
At the Juncture of Generations: Materiality and Scaffolding

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Abstract

Session: Developing Scaffolds in Evolution, Cognition, and Culture (James Griesemer, Linnda Caporael, William Wimsatt)

The mother-infant dyad is an example of an "entwined" unit of heredity-development (Griesemer) at a level of analysis that includes culture. Infants are most frequently studied as single subjects, particularly in the search to identify innate, uniquely human, properties of cognition. Attending to the embodied, situated activity of mother and infant makes evident processes that aid in the understanding of cognition and culture at the juncture of generations.

A small case study is illustrative. Observational data indicates that a species-typical pattern of infant nursing scaffolds attributions of intentions and desires and may set the stage for turn-taking. Later in development, infants scaffold adult modeling of complex gestures and speech toward the infant, particularly in play. These interactions can be re-described in terms of processes of scaffolding, material overlap, and both deep and shallow generative entrenchment.

Viewing the repeatedly assembled mother-infant dyad as a "live model" may provide "baby steps" to identify and study scaffolding, material overlap, and generative entrenchment in other situations, including the generation of novelty and infrastructure (Wimsatt). Such situations might be quite abstract, such as agent-based computational models, or extremely rich, as in the observation of inter-disciplinary design teams working to produce novel technological environments.

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