

My comments follow quotations of sentences from p. 9 of your paper.

«In the tradition of Euclid of Alexandria».

No ancient source assigns Euclid to a town as his birthplace. Suggestion: skip «of Alexandria»

«According to Aristotle, induction means to go from the special to the general, in particular to obtain general laws from special cases».

Is the notion of «general law» well suited to represent anything Aristotle could think about regularities in the occurrences of natural phenomena? I doubt it, but I am no specialist of Aristotle.

«conjectured mathematical law».

I have some qualms about the notion of «mathematical law». Mathematical statements have nothing to do with matters of fact, and to use the term «law» seems to me misleading, since it more properly pertains to natural sciences. Why not to simply use «result» or, better, still, «proposition»?

«Hippasus of Metapontum (Italy) (ca. 550 b.c.) is reported to have proved the irrationality of the golden number by a form of mathematical induction, which later was named descente infinie (ou indéfinie) by Fermat».

There are several problems with this statement. 1) Italy did not exist as a geographical or political entity in 550 b.C.; 2) a conjecture advanced in secondary literature (i.e. von Fritz's article; ancient sources say nothing about Hippasus' real achievement) is not a sufficient basis to assign a proof technique to a mathematician; 3) Hippasus could not have proved the irrationality of the golden number since nothing like «irrational numbers» existed to pre-Diophantine Greek mathematicians; 4) what we call «golden number» was conceptualized in entirely different terms in ancient Greek mathematics. Suggestion: skip the whole sentence.

«“Elements” of Euclid [ca. 300 b.c.]».

Why square brackets?

note 23. I cannot see how *El.* IX.8 could fit into an inductive scheme unless you greatly relax the definition of what «induction» is (by the way, this was the main point of my article in the

AHES). The resource of «potential proof» (i.e. writing «Quite similarly we shall prove ...») is devised to take rid of the «and so on» part of the proof, and can by no means be read as an inductive step of sorts. About the fact that in VII.31 we have a descente infinie we can more or less agree.

note 24. You should not cite Katz's book but the original article

Rabinovitch N. L. 1970, Rabbi Levi Ben Gerson and the Origins of Mathematical Induction. *Archive for History of Exact Sciences*, **6**, pp. 237–248.

Note that in the reference to my article on p. 84 one must write «A Proof by Complete Induction?», with capitalized initials.