J. O. 265n
- Utterance 85f, 88f, 191f, 194f, 214f

- Vagueness 85, 125–128. *See also*
 Ambiguity
- Variable 136f, 165–169, 184ff, 237;
 value of 192n, 232, 242, 251, 258,
 266
- WAISMANN, Friedrich 128n
- WEAVER, Warren 88n
- WEIERSTRASS, Karl 248, 250ff, 254
- WHITE, Morton 67f, 131n, 259n
- WHITEHEAD, A. N. 117, 144n, 151n,
 172n, 184n, 196, 269n
- WHORF, B. L. 77n
- WIENER, Norbert 258ff, 262
- WILLIAMS, D. C. 120n, 172n
- WILSON, N. L. 59n
- WITTGENSTEIN, Ludwig 4, 76f, 117,
 131n, 260f, 274n
- WOODGER, J. H. 90n
- Word 5, 13f, 17, 51, 68, 70f
- XENAKIS, Jason 206n
- ZENO 172
- ZERMELO, Ernst 230n, 263
- ZIFF, Paul 265n
- ZIPF, G. K. 89n

S