The difficulty often experienced in acquiring an accurate production of the sounds of a second language or dialect is familiar to all. Scientific research into the structure of the brain and the function of its various parts has thrown considerable light on much that until recently was little known. Assuming that total understanding of the entire complex relationships involved may never be realized, we may still attempt inferentially to reach a possible explanation of the difficulty generally experienced in acquiring a second language phonetic system.

We shall assume, for purposes of this paper, that the difference in phenomena observed under controlled laboratory conditions and phenomena found in the real-life operations of human language are differences of complexity and not differences of kind.

The articulatory muscle movements required for any language are stabilized whenever it is found that the sounds being produced are acceptable to others speaking the language. Since the phonological system of any language is a closed system, while the number of possible utterances in the language is an open system, kinesthetic memory of the phonology is more strongly reinforced than any particular syntactic combination. It will be shown that internal feedback from kinesthetic memory overrides any differing auditory stimulus. The speaker of a second language "feels" that the sounds he is producing are the same as those made by the native speaker, particularly when the second language has been internalized to a high degree of fluency. Even when aware of the difference he often finds it difficult to adjust his own articulatory musculature to the difference.

This paper proposes to provide a theoretical base by which teachers of second languages may attack the problem of second language phonology, and from which further research into the application and validity may be undertaken.