Time perception of intermodal empty intervals when the first marker is auditory

Leila Azari
Department of psychology, Quebec city, Quebec, Canada

Simon Grondin
Department of psychology, Quebec city, Quebec, Canada

Abstract

Previous studies show that auditory intervals are, in general, more accurately discriminated than visual or tactile intervals (Grondin, 2003). Also for discrimination tasks, when the markers of brief empty intervals are delivered from different sensory modalities, sensitivity to time is much lower than it is when the markers are delivered from the same modality (Grondin & Rousseau, 1991). The purpose of this study was to evaluate the effect of intermodality on the temporal discrimination. Twelve participants (mean = 25.33, SD = 5.12) performed a bisection temporal task. During eight sessions, three conditions were manipulated: certainty about the origin of the second marker (certainty, uncertainty), standard duration (300ms, 900ms), and modality (auditory- auditory, auditory- tactile, auditory-visual). Results showed intramodal intervals are better discriminated than intermodal intervals. In both 300ms and 900ms, intervals were better discriminated when the second modality was auditory than when it was tactile or visual.