(a) Edge $\{\mathrm{h}, \mathrm{i}\}$ selected for removal. 2 -region of $\{\mathrm{h}, \mathrm{i}\}$ is shaded.
(b) Shortest paths within region are found and subtracted from betweenness.
(c) $\{\mathrm{h}, \mathrm{i}\}$ is removed. Shortest paths within region are found and added to betweenness.




Fig. 1. Local recalculation of betweenness after removing an edge.

