

And mathematical science possesses this advantage over all other departments of abstract philosophy, that while they are theatres of combat for rival opinions, so that two men who take opposite sides may spend their lives in the strenuous endeavor to maintain respectively two opposite theories which cannot both be true, though they may both be false, the mathematician builds on firmer ground. "The houses that he builds," if I may be allowed to quote Shakspeare in this connection, "last till doomsday." It is indeed refreshing, after perusing Reid and Brown, or Kant and Hamilton, till the giddy judgment reels with doubt, to take up a quiet treatise on some mathematical subject, where every step is so sure that no adversary can question it—no school arise to doubt it.

For those who wish to display their gladiatorial skill, there is ample scope in most departments of human learning. The great Commentators on the Classics were unsurpassed in the faculty of mutual abuse, and attained perfect command of all the sarcastic epithets which could be found in Cicero. The same faculty is still more requisite for writers on Mental Philosophy, who often contradict one another upon first principles, and being precluded from logical argument by the want of a common standing ground, betake themselves to rhetoric as the only available weapon.

But Euclid never loses his temper; *he* never indulges in any irony or sarcasm, but with the calm dignity of one who is consciously invincible, proceeds from step to step in his argument, and if he alludes to adversaries at all, contents himself with pointing out, in the quietest possible manner, that their views are self-contradictory. His writings possess that air of repose which is said to be the first element of sublimity.

From the certainty of mathematical reasoning springs an important moral benefit to those who study the science with that care and accuracy which it demands: I mean the faith in truth as immutable and consistent with itself in all its parts. Subject a mathematical formula to whatever reductions you choose, twist and torture it as you may, it always remains, in spite of the wondrous transformations which it undergoes, completely consistent with itself. If you deviate in the slightest degree from the straightforward path and introduce an illegitimate step for the purpose of arriving, as you think, more speedily at the desired answer, you will probably find that instead of attaining your end you have rendered it unattainable. But put confidence in established principles—apply them boldly without fear of consequences, and they are sure in the end to bring out a correct result. How expressive of the course of human life, where duplicity always outwits itself, and a straightforward course is the only sure road to success.

This benefit is one which belongs to Mathematics in common with Physics and Natural History, for in these latter departments the laws of nature are