FIGURE 13.2. (*A*) A gene includes regulatory sequences (e.g., transcription-factor binding sites and the coding sequence, which may be broken up into exons (here, three). Complications to this definition include those illustrated in *B* and *C*. (*B*) Genes that may overlap. The sequence is translated in one reading frame to give one protein and in another reading frame to give a different protein. (*C*) Exons coding for two proteins may be interspersed. The messenger RNA must be spliced in two different ways to give two different proteins.