

A Developmental Approach to Empathy through Children's Literature

Empathy is innate to our hyper-social species. However, we pack a lot more into the term "empathy" than just being altruistically affected by each other's distress calls or laughter. "Empathy" in the wider sense includes Theory of Mind, perspective taking (entrained and predictive), and co-creating. Such skills are attained in training, and they require neural coupling across brain areas that mature over time. Their maturation can be stimulated first by interactive reading sessions and subsequently through literacy.

I will present what specific input from children's books supports empathic skills at different stages of maturation:

- Motor cortex skills are required for the acquisition of speech sounds, the formation of phonemic rules, the timing of human speech, attunement to a book's meter and rhyme. Children's books can reinforce motoric speech patterns, and they can trigger exploration and delight by violating them with funny or impossible words.
- The (rostrolateral) prefrontal cortex enables the child to develop stimulus-independent relational and temporal thinking, prerequisite for imagining and predicting another person's awareness, beliefs, and likely reactions. Children's books can enhance those skills by emphasizing relational thinking, predicting, and event modeling with inventory tracking.
- Literacy is an overlaid function of the occipito-temporal junction. The resulting visual word-form area, in turn, forms connections to the anterior portions of insula and cingulate gyrus, which then form part of a network that specializes in rapid viewpoint taking and empathic mind reading. Children's books can guide the child's growth from ludic (self-rewarding) to "deep" (reflective, transporting) reading, connecting language to empathic distributed cognition.