The Bulletin of Symbolic Logic
Volume 5, Number 3, Sept. 1999

IN MEMORIAM: NELSON GOODMAN
1906–1998

Nelson Goodman, analytic philosopher of science and of the arts who made seminal contributions in a striking variety of areas, died November 25, 1998, in Needham, Massachusetts. He was 92. Goodman was a frequent early contributor to the *Journal*, and was Vice President of the Association from 1950 to 1952. In later years he and the *Journal* were to move in different directions, though his work continued to involve applications of logic.

Goodman published eight papers in the *Journal*, three of them coauthored, and a like number of reviews. Four of the papers sought to develop methods for determining the relative simplicity of sets of extralogical primitives. Constructional systems, like that of Carnap's *Aufbau*, were a major focus for Goodman; he offered a detailed study of them in his first book, ***Structure of appearance*** [1]. As he put it, "The motives for seeking economy in the basis of a system are much the same as the motives for constructing the system itself."

The paper *Elimination of extra-logical postulates* [9], written with Quine, showed how such postulates might be replaced by "mere definition" in a wide range of cases. A ready illustration is elimination of the postulate of transitivity for the "part of" relation: rather than take 'Pt' as primitive, define it in terms of 'O', overlaps, by

$$x\ Pt\ y =_{\mathrm{df}} \forall z\ (x\ O\ z \rightarrow y\ O\ z),$$

and Pt's transitivity becomes a theorem. The paper characterizes the broad circumstances in which such replacements can be made.

Goodman's best known *Journal* paper was also written with Quine: *Steps toward a constructive nominalism* [12]. It opens "We do not believe in abstract entities," asserting the nominalism that Goodman championed throughout his career. Quine, by way of contrast, came to embrace a pragmatically induced platonism and insisted, accordingly, that the brief manifesto had been offered as a working hypothesis just for the nonce. It was this paper that made the memorable if outrageous suggestion that "The stock of available inscriptions can be vastly increased if we include, not only those which have colors or sounds contrasting with the surroundings, but all appropriately shaped spatio-temporal regions even though they be indistinguishable from their surroundings in color, sound, texture, etc." Further, the paper showed how nominalists could define such sentences

1079-8986/99/0503-0006/$1.30

as 'There are more cats than dogs' with the slender means available to them.

Another of Goodman's *Journal* papers, [8], written with Henry Leonard, was on the Leśniewskian calculus of individuals, which was to serve as the underlying logic of ***Structure***. His paper *Sequences* [10] was an uncharacteristic foray into set theory, exploring a way of lowering the type level of what amounted to ordered k-tuples for $k > 2$.

Goodman was born Henry Nelson Goodman in Boston in 1906. His B.S. in 1928 and Ph.D. in 1941 were both from Harvard; between them he spent several years as an art dealer in Boston. He taught philosophy at Tufts, the University of Pennsylvania, Brandeis, and Harvard. At Harvard he founded Project Zero, an interdisciplinary program in aesthetics research. He was President of the Eastern Division of the American Philosophical Association in 1967. He was married to the artist Katharine Sturgis until her death in 1996.

Goodman wrote a definitive article on the problem of counterfactual conditionals and gave persuasive analyses of such notions as likeness of meaning and aboutness. His technical writing leaned heavily on formal logic but remained accessible to philosophers.

The book ***Fact, fiction, and forecast*** [2] made famous the "new riddle of induction" and the notorious puzzle of the grue emeralds. Goodman contended that Hume too had seen that the real problem of induction was to find criteria to distinguish lawlike, or "projectible" hypotheses, from accidental generalizations not confirmed by their instances. An object is *grue* if it is either examined for color before a fixed future time t and found to be green, or else not so examined and blue. So 'All emeralds are grue' has the same evidential support as 'All emeralds are green', yet only the latter is a serious candidate for adoption. The new riddle is to find grounds for the distinction. Goodman's well-known solution, in terms of the "entrenchment" that has accrued to what have thereby become bona fide predicates, echoes Hume's appeal to custom or habit.

With ***Languages of art*** [3] Goodman broke new ground in aesthetics. Indeed, he revolutionized the philosophy of art. Goodman described the book as "an approach to a general theory of symbols." The theory of reference that he develops comprehends such nonverbal modes as depictions, maps, and scores. He emphasizes the multiplicity of ways of seeing, picturing, and representing, and so promotes a very broadly based relativism. He establishes the cognitive nature of aesthetic experience and effectively fractures the traditional distinction between science and the arts.

Goodman's later writings extend his relativism into a doctrine of irrealism: there are multiple right world versions, not all of which are verbal, and some of which may conflict with others. There is thus no one "way the world is" and no most faithful version.

Goodman brought a fresh perspective wherever he looked; he enjoyed reformulating old problems, rarely resting with their received versions. His writing combined precision with wit in ways that are reminiscent of J. L. Austin. A favorite Goodman quip is “A metaphor is an affair between a predicate with a past and an object that yields while protesting.” His work illuminates an extraordinary range of philosophical issues. My own projection is that he will be accorded an increasingly prominent place among twentieth century philosophers.

JOSEPH S. ULLIAN

BOOKS

[1] NELSON GOODMAN, ***The structure of appearance***, Harvard University Press, Cambridge, MA, 1951, 3rd ed., Reidel, Dordrecht, 1977.

[2] ———, ***Fact, fiction, and forecast***, Harvard University Press, Cambridge, MA, 1954, 4th ed., 1983.

[3] ———, ***Languages of art***, Hackett, Indianapolis, 1968, 2nd ed., 1976.

[4] ———, ***Problems and projects***, Hackett, Indianapolis, 1972.

[5] ———, ***Ways of worldmaking***, Hackett, Indianapolis, 1978.

[6] ———, ***Of mind and other matters***, Harvard University Press, Cambridge, Massachusetts, 1984, 2nd ed., Hackett, Indianapolis.

[7] NELSON GOODMAN and CATHERINE ELGIN, ***Reconceptions in philosophy and other arts and sciences***, Hackett, Indianapolis, 1988.

ARTICLES in ***The Journal of Symbolic Logic***

[8] NELSON GOODMAN and HENRY LEONARD, *The calculus of individuals and its uses*, ***Journal of Symbolic Logic***, vol. 5 (1940), pp. 45–55.

[9] NELSON GOODMAN and W. V. QUINE, *Elimination of extra-logical postulates*, ***Journal of Symbolic Logic***, vol. 5 (1940), pp. 104–109.

[10] NELSON GOODMAN, *Sequences*, ***Journal of Symbolic Logic***, vol. 6 (1941), pp. 150–153.

[11] ———, *On the simplicity of ideas*, ***Journal of Symbolic Logic***, vol. 8 (1943), pp. 107–121.

[12] NELSON GOODMAN and W. V. QUINE, *Steps toward a constructive nominalism*, ***Journal of Symbolic Logic***, vol. 12 (1947), pp. 105–122.

[13] NELSON GOODMAN, *The logical simplicity of predicates*, ***Journal of Symbolic Logic***, vol. 14 (1949), pp. 32–41.

[14] ———, *An improvement in the theory of simplicity*, ***Journal of Symbolic Logic***, vol. 14 (1949), pp. 228–229.

[15] ———, *New notes on simplicity*, ***Journal of Symbolic Logic***, vol. 17 (1952), pp. 189–191.