$$P_{O,iloop} | P_{O,mloop} | P_{fromO}$$

$$P_{R,l^*O} \longrightarrow P_{R,iloop,l^*O} | P_{R,mloop,l^*O} | P_{fromR,l^*O}$$

$$P_{M,l^*O} \longrightarrow P_{M,iloop,l^*O} | P_{fromM,l^*O} | P_{fromM,l^*O}$$