Bechler’s view of philosophical accounts of empirical science as ‘apologetic’ rather than descriptive I find interesting and challenging. That some philosophers who have offered accounts of empirical science thought the subject of these accounts was a ‘good thing’ and that the accounts are more polemical than descriptive or analytical seems clear. Galileo’s writings on scientific methodology appear to me to have this character. That every account of empirical science from Aristotle to Hempel (and beyond) may accurately be viewed in this way seems considerably less evident. But I could be convinced by a careful study of the texts and their historical context. That philosophical accounts of empirical science must be (in some sense) ‘apologetic’ seems to me to be false. I take this strong version of the ‘apology thesis’ to be the one Bechler is defending.

What seems to me basically implausible here is this: Empirical science is just one among many kinds of things people do collaboratively – produce plays, buildings, manufacture automobiles. Sociologists apparently produce descriptions of at least some of these activities without ‘evaluating’ them. All but the most extreme proponents of the ‘value ladenness’ of the social sciences would admit this. Even the extremists in this respect find themselves hard pressed to argue that sociology, at this mundane level, could not be value free. At best they show that sociologists do in fact either explicitly or implicitly (through the aspects of the activity they emphasize) take an evaluative position. Now what is so peculiar about empirical science in this respect? Why should it, more than other human activities, elude dispassionate description?

More directly to the point, why should the products of empirical science – roughly, empirical theories – elude dispassionate description when the products of others apparently do not? It does not seem to be impossible to say generally and descriptively what ‘a production of a play’ is. To be sure, any reasonably precise general characterization is going to be a bit arbitrary ‘at the edges’. What we are willing to countenance as ‘a production of a play’ will be determined in good

part by what kind of a (sociological) 'theory of theatre' we intended to embed it in. This is certainly a kind of value judgment. But, clearly it need not entail anything at all about the social value of the institution of theater. Why should the concept of 'scientific theory' be different from the concept of 'production of a play' in this respect?

It may be true that most people who would choose to spend considerable professional energy on constructing a 'theory of theatre' would also be inclined to have strong attitudes (either pro or con) about the social value of this institution. One may even see how the 'pro-bias' might dominate at least among researchers likely to produce detailed, sensitive studies. People who have had some firsthand involvement with theater are more likely to be in a position to describe it accurately and also more likely to think it's generally a 'good thing'. But were we seriously questioning the social value of theater (perhaps with a view toward making adjustments in the level of public financial support), it would seem that we could surely find researchers to describe it for us in an acceptably neutral way.

Bechler seems to think that there is something peculiar about scientific theories that makes them less amenable to 'objective description' than other products of human activity: '... scientific theories are not “given” but are... logical constructions. The crucial point is not simply that they are not “given”, but rather that not even their properties are “given” or “known”...'. Now this seems clearly false to me. Pre-theoretically we know just as much about scientific theories as about productions of plays. Specific scientific theories are taught in universities, discussed at conferences and expounded in literature; just as specific productions of plays occur in theaters and are reviewed in newspapers. Of course it might be that the concept of a 'scientific theory' cannot be made precise enough to play a role in a theory of empirical scientific activity. Just as the naive concept of a 'production of a play' might not lend itself to incorporation into a theory of theater. But surely it is not a priori evident that this is so. The proof of the utility of the concept lies in the theory in which it appears. We do not yet have a very good 'theory of science' (nor of theatre, so far as I know) but I see no reason to think we could not have one. Nor do I see reason to think that the concept of 'scientific theory' could not play a role in it.

Niiniluoto's sketch of a formal-linguistic version of a theory-element core (pp. 8-10) I find illuminating. He has made very clear what is