

Preface

Cross-domain general creativity is probably uniquely human faculty. From a child who constructs a new toy using the old and broken ones, to the scientist who works out a theory and makes a profound impact on human civilization, the process invariably evokes the feelings of surprise, astonishment, and wonder. Though we understand what creativity is at an intuitive level, it has turned out to be quite difficult to define and formally and explore it scientifically.

Some researchers of creativity make a distinction between historical-creativity and psychological-creativity. H-creativity is a subset of P-creativity and is about exceptional, so far not-seen creative endeavor in particular society. P-creativity is about small creative deeds, probably new only to the individual performing them. We hypothesize that they share the same basic cognitive mechanisms. We further hypothesize that creative perception (in viewing an artifact) involves the same mechanisms that are responsible for generating creative artifacts. Moreover, these mechanisms can also be observed during cognitive development: a constant re-conceptualization of one's understanding of their environment in the process of agent-environment interaction, maturation, and education. If this hypothesis is accepted, then it suggests that by exercising and stimulating creative perception, we can also strengthen the ability to generate creative ideas and artifacts in the individual.

The goal of this symposium is to explore this framework, and its implications for various aspects of creativity. The target audiences for this symposium are researchers from artificial creativity, developmental psychology, and developmental robotics.

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