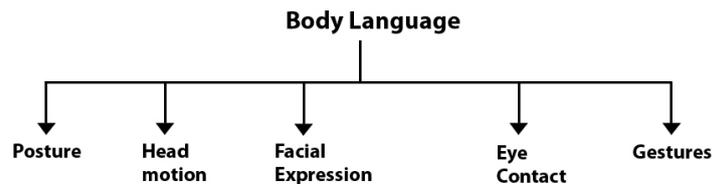


## Theory of Mind in Autism.

Theory of mind the ability to attribute mental states (beliefs, intents, desires, pretending, knowledge, emotions etc.) to yourself and others. It also enables you to understand that others have beliefs, desires, and intentions that are different from your own.

We use our theory of mind to work out what is going on in other people's heads, we read their body language, use our knowledge of people and how they think and act (based on information gained over time) and also our knowledge of ourselves and how we think.



Without theory of mind, we simply do not understand the internal states of others, that they have the potential to be different to our own. This can impact our ability to communicate - if what's in your head is the same as in mine, why would I need to bother turning what is in my head into words and then throw those words at you?

It also takes away a reason to regulate or modify our behaviour. If I am unaware of what is going on in your mind (mind-blindness), then I will be totally unaware of the impact of my behaviour on you. If the behaviour I'm displaying is because I am upset or scared, and I see you being upset or scared when I display my behaviour, I may well assume that, as what's in your head is the same as in mine, then you are displaying outward signs of being upset or scared for the same reason as me, rather than as a result of what I am doing.

People with autism are thought to have poorly developed or absent theory of mind. This has close links with some of the other features of autism. If we think about the triad of impairments, we know that people with autism struggle with social interaction, social communication and imagination.

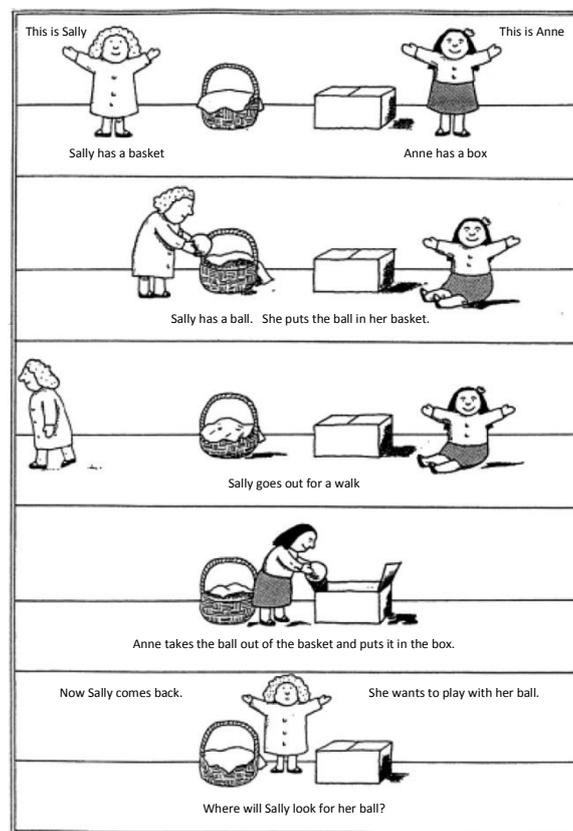
When neuro-typical (not autistic) people use their theory of mind, they use their social communication skills (body language etc.) to read the person they are observing, their social interaction skills to gain more knowledge (asking "are you alright?" while taking into account social rules such as when and where it is OK to ask such a question), and their imagination to piece together what they already know about the person, what they know about people in general, and to pull together the 'bigger picture' (something else people with autism struggle with - central coherence) of the situation surrounding the person, the context, the history etc.

As previously mentioned, we also use our understanding of ourselves and how we think to build up that picture of what is going on in the other person's mind. This includes emotions and how they affect us as well as what can cause them. Many people with autism have difficulty understanding their own emotional states (a condition called alexithymia) and so may not even have the fully functioning resource of their own minds as a point of reference.

People with autism may also have a learning disability which could also further impact their ability to understand themselves and others. People with Asperger Syndrome (AS) or High Functioning Autism (HFA) may be able to use their intelligence to understand that other people have different thoughts and feelings to themselves, they may even apply their logic to a theory of mind test such as the Sally-Anne test (see below), but this probably won't come naturally to them, it won't be instinctive the way it is for the neuro-typical population.

They may also struggle to generalise that knowledge, once it is learned, and being aware that there is all this stuff going on in other people's heads that you are unaware of may cause a degree of social anxiety.

Theory of mind is thought to develop in neuro-typical people at around four years old. Some recent research has indicated it may even develop a little earlier. Many people would argue it possibly takes a back seat during the teenage years, but it is there.



The Sally-Anne test is a simple test, often performed with dolls, to test theory of mind in children with autism. Without theory of mind a child would assume that, because they know that the ball has moved, Sally will know it too.