

ONTOGENETIC PECULIARITIES OF PERCEPTION OF EMOTIONAL AND LINGUISTIC COMPONENTS OF SPEECH SIGNAL UNDER NOISE MASKING: THE ROLE OF RIGHT AND LEFT HEMISPHERES

E.S.Dmitrieva, V. Ya. Guelman and K.A.Zaitzeva.

Sechenov Institute of Evolutionary Physiology & Biochemistry, Russian Academy of Sciences.
M.Torez pr., 44, 194223, St.-Petersburg, Russia.

It is assumed now, that sophisticated cognitive functions might show different laterality effects during life span. The goal of the present research is to study the ontogenetic peculiarities of interhemispheric relations (symmetrical - asymmetrical), underlying the perception of verbal and emotional speech components under noise masking which have not been considered yet.

The study consists of two parts. 1) The comparative investigation in ontogenesis of noise immunity perception of emotional and verbal speech information being presented through one sensorial channel. The data obtained have shown that: a) Ear advantage for verbal recognition has not been revealed. This suggests the possibility of that interhemisphere relations underlying identification of verbal material in noise have not reliably formed to the age of 16 years old. b) Emotion recognition in noise has been found to be associated with the activity of the RH beginning from the age of 14 years old. 2) As the laterality effects appeared to be more pronounced for emotional component in the second part of the research the comparative investigation in ontogenesis of the perception of different valences (positive, negative, neutral) of emotional speech component under noise masking has been carried out. The data obtained have shown that: in each age group and for each emotion valence the ear advantage is not statistically significant, though under some conditions one might speak about the tendency for LH advantage.

Thus, in normally speaking children the mechanisms of cerebral asymmetry underlying noise immunity perception of emotional speech component depend on that whether verbal and emotional components are processed simultaneously or not and appear to be associated with the activities of the RH in the first case and small advantage of the LH in the second case. On the other hand, it provided evidence that laterality effects might be influenced by several factors, including , the procedure paradigm.

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