The Seven Logical Relations[1]

A.N. Prior

Some years ago (in 19 …) Susan Stebbing[2] produced a little popular introduction to logic called Logic in Practice, in which one of the main topics was the "seven logical relations" in which one proposition may stand to another. She called them …[3]

Now a popular introduction, called Elementary Formal Logic, has been produced by C.L. Hamblin[4] of the University of New South Wales, this being a "programmed course of the 'linear' type", which sample questions and answers following short explanations, point by point. (I can imagine this book being useful in a variety of ways e.g. as an adjunct to an adult education course, or as a means for breaking down the initial hopelessness of many beginners in University logic courses; it is in any case a nice bit of field work by one of the main living experts on the logic of question and answer). And in {2} this book a prominent place is given to the "seven logical relations". And rightly so; they do make an excellent "lead in" for the people for whom Hamblin is writing, and for whom Stebbing wrote before. But now that they are being thus brought before us again, it may be a good time to say a little about them, from both a historical and systematic point of view.

Hamblin speaks, in this connexion, of "this ancient piece of doctrine", and refers to them as the seven "classical" logical relations, in a context in which the contrast is clearly with "modern" (rather than, say, with "intuitional"). I suppose a book which can still be so like Stebbing in 1966 could be said to have an antique air, but in fact Hamblin's doesn't, and this is anyhow not what he means. The seven relations were not of course Stebbing's invention. But so far as I can find out they were not counted or listed as seven until 1906.

Their history appears to be as follows:- W.S. Jevons, in his Principles of Science (1874), Chapter 6, observed that anyone "Any one proposition or group of propositions may be classed …."

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[1] The partial text is kept in the Prior collection at Bodleian Library, Oxford. It has been edited by Martin Prior and Peter Øhrstrøm. It has not been dated, but since Hamblin's book was published in 1966, it was probably written shortly after.

[2] Susan Stebbing, *Logic in Practice*, Methuen & Co. Ltd., 1934.

[3] Prior does not list the seven relations in this MS, but it is usually claimed that propositions may be (1) equivalent, (2) related as principal to subaltern, (3) related as subaltern to principal, (4) independent, (5) subcontraries, (6) contraries or (7) contradictories, cf. Morris Raphael Cohen, Ernest Nagel, John Corcoran, *An Introduction to Logic*, Hackett Publishing, 1993, p. 56.

[4] C.L. Hamblin, *Elementary Formal Logic: A Programmed Course*, Methuen, London, 1966.