This dissertation studies the early acquisition of rhythmic structure and its use in speech segmentation from a cross-linguistic perspective. The main claim is that infants are able to acquire the rhythmic structure of their native language by the age of 6 months and that they are, in addition, able to use linguistic stress as a cue to speech segmentation, however not in a language-specific manner, by the age of 8 months. It is argued that infants start out by discovering rhythmic patterns at the phrase level before progressing to acquire rhythmic patterns at the word level and that this transition is related to the degree of lexical development during early language acquisition.

Two phases in this early language acquisition process are studied experimentally: the development of rhythmic preferences and word segmentation. This series of experiments demonstrates that Dutch-learning infants show a preference for the dominant word stress pattern of their native-language by the age of 6 months and that they subsequently use stress as a cue to segmentation in a non-language-specific manner at 8 months of age. However, Turkish-learning infants do not show a preference for the dominant word stress pattern of their native language by the age of 6 months, but they do seem to display an early preference for the dominant phrase level rhythmic pattern of Turkish at 4 months of age, thus demonstrating a rhythmic sensitivity. At 8 months of age, Turkish-learning infants use the same stress cues to segmentation as the Dutch-learning infants, thus in a universal manner. The experiments that are reported in this dissertation suggest that infants use their early rhythmic sensitivity initially to discover phrase level patterns and that they progress to discovering word level patterns only later on. This marks the importance of differentiating between prosodic levels when studying early phonological development and encourages conducting theoretically informed experiments in language acquisition research.

This book is of interest to theoretical linguists working on phonological theory as well as experimental linguists working on early language acquisition. More generally, it is relevant to scholars from any field who are interested in the topic of how language is acquired, in particular, in the first year of life.