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brain+cognitive sciences



Scientists collaborate internationally to identify the neural mechanisms and possible benefits of ‘Affinity Therapy’ in children with autism

Scientists studying the psychological and brain basis of autism are planning a multi-site research study of how ‘Affinity Therapy’, a concept inspired by Ron Suskind’s new book *Life, Animated*, may help children with autism and how such a therapy may alter brain functions in autism. In *Life, Animated*, Suskind describes how his son Owen became ‘obsessed’ with the larger-than-life social, animated characters in Disney movies, and how this preoccupation fostered the growth of understanding of psychological traits, dispositions, motives, and intentions of these characters. This helped Owen to achieve a remarkable level of social functioning despite his diagnosis of autism.

The scientists now hope to discover whether this therapeutic approach can be systematically developed as a treatment, if it has benefits, and and the neural mechanism of any benefit. The approach will inform the development of a more general “affinity therapy” (extending, for example, to other films, maps, or schedules) for the core social communication deficits in autism, which might find application with other common affinities in the ASD population. Using an experimental therapeutics approach, the scientists plan to develop a manualized version of this therapy. Ultimately, the other goal is to use cognitive neuroscience methods to develop, refine, and implement an empirically validated, cognitive-behavioral treatment for children with autism that improves social communication skills by leveraging individualized core affinities, interests that may tap into the reward circuitry that normally supports social motivation and social learning.

This multi-site project involves close collaborations among leading neuroscientists and psychologists from Yale (Drs. Pamela Ventola and Kevin Pelphrey), MIT (Drs. Pawan Sinha and John Gabrieli), and Cambridge University (Drs. Simon Baron-Cohen, Mike Lombardo, Bonnie Auyeung, and John Suckling). This work is highly novel; there are few empirically validated treatments for the core social communication deficits in autism, and even fewer studies have investigated neural plasticity in children with autism in response to such treatments.

After the development phase, the team will conduct a randomized, 16-week trial of Affinity Therapy (AT) to treat social communication deficits versus an active control condition (Psychoeducation and Play; PEP), in cognitively able 4- to 6-year-old children with autism. This trial will target the neural-systems-level mechanisms by which AT may improve social motivation and social communication.

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