



Transformational Creativity: The Epistemic And Ethical Dimensions Of Human Innovation In Sternberg's Framework

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Abstract

Robert J. Sternberg's concept of transformational creativity represents a significant advancement in the study of creative cognition. It moves beyond traditional notions of novelty and appropriateness to propose creativity as a reconstructive and paradigm-shifting phenomenon. This paper offers a comprehensive theoretical analysis of Sternberg's notion, situating it within his Propulsion Model of Creative Contributions (Sternberg, 1999) and connecting it with his broader Triarchic Theory of Intelligence (Sternberg, 1985), Investment Theory of Creativity (Sternberg & Lubart, 1991), and WICS model (Sternberg, 2003). Drawing from cognitive, socio-cultural, and philosophical perspectives, the paper elaborates on how transformational creativity transcends adaptation to become a vehicle of epistemic transformation, ethical imagination, and educational reform. The discussion concludes by positioning transformational creativity as a bridge between cognitive science, moral reasoning, and future-oriented education. Transformational creativity. A new and useful way to determine the creative process. It is a deliberate and spontaneous wisdom-based entity to produce new things which are socially relevant. One of the important research projects conducted by Sternberg. In recent days this concept is called transformational giftedness. Sternberg says that the concept of transformational creativity is derived from Transformational giftedness. (Sternberg, 2024). It is a purposeful integration of creativity and wisdom (we can smell the balance theory of wisdom) to produce novel and useful ideas in the social contexts. Sometimes creativity is harmful and destroys the existing conditions of the socio- personal context that is called malignant creativity or malevolent . It is a toxic creativity which is harmful disturbing and disapproved. Transformational creativity is opposite from that it is a deliberate process of manifesting the possibilities. We can correlate Swami ji's Idea that "manifestation of perfection". It is also different from the tit for tat creativity or short term creativity. Because it integrates wisdom on and value. It is a radical application of transformative Paradigm and the concept of Praxis (Action, reflection and transformation)

Keywords: transformational creativity, epistemic transformation, Investment Theory of Creativity, WICS model

1. Introduction: Rethinking Creativity as Transformation

Creativity has long been defined as the ability to produce ideas or products that are both novel and appropriate (Runco & Jaeger, 2012). However, such definitions often capture only incremental or adaptive forms of novelty. Robert J. Sternberg's (1999) concept of transformational creativity redefines creativity as an act that transcends existing paradigms. It involves not only producing something new within a domain but transforming the domain's underlying structure and assumptions.

Sternberg's approach challenges the traditional psychometric and cognitive definitions of creativity (Guilford, 1950; Torrance, 1966) by focusing on how creative work can redefine what counts as knowledge or truth. Transformational creativity thus represents a shift from creative adaptation to creative reconstruction—a movement from thinking differently to redefining what thinking means (Sternberg, 2018).

2. Sternberg's Theoretical Trajectory: From Intelligence to Creativity

2.1 The Triarchic Theory of Intelligence

Sternberg's (1985) Triarchic Theory of Intelligence distinguishes between analytical, creative, and practical intelligence. The creative component concerns the ability to deal with novelty and automate cognitive processes. However, this creativity is primarily adaptive—responding effectively to new situations—rather than transformational, which requires altering the system itself.

2.2 The Investment Theory of Creativity

In the Investment Theory of Creativity, Sternberg and Lubart (1991) compare creative individuals to investors who “buy low and sell high” in the world of ideas. Creative thinkers invest in unpopular ideas that later gain recognition and value. While this metaphor highlights risk-taking and nonconformity, it still assumes a stable market of ideas—a structure that transformational creativity ultimately disrupts (Sternberg, 2006).

2.3 The Propulsion Model of Creative Contributions

Sternberg's (1999) Propulsion Model presents eight forms of creative contribution, ranging from replication to redefinition, forward incrementation, redirection, reinitiation, and finally, reconstruction and integration, which he terms transformational creativity. Whereas earlier types advance a field within its rules, transformational creativity **changes the rules themselves**, producing a paradigm shift comparable to what Kuhn (1962) called a scientific revolution.

3. Conceptual Foundations of Transformational Creativity

3.1 Epistemic Reconstruction

Transformational creativity is epistemic in nature—it redefines what counts as knowledge (Sternberg, 2018). Einstein's relativity, Darwin's evolution, and Dewey's experiential learning theory each exemplify transformative acts that reconstructed disciplinary foundations. Such creators operate at a metacognitive level, interrogating not just the content of knowledge but its conditions of possibility. This process represents epistemic courage—the willingness to question conceptual orthodoxy and propose new ontological frameworks.

3.2 Ontological Fluidity and Cognitive Reframing

Sternberg's theory implicitly aligns with constructivist perspectives, where knowledge is dynamic, contextually situated, and subject to reinterpretation (Bruner, 1996; von Glaserfeld, 1995). Transformational creators demonstrate ontological fluidity—the ability to view systems as malleable constructs open to restructuring. Their creativity operates through reframing, not merely refinement, demanding high levels of abstraction, analogical transfer, and integration of diverse conceptual domains (Sternberg, 1999).

3.3 From Adaptation to Transformation

While adaptive creativity optimizes performance within a given structure, transformational creativity changes the structure itself. As Sternberg (2018) explains, transformational thinkers “recreate the very framework within which creativity operates” (p. 236). In this sense, transformational creativity represents the highest expression of adaptive intelligence—turning adaptation into innovation that reconstructs environmental and cognitive constraints alike.

