Research on teachers’ beliefs is based on the shared assumption that teachers’ mathematical beliefs are closely related to teachers’ intention of practice (and then to teachers’ practice). But if many studies have confirmed a strong relationship between beliefs and practice, there are also many studies finding low relationships or even inconsistencies. How can we explain these inconsistencies? Our hypothesis is that in many cases such inconsistencies are apparent and that they depend on an implicit assumption in the interpretation of self-reports collected to investigate on teachers’ beliefs. In this paper we discuss our hypothesis and the results of a 2-years research aimed at verifying or refusing it.