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Editorial

# ReAttach Protocol for Autism Spectrum Disorders: Activating the Growth Mindset in ASD

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## Abstract

Autism Spectrum Disorders (ASD) are characterized by a typical way of being resulting from a pervasive developmental disorder affecting all domains of development: speech, language, social communication, social cognitive functioning, behavior, executive functioning, and physical functioning (1). Zeidan et al. (2) conducted a systematic review of the global prevalence of autism and estimated it at approximately 1%, with four times more diagnosed men than women. Realizing that ASD impacts the mental health of direct family members, the global impact of ASD is massive (3). ReAttach is a trans-diagnostic intervention for adults and children with mental health problems (4) that can be tailored for individuals with autism spectrum disorders as a systemic approach. Practice-driven research studies into the results of ReAttach for autism in targeting core symptomatology were promising in a broad range of developmental domains (5,4). In this paper, the authors describe the ReAttach Protocol for ASD for ReAttach Specialists and Affect Coaches. The authors want to state that for complex problems such as ASD, the basic ReAttach skills alone are insufficient, and extra tools for mapping complexity and inter relational dynamics, as well as additional ReAttach techniques (W.A.R.A. and New Mind Creation), are necessary. Nevertheless, describing this protocol will increase insight into applying ReAttach to individuals with autism.

**Keywords:** ReAttach, ASD, W.A.R.A., Growth Mindset, New Mind Creation, Forgive and Forget Hood

## Introduction

Autism is a neurodevelopmental condition; it is characterized by communication difficulties, impaired social skills, and restricted and repetitive behaviours, which makes individuals with ASD experience a difficulty in understanding the perspectives of others (1). They often struggle to connect with others on emotional levels. The developmental perspective of ASD makes up the majority of the picture, with all different definitions focusing on atypical development that affects the human neurological system. Before describing the ReAttach Protocol for ASD, we first outline established autism theories, and subsequently focus on the premise of ReAttach as a transdiagnostic, multifamily intervention for ASD.

According to the National Institute of Mental Health (NIMH), ASD is a neurological and developmental disorder that affects how people interact with others, communicate, learn, and behave (6). Although autism can be diagnosed at any age, it is described as a developmental disorder because symptoms generally appear in the first 2 years of life. The Centers for Disease Control defines ASD as a developmental disability caused by differences in the brain (7). Some children show symptoms within the first 12 months of life. Symptoms may take up to 24 months of age or more in other children. The British psychological society, likewise, recognizes ASD as a complex neuro-developmental disorder encompassing severe abnormalities in reciprocal social interaction, verbal and nonverbal communication, accompanied by restricted and repetitive behaviours and interests. These behavioral symptoms are present in early childhood, before 36 months (8).

Shen et al. (9) found that babies who are prone to develop autism have normal amygdala until 6 months. However, their amygdalas enlarge between 6 and 12 months preceding the condition's clinical symptoms. The first interpersonal problems typically manifest between 12 and 24 months, during which time the amygdala continues to grow. The worse the condition's manifestations, the faster the growth rate (9).

According to the World Health Organization fact sheet about Autism (10), 1 in 100 children has an ASD. Characteristics may be detected in early childhood, but ASD is often not diagnosed until much later. The abilities and needs of autistic people vary and can evolve over time. While some people with autism can live independently, others have severe disabilities and require life-long care and support. Evidence-based psychosocial interventions can improve communication and social skills, positively impacting the well-being and quality of life of autistic people and their caregivers. Care for people with ASD needs to be accompanied by actions at community and societal levels for greater accessibility, inclusivity, and support.

Individuals with autism often have co-occurring conditions, including epilepsy, depression, anxiety, and attention deficit hyperactivity disorder, as well as challenging behaviors such as difficulty sleeping and self-injury. The level of intellectual functioning among autistic people varies widely, extending from profound impairment to superior levels (2).

