Imagine that the natural sciences were to suffer the effects of a catastrophe. A series of environmental disasters are blamed by the general public on the scientists. Widespread riots occur, laboratories are burnt down, physicists are lynched, books and instruments are destroyed. Finally a Know-Nothing political movement takes power and successfully abolishes science teaching in schools and universities, imprisoning and executing the remaining scientists. Later still there is a reaction against this destructive movement and enlightened people seek to revive science, although they have largely forgotten what it was. But all that they possess are fragments: a knowledge of experiments detached from any knowledge of the theoretical context which gave them significance; parts of theories unrelated either to the other bits and pieces of theory which they possess or to experiment; instruments whose use has been forgotten; half-chapters from books, single pages from articles, not always fully legible because torn and charred. Nonetheless all these fragments are reembodied in a set of practices which go under the revived names of physics, chemistry and biology. Adults argue with each other about the respective merits of relativity theory, evolutionary theory and phlogiston theory, although they possess only a very partial knowledge of each. Children learn by heart the surviving portions of the periodic table and recite as incantations some of the theorems of Euclid. Nobody, or almost nobody, realizes that what they are doing is not natural science in any proper sense at all. For everything that they do and say conforms to certain canons of consistency and coherence and those contexts which would be needed to make sense of what they are doing have been lost, perhaps irretrievably.

In such a culture men would use expressions such as 'neutrino', 'mass', 'specific gravity', 'atomic weight' in systematic and often interrelated ways which would resemble in lesser or greater degrees the ways in which such expressions had been used in earlier times before scientific knowledge had been so largely lost. But many of the beliefs presupposed by the use of these expressions would have been lost and there would appear to be an element of arbitrariness and even of choice in their application which would appear very surprising to us. What would appear to be rival and competing premises for which no further argument could be given would