(1893) has expanded this proof, and amply demonstrated that human speech, also, differs from that of the brute only in *degree* of development, not in essence and kind.

The important group of psychic activities which we embrace under the name of "emotion" plays a conspicuous part both in theoretical and practical psychol-From our point of view they have a peculiar imogv. portance from the fact that we clearly see in them the direct connection of cerebral functions with other physiological functions (the beat of the heart, sense-action, muscular movement, etc.); they, therefore, prove the unnatural and untenable character of the philosophy which would essentially dissociate psychology from physiology. All the external expressions of emotional life which we find in man are also present in the higher animals (especially in the anthropoid ape and the dog); however varied their development may be, they are all derived from the two elementary functions of the psyche, sensation and motion, and from their combination in reflex action and presentation. To the province of sensation, in a wide sense, we must attribute the feeling of like and dislike which determines the emotion; while the corresponding desire and aversion (love and hatred), the effort to attain what is liked and avoid what is disliked, belong to the category of movement. "Attraction" and "repulsion" seem to be the sources of will, that momentous element of the soul which determines the character of the individual. The passions, which play so important a part in the psychic life of man, are but intensifications of emotion. Romanes has recently shown that these also are common to man and the brute. Even at the lowest stage of organic life we find in all the protists those elementary