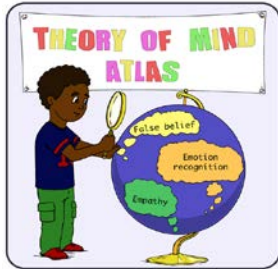


The Theory of Mind Atlas

Tiffany L. Hutchins & Patricia A. Prelock © 2017

All entries in the Theory of Mind Atlas (ToMA) were developed for use with the **Theory of Mind Inventory-2 (ToMI-2)** for the purposes of explaining theory of mind in the conduct of research and clinical practice. This document may be downloaded, adapted, and shared for professional purposes provided that the names and copyright appearing in this header are retained. Visit theoryofmindinventory.com for more information about our theory of mind educational resources and assessment and treatment materials.



Item 47: My child understands that an unfamiliar adult can make good guesses about my child's likes and dislikes (e.g., an unfamiliar adult might correctly guess that my child doesn't like to clean his/her room).

Subscale(s): **Advanced**

This item is intended to tap the acquisition of “**common sense**” with specific regard for the understanding of **social knowledge**. To clarify, the content of common sense may concern the physical world (e.g., “If I drop the glass, it will shatter”) or the psychological and social world (e.g., “If she gets what she wants, she will be happy”) and it is this latter aspect of common sense that is relevant to an individual's developing theory of mind (Stanghellini, 2000). Although it is not an easy concept to define, common sense has been described as “a judgment without any reflection, commonly felt by a whole order, a whole people, a whole nation, or a whole human kind” (Degnita, 1744; as cited in Stanghellini, 2000, p. 778). Forguson and Gopnik (1988) also characterized common sense as a “shared web of beliefs, whatever their specific content may be, which we as adult rational humans individually hold true, which we mutually attribute to one another, and which we presuppose as a condition of interpreting one another's behavior” (p. 226). Common sense social knowledge then, is a set of “social facts” (Searle, 1995, p. 26) and “a body of knowledge that is accepted by ‘everyone’” in a particular society (Moscovici & Hewstone, 1983, p. 103) that we use to predict and make sense of other's behavior. When understanding common sense social knowledge, Stanghellini (2000) argued that common sense:

“can be conceptualized as a stock of knowledge useful at the level of everyday life. [It] is a set of rules of inference that is the medium for organizing the everyday experiences of individuals and social groups (Flick, 1998). It is the foundation of people's expectations and or meaning attributions (Moscovici & Hewstone, 1983). This process of inference is mainly automatic in nature – motivations and meanings are attributed prereflectively” (p. 779).

Common sense is also construed as an adaptive evolutionary mechanism for understanding cause-and-effect relationships. As Stanghellini (2000) explained:

“Common sense is a kind of understanding whose purpose is not theoretical but practical. It has roots in evolution, and its purpose is an adaptive one, since it provides an image of reality built up for the pragmatic aims of survival and adaptation. Locke emphasized that common sense consists of a set of empirical cause-and-effect relationships useful for practical orientation in everyday actions. Modern psychologists argue that the fundamental feature of human thinking is its need to understand the causes and motivations of behavior and everyday events” (p. 778).

To understand the development of common sense, we need to understand the way that social knowledge is represented in a society and shared by its members (Moscovici & Hewstone, 1983). This is difficult for a few reasons. One reason is that the study of common sense lies at the nexus of anthropology, sociology, psychology, and philosophy. "This gives it a certain generality and complexity, because it touches on a variety of contents and levels of cognitive elaboration" (Moscovici & Hewstone, 1983, p. 99). Another reason involves variable terminology with the study of common sense alternately referred to as (or closely related to notions such as) 'social learning', 'cultural learning', 'collective intentionality', 'we intentionality', and the development of a 'lay epistemology' or a 'folk' or 'naïve' psychology (Flick, 1998; Loth, 2008; Moscovici & Hewstone, 1983; Searle, 1995; Tomasello, Carpenter, Call, Behne, & Moll, 2005).

Despite these difficulties, scholars seem to agree that the acquisition of common sense begins soon after birth and becomes increasingly elaborated in ontogeny (Bushwick, 2001; Fodor, 1992; Forguson & Gopnik, 1988). Although there is a broad range of social-cognitive understandings that are subsumed under the umbrella term 'common sense' (e.g., understanding that people are happy when they get what they want is a relatively simple concept whereas understanding how to use emotional display rules is complex and later emerging), a genuine common sense notion is an inherently second-order understanding. For example, although typically developing 3-year-olds understand that people are happy when they get what they want, they are not yet aware that this understanding is *shared by a common people*.

