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Explore, Exploit, Create: Inventing goals in play

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Abstract

Recent models of children’s exploratory play assume, either implicitly or explicitly, that the goal of exploration is to acquire an accurate representation of the world. Under this “play as rational exploration” view, actions are motivated by the value of information or other extrinsically defined rewards; however, this fails to explain the richness and variety observed in children’s play. We propose instead that distinctively human play is often characterized not primarily by the pursuit of external goals but by the creation of new goals. Using a novel free play paradigm, we find that both adults (N=140) and children (N=19, ages 3-8) invent a rich diversity of goals, take costly actions to pursue those goals despite receiving no external reward, and deploy rich planning strategies in the process.