



FIGURE 10.20. (A) The cone of increasing diversity (*top*) and Gould's model of diversification and decimation based on the evidence of the Burgess Shale (the *vertical axis* is time and the *horizontal* represents range of morphology). In this latter model, there is an initial rush of diversification of anatomical forms that are then restricted to a few surviving models, which then produce variants. (B–D) Models of Cambrian radiation. (B) Traditional model in which metazoans originate as simple forms and become more complex through the Phanerozoic. (C) Gould's model, in which Cambrian organisms are perceived as weird wonders that appeared rapidly, with disparity diminishing in the early Phanerozoic as a result of extinction. (D) Multivariate methods of quantifying morphology indicate that the Cambrian and recent disparities were similar.

10.20A,C, adapted from Gould S.J., *Wonderful Life*, p. 46, © 1989 Norton; 10.20B,D, adapted from Wills M.A. et al., *BioEssays* 22: 1142–1152, © 2000 John Wiley & Sons