**Appendix II:**

Outline of Derivation of Eqs [8 a,b,c,d].

We begin the development by restating Eq [4] of the Main Text:

 AII (1)

We define the Following Terms:

 AII (2)

 AII (3)

 AII (4)

 AII (5)

 AII (6)

 AII (8 a,b,c,d)





If one substitutes Eqs AII ( 2-8) into Eq AII(1) one obtains Eqs (8 a,b,c,d).