## Autism Theories

The most popular theory noted and developed by Dr Simon Baron Cohen is the theory of mind (11). This theory suggests that people with ASD suffer from mindblindness, which loads them with the inability to achieve joint attention with others, misunderstanding or interacting with others' thinking, perceiving, intending, or believing caused by the level of blindness towards other people's mental states. This theory was evolved in 2002 to the extreme male brain theory (12). This theory emphasizes the concept of empathy over the previous one, mindblindness. Dr Baron Cohen suggested that the brain has two types: the empathizing female and systemizing male types. In general, we will find a balancing process between the two ways of thought management, with more preponderance towards empathy in women and systemized thinking in men. While in an autistic person, we will notice a considerable lack of understanding or empathy and a higher reliance on systemic and logical encoding of emotions and feelings. They are hyper-systemizers, best able to cope with logical, lawful systems, not systems of high variance or change. This is why autistic people portray an extreme male-brain function.

In 1989, Dr Uta Frith developed another interesting theory. She proposed the Weak Central Coherence Theory of autism (13). Central coherence was the term given to a human being's ability to derive overall meaning from a mass of details. What makes this an innovative theory is its ability to demonstrate the deficits and strengths of autistic people at the same time; by making out comprehensive meaning from smaller details and creating a wider, clearer picture, ASDs would be at a major disadvantage. On the other hand, when needed to pick out extreme detail from a massive bulk of information, individuals with ASD will definitely Rock!

Lastly, it is important to mention one of the most refuted theories of the last decade, that is, the refrigerated mother theory, (14) a theory which blames mothers, in a very direct accusation, of their child's situation, referring to the detachment during the child's early development years. This theory was brought up by child psychologist Bruno Bettelheim. He argued that ASD appears as a reflection of the withdrawal of a child from the unbearable rejection of an emotionally cold yet impassive mother. This view starkly contrasts ReAttach's, where in the ReAttach protocol for ASD, parents are highly respected as co-regulators, included in a multi-family approach as part of the solution. ReAttach has been showing remarkable progress in helping people with ASD (4) to improve their quality of life and reduce expected challenges. A detailed discussion and more comprehensive study of ReAttach will follow.

## Can we activate the growth mindset in individuals with ASD?

The growth mindset, an intrinsic motivation to challenge oneself in development and personal growth (15), is in stark contrast to the pervasive developmental stagnation characterizing individuals with ASD.

People with ASD often compensate for intolerance of uncertainty through adherence to routines and insistence on sameness (16,17). Due to the fixed mindset that reduces opportunities to overcome stressful situations in new, unfamiliar activities or environments, individuals with ASD may develop narrow behavioral repertoires fostering avoidance of change. The fixed mindset, and more specifically, the insistence on sameness, may increase the vulnerability of repetitive negative thinking, which is an important transdiagnostic factor in depression and anxiety (17). A growth mindset and beliefs in malleable abilities may promote the development of self-control capabilities (18). In other words, individuals with a growth mindset enhance their self-control by proactively employing self-regulatory strategies and practices.

Parents of children with ASD tend to lose confidence in their child's development because they experience that the growth is not as self-evident as they expected. Due to their uncertainties and challenges, these parents often experience high stress levels (19, 20) and develop a fixed mindset, which might result in frustration and a sense of hopelessness. Nevertheless, by working with the parents on adopting a growth mindset, the parents can regain their optimism in the child's developmental potential. Retraining parental optimism is important since parents shape the child's environmental climate and are the primary co-regulators of arousal and affect. A growth mindset in parents might encourage the understanding that new abilities can be developed in individuals with autism, even skills that parents had not (any longer) counted on. Hodis et al. (21) advocate for a clinical framework to facilitate care accounting for the need for predictability. In working with individuals with ASD, we are therefore faced with the challenge of starting from

a fixed mindset including a need for predictability and, at the same time, working towards a growth mindset by optimizing learning conditions.

## A transdiagnostic approach

The Diagnostic and Statistical Manual of Mental Disorders (1) describes autism as a developmental disorder characterized by difficulties in social communication, hyper/hypo-sensory sensitivities, and repetitive behaviors, but is not unambiguous regarding information processing**.** Some individuals with ASD can process information globally and in detail; in others, a lack of or weak central coherence and detailed information processing is prominent (22). Difficulty in central coherence means that a person can not simultaneously process perceived information while giving integral meaning to that information. This cognitive style is characterized by a tendency to process details while being blind to the global context (23, 24). Although the cognitive style in autism is personal (25), problems in information processing and meaning-making significantly impact the development. If we want to improve information processing in patients who experience problems with it, we need to optimize several processes that play an important role in this.

