[Sir Thomas L. Heath, *The Thirteen Books of Euclid's Elements* (2nd edition), p. 316 (1925).]

[Heath's commentary on Euclid, *Elements*, Book I, Proposition 31.]

Proclus rightly remarks (p. 376, 14–20) that, as it is implied in I. 12 that only one perpendicular can be drawn to a straight line from an external point, so here it is implied that only one straight line can be drawn through a point parallel to a given straight line. The construction, be it observed, depends only upon I. 27, and might therefore have come directly after that proposition. Why then did Euclid postpone it until after I. 29 and I. 30? Presumably because he considered it necessary, before giving the construction, to place beyond all doubt the fact that only one such parallel can be drawn. Proclus infers this fact from I. 30; for, he says, if two straight lines could be drawn through one and the same point parallel to the same straight line, the two straight lines would be *parallel*, though intersecting at the given point: which is impossible. I think it is a fair inference that Euclid would have considered it necessary to justify the assumption that only one parallel can be drawn by some such argument, and that he deliberately determined that his own assumption was more appropriate to be made the subject of a Postulate than the assumption of the uniqueness of the parallel.