

# Autolycus of Pitane, *De Ortibus* 1.6

George Huxley

AUTOLYCUS discusses in this chapter the interval between two true morning risings of a star in conjunction with the sun. He points out that true conjunctions at yearly intervals after an integral number of revolutions of the sun do not occur exactly. On the fractional difference he remarks, according to the text of Mogenet's fine edition: ὁ δὲ ἐνιαυτὸς γίνεταί τῷ ἡλίῳ ἐξ ὄλων περιφορῶν καὶ τετάρτου (p.225, lines 5–6).<sup>1</sup> Here ἐξ is superfluous: the genitives alone would suffice; and a number has fallen out before ὄλων. We must therefore replace ἐξ by τξε', an easy palaeographical change. Thus Autolycus declared the year to be  $365\frac{1}{4}$  days long.

The length is that worked out by Callippus and his 'school', according to Geminus in his *Isagoge*.<sup>2</sup> The first Callippic cycle began in 330/29 B.C.,<sup>3</sup> and Autolycus flourished about 300 B.C. or a little earlier.<sup>4</sup> So the estimate of the year's length was a quite recent one when Autolycus gave it. For a meeting between Callippus and Autolycus there is no evidence, but both men were much concerned with the Eudoxian system of spheres and with "saving the phenomena";<sup>5</sup> Autolycus may well therefore be one of the members of the Callippic 'school', οἱ περὶ Κάλλιππον, to which Geminus refers.

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<sup>1</sup> Joseph Mogenet, *Autolycus de Pitane* (Louvain 1950).

<sup>2</sup> 8.57–60 (p.122 Manitius).

<sup>3</sup> Sir Thomas Heath, *Aristarchus of Samos* (Oxford 1913) 296.

<sup>4</sup> See Mogenet, *op.cit.* 9.

<sup>5</sup> Heath, *op.cit.* 221–223, quoting Simplicius on Aristotle, *de Caelo* pp.504–506 Heiberg.