

- HAO-CHENG FU, *AGM theory and the Ramsey test*.

Department of Philosophy, Chinese Culture University, 55, Hwa-Kang Rd., Shilin Dist., Taipei, Taiwan.

*E-mail:* fhz2@ulive.pccu.edu.tw.

In AGM theory, there are two important issues that remain to be resolved. One is the incompatibility between the Ramsey test and the Preservation principle, and the other is the problem of iterated belief change. These two issues are related: the Ramsey test is an attempt to explain the rationality of belief revision function, but with it and the Preservation principle one will derive the triviality in AGM theory. Gärdenfors [6] blames that the culprit is the Ramsey test and contends that we should give up explaining the role of conditional in the theory of belief revision by virtue of Ramsey test. Some scholars such as Bradley [1],[2] and Chandler [3],[4] provide different ideas to this problem. They contend that the Ramsey test should be retained, and raise the challenges to the Preservation principle, especially in the subject of the DP problem. This paper aims to examine the conflict between these two solutions and prove that the triviality problem and the DP problem cannot be solved by weakening the Ramsey test or the Preservation principle.

[1] BRADLEY, R., *A Defence of the Ramsey Test*, *Mind*, vol. 116 (2007), no. 461, pp. 1–21.

[2] ——— *Restricting Preservation: A Response to Hill*, *Mind*, vol. 121 (2012), no. 481, pp. 147–159.

[3] CHANDLER, J., *Transmission Failure, AGM Style*, *Erkenntnis*, vol. 78 (2013), no. 2, pp. 383–398.

[4] ——— *Preservation, Commutativity and Modus Ponens: Two Recent Triviality Results*, *Mind*, vol. 126 (2017), no. 502, pp. 579–602.

[5] DARWICHE, A. AND PEARL, J., *On the Logic of Iterated Belief Revision*, *Artificial Intelligence*, vol. 89 (1997), issues 1-2, pp. 1–29.

[6] GÄRDENFORS, P., *Knowledge in Flux: Modeling the Dynamics of Epistemic States*, Revised ed., College Publications, 2008.

[7] HILL, B., *Defending the Ramsey Test: What is Wrong with Preservation?*, *Mind*, vol. 121 (2012), no. 481, pp. 131–146.

[8] KATSUNO, H. AND MENDELZON, A., *Propositional Knowledge Base Revision and Minimal Change*, *Artificial Intelligence*, vol. 52 (1991), issue 3, pp. 263–294.

[9] PEPPAS, P., *A Panorama of Iterated Revision*, *David Makinson on Classical Methods for Non-Classical Problems* (S. O. Hansson, editor), Springer Dordrecht, Van Godewijkstraat 30, 3311 GX Dordrecht, 2014, pp. 71–94.