K.N. Stevens (1972). The quantal nature of speech: Evidence from articulatory - acoustic data. In P. Denes (ed.), Human Communication: a Unified View.

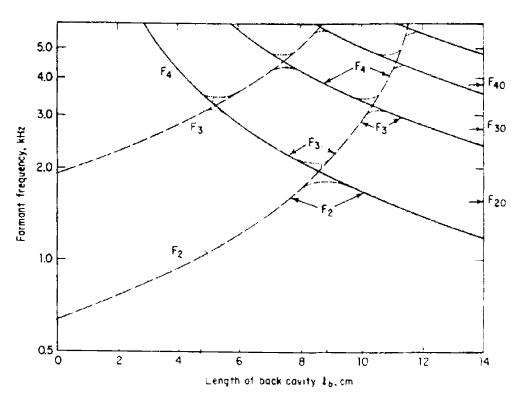


Fig. 3.7. Relations between natural frequencies and the position of the constriction for the configuration shown in Fig. 3.6. The overall length of the tube is 16 cm and the length of the constriction is 3 cm. The dashed lines represent the lowest two resonances of the front cavity (anterior to the constriction); the solid lines represent the lowest four resonances of the back cavity. The dotted lines near the points of coincidence of two resonances represent the resonant frequencies for the case where there is a small amount of coupling between front and back cavities. The resonances of a 16-cm tube with no constriction are shown by the arrows at the right. The curves are labeled with the appropriate formant numbers.