

Dissociation of active and passive attention dysfunctions in formal thought disordered schizophrenics controlling for distraction shifts.

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Formal thought disordered (+FTD) schizophrenics presented a selective active attention deficits (Baribeau & Laurent 1986) and an attenuation of mismatch negativity (MMN-Laurent & Baribeau 1994) reflecting apparently poor passive automatic attention, compared to both schizophrenics without FTDs(-FTD) and control normals in a dichotic listening task. However occasional attentional shifts to the ignored ear could not be controlled for by this MMN paradigm. In this study using the same subject sample (Ss), auditory event-related potentials (AERPs) were recorded at Fz, Cz, Pz, M1 and M2 from 10 schizophrenics with major +FTD syndrome selected according to RDC, and DSM-III-R criteria. They were compared to 10 -FTD schizophrenics and to 10 controls. The 3 groups were matched for age, education, medication, hospitalization, and intelligence (abbreviated WAIS) score. Stimuli consisted of standard tone pips (80 dB SPL, 1000Hz, 50 ms, p=90%) and deviant tones (60dB, p=10%). They were presented binaurally, with ISI ranging from 550 to 650 msec. In order to control for attentional shift Ss had to read a novel and to summarize the script at the end of the session. An exclusion criterion of 80% accuracy was applied for screening subjects. Mean MMN amplitudes over the 100-200 and 200-400 ms epochs were analyzed using a repeated measure analysis of variance. Results showed no significant difference between mean group amplitudes ($F_{2,27}=.61$ $p=.551$, and latencies ($F_2=.966$, $p=.393$) at any electrode site. Normal MMN topography was observed with an expected electrode effect ($p=.000$) indicating a greater amplitude at Fz (-2.23uV) and Cz (-2.21uV) than Pz (-1.14uV), M1 (0.02uV) and M2 (0.42uV). These data showed a clear dissociation with the presence of a selective attentional dysfunction simultaneously with the absence of a MMN type of passive attention deficit when distraction shifts are closely assessed.