A complementary view of the development of common sense social knowledge is offered by Forguson and Gopnik (1988) who argued that while its *prerequisite* components (e.g., metarepresentation, the appearance-reality distinction, visual perspective-taking) are in place by 5, it is not until later (i.e., 6-7 years of age) that children begin to truly appreciate and refine their understanding of the mutuality of social knowledge (i.e., the 'common' part of 'common sense'). As they argued:

"...Our sharing of common sense belief underlies much of our ability to interpret the actions and behavior of others. It seems to us that 6-year-olds typically share the essential features of this background, while younger children do not. This may explain at least in part our common impression that preschoolers, especially younger preschoolers (3- and 4—year-olds) are flakey, fey, and unfettered, that they are more different from us than (say) 6-year-olds are. This impression is reflected in our institutional practices, such as the start of formal schooling, even such religious practices as confirmation. Indeed, it would be difficult to see how we could formally instruct children in the beliefs of adult life if they did not share the basic tenants of common sense. It is also reflected in common psychological characterizations of the preschooler as a creature without logic or reason (e.g., Piaget). More recent investigations have demonstrated that there is considerable method in the 3-year-old's madness, but since the method is so different from our own, our normal interpretive assumptions tend to break down" (p. 240).

Given the relatively late emergence of common sense social knowledge, there is good rationale for its construal as an Advanced theory of mind capacity. With regard to mechanism, Forguson and Gopnik (1988) argued that the crucial underpinning of common sense (a cognitive development characteristic of older but not younger children) involves the understanding that there is a single reality against which multiple subjective realities are compared. Indeed, because it is socially-mediated and conventionalized, everyday knowledge is neither private nor subjective but rather intersubjective and

socialized (Flick, 1998). As such, it has been argued the content of common sense accrues through mind-reading mechanisms including joint attention and the ability to infer other's intentions and mental states. The development of common sense:

“involves the ability to intuit what is going on in somebody else's mind. I can attune with a given social situation when I am able to comprehend thoughts and feelings of others by observing their behavior and to explain others' behavior in terms of intentional (e.g., “he is looking for an aspirin”) and nonintentional (e.g., “he has a headache”) mental facts” (Stanghellini, 2000, pp. 779-780).

In summary, there is both the content of common sense and the process/mechanism(s) by which that content is acquired. The content represents a broad range of social 'facts' that are continuously accumulated through a process of socialization (Searle, 1995; Tomasello et al., 2005). The core mechanisms undergirding common sense are believed to be intersubjectivity and mind-reading (Flick, 1998; Stanghellini, 2000). Finally, the prerequisite conditions for more developed understanding of common sense may not in place until age 6 at which point the protracted developmental process toward adult sophistication unfolds (Forguson & Gopnik, 1988). Because the typical developmental pathways to common sense depend on both interaction with the environment and reasoning about social-cognitive processes, deficits in either area are potential culprits in disruptions in common sense development (Bushwick, 2001; Stanghellini, 2000).

Common sense social knowledge in ASD

Decades of research has documented impairments in ASD in the areas of communicative competence (a.k.a. 'pragmatics' or 'social communication') and the understanding and adherence to cultural and behavioral norms (e.g., Landa, 2000; Surian, Baron-Cohen, Van der Lely, 1996). Because these are natural offshoots of common sense, it is likely that common sense is also significantly disrupted in ASD and, indeed, many successful intervention programs are designed to explicitly teach what neurotypical individuals consider common sense notions. Yet, surprisingly few studies have specifically examined common sense when defined as the understanding of societally-shared social facts. One exception is a study by Hutchins et al. (2016) who compared typically developing (TD) males and males with ASD in their understanding of common sense using a single item from a caregiver report measure (i.e., item 47 of the Theory of Mind Inventory). Results revealed that the ASD group received significantly lower scores compared to the TD sample. These findings suggest that children with ASD are at risk for poor common sense understanding as measured by caregivers' perceptions of child ability.

In theorizing about the mechanisms hindering the acquisition of common sense in ASD, Bushwick (2001) argued that:

“Among the characteristics of autism that persist into adulthood even in otherwise intelligent autistic adults is lack of common sense (Frith, 1989). Common sense is the body of knowledge that everyone knows and therefore that is considered obvious...Much socially acquired knowledge is of vital practical importance, aside from its value in getting along with other members of the society. That, however, does not make it obvious. The speed and necessity with which an individual member of a culture acquires this knowledge, and therefore its apparent obviousness, is a result not of its truth but of its ubiquity in his social environment. Everyone else knows these things and expects them to be known, so he learns and believes them too. This is a necessary mechanism. The human being was not designed to develop independently, but as a member of a social group. For a human being, acquiring the basic knowledge of the world

necessary for survival is only possible through social learning.

