The second property of transformation functions implies that

$$-i(\alpha'|\delta W_{\alpha\beta}|\beta')^* = -i(\beta'|\delta W^{+}_{\alpha\beta}|\alpha')$$
$$= i(\beta'|\delta W_{\beta\alpha}|\alpha'),$$

or

$$\delta W^{+}_{\alpha\beta} = \delta W_{\alpha\beta} ;$$

the infinitesimal operators $\delta W_{\alpha\beta}$ are Hermitian.

The $\delta W_{\alpha\beta}$ possess another additivity property referring to the composition of two dynamically independent systems. Thus, if I and II designate such systems,

$$(\alpha'_I \alpha'_{II} | \beta'_I \beta'_{II}) = (\alpha'_I | \beta'_I)(\alpha'_{II} | \beta'_{II})$$

and if $\delta W^{I}_{\alpha\beta}$ and $\delta W^{II}_{\alpha\beta}$ are the operators characterizing infinitesimal changes of the separate transformation functions, that of the composite system is $\delta W_{\alpha\beta} = \delta W^{I}_{\alpha\beta} + \delta W^{II}_{\alpha\beta}$.

Infinitesimal alterations of eigenvectors that preserve the orthonormality properties have the form

$$\delta \Psi(\alpha')^{+} = i\, \Psi(\alpha')^{+} G_\alpha ,$$

$$\delta \Psi(\alpha') = -i\, G_\alpha \Psi(\alpha') ,$$

where the generator G_α is an infinitesimal Hermitian operator which posesses an additivity property for the composition of dynamically independent systems. If the two eigenvectors of a transformation function are varied independently, the resulting change of the transformation function has the general structure (1) with $\delta W_{\alpha\beta} = G_\alpha - G_\beta$.