



**FIGURE 14.18.** Components of variance for a single locus with two alleles. (A) The plot shows the genetic variance ( $V_G = V_A$ ) when gene action is entirely additive. (Phenotypes QQ, PQ, and PP are 0, 0.5, and 1, so that each P allele adds 0.5 to the trait.) (B) The plot shows the components of variance when there is complete dominance (i.e., phenotypes 0, 0, and 1). The *upper curve* shows the total genotypic variance  $V_G$  and the *lower curve*, the additive genetic variance  $V_A$ ; the difference between them (*yellow*) is the dominance variance  $V_D$ . The horizontal axis shows the frequency of the recessive allele.