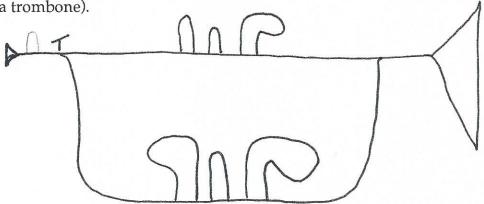
The modern double horn has two different lengths of tubing: the F horn and the B-flat horn. On the most standard American instruments, the hornist is playing on the "F side" unless the thumb valve is depressed (in which case the hornist is using the "B-flat side").

The F horn is the longer length, and the B-flat horn is the shorter length (the length of a trombone).



When hornists use the thumb valve (to go to the "B-flat side" of the double horn), they do not think about changing to a different length of tubing or to a horn in a different pitch. They just think of the "B-flat side" of the horn as being a different set of possible fingerings.

So, when hornists read a part for Horn in F (which is what is now always written for the modern valve horn)

on either a double or single horn (using any of the many possible

on either a double or single horn (using any of the many possible fingerings), you hear

Therefore, you must write horn parts a fifth higher than you want them to sound,

and the hornist chooses whatever fingerings he/she wishes to use.