ABSTRACT. In his paper ‘Changing the Theory of Theory Change: Reply to My Critics’, N. Tennant (1997b) reacts to the critical reception of an earlier article of his. The present note rectifies some of the most serious misrepresentations in Tennant’s reply.

In Hansson and Rott (1995), it is shown that Tennant (1994), although written with the intention of exposing the weaknesses of the Alchourrón–Gärdenfors–Makinson model of belief revision (AGM model for short), failed to do so due to a series of mistakes and misrepresentations. Tennant (1997b) replied to this and to a similar criticism by Makinson (1995). In this note we want to draw attention to the fact that in his reply, Tennant still (1) does not even begin to relate his arguments to previous, more thorough treatments of the same issues; (2) attributes to himself what are in fact standard results and constructions in belief revision theory; and (3) makes elementary mistakes of logic.

Ad (1). In Hansson and Rott (1995), it was pointed out that Tennant’s criticism of the recovery postulate adds nothing new to the criticism that was voiced earlier by, e.g., Makinson (1987), Fuhrmann (1991), Hansson (1991, 1992), Levi (1991), Lindström and Rabinowicz (1991), and Niederée (1991). In contrast to Tennant, these authors neither claim that recovery is the ‘main foundation stone’ of the AGM theory of belief revision nor that it can be ‘shown’ to be generally false. But, again in contrast to Tennant, they constructively show how to accommodate these arguments and avoid recovery in a precisely defined framework that is still faithful to many of the basic ideas of AGM. Tennant’s only comment on this is: ‘If other writers had indeed already made point (1) [that recovery can be shown to be false] before me, the fact remains that these writers did not follow up where their counterexemplary intuitions led them . . .’ (1997b, p. 573, our emphasis). It is difficult to believe that this could have been written by someone who has read the above-mentioned papers and considered the arguments advanced in them.
Ad (2). On p. 577, originality is implied (“I showed there, with fully detailed formal proofs . . .”) for the author’s “two negative observations” in Tennant (1997a). The results mentioned have, however, been public since 1985 (Alchourrón, Gärdenfors and Makinson 1985; Corollary 2.2; and Alchourrón and Makinson 1985, Observation 3.2).

Tennant rightly notes that it is somewhat implausible to assume or require that all sentences be comparable in terms of epistemic entrenchment. He spends about two pages (1997b, pp. 579–581) complaining that this has been “ignored by AGM-theory”. Although we have pointed out explicitly (in footnote 5 of Hansson and Rott 1995) that there are at least two well-developed approaches dealing with entrenchment with incomparabilities in the AGM literature, Tennant repeats his incorrect claim, and the reader is given the impression that entrenchment with incomparabilities is a new idea of his. The idea has, in fact, been carefully explored, in two remarkably different ways, by Lindström and Rabinowicz (1991) and Rott (1992a).

Ad (3). On p. 581 of Tennant (1997b) it is claimed, incorrectly, that if a binary relation on sentences satisfies the two Gärdenfors–Makinson conditions

(E1) If $\phi \leq \psi$ and $\psi \leq \chi$, then $\phi \leq \chi$,

and

(E2) If $\psi \in Cn(\phi)$, then $\phi \leq \psi$

then it also satisfies

(X) if $\phi$ logically implies, but is not logically implied by $\psi$, then $\psi$ is more entrenched than $\phi$

To see that (X) does not follow from (E1) and (E2), it is sufficient to let $\leq$ be the relation such that $\phi \leq \psi$ if and only if $\phi$ is not a tautology or $\psi$ is a tautology.

Unfortunately, this is a serious error. Condition (X) is employed as a crucial argument for Tennant’s conclusion that his idea of entrenchment – though not made fully explicit – is a “very different matter” from the standard understanding of entrenchment in the belief revision literature. Tennant correctly notes that (X) contradicts the third Gärdenfors–Makinson condition

(E3) $\phi \leq \phi \land \psi$ or $\psi \leq \phi \land \psi$