PRIOR AND THE BARCAN FORMULA

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Two recent discussions of Prior's criticism (in Chapter III of [3]) of the Barcan formula contain serious confusions. Consequently, the issue has received more attention than it deserves.

In his account of Prior's criticism, Gerald Massey [2] claims that Prior's rejection of the traditional method of handling tense distinctions in logic was motivated by his rejection of the Barcan formula,

(1) $CM\Sigma x\phi x\Sigma xM\phi x$.

But, as Massey pointed out, it is only when (1) is interpreted tense-logically that the legitimacy of the formula can be questioned, for then it seems to have false instances like

(2) If it either is, has been or will be the case that someone is flying to Mars, then there is someone who either is flying or has flown or will fly to Mars.

However, if the quantifiers of (1) are read *tenselessly*, as they presumably are intended to be in ordinary quantification theory, the formula is perfectly innocuous as it comes to the plain

(3) $C\Sigma t\Sigma x\phi xt\Sigma x\Sigma t\phi xt$,

which is a thesis of quantification theory. Thus, it is only by reading the quantifiers as expressing *tensed* existence that (1) is found to be objectionable. Consequently, Massey argued, Prior must already have been committed to the tense logic program *before* he began reflecting on (1). Thus Prior's motivating argument begs the question and leaves us with no reason for abandoning the traditional treatment of tenses.

But Prior never doubted the legitimacy of (1) as a thesis of ordinary quantification theory, that is, never doubted the legitimacy of (3). With regard to (3), he wrote:

> Intuitively, there can be no getting away from it—if there is a time of which it is timelessly true that something ϕ's at it, then quite unquestionably there is an object of which it is timelessly true that it ϕ's at some time. ([3], p. 27)