A research group led by Ben-Gurion University of the Negev has proposed a new concept for predicting autism and autistic traits. "Empathic disequilibrium" combines two types of empathy into a single scale for the first time.

Their findings were published recently in *Autism Research*.

Cognitive empathy means the ability to recognize other people's mental states. Emotional empathy means responding to another's mental state with an appropriate emotion. Previous research generally, but not always, found deficits in cognitive empathy among those diagnosed with autism. But this contradicted with some autistic people reporting having too much empathy.

Now, Dr. Florina Uzefovsky and Ido Shalev, from the Department of Psychology and the Zlotowski Center for Neuroscience at Ben-Gurion University, Dr. Alal Eran of the Department of Life Sciences and Boston Children's Hospital, and their colleagues at the University of Cambridge, and Bar-Ilan University propose looking at how cognitive and emotional empathy interact through a new concept they have termed empathic disequilibrium.

"It is too simplistic to say those diagnosed with autism lack cognitive empathy or they lack emotional empathy. We need a more nuanced understanding of how the two empathies relate to each other, which we believe can aid in diagnosis and in understanding some autistic traits," says Dr. Uzefovsky.

Each type of empathy is "rooted in distinct yet interrelated neurobiological evolved mechanisms," the researchers wrote. A balance between these aspects is needed for social functioning. Those diagnosed with autism may have levels of empathy that are comparable to that of the general population, but a relative overabundance of emotional empathy may hinder some social interactions. Hence, empathic disequilibrium.

The researchers conducted a study among 1905 individuals diagnosed with autism (54% females, \( M_{\text{age}} = 36.81 \pm 12.88, \) range 18–80 years) and 3009 typical controls (75% females, \( M_{\text{age}} = 38.26 \pm 12.31, \) range 18–92 years). Participants filled in online questionnaires designed to assess their empathic disequilibrium. They found that those diagnosed with autism exhibited higher rates of empathic disequilibrium. However, they also found that empathic disequilibrium was useful for analyzing empathy in the non-autistic population as well.

"This concept opens up several interesting avenues of research into autism and into empathy," says Dr. Uzefovsky.
