Atypical processing of emotional faces

Mo-S-082

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The DSM-IV diagnosis of Attention/Hyperactivity Disorder (ADHD) stipulates three types, each emphasizing different aspects of the clinical dysfunctions subsumed within ADHD: Inattention, Hyperactivity and Impulsivity. The Combined Type indicates the presence of sufficient criteria to qualify for both inattention and hyperactivity/impulsivity symptomatology. This subtype is the best studied, and may be most common. The Predominantly Hyperactive Type is applied to individuals who meet diagnostic criteria for hyperactive/impulsive symptoms, but not inattention, and is uncommon. In contrast, Predominantly Inattentive Type encompasses instances when diagnostic criteria are met for inattention symptoms, but not hyperactivity/impulsivity. This subtype may pose diagnostic conundrums. It applies to individuals who in the past may have had the full complement of inattention, as well as hyperactivity and impulsivity, but now meet diagnostic criteria only for inattention. The diagnosis is also applicable to those with a negative history of hyperactivity and impulsivity, thus leading to diagnostic heterogeneity.

The presentation will address clinical implications of the ADHD Predominantly Inattentive Type, and potential approaches by the DSM-5 to refine diagnostic classification of ADHD, Predominantly Inattentive Type.

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Social deficits are one of the most striking manifestations of autism spectrum disorders. Among these social deficits, the recognition and understanding of emotional facial expressions has been widely reported to be affected. We investigated emotional face processing in high functioning children with autism and in two groups of typically developing children (chronologically age-matched and verbal equivalent age-matched) using event related potentials. Our results suggest that the emotional and facial processing difficulties in autism could start from atypicalities in visual perceptual processes involving rapid feedback to primary visual areas. We also investigated the mental representation of faces, or face concept by comparing face drawings in children with autism, deaf children and controls. We found an atypical face concept in ASD that did show similarities with the one of deaf children. These findings further suggest that impairments in social interaction in ASD may be impacted by primary sensory deficits.

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Mo-S-081

DSM-V conundrums and the restrictive-inattentive subtype

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The DSM-IV diagnosis of Attention/Hyperactivity Disorder (ADHD) stipulates three types, each emphasizing different aspects of the clinical dysfunctions subsumed within ADHD: Inattention, Hyperactivity and Impulsivity. The Combined Type indicates the presence of sufficient criteria to qualify for both inattention and hyperactivity/impulsivity symptomatology. This subtype is the best studied, and may be most common. The Predominantly Hyperactive Type is applied to individuals who meet diagnostic criteria for hyperactive/impulsive symptoms, but not inattention, and is uncommon. In contrast, Predominantly Inattentive Type encompasses instances when diagnostic criteria are met for inattention symptoms, but not hyperactivity/impulsivity. This subtype may pose diagnostic conundrums. It applies to individuals who in the past may have had the full complement of inattention, as well as hyperactivity and impulsivity, but now meet diagnostic criteria only for inattention. The diagnosis is also applicable to those with a negative history of hyperactivity and impulsivity, thus leading to diagnostic heterogeneity.

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From perception to memory in ASD

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Atypical perception processing and its relationship to memory


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Autism Spectrum Disorders (ASD) is characterized by an atypical perceptual functioning that reflects an enhanced processing of the details of stimuli before perceiving the gestalt. We investigated the role of this perceptual bias on implicit (perceptual priming) and explicit (episodic) memory. ASD teenagers aged from 10 to 18-years-old performed two tasks using either a local (a specific part of the item) or a global (the whole part) processing. Our preliminary results indicated that teenagers with ASD:

– were able to demonstrate a priming effect similar to control subjects, but without superiority of the global on the local condition contrary to controls;
– recognized as much target as controls but made more false recognitions for non-studied items when they included the same details than target ones.

These results confirm that the perceptual bias observed in ASD has an impact on implicit and explicit memory even when patients process items according to a global approach.

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Episodic memory in ASD: Recent developments

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The findings of a range of different experimental paradigms have now established that individuals from the high-functioning end of the autism spectrum recollect the personally-experienced past in ways that are different from that of typical individuals. Similar difficulties have also been reported for pre-experiencing the future – so-called “episodic future thinking”. These atypicalities help us to understand autism spectrum disorders in a number of different ways. First, they provide a reliable way of investigating underlying brain atypicalities in autism. Research will be presented that shows different patterns of event-related scalp potentials and fMRI activations in individuals with autism when performing episodic and semantic memory tasks. Episodic memory research has also pro-