few would deny that it is a *necessary* condition for ascribing rationality to an agent's action that he believed it would promote his ends (Laudan, 1987, p. 21, emphasis in original).

It is true that 'rationality' is regularly used to denote instrumental efficacy. Still, is it clear that the last mentioned belief is a necessary condition for rational action? It can plausibly be thought not — or, more modestly, it can plausibly be thought that, even if necessary, the last mentioned belief is a relatively minor part of a full and adequate account of rational action. Consider a case in which an agent believes that her action will promote her ends, when she is unjustified in believing that it will: e.g., a mother's belief that frequent insistence upon her son's regular attendance at Sunday dinner will promote her end, namely his regular attendance, in the face of massive evidence that her frequent insistence has the effect of making his attendance less frequent. In this case the mother's belief in the instrumental efficacy of her frequent insistence upon her son's attendance is unjustified; she believes that her action will promote her ends, but that belief is mistaken. Is her action rational?⁵

A different kind of problematic case is one in which an agent justifiably believes that her action will further her ends, but has very good reason not to hold those ends. Consider a father who insists that his daughter devote herself to the piano, for he wants her to be a professional pianist and correctly believes that devoted study is necessary for a career as a pianist. In this case the father correctly and justifiably believes that his insistence, and his actions which manifest his insistence, will promote his end of raising his daughter to become a professional pianist. But ought he to have that end? There are plausible reasons for thinking that he should not. For one thing, his insistence fails to promote her autonomy in that it eliminates many life-options that she would have if she weren't so slavishly devoted to the piano, but there are powerful reasons for thinking that parents should foster children's autonomy (Siegel, 1988). For another, there is ample psychological evidence that the life of a professional pianist is troubling in ways that other lifestyles are not, but ordinarily we think that parents should strive to enable their children to lead happy and satisfying, rather than frustrated, lives. In the example the father has not considered these challenges to his ends and defeated them; he has simply not thought carefully about this particular end of his. So he has an end

³A analogous scientific case might be this: a scientist has the goal of publishing only accurate calculations concerning her experiments, and believes that the laborious checking and re-checking of her calculations will be instrumentally efficacious in realizing this end. So she sets for herself the rule, 'always re-check calculations at least ten times before submitting work for publication', because she believes that following this rule will be instrumentally efficacious in achieving her end. But in fact she has never discovered an error after the second re-check. Is her re-checking a seventh or tenth time rational?