



Nonmonotonic Reasoning

Winter Semester 2017/18

Exercise Sheet 11 – Belief revision

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Exercise 11.1 Revision is a kind of nonmonotonic inference. Rephrase the AGM postulates for revision functions $*$ by a nonmonotonic inference operation C_φ .

Exercise 11.2 Revision can be achieved by contraction and then expansion (i.e. the Levi Identity). Why does the following not work: first expansion and then contraction?

Exercise 11.3 Show that the AGM postulates (* 1) to (* 6) imply that $T_\varphi^*(T_\varphi^*) = T_\varphi^*$ holds.

Exercise 11.4 Complete the proof for Theorem 7.6, i.e. show that $T \cap T_{-\varphi}^*$ satisfies the postulates (- 7) and (- 8).