Optimal sensory information processing requires a delicate balance in the supply of stimuli. Current neurobiological theories of autism state that imbalances in excitation/inhibition might lead to high neural noise (26). While a certain amount of background noise and variation can benefit a baby's sensory development through stochastic resonance, too much sensory input - leading to overstimulation - can be counterproductive and disrupt the brain's ability to deal effectively with incoming stimuli. It is, therefore, important to pay attention to the signs of overstimulation in babies and provide a suitable environment that supports their development without being overwhelming. The consequences of sensory overstimulation or sensory understimulation in babies might be that their brain is not optimized for processing sensory signals, leading to atypical sensory processing (27). For instance, olfactory hypersensitivity might be a possible neural mechanism underlying atypical sensory processing in ASD at the expense of multiple sensory processing (27).

## Promoting a multi-family approach

Raising a child with autism is not apparent. The uncertainty causes parental distress and changes family dynamics (3, 28). Dijkstra-de Neijst et al. published about the parental stress and Quality of Life of parents of young children with autism (29). They found that high parental stress was present in early parenthood, affecting Quality of Life. This latest study provided new insights into what parental stress stems from, namely conflicting feelings towards the child, parenting challenges and difficulties, and feelings of incompetence and confinement. The researchers recommend paying attention to the well-being of both parents in the treatment of children with ASD.

# The ReAttach Protocol for ASD, We will now describe the protocol for individuals with ASD.

## Procedure

### Mapping the individual state of mind

Patients with Autism Spectrum Disorder are not a homogeneous group with similar transdiagnostic factors that play a role during ReAttach therapy. Customization is required to optimize the development conditions of individual patients with ASD on various ReAttach components. ReAttach Specialists and Affect Coaches can use a Computer Adaptive Tool (C.A.T.) with an accompanying manual to build tailored sessions (30, 31). The C.A.T. is an interview that investigates ten different ReAttach components, whether it is likely that the ReAttach Specialist or Affect Coach should adjust the ReAttach Protocol on this component by looking at extremely high or low scores. During ReAttach sessions, the ReAttach therapist's task is to optimize the patient's arousal through co-regulation. The C.A.T. interview helps the therapist assess whether the arousal may be extremely low or high. In both cases, the therapist consults the C.A.T. manual for advice, for example, to add a special exercise to the session.

The C.A.T. interview consists of ten main questions to differentiate between extremely high or low on the following ReAttach factors:

1. Arousal
2. Social Reward
3. Sensory Processing
4. Protection / Demand
5. Joint Attention
6. Mentalization
7. Imagination
8. Communication
9. Emotion Regulation
10. Coping

Depending on the answer to the main question, four sub-questions are asked to investigate whether it is extremely high or much too low. In this way, a C.A.T. profile of normal and extreme scores is created, whereby the therapist makes adjustments to those parts that score extremely based on the C.A.T. manual.

The premise of ReAttach is to *resist* the tendency to simplify complexity. By mapping complexity and working systemically and strategically, we can target complex co-regulation dynamics. ReAttach Specialists and Affect Coaches use the C.A.T. for multiple family members to visualize family dynamics in terms of co-regulation. The advantage of this multi-family approach is twofold. On the one hand, it becomes clear how family members influence each other, and on the other hand,

it helps the ReAttach Specialist or Affect Coach build tailor-made sessions for family members in case of extreme scores. The ReAttach M.I.S.T. (Mapping Individual State of mind) is an instrument that helps colleagues create a C.A.T. family profile to assist in setting up a systemic, strategic treatment plan (32).

## Example:

A 6-year-old boy diagnosed with ASD is registered for ReAttach. The ReAttach Affect Coach interviews the parents using the C.A.T. and assesses the family co-regulation dynamics based on the M.I.S.T. The therapist receives the following test-results from the M.I.S.T.:

**Arousal-Hyper:** The child is over-excited / hyper-aroused

*Reinforcer:* The father is too tense, which may increase the child's arousal.

