Message Semantics

DAVID HARRAH

1 Introduction   There is an important class of expressions for which we should have a logic. We don't yet have a complete and satisfactory logic for these expressions, but at least a start has been made.[1] One aim of this paper is to describe a semantics for these expressions. Another aim is to compare the treatment of names in this semantics with the treatment of names in situation semantics.

The expressions in question may be called *explicitly vectored expressions.* Examples are given in Section 2. We construct a logic for these within an extensional framework. Roughly: We begin with a first-order language, add some nonlogical axioms, add apparatus to provide for speech-act sentences, add a system for reply and response, and then define the key concept of formal message. Then we extend the system by adding pronouns, so that certain kinds of seemingly informal expressions can be construed as abbreviating, and thereby expressing, the formal messages. In this way we have a logic for both the explicitly vectored formal expressions and the implicitly vectored informal expressions.

Loosely speaking, the system provides messages as the meanings of utterances. For this reason the system may be said to be a *message semantics.* (Cf. "propositional semantics," in which propositions are provided as meanings.)

2 Vectored expressions   The class of expressions that we are concerned with here can be indicated well enough by the following examples.

First consider the "formal memo" (whose components we number at the left, in a scheme that will be used later):

(0)   11 March 1985
(1)   From: Jane McGaugh, Dean
(2)   To: John Bryant, Chairman, Philosophy
(3)   Subject: Faculty workload
(4)   Re: Your letters of March 6 and 7