All normal members of society adopt the values of the culture so they make it their business to know them...But those who are autistic [may] not adopt the cultural values, so they may or may not learn them. Any number of personal and practical factors may influence which things a particular autistic individual learns and which he does not...In some cases, however, even personal experience may not be learned from because the individual has not learned how to connect events and see causal relationships. For normal children, the concept of causality is largely culturally learned. It, too, is part of common sense. Along with it is the question of which aspect of an event should be considered salient. Without these, an individual may be unable to draw even simple conclusions from experience” (pp. 60-61).

Common sense social knowledge in ADHD

One might expect children with ADHD to have difficulty acquiring the stock of social knowledge that constitutes common sense given their hallmark impairments in executive functioning which is important for the ability to attend to and participate in social learning opportunities. We are aware of only one study examining the understanding of common sense social knowledge in this population. Hutchins et al. (2016) compared typically developing (TD) males, males with ASD, and males with ADHD in their understanding of common sense using a single item on a caregiver report measure (i.e., item 47 of the Theory of Mind Inventory). Results revealed no statistically significant differences between the ASD and ADHD groups with both groups receiving significantly lower scores compared to the TD sample. These findings suggest that children with ADHD are at risk for poor common sense understanding as measured by caregivers’ perceptions of child ability. With this in mind, more research is needed to determine whether, or under which circumstances, children with ADHD might demonstrate challenges in this area.

Common sense social knowledge in DoHH

In light of the fact that common sense is an Advanced theory of mind capacity and given the conversational deficits commonly experienced by DoHH children born to hearing parents, it stands to reason that they would also experience significant delays in the understanding of common sense notions. We are aware of only one study examining common sense social knowledge in children who are DoHH. Hutchins, Allen, and Schefer (2017) analyzed data for a single item on a caregiver report measure (i.e., item 47 on the Theory of Mind Inventory) from a small sample of children (ages 5 – 11) with corrected hearing loss. They found that deficits in common sense were reported for 41.6% of the children (i.e., 5/12 children). Hutchins et al. concluded that these difficulties were related to more limited access to language in the prelinguistic and toddler years.

REFERENCES

- Bushwick, N. (2001). Social learning and the etiology of autism. *New Ideas in Psychology, 19*, 49-75.
- Flick, U. (1998). Everyday knowledge in social psychology. In U. Flick (Ed.), *The psychology of the social* (pp. 1- 12). Cambridge, NY: Cambridge University Press.
- Fodor, J. (1992). A theory of the child’s theory of mind. *Cognition, 44*, 283-296.

- Frith, U. (2003). *Autism: Explaining the enigma*. Malden, MA: Blackwell.
- Hutchins, T. L., Allen, L., & Schefer, M. (2017). Using the Theory of Mind Inventory to detect a broad range of theory of mind challenges in children with hearing loss. *Deafness and Education International*. Available at: www.tandfonline.com/doi/full/10.1080/14643154.2016.1274089
- Hutchins, T. L., Prelock, P. A., Morris, H., Benner, J., LaVigne, T., & Hoza, B. (2016). Explicit vs. applied theory of mind competence: A comparison of typically developing males, males with ASD, and males with ADHD. *Research in Autism Spectrum Disorders*, 21, 94-108.
- Ferguson, L. & Gopnik, A. (1988). The ontogeny of common sense. In J. A. Astington, P. L. Harris, & D. R. Olson (Eds.), *Developing theory of mind* (pp. 226 – 243). Cambridge: Cambridge University Press.
- Landa, R. (2000). Social language use in Asperger syndrome and high functioning autism. In A. Klin, F. Volkmar, & S. Sparrow (Eds.), *Asperger syndrome* (pp. 125-158). New York: Guilford Press.
- Loth, E. (2008). Abnormalities in ‘cultural knowledge’ in autism spectrum disorders: A link between behavior and cognition? In E. McGregor, M. Nunez, K. Cebula, & J. Carlos Gomez (Eds.), *Autism: An integrated view from neurocognitive, clinical, and intervention research* (pp. 104-123). Malden, MA: Blackwell.
- Moscovici, S., & Hewstone, M. (1983). Social representations and social explanations: From the ‘naïve’ to the ‘amateur’ scientist. In M. Hewstone (Ed.), *Attribution theory: Social and functional extensions* (pp. 98-115). Oxford, UK: Basil Blackwell.
- Searle, J. (1995). *The construction of social reality*. New York: Free Press.
- Stanghellini, G. (2000). At issue: Vulnerability to schizophrenia and lack of common sense. *Schizophrenia Bulletin*, 26(4), 775-787.
- Surian, L., Baron-Cohen, S., & Van der Lely, H. (1996). Are children with autism blind to Gricean maxims? *Cognitive Neuropsychiatry*, 1(1), 55-71.
- Tomasello, M., Carpenter, M., Call, J., Behne, T., & Moll, H. (2005). Understanding and sharing intentions: The origins of cultural cognition. *Behavioral and Brain Sciences*, 28, 675-735.