$\alpha_1 \to h$
$\alpha_2 \to p$ $\alpha_3 \to q$

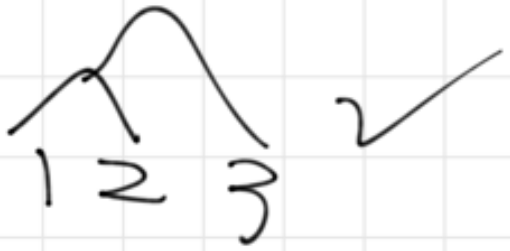
$h \to q, p, \alpha_1$
$V_0 \to p, q$
$p \to h, \alpha_2, V_0$
$q \to h, \alpha_3, V_0$

Triplet = $[\alpha_1, \alpha_2, \alpha_3]$
Triplet = $[\alpha_2, \alpha_3, \alpha_1]$

hybrid = {h} using q:

α_1, h, q, α_3

α_1, h, p, α_2



α_1, h, q, α_3

1) Start with 1 leaf ($\to l_1$) and traverse the nodes, only allowing one parent node of h at a time (p or q)
2) When we reach the 1st 2 leaves in order l_2, l_3 $\to ((l_1, l_2), l_3)$
3) Check if the triplet is in the list