

Noah's Notes

January 27, 2022

Young children have a remarkable, almost ceaseless capacity to dream up new ways of doing things and looking at the world. This is well-chronicled in children's literature – think about Max in his pajamas, conjuring up the vivid landscape of *Where the Wild Things Are*, and the Darling siblings concocting *Peter Pan and Neverland*. For a young child, pretending can be as effortless as breathing.

Alison Gopnik refers to these novel ideas that children have as counterfactuals, and [explains](#): “*Our ability to imagine possible worlds and engage in counterfactual reasoning is closely tied to our ability to think causally.*” Gopnik goes on to define counterfactual reasoning as “*planning and anticipating our future states, and considering near and far alternatives to the actual state of the world.*” Bringing Gopnik's thinking into our classrooms, we see that children's proclivity for the novel and the pretend are not only sources of joy but also lead directly to their cognitive development and increasing understanding of how the world works (i.e., causation). We encourage and nurture children's creativity not only for the laughter and friendships it elicits but because, despite being rooted in fantasy, it brings children to a deeper understanding of the here-and-now. Gopnik continues:

Conventional wisdom suggests that knowledge and imagination, science and fantasy, are deeply different from one another – even opposites. However, new ideas about children's causal reasoning suggests that exactly the same abilities that allow children to learn so much about the world, reason so powerfully about it, and act to change it, also allow them to imagine alternative worlds that may never exist at all.

This is remarkably similar to [100 Languages of Children](#), a seminal poem by the founder of the Reggio approach, which reads:

*The school and the culture / separate the head from the body.
They tell the child: / to think without hands / to do without head...
They tell the child: / that work and play / reality and fantasy
science and imagination / sky and earth / reason and dream
are things / that do not belong together.
The child says:
No way.*

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I had this in mind this morning as I was in Arazim, a full day 3s and 4s classroom, watching the children buzz about the classroom during free play. The teachers had set up a table covered with shaving cream and invited the children to...have fun! A handful of students slid their fingers, palms, and arms through the cream, clearly reveling in the sensory experience. This is a ubiquitous scene in a preschool classroom, one I've seen many times. But as we know, children never let anything get stale – they are always creating, always inventing something novel. One child had the idea to collect some of the safety goggles from their dress up area and bring them over. Shortly, a couple students were wearing goggles while playing with the shaving cream. I chuckled, amused at the sight. My eyes grew wide as one of the students bent their head down and slowly, gingerly, smushed the front of their goggles against the tabletop. He turned his head this way and that way, gazing at the shaving cream from a completely new vantage point. The only experience I could imagine it compares to is putting on a snorkel for the first time and looking underwater. This simple act had produced, to my knowledge, a completely novel scenario which in turn produced new information – what shaving cream looks like from the inside and what it feels like for one's head to glide through the substance. This information is inaccessible without the child's creativity.

Gopnik describes the child's act as an "intervention":

Once you know how one thing is causally connected to another, this knowledge allows you to deliberately do things that will change the world in a particular way. Intervening deliberately on the world isn't the same as just predicting what will happen next. When we intervene, we envision a possible future we would like to bring about, and our action actually changes the world. Having a causal theory makes it possible to consider alternative solutions to a problem, and their consequences, before actually implementing them, and it facilitates a much wider and more effective range of interventions. This kind of sophisticated and insightful planning, then, involves a particularly powerful kind of imaginative capacity, and is tied to causal knowledge.

And so, our young Jacques Cousteau had used his creative whimsy – his penchant for imagination – and brought it to bear on the physical world. He took his imagination and used it to "actually change the world." Our Reggio-inspired classrooms are designed to nurture and celebrate these moments of divergent thinking. We emphasize open-ended materials (such as shaving cream, playdough, clay) which force the user (the student) to consider the many ways in which they can be used. We encourage combining materials

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(such as bringing items from the dress up corner to the sensory table – like the goggles) rather than insist that items stay where they “belong.”

A Reggio-inspired pedagogy is one that recognizes that children matter, not for who they will become later in life but for the ways they presently change the world. When we encourage creativity, we are indeed encouraging children to change the world.