4. Cognitive and Affective Architecture

4.1 Cognitive Mechanisms

Transformational creativity integrates multiple cognitive processes. Sternberg (1999) identifies mechanisms such as selective encoding (recognizing relevant information), selective combination (integrating disparate elements), and selective comparison (drawing analogies). These are complemented by defocused attention and metacognitive regulation, allowing creators to alternate between divergent and convergent thinking (Sternberg, 2003; Lubart, 2016). This cognitive orchestration enables creators to both dismantle and reconstruct conceptual systems.

4.2 Conative and Affective Dimensions

Transformational creativity requires intrinsic motivation, resilience, and a high tolerance for ambiguity (Amabile, 1996). The propulsion to transform a field often involves social risk, rejection, or failure before recognition (Sternberg, 1999). This form of creativity is therefore deeply emotional—it demands not only cognitive skill but courage, persistence, and moral imagination.

5. The Ethical Turn: Creativity, Wisdom, and Purpose

Sternberg's WICS Model (Wisdom, Intelligence, and Creativity Synthesized) (2003) integrates creativity with wisdom and moral reasoning. Transformational creativity must serve the common good, balancing intrapersonal, interpersonal, and extrapersonal interests. Sternberg (2005) warns that creativity without wisdom can lead to destructive outcomes—what he calls dark creativity. The distinction between a creative invention and a transformative one lies in ethical intentionality. Transformational creativity, therefore, is wise creativity—it redefines systems in ways that sustain, rather than subvert, human welfare.

This ethical turn positions creativity as an act of **moral reconstruction**, resonating with Dewey's (1934) vision of education as the reconstruction of experience and with contemporary moral-psychological views that link creativity to empathy and social responsibility (Cropley, 2011).

6. Transformational Creativity in Education

6.1 Beyond Convergent Pedagogy

Educational systems often foster convergent or replicative thinking (Sternberg, 2006). To cultivate transformational creativity, curricula must promote:

- **Epistemic reflexivity:** Students question assumptions underlying disciplinary knowledge.
- **Interdisciplinary synthesis:** Encouraging boundary-crossing between sciences, humanities, and arts.
- **Problem redefinition tasks:** Learners reformulate problems rather than merely solve them.
- **Intellectual risk-taking:** Classrooms that tolerate uncertainty and dissent.

Such pedagogies align with constructivist and humanistic educational philosophies (Piaget, 1972; Rogers, 1983) and nurture students as epistemic agents capable of transforming rather than inheriting knowledge systems.

6.2 Teacher's Role as Cognitive Catalyst

Teachers act as **facilitators of transformation**, guiding students to merge analytical, creative, and ethical reasoning. As Sternberg (2003) asserts, teaching for creativity requires teaching for wisdom—encouraging students to evaluate not just the possibility of ideas but their desirability. Education thus becomes an ethical practice of co-creating meaning rather than transferring information.

7. Comparative Perspectives and Philosophical Extensions

7.1 Sternberg and Csikszentmihalyi

Csikszentmihalyi's (1996) Systems Model conceptualizes creativity as an interaction between the individual, domain, and field. While both he and Sternberg highlight systemic transformation, Sternberg's propulsion model uniquely emphasizes the intentional directionality of change—how creators move or recreate domains through goal-directed transformation.

7.2 Sternberg and Boden

Boden's (1990) distinction between combinational, exploratory, and transformational creativity parallels Sternberg's categories. However, Sternberg extends this taxonomy by adding a **moral-teleological dimension**—for him, transformational creativity is not only cognitive restructuring but value-laden reconstruction.

7.3 Philosophical Parallels

Sternberg's notion resonates with Kuhn's (1962) theory of paradigm shifts, Dewey's (1934) reconstruction of experience, and Vygotsky's (1978) socio-cultural theory of tool-mediated cognition. In all cases, transformation is a dialectical process linking individual cognition with historical and cultural evolution.

8. Critiques and Limitations

Several critiques have been raised regarding Sternberg's model:

1. **Empirical measurability:** Transformational creativity is difficult to operationalize and may only be recognized retrospectively (Plucker & Makel, 2010).
2. **Cultural relativism:** What counts as transformational is dependent on cultural value systems (Glăveanu, 2010).
3. **Moral ambiguity:** Transformations may be simultaneously constructive and destructive, depending on perspective (Cropley, Kaufman, & Cropley, 2010).
4. **Historical bias:** Recognition of transformational acts often occurs posthumously, challenging the predictive validity of the model (Simonton, 2012).

Despite these challenges, Sternberg's framework remains one of the most integrative in uniting cognition, ethics, and creativity.

9. Conclusion: Toward an Ethics of Cognitive Transformation

Sternberg's theory of transformational creativity reframes creativity as a synthesis of **cognitive reconstruction**, **moral intentionality**, and **social wisdom**. It transcends the instrumental view of creativity as problem-solving and restores its philosophical essence as world-making (Goodman, 1978). By linking creativity with conscience and epistemology, Sternberg situates human innovation within an ethical horizon—one that transforms not only what we know but also who we are as knowers.

In a world facing ecological, technological, and moral crises, transformational creativity stands as the most vital form of intelligence—one capable of reimagining humanity's relationship with knowledge, society, and the future.

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