

ately lead man to profound physical knowledge, answered some nobler and better purpose in his constitution and government. The fact undoubtedly was, that the physical philosophy of the Greeks soon became trifling and worthless ; and it is proper to point out, as precisely as we can, in what the fundamental mistake consisted.

To explain this, we may in the first place return for a moment to Herodotus's account of the cause of the floods of the Nile. :

The reader will probably have observed a remarkable phrase used by Herodotus, in his own explanation of these inundations. He says that the sun *draws*, or attracts, the water ; a metaphorical term, obviously intended to denote some more general and abstract conception than that of the visible operation which the word primarily signifies. This abstract notion of "drawing" is, in the historian, as we see, very vague and loose ; it might, with equal propriety, be explained to mean what we now understand by mechanical or by chemical attraction, or pressure, or evaporation. And in like manner, all the first attempts to comprehend the operations of nature, led to the introduction of abstract conceptions, often vague, indeed, but not, therefore, unmeaning ; such as *motion* and *velocity*, *force* and *pressure*, *impetus* and *momentum* (ῥοπή). And the next step in philosophizing, necessarily was to endeavor to make these vague abstractions more clear and fixed, so that the logical faculty should be able to employ them securely and coherently. But there were two ways of making this attempt ; the one, by examining the words only, and the thoughts which they call up ; the other, by attending to the facts and things which bring these abstract terms into use. The latter, the method of *real* inquiry, was the way to success ; but the Greeks followed the former, the *verbal* or *notional* course, and failed.

If Herodotus, when the notion of the sun's attracting the waters of rivers had entered into his mind, had gone on to instruct himself, by attention to facts, in what manner this notion could be made more definite, while it still remained applicable to all the knowledge which could be obtained, he would have made some progress towards a true solution of his problem. If, for instance, he had tried to ascertain whether this Attraction which the sun exerted upon the waters of rivers, depended on his influence at their fountains only, or was exerted over their whole course, and over waters which were not parts of rivers, he would have been led to reject his hypothesis ; for he would have found, by observations sufficiently obvious, that the sun's Attraction, as shown in such cases, is a tendency to lessen all expanded and