*Reinforcer:* The mother is too tense, which may increase the child's arousal.

**Social Reward-Hypo:** The child dislikes being touched. Is there tactile defensiveness?

**Mono Information Processing**: The multi-sensory processing is not (yet) developed—fragmented information processing.

*Opposite***:** For the mother, insight, overview, and multitasking are so self-evident that she may over-extend the child with weak sensory integration.

**Overprotection:** The child is raised in fear while being overprotected.

*Reinforcer:* The father tends to protect the child too much or has been raised in an overprotective environment.
*Reinforcer:* The mother tends to protect the child too much or has been raised in an overprotective environment.

**Joint Attention-Hyper:** The child needs proximity and attention more than others.

**Mentalization-Hypo:** It is still difficult for the child to give meaning to the world.
The conceptualization is weak.
*Opposite:* The father gives too much meaning to his observations, which clashes with the child's poor concept formation.

*Opposite*: The mother gives too much meaning to the things she observes, which clashes with the child's poor concept formation.

**Imagination-Hypo:** The child has not established (yet) imagination; therefore, there is a developmental delay in anticipation and self-regulation.
**Emotion Regulation-Hypo:** The child can not regulate negative feelings yet; there is too little inhibition.
*Opposite:* Father suppresses his emotions, which can be advantageous if the child reacts strongly.

*Reinforcer***:** If the mother and child strengthen each other, the mother cannot properly regulate her emotions, leading to unpredictable and unsafe situations.

The ReAttach Specialist can use the MIST results to determine how the different family members relate to each other. It helps to prepare ReAttach sessions with parents and explain to them what role they play in the co-regulation dynamics and how they can support each other to optimize the co-regulation for the child. In addition, the ReAttach Specialist can use the extreme C.A.T. scores to tailor sessions. If necessary, he consults the C.A.T. manual for advice.

### Strategy

For young children with ASD, the ReAttach Specialist or Affect Coach will start by offering one or more (tailored) sessions to both parents. Involving both parents in the multifamily approach is necessary for working well with the child. By experiencing ReAttach, parents gain insight into the nature of the intervention and the possibilities ReAttach offers for the entire family, specifically for the child with ASD in question.

## Tailored ReAttach Session

For people with ASD, contacting a therapist and engaging in new learning experiences is not self-evident. ReAttach aims to optimize learning conditions, and, as you have just read, adjustments can be made on several ReAttach components. However, the therapist cannot divide ReAttach sessions into small, separate elements like a task analysis or step-by-step plan. ReAttach always involves activating sensory and cognitive processes in a fixed order that will run cumulatively. Therefore, the ReAttach Specialist starts very basic, at a low entry-level, and builds up the training by adding more and more without stopping the training.

Before starting the actual ReAttach session, a therapist can use play or exercises as an introduction. Wiring Affect with ReAttach (33, 34) is such a brief exercise that it might fit perfectly as an introduction to ReAttach, at least if the ReAttach Specialist succeeds in establishing this type of collaboration with the child. Overall, the biggest challenge lies in establishing a cooperation with the child / young person/adult with ASD so that a ReAttach session can actually take place.

## Predictability and intolerance of uncertainty

People with ASD tend to have a low tolerance for uncertainty and a high need for predictability. They need to know what exactly is expected, which is different from receiving a detailed explanation of how ReAttach works. In other words, the focus is not on what the therapist will do but what the patient should do. With ReAttach, this is easy to explain: sit opposite the therapist at the table and try to carry out the thinking tasks while the ReAttach therapist presses or drums on the backs of the hands. The touches can be made predictable by using "slow

motion" and announcing, for example, "slow motion high five." Confirming that the patient is doing well may decrease the uncertainty.

## Activation of the Mirror Neuron System

Interpreting signals from bodily states is complex for individuals with autism due to differences in the integration of interoceptive and exteroceptive information (35, 36). Experiencing pain is a continuous updating process that integrates contextual information with incoming sensory inputs, in which predictions about the pain state are continuously updated (37).

In neurodevelopmental disorders, receiving touch is often perceived and experienced as unpleasant or aversive. Individuals with ASD can have hyper- or hypo-sensitivity to other sensory stimulation (35). Many individuals with ASD find unexpected touches unpleasant and will try to avoid them. Thus, it is important to make the tactile stimuli we apply in ReAttach sessions predictable. Tactile defensiveness is an expectation of a sensory overresponse; therefore, it will not occur under predictable circumstances with optimal arousal. The findings of Yu et al. (38) strongly suggest that social touch can naturally increase oxytocin signaling and promote a sense of well-being. Kaiser et al. (39) found that in individuals with ASD and an aversion to gentle touch, the social brain was under-activated with a sensory cortical hyper-reactivity: a sensory over-response (38). In ReAttach, we use predictable gentle tapping in optimal arousal to prevent sensory over-reactivity and activate the social brain. In individuals with ASD who have not yet learned to deal with social touch and where the social brain is underactivated, it takes longer for the mirror neuron system to be activated. Yu et al. (38) recommend using oxytocin nasal spray to enhance the effect of gentle social touch. For ReAttach, the oxytocin spray is not recommended because, in clinical practice, it appeared that the children who used the nasal spray showed well-functioning mirror neurons but did not build up attachment or engage in joint attention.

The ReAttach therapist waits for well-functioning mirror neurons and social initiative from the person with ASD. Only then is the session expanded further.

## Activation of the Mentalizing System / Enhancing Social Cognitive Development

If we intend to train the route from a fixed mindset to a growth mindset, it is important to facilitate the individual's processing of information differently. We do this by influencing the circumstances so that they can do this: by co-regulating arousal by influencing the person's alertness and sensory stimulation, by timing and checking if the social brain is activated, mirror neurons are working, and the individual with ASD initiates a social initiative towards joint attention.

If all these conditions are met, ReAttach's social cognitive training starts: the therapist gives associative thinking tasks to improve connectivity with social cognitive neural networks. Social cognition refers to the ordinary ways we make sense of people's behavior and comprises social and cognitive aspects (40, 41). Social cognition is our ability to understand others and adapt our behavior accordingly, and it is a crucial learning requirement for social functioning. Under the umbrella of the social cognition framework lie social cognitive skills such as self-awareness, social awareness, Theory of Mind (ToM), empathy, social perception and attribution, and emotion recognition and processing.

Research has shown that social cognition capacities in autism are individual, vary, may mature, and can be compensated via cognitive strategies (42, 43, 44, 40). Nevertheless, these cognitive compensatory strategies might be inflexible (fixed mindset) and ineffective in complex, high-demand situations (45, 40). It is also socially and cognitively tricky for individuals with ASD to find the right balance between important and unimportant information. A hypo- or hypersocial tendency might characterize their social cognitive processes. A person with ASD might give too much attention to a specific social behavior or not notice the social behavior at all (40).

ReAttach does not aim to improve or change the social cognitions of individuals with ASD but to enhance their social cognitive skills by facilitating the underlying processes. The ReAttach therapist helps the person with ASD to leave the fixed mindset behind, take alternative routes through associative thinking tasks under optimal arousal and sensory integration conditions. In this case, the ReAttach regulation technique is more important than the thinking tasks. The idea is for the individual with ASD to make the neural connections themselves and for the therapist to facilitate this.

ReAttach is designed to follow the natural developmental pathways during this social cognitive training. Therefore, the social cognitive training of ReAttach is low entry-level and can be adapted to the developmental level of each participating individual. In working with pre-verbal clients, ReAttach starts with training social concepts of self, others, and concepts related to the world of experience. Differentiation between the self and the other is an important step that precedes the realization that communicating is important. In social cognitive training for individuals with an intellectual disability, training long enough for sensory integration and mentalization to become automated is important.

## Identifications - preparation for learning

If we want to develop a growth mindset, we must consider that change is possible and that we can learn something or add something to our usual skills. From a fixed mindset, this is not self-evident, but when we have completed the social cognitive training and the brain is activated to think creatively and make other connections, this is possible. Encouraging individuals to consider alternative possibilities beyond the ones that are most available and convenient can make them receptive to learning

new things (46). Identifications are the first step to increasing the possibility of making changes or learning something new. By identifying with adaptive skills, we change the locus of control from external to internal: "First, those skills were something that only others could do (external), and now, those skills have become something that I can also learn."

In preparation for active learning, we choose identifications corresponding to the proximal development zone. In individuals with ASD with a strong cognitive compensatory capacity, this can involve very broad identifications that enable them to function in alternative ways with different insights and overviews, reflecting proactive coping and a growth mindset. As the developmental delay becomes more significant and the cognitive possibilities more limited, the identifications will be more specific and focus more on the next phase in development.

As an example, we can reflect on a child with ASD who is still pre-verbal or echolalic, where the differentiation between the self and others is our central target for the first ReAttach training. Perspective-taking and identification with social cues are important for the child to take the step to the next phase in development. After differentiating and learning to identify, the child will better understand the importance of communicating. In this example, ReAttach can help to improve the learning conditions for social communication, allowing the child to grow.

Matching the chosen identifications with the learning objectives formulated in the cognitive bias modification is important in this part of the protocol. These substantive choices during the ReAttach session become important in addition to the technique.

The second part of the ReAttach protocol may not be feasible for young children or individuals with low developmental levels. When this is the case, activation of the parasympathetic system is offered and practiced in the interaction between activation of the sympathetic system and downregulation by the parasympathetic system. The cooperation between the sympathetic and parasympathetic nervous systems is often not optimal; by practicing this, we can optimize it. Afterward, the ReAttach session for this target group ended with high arousal and positive affect.

## Searches

Although the searches mainly improve connectivity with long-term memory, it may be useful to make an adjustment for individuals with ASD.

It can be beneficial to retrieve as much information as possible from long-term memory with a positive search query instead of retrieving as much information as possible regarding social concepts. Especially for children developing self-awareness and learning to look at others coherently, it is wise to let them gather as much information as possible about themselves and their social environment. It helps them to search for everything they have seen and heard about themselves and everything they know about their parents or school. When this information enters working memory during ReAttach, it will be stored coherently through the ongoing sensory integration process. For individuals with ASD, the searches can also play an important role in content and further development.

## Cognitive Bias Modification: active learning

How we fill in the cognitive bias modification modules depends on the adaptive skills we decide to train. This section of the ReAttach protocol is crucial for training the growth mindset and taking the first steps toward alternative thinking patterns and behaviors. The C.A.T. and M.I.S.T. results can help to work strategically and build a tailored session for each individual with ASD. Many learning objectives can be formulated based on each individual, some of which we would like to highlight.

Behavioral activation, which involves engaging in meaningful activities, decreases avoidant behavior and improves positive affect (47,48). Therefore, it might be good to include behavioral activities in the active learning part of ReAttach, for instance, at Cognitive Bias Modification (CBM2).

Alexithymia, the difficulties identifying and describing one's own emotions which is associated with atypicalities in the processing of internal bodily states, is highly prevalent in autistic individuals (40-60%) (49). Body-oriented work with feelings and emotions (CBM2 ) allows growth for those concerned. This instruction concerns concepts such as hunger, thirst, pain, and emotions, and listening to these feelings, indicating them, and acting on them.

Whether working on self-awareness, social communication skills, or training imagination during Cognitive Bias Modification, it is always good to keep an eye on the match with the identification because the identifications must precede active learning.

## New Mind Creation: secure attachment

For individuals with ASD, the world is often unpredictable, and many find it especially hard to deal with the unexpected or unknown. An unpredictable world does not feel safe and hinders the development of a Growth Mindset. Therefore, the New Mind Creation (NMC) technique is essential to train secure attachment and practice exploratory thoughts and behavior. According to McKenney et al. (50), repetitive negative thinking is a transdiagnostic prospective predictor of internalizing problems, both in the population of ASD and in neurotypical people.

We use NMC to increase the tolerance of uncertainty by decoding the intolerance of uncertainty under secure attachment conditions. Stepping out of the comfort zone of the fixed mindset and adopting a growth mindset also requires secure attachment conditions, thus the NMC. Because many individuals with ASD have experienced bullying, it can be difficult for them to receive positive feedback. We teach them to trust and appreciate

compliments with the NMC. It is also important to use the NMC to train resilience to deal with stressful situations and to help individuals with ASD receive criticism in a constructive way and transform it into growth.

### Wiring Affect with ReAttach: distress tolerance

Learning the W.A.R.A. as a self-regulator to reduce negative affect and sensory overload helps individuals with ASD maintain a good balance. The W.A.R.A. increases self-control, autonomy, self-confidence and distress-tolerance.

# Discussion

ASD characteristics are not heterogeneous in the sense that there are many individual differences between people with autism, which requires tailored treatment sessions. ReAttach focuses on transdiagnostic processes that do not run optimally in this target group. The transdiagnostic processes that are disrupted in ASD are the same processes that can be disrupted in children or adults with psychological complaints or neurodegenerative disorders. The more one or more of these processes become disrupted, the greater the chance that an individual will become stuck in thinking, learning, self-regulation, and personal growth. Seeking security is a natural response to survive in a complex social environment such as we know today. Every person has a specific intolerance for uncertainty, but this intolerance increases when the feeling of being able to participate in stressful situations actively is reduced or lost. Children and adults with mental health problems lose their distress tolerance, defined by Zvolensky et al. (51) as the ability to endure negative emotional or aversive states.

ReAttach focuses on commonalities instead of differences, meaning that the ReAttach Affect Coach optimizes each person's natural learning dynamics. We all have a beautifully designed brain that can function in multiple ways and adapt to exceptional circumstances. If we are stuck in thought patterns that do not serve us, it is nice that we can change this because the brain is plastic. In other words, if common sense represents optimal stimulus processing and learning conditions as demonstrated in healthy social situations, then we can use common sense when fine-tuning stimulus processing and meaning attribution takes place.

Activating a growth mindset in individuals with Autism Spectrum Disorder (ASD) is not simple, and neither is the ReAttach protocol for ASD. The C.A.T. and the M.I.S.T. frameworks clarify that we should not oversimplify the complexity of the transdiagnostic processes; instead, we must embrace the complexity to fine-tune the ReAttach technique for each individual. This involves creating tailored ReAttach sessions and adopting a systemic approach, considering the dynamics of co-regulation within the family system.

# Conclusion

The ReAttach protocol for Autism Spectrum Disorder (ASD) presents an innovative and hopeful method by stimulating growth potential, particularly where developmental progress tends to falter. With its specialized and systematic framework, ReAttach simplifies intricate co-regulation dynamics for both individuals with ASD and their families. By tackling the distinct sensory, cognitive, and emotional processing difficulties associated with autism, it enhances the optimal learning conditions necessary for shifting from a fixed mindset to a growth mindset.

Notably, ReAttach is distinguished by its concise and organized format, making it applicable and manageable in both clinical and educational environments. Even with its short duration, ReAttach has shown to be effective in improving social cognition, emotional regulation, and adaptive functioning across various developmental areas. The approach's accessibility, efficiency, and individualized nature position ReAttach as a significant intervention to help people with ASD grow, connect, and thrive within their surroundings.

For individuals with ASD, developing a growth mindset requires training new neural pathways starting from a fixed mindset—a process that demands tailored tools mapping the individual state of mind and systemic co-regulation dynamics. In facing these challenges, ReAttach creates growth opportunities as pervasive as ASD itself across all developmental areas. Importantly, the integration of complementary tools like the *Forgive and Forget Hood* (51)—an accessible technique designed to clear the mind, reduce emotional overload, and restore mental balance—further strengthens the ReAttach approach. By offering individuals with ASD an effective means to release stress and reset their emotional state, this tool supports resilience and facilitates the learning and developmental gains made possible through ReAttach.

# Declaration of interest

Paula Zeestraten-Bartholomeus is the developer of ReAttach, W.A.R.A., the New Mind Creation and the Forgive and Forget